

IAH3/31

The

Official Year Book

of

New South Wales.

1937-38.



S. R. CARVER.

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# The Official Year Book of New South Wales, 1937-38.

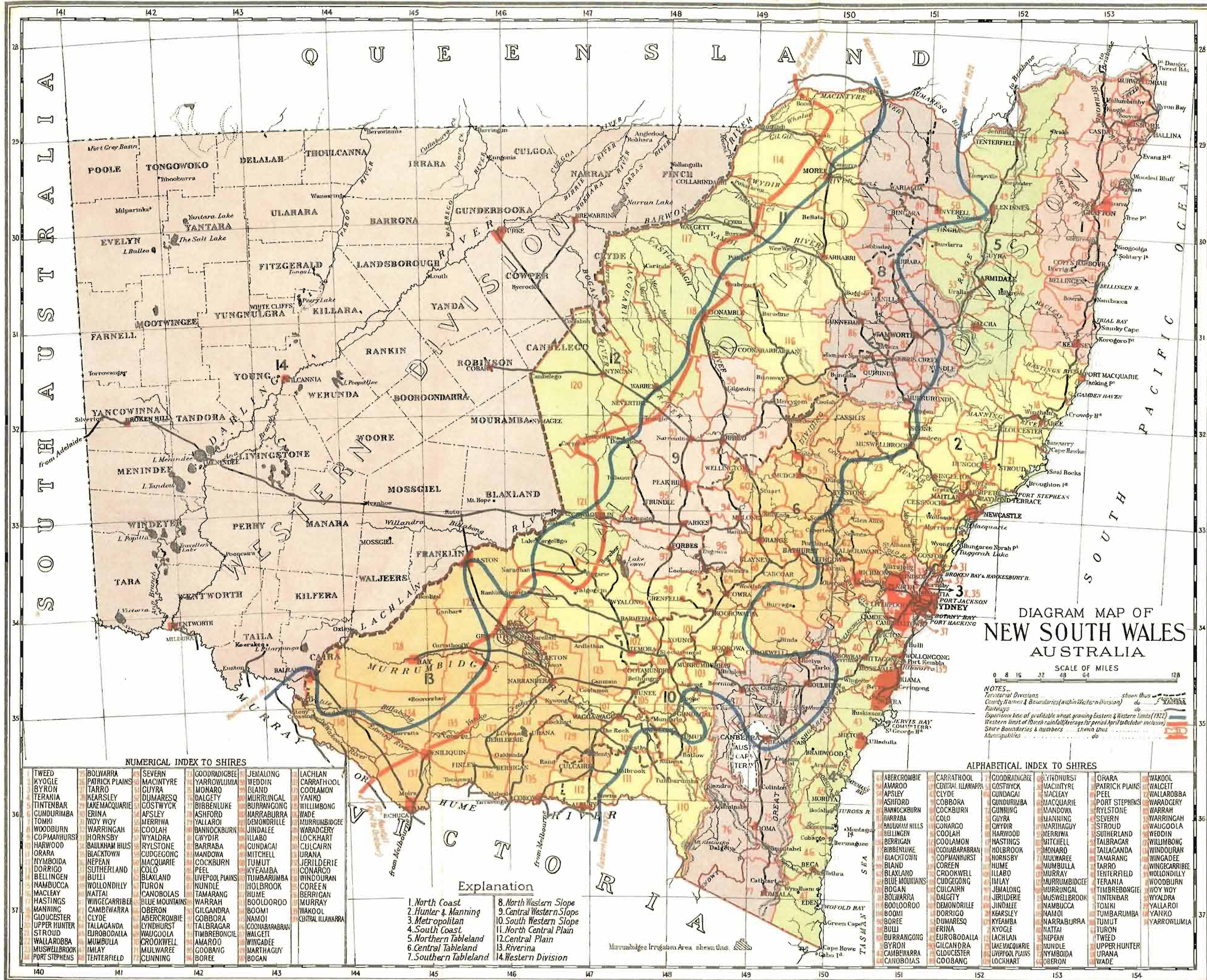


DIAGRAM MAP OF  
NEW SOUTH WALES  
AUSTRALIA

SCALE OF MILES  
0 8 15 32 48 64 128

NOTES:  
Territorial Divisions shown thus   
County Names & Boundaries (within Western Division) do   
Railways do   
Experience line of profitable wheat growing Eastern & Western limits (1932) do   
Western limit of March rainfall (average for period April to October inclusive) do   
Shire Boundaries & Numbers shown thus   
Municipalities do

NUMERICAL INDEX TO SHIRES

TWEED	BOLYWARA	SEVERN	GOODRADIGBEE	JEMALONG	LACHLAN
KYOGLE	PATRICK PLAINS	MACINTYRE	YARROWLUMIA	WEDDIN	CARRATHOOL
BYRON	TARRO	GUYRA	MONARO	BLAND	COOLAMON
TERANIA	KEARSLEY	DUMARESQ	DALGETY	MURRUMUNG	YANKO
TINTENBAR	LAKEMACQUARIE	COSTWYCK	BIBBENLUKE	BURRANGONG	WILLIMBONG
CUNDURIMBA	ERINA	APSLY	ASHFORD	MARRABURRA	WADE
TOMKI	WOY WOY	MERRIWA	YALLAROI	DEMONDRIE	MURRUMBIDGEE
WOODBURN	WARRINGAH	COOLAH	BANHOCKBURN	JINDALEE	JINDALEE
COPMANNHURST	HORNBY	WYALDRA	GWYDIR	ILLABO	LOCKHART
HARWOOD	BAULKHAM HILLS	RYLSTONE	BARBARA	GUNDAGAI	COULCAIRN
ORARA	BLACKTOWN	CUDGEGONG	MANDOWA	MITCHELL	URANA
NYMBOIDA	NEPEAN	MACQUARIE	COCKBURN	TUMUT	JERILDERIE
DORRIGO	SUTHERLAND	COLO	PEEL	KYEAMBA	CORNARCO
BELLINGEN	BULLI	BLAXLAND	LIVEPOOL PLAINS	TUMBARUMBA	WINDOURAN
NAMBUCCA	WOLLONDILLY	TURON	NUNDLE	HOLBROOK	CORREN
HASTINGS	NATTAL	CANOBOLAS	TAMARANG	HUME	BERRIGAN
MANNING	WINGECARRIBEE	BLUE MOUNTAINS	WARRAH	BOOLOORO	MURRAY
GLUCESTER	CAMPBELL	ABERCROMBIE	GILGANDRA	BOOMI	WAKOOL
UPPER HUNTER	Clyde	LYNDHURST	COBBORA	NAMOI	KENTRAL ILLAWARRA
STROUD	WALLAGANDA	EJROBODALLA	TALBRAGAR	COONABARRAN	
WALLAROBBA	MUMBULLA	CROOKWELL	TIMBREGONIE	WALGETT	
MUSWELLBROOK	IMLAY	MULWARRIE	AMAROO	WINGADEE	
PORT STEPHENS	TEFTERFIELD	CUNNING	BORE	MARTHAGUY	
			BORE	BOGAN	

Explanation

1. North Coast
2. Hunter & Manning
3. Metropolitan
4. South Coast
5. Northern Tableland
6. Central Tableland
7. Southern Tableland
8. North Western Slope
9. Central Western Slope
10. South Western Slope
11. North Central Plain
12. Central Plain
13. Riverina
14. Western Division

ALPHABETICAL INDEX TO SHIRES

ABERCROMBIE	CARRATHOOL	GOODRADIGBEE	LYNDHURST	ORARA	WAKOOL
AMAROO	CENTRAL ILLAWARRA	GOSTWYCK	MACINTYRE	PATRICK PLAINS	WALGETT
APSLY	Clyde	GUNDAGAI	MACLEAY	PEEL	WALLAROBBA
ASHFORD	COBORA	GUNDURIMBA	MACQUARIE	PORT STEPHENS	WARADGERY
BANHOCKBURN	COCKBURN	GUNNING	MANDOWA	RYLSTONE	WARRAH
BARRABA	COLO	GUYRA	MANNING	SEVERN	WARRINGAH
BAULKHAM HILLS	CONARCO	GWYDIR	MARTHAGUY	STROUD	WAUOOOLA
BELLINGEN	COOLAH	HARWOOD	MERRIWA	SUTHERLAND	WEDDIN
BERRIGAN	COOLAMON	HASTINGS	MITCHELL	TALBRAGAR	WILLIMBONG
BIBBENLUKE	COONABARRAN	HOLBROOK	MONARO	TALLAGANDA	WINDOURAN
BLACKTOWN	COPMANNHURST	HORNBY	MULWARRIE	TAMARANG	WINGADEE
BLAND	CORREN	ILLABO	MUMBULLA	TARRO	WINGECARRIBEE
BLUE MOUNTAINS	CROOKWELL	ILMURRAY	MURRAY	TEFTERFIELD	WOLLONDILLY
BOGAN	CUDGEGONG	IMLAY	MURRUMBIDGEE	TERANIA	WOODBURN
BOLWARRA	DEMONDRIE	JEMALONG	MURRUMUNG	TIMBREGONIE	WYALDRA
BOOLOORO	DALGETY	JERILDERIE	MUSWELLBROOK	TINTENBAR	YALLAROI
BOOMI	DUMARESQ	JINDALEE	NAMBUCCA	TOMKI	YANKO
BORE	DURRIGO	KEARSLEY	NAMOI	TUMBARUMBA	
BULLI	DUMARESQ	KYEAMBA	NARRABURRA	TUMUT	
BURRANGONG	ERINA	KYOGLE	NATTAL	TURON	
BYRON	EUROBODALLA	LACHLAN	NEPEAN	UPPER HUNTER	
CAMPBELL	GILGANDRA	LAKE MACQUARIE	NUNDELL	URANA	
CANOBOLAS	GLUCESTER	LIVEPOOL PLAINS	NYMBOIDA	WADE	
	GOOBANG	LOCKHART	OBERRON		



THE  
OFFICIAL YEAR BOOK  
OF  
NEW SOUTH WALES.  
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S. R. CARVER,  
GOVERNMENT STATISTICIAN.

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PUBLISHED BY AUTHORITY OF THE GOVERNMENT OF  
NEW SOUTH WALES.

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## PREFACE.

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THIS is the forty-fifth issue of the Official Year Book of New South Wales, which from the first issue in 1886 to 1904 was known as the "Wealth and Progress of New South Wales."

The volume contains an analysis of the statistics of the State for the year 1937-38 and, in relevant cases, for the calendar year 1938. Descriptive matter in the text has been revised to the date of going to press—March to June, 1939.

In order to render as prompt service as possible, the contents of the volume were published in advance in eight parts, as they became available from the printer.

With the volume is published a diagram map of New South Wales showing railways, land and statistical divisions, shire boundaries, and limits of the wheat belt. The boundaries of the statistical divisions (as adopted in 1923) coincide with those of Shires because it is thought desirable that statistics generally should be compiled with the local governing area as the geographical unit. The text has been illustrated with a number of graphs and diagrams.

Every care has been taken to keep the work free from errors, but if any be observed by readers, notification regarding them would be appreciated.

The "Statistical Register of New South Wales," published annually from this Bureau, will prove serviceable to those who wish to obtain more details regarding the matters treated generally in this Year Book. The "Statistical Bulletin," issued quarterly, and the "Monthly Summary of Business Statistics," published monthly, contain a summary of the latest available statistics of the State.

My thanks are tendered to the responsible officers of the various State and Commonwealth Departments and to others who have supplied information, often at considerable trouble. In particular I wish to express my appreciation of the services of Miss M. C. Ryan, Sub-Editor of the Official Year Book, and of other officers of the Bureau, upon whom the great bulk of work in preparing this volume has devolved.

S. R. CARVER.  
Government Statistician.

Bureau of Statistics and Economics,  
Sydney, 19th September, 1939.

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## GEOGRAPHY.

NEW SOUTH WALES is situated entirely in the temperate zone of the Southern Hemisphere, and is on the opposite side of the world from the seat of the British Empire, of which it forms a part. It is distant from London 11,200 miles by the Suez Canal—the shortest shipping route. The length of the air route of the Empire Mail Services between Sydney and London via Darwin and Singapore is 12,847 miles.

The name "New South Wales" was given to the eastern part of Australia (then known as New Holland) on its discovery by Captain Cook in 1770, and for fifty-seven years all Australian territory east of longitude 135° east was known by that name. In 1825, shortly after the separation of Tasmania (Van Diemen's Land), the western boundary was moved to longitude 129°. The steps by which the territory of the State assumed its present boundaries and dimensions are shown below:—

TABLE 1.—Territorial Adjustments Since 1788.

Date.	Nature of Territorial Adjustment.	Area involved in adjustment.	Area of New South Wales after adjustment §	Population of Territory known as New South Wales at end of year.
1788	New South Wales defined as whole of Australasia east of longitude 135° east.*	sq. miles. ...	sq. miles. 1,584,389	1,024 (26th Jan.).
1825	Tasmania practically separated from New South Wales.	26,215	1,558,174	} 33,500†
1825	Western boundary of New South Wales moved to longitude 129° east.	518,134	2,076,308	
1836	South Australia founded as a separate colony.	309,850	1,766,458	78,929
1841	New Zealand proclaimed a separate colony...	103,862	1,662,596	145,303
1851	Victoria proclaimed a separate colony ...	87,884	1,574,712	197,265
1859	Queensland proclaimed a separate colony ...	554,300	1,020,412	327,459
1861-3	Northern Territory and territory between longitude 129° and 132° east separated.	710,040	310,372	377,712
1911	Australian Capital Territory ceded to Commonwealth.	912	309,460	1,701,736
1915	Territory at Jervis Bay ceded to Commonwealth.	28	309,432	1,895,603

\* Literally interpreted, the boundaries defined included Fiji, Samoa, and some neighbouring islands.

† Approximate. § Exclusive of area of Pacific Islands, except New Zealand.

The area of New South Wales in the years 1788 to 1841, as shown above, is approximate only.

## BOUNDARIES AND DIMENSIONS.

The present boundaries of New South Wales are as follow:—On the east the South Pacific Ocean from Point Danger to Cape Howe; on the west, the 141st meridian of east longitude; on the north, the 29th parallel of south latitude, proceeding east to the Barwon River, and thereafter along the Macintyre and Dumaresq Rivers to the junction with Tenterfield Creek; thence along the crest of a spur of the Great Dividing Range, the crest of that range north to the Macpherson Range, and along the crest of the

Macpherson Range east to the sea; on the south, the southern bank of the Murray River to its source at the head of the river Indi, thence by a direct marked line to Cape Howe.

The greatest dimension of the State is along a diagonal line from Point Danger to the south-west corner of the State a distance of 850 miles. The shortest dimension, along the western boundary, is about 340 miles. The length of coast, measured direct from Point Danger to Cape Howe, is 683 miles, the actual length of seaboard being 907 miles. The greatest breadth, measured along the 29th parallel of latitude, is 756 miles.

#### AREA.

The total area of New South Wales, including Lord Howe Island, but excluding the Federal Territory, is 309,432 square miles, or 198,036,480 acres, being rather more than one-tenth of the area of Australia. About 4,639 square miles, or 2,969,080 acres, of the total surface are covered by water, including 176 square miles, or 112,750 acres, by the principal harbours. The area of Lord Howe Island is 5 square miles.

The area of New South Wales in relation to the total area of Australia is shown in the following statement:—

TABLE 2.—Area of Australian States and Territories.

State or Territory.	Area.	Per cent. of total Area.
	sq. miles.	
New South Wales ... ..	309,432	10·40
Victoria ... ..	87,884	2·96
Queensland ... ..	670,500	22·54
South Australia ... ..	380,070	12·78
Western Australia ... ..	975,920	32·81
Tasmania ... ..	26,215	·88
Northern Territory ... ..	523,620	17·60
Australian Capital Territory ... ..	912	·03
Federal Territory at Jervis Bay ... ..	28	·00
Commonwealth ... ..	2,974,581	100·00

New South Wales is approximately three and a half times as large as Victoria, nearly twelve times as large as Tasmania, and one-fifth smaller than South Australia. Queensland is more than twice and Western Australia three times as large as New South Wales.

The following table shows the extent of the State of New South Wales and of the Commonwealth of Australia in comparison with the total area of all countries of the world, the British Empire, and certain individual countries:—

TABLE 3.—Area of New South Wales and other Countries.

Country.	Area.	Ratio of Area to Area of New South Wales.	Ratio of Area to Area of Australia.
	sq. miles.		
New South Wales ... ..	309,432	1·000	·104
Commonwealth ... ..	2,974,581	9·613	1·000
Great Britain ... ..	89,041	·288	·030
Canada ... ..	3,729,665	12·053	1·254
Argentina ... ..	1,153,119	3·729	·388
United States ... ..	3,026,789	9·782	1·018
British Empire ... ..	13,257,584	42·845	4·456
The World ... ..	52,055,879	168·231	17·500



## LORD HOWE ISLAND.

Lord Howe Island is a dependency of New South Wales, and, for the purpose of representation in the State Parliament, is included in King, one of the metropolitan electorates. It is situated about 300 miles east of Port Macquarie and 436 miles north-east of Sydney. The island was discovered in 1788. It is of volcanic origin, and Mount Gower, the highest point, reaches an altitude of 2,840 feet. The climate and soil are favourable for the growth of subtropical products, but on account of the rocky formation of the greater part of the surface of 3,220 acres, only about 300 acres are arable. The land has not been alienated, and is occupied rent free on sufferance, being utilised mainly for the production of *Kentia* palm seed. A Board of Control at Sydney manages the affairs of the island and supervises the palm seed industry. At the Census of 1933 the population numbered 161 persons.

## PHYSICAL FEATURES.

New South Wales is divided naturally into four main divisions, which are strips of territory extending from north to south, viz., the coastal division; the tablelands, which form the Great Dividing Range between the coastal districts and the plains; the western slopes of the Dividing Range; and the western plains.

The coastal division is a narrow fertile plain. Its average width is 50 miles in the north and 20 miles in the south—the widest portion being 150 miles in the valley of the Hunter River. The coastline is regular with numerous sandy beaches, inlets and river estuaries, and, at intervals, there are lakes, partly marine and partly estuarine, which provide extensive fishing grounds and tourist and holiday resorts.

There are two tablelands—the northern and the southern—forming an extensive plateau region varying in width from 30 to 100 miles. The average height of the northern tableland is 2,500 feet, and a large portion in the New England Range has a greater altitude than 4,000 feet. The average height of the Southern Tableland is slightly less than the northern, though it contains the Kosciusko Plateau which is the most elevated part of the State. The Jenolan and other caves occur in the limestone belt in the central portion of the tablelands division.

To the westward the tablelands slope gradually to the great plain district which covers nearly two-thirds of the area of New South Wales. On the slopes there is generally an adequate rainfall. On the plains the surface consists of fertile red and black soils, but the rainfall is scanty, particularly in the far western section. These divisions are watered by the rivers of the Murray-Darling system and large storage dams have been constructed on the upper courses to maintain the supply in periods of scarce rainfall. The Darling and its tributaries are liable to shrinkage in dry weather, but when heavy rains occur in their upper basins they overflow their banks and spread over the surrounding country for miles, producing a luxuriant growth of grasses. The Broken Hill mining field is located near the western boundary of New South Wales.

*Size of Rivers.*

The lengths of the principal rivers have been computed by the Lands Department of New South Wales on a uniform basis. Considerable data were obtained from the results of surveys of the greater part of the Murray, Darling, Murrumbidgee and Lachlan Rivers, and the remainder of the

lengths were measured on the standard parish maps. In every case the starting point was the furthest source of the river. The lengths as determined are as follows:—

TABLE 4.—Length of Principal Rivers.

Inland Rivers.	Length.	Coastal Rivers.	Length.	Coastal Rivers.	Length.
	miles.		miles.		miles.
Murray ... ..	1,609*	Tweed ... ..	50	Wollomba ... ..	46
Darling ... ..	1,702†	Richmond ... ..	163	Hunter ... ..	287
Murrumbidgee ... ..	981	Clarence ... ..	245	Hawkesbury† ... ..	293
Lachlan ... ..	922	Bellingen ... ..	68	Shoalhaven ... ..	206
Bogan ... ..	451	Nambucca ... ..	69	Clyde ... ..	67
Macquarie ... ..	590	Macleay ... ..	250	Moruya ... ..	97
Castlereagh ... ..	341	Hastings ... ..	108	Tuross ... ..	91
Namoi ... ..	526	Camden Haven ... ..	33	Bega ... ..	53
Gwydir ... ..	415	Manning ... ..	139	Towamba ... ..	57

\* 1,203 miles within New South Wales. † 1,626 miles within New South Wales. ‡ And main tributary

The relative magnitude of some of the more important rivers as shown by the average annual volume of water which they carry has been ascertained from the records of river gaugings.

The following comparison is based on the records of the period 1905-1937. An acre-foot of water is the quantity which would cover an acre of land to a uniform depth of one foot:—

TABLE 5.—Drainage Area and Volume of Principal Rivers.

River.	Gauging Station.	Distance from Source of River.	Drainage Area.	Average Annual Run off of Water.
		miles.	sq. miles.	acre-feet.
Murray ... ..	Tocumwal ... ..	435	10,160	5,021,200
Murrumbidgee ... ..	Wagga Wagga ... ..	396	10,700	2,901,566
Darling ... ..	Menindie ... ..	1,383	221,700	1,487,832
Macquarie ... ..	Narrominc ... ..	318	10,090	639,060
Lachlan... ..	Condobolin ... ..	380	10,420	455,663
Namoi ... ..	Narrabri ... ..	302	9,820	499,764

In making the comparison, gauging stations have been selected with drainage areas of approximately equal extent, except in the case of the Darling. The range of choice has been limited by the number of stations with available records. In the case of the Lachlan River the average run-off at Forbes, 120 miles above Condobolin, is 612,115 acre-feet per annum. Similar particulars are not available in respect of coastal rivers, except the Hunter, which at Singleton has a draining area of 6,580 square miles and an average annual run-off of 615,682 acre-feet of water.

The operation of large dams has affected the natural run-off at Tocumwal since 1929, at Wagga Wagga since 1914, and at Condobolin and Forbes since 1935.

## TOURIST RESORTS.

Throughout the tablelands and coastal districts of New South Wales there are many pleasure resorts, centres of scenic beauty, and some remarkable examples of natural phenomena.

Port Jackson, the harbour of the metropolis, is famed for its shipping facilities, as well as for natural beauty. The Sydney Harbour Bridge, spanning one of its many arms, is noted as one of the world's great engineering achievements.

Along the sea-board, scalloped coastline and sandy beaches contrast with the wooded and fern-strewn mountain-sides fringing the coast and from numerous points there are extensive panoramas of coast, coastal plain and mountains. Near the city, the National Park and Kuring-gai Chase furnish opportunity to view the typical Australian bush scenery. The Hawkesbury River is a most beautiful waterway not many miles to the north of Sydney.

The Blue Mountains (50 to 80 miles west of Sydney) contain many popular tourist resorts with scenery of rugged grandeur. Among the huge wooded valleys there are waterfalls, cascades and fern groves. There is a remarkable series of limestone caves at Jenolan in the central tableland, about 120 miles from Sydney. These caves contain dripstone formations, with stalactites and stalagmites of great delicacy and beauty. There are caves containing similar geological phenomena at Wombeyan and Yarrangobilly also in the tablelands.

Canberra, the capital city of the Commonwealth of Australia, is situated in the hills fringing the Monaro Plains. Further inland, at a distance of 150 to 250 miles from the coast are the fertile hills of the sheep and wheat districts and, beyond them, stretching westward for hundreds of miles are the great plains utilised mainly for sheep and cattle grazing.

The Government Tourist Bureau freely issues literature and detailed information concerning resorts and travel throughout the State, and arranges itineraries and accommodation for tourists.

## CLIMATE.

---

NEW South Wales is situated entirely in the temperate zone, and its climate is generally mild and equable, and mostly free from extremes of heat and cold, but occasionally very high temperatures are experienced in the north-west and very cold temperatures on the southern tablelands. Abundant sunshine is experienced in all its seasons. On an average the capital city is without sunshine only twenty-three days per year, and the average range of temperature between the hottest and coldest months is only about 19° Fahr. In the hinterland there is even more sunshine, and the range of temperature is greater, but observations with the wet bulb thermometer show that the temperature is not maintained in any part of the State at so high a level as to be detrimental to the health and physique of persons engaged in outdoor labour.

Practically the whole of New South Wales is subject to the bracing influence of frosts during five or more months of the year. Snow has been known to fall over nearly two-thirds of the State, but its occurrence is comparatively rare except in the tableland districts. Perennial snow is found only on the highest peaks of the southern tableland.

The seasons are not so well defined in the western interior as on the coast. They are generally as follows:—Spring during September, October, and November; summer during December, January, and February; autumn during March, April, and May; winter during June, July, and August.

### *Meteorological Observations.*

Meteorological services are administered by a Bureau, a branch of the Commonwealth Department of the Interior. A Divisional Meteorologist in Sydney directs observations throughout the State of New South Wales. Climatological stations are established at a number of representative towns, and rainfall recording stations at most centres.

Weather observations are telegraphed daily from many stations to the Meteorological Bureau, Sydney, where bulletins, rain maps and isobaric charts are prepared and issued for public information. Weather forecasts for the State, sections of the State and the metropolitan area are prepared daily, telegraphed to country centres and disseminated through the press and broadcasting stations. Forecasts of conditions over the ocean and for aviation purposes are issued daily. On request, detailed forecasts of conditions likely to affect any particular area or function may be obtained from the Divisional Meteorologist and, if required, the advice will be telegraphed on payment of the cost of the message. When occasion warrants, flood and storm warnings are issued to the press, broadcasting stations and to public departments.

Particulars of meteorological observations at various stations in New South Wales are published annually in the Statistical Register of New South Wales.

### *Winds.*

The weather in New South Wales is determined chiefly by anticyclones, or areas of high barometric pressure, with their attendant tropical and southern depressions. The anticyclones pass almost continually across the face of the continent of Australia from west to east. A general

surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the equator. The movement causes sudden changes in the weather—heat when the surge is to the south, and cold weather when it moves towards the equator.

New South Wales is fairly free from cyclonic disturbances, although occasionally a cyclone may result from an inland depression, or may reach the State from the north-east tropics or from the southern low-pressure belt which lies to the south of Australia. In the summer months the prevailing winds on the coast of New South Wales blow from the north-east and extend to the highlands; in the western districts the winds are usually from the south. Southerly changes are characteristic of the summer weather on the coast. These winds, which blow from the higher southern latitudes, cause a rapid fall in temperature, and are sometimes accompanied by thunderstorms.

During winter, the prevailing direction of the wind is westerly. In the southern areas of the State the winds are almost due west, but proceeding northwards there is a southerly tendency. Australia lies directly in the great high-pressure belt during the cold months of the year.

#### Rainfall.

Rainfall in New South Wales is associated mainly with two types of depression—tropical and southern. The amount of rainfall varies very greatly over the wide expanse of territory, the average decreasing from about 80 inches per annum in the north-eastern corner to less than 7 inches in the north-western corner. Rainfall exerts a very powerful influence in determining the character of settlement, but its effects can be gauged only in a general way from annual averages as to quantity because consideration must be given also to other important factors such as seasonal distribution and reliability.

The coastal districts receive the largest annual falls, ranging from an average of 30 inches in the south to about 80 inches in the extreme north. Despite their proximity to the sea, the mountain chains are not of sufficient elevation to cause any great condensation; so that, with slight irregularities, the average rainfall gradually diminishes towards the north-western limits of the State.

An approximate classification of areas in New South Wales (including the Australian Capital Territory) in accordance with the average annual rainfall shows the following distribution:—

TABLE 6.—Areas in New South Wales according to Annual Rainfall.

Annual Rainfall.	Area.		Proportion per cent. of total area.	Annual Rainfall.	Area.		Proportion per cent. of total area.
	Sq. Miles.	Acres.			Sq. Miles.	Acres.	
inches. Over 70	365	233,600	·1	inches. 20 to 30	75,679	48,434,560	24·4
60 to 70	1,669	1,068,160	·5	15 to 20	55,762	35,687,680	18·0
50 to 60	4,620	2,956,800	1·5	10 to 15	78,454	50,210,560	25·3
40 to 50	11,517	7,370,880	3·7	Under 10	48,749	31,199,360	15·7
30 to 40	33,557	21,476,480	10·8	Total ..	310,372	198,638,080	100·0

Approximately 41 per cent. of the area of the State receives rains exceeding on the average 20 inches per year. Over the greater part of the State the annual rainfall varies on the average between 20 per cent. and 35 per cent. from the mean, but in the south-eastern corner the degree of variation is less and in the north-western quarter it is more. Protracted periods of dry weather in one part or another are not uncommon, but simultaneous drought over the whole territory of the State has been experienced only very rarely.

The seasonal distribution of rainfall may be described as follows: A winter rain region, which includes the southern portion of the western plains and about two-thirds of the Riverina, is bounded on the north by a direct line from Broken Hill to Wagga with a curve around Albury. A summer rain region, including the whole of the northern subdivisions, is bounded on the south by a line which waves regularly, first south and then north of a direct line from the north-western corner of the State to Newcastle. Between these there extends a region, including the central and south-eastern portions of the State where the rains are distributed fairly evenly throughout the year, but a narrow coastal strip between Nowra and Broken Bay receives its heaviest rains in the autumn.

The chief agencies causing rainfall are southern depressions, tropical depressions, and anticyclonic systems. Southern depressions are the main cause of good winter rains in the Riverina and on the southern highlands. A seasonal prevalence of this type of weather would cause a low rainfall on the coast, and over that portion of the inland district north of the Lachlan River. A tropical prevalence ensures a good season inland north of the Lachlan, but not necessarily in southern areas. An anticyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains.

The distribution of rainfall is dependent on three factors—the energy present in the atmospheric systems, the rate of movement of the atmospheric stream, and the prevailing latitudes in which the anticyclones are moving.

A map published on page 728 of the 1924 edition of this Year Book shows the distribution of rainfall in New South Wales.

#### *Rainfall in Divisions.*

Records of monthly rainfall at individual stations are published annually in the Statistical Register of New South Wales. The mean annual rainfall registered at recording stations in the main divisions of the State during each of the last ten years is shown below in comparison with the normal annual rainfall calculated over a long period of years. The divisions (see frontispiece of this Year Book) are subdivided for purposes of the table into northern and southern or eastern and western sections, as indicated by the letters N., S., E., W.

TABLE 7.—Annual Rainfall (in inches).

Division.	Normal Rainfall.	Year.										
		1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	
<b>Coast—</b>												
North ... ..	N	56.60	54.53	66.61	66.04	68.10	34.11	66.64	67.65	48.64	41.77	72.47
	S	57.84	67.27	77.58	58.90	55.08	41.47	78.53	69.07	50.04	46.55	70.81
Hunter and Manning	N	53.28	46.66	84.22	68.31	51.78	48.88	61.02	63.81	44.05	39.72	65.58
	S	35.55	34.45	39.78	39.02	42.80	39.35	33.68	39.26	23.60	27.52	33.88
Metropolitan Area ...		49.06	37.83	51.21	41.79	48.35	33.46	41.92	60.35	50.63	30.97	49.87
Balance of Cumberland		30.41	25.87	37.57	25.19	37.24	23.56	33.61	38.54	23.93	37.47	29.17
South ... ..	N	42.12	43.95	52.63	38.83	45.53	34.59	39.66	66.47	33.56	31.32	40.77
	S	36.24	37.35	44.54	32.68	29.86	35.85	40.42	70.54	33.83	36.71	37.34
<b>Tablelands—</b>												
North ... ..	E	38.28	49.95	37.05	42.50	39.64	28.10	51.18	43.09	31.75	30.42	48.04
	W	31.80	36.82	30.06	29.96	41.30	29.08	39.53	37.57	24.21	27.99	28.40
Central ... ..	N	25.73	26.40	18.44	28.25	28.37	23.88	25.36	31.31	20.05	27.01	20.62
	S	34.62	36.12	35.59	34.12	42.26	30.17	35.81	45.35	29.70	33.66	29.95
South ... ..	S	24.86	24.55	26.51	20.69	27.21	24.08	22.60	41.33	26.94	28.24	24.88
Kosciusko Plateau...		33.91	33.07	32.17	32.86	37.64	39.20	33.66	49.89	34.39	37.15	30.08
<b>Western Slopes—</b>												
North ... ..	N	26.99	26.55	24.94	28.72	35.28	22.09	30.94	30.61	18.35	21.89	23.27
	S	26.10	27.85	19.76	24.58	30.81	22.03	32.31	28.55	18.77	25.87	23.31
Central ... ..	N	24.41	22.65	17.61	26.87	30.73	20.70	27.32	28.78	17.51	24.97	21.55
	S	22.85	21.73	17.50	23.24	30.37	21.44	21.07	29.94	18.88	25.64	17.77
South ... ..	N	22.82	25.11	17.98	20.99	33.79	21.71	20.92	30.42	19.21	27.38	17.73
	S	30.35	26.84	21.29	28.41	42.56	31.24	27.50	38.55	31.49	35.01	25.35
<b>Plains—</b>												
North ... ..	E	23.18	22.01	20.61	20.23	30.51	18.37	24.85	26.54	15.30	17.05	21.15
	W	19.66	17.39	12.53	18.83	26.08	14.67	21.59	23.32	11.38	16.66	16.87
Central ... ..	N	18.22	16.47	9.35	20.66	25.92	14.90	17.57	24.19	10.98	21.40	11.29
	S	18.02	22.05	12.63	18.78	24.63	16.79	16.13	22.92	13.06	23.41	11.97
Riverina ... ..	E	18.33	20.00	14.07	19.26	24.83	18.16	18.13	24.61	17.73	20.53	14.25
	W	13.84	13.76	11.38	16.11	19.21	15.36	14.53	15.85	10.45	16.19	8.78
<b>Western Division—</b>												
Eastern half ...	N	13.53	10.57	5.69	14.14	18.37	9.96	15.33	12.90	6.86	18.94	7.40
	S	13.27	13.34	9.27	14.69	16.19	13.77	13.11	14.07	8.38	19.21	9.42
Western half ...	N	8.44	7.74	4.09	12.13	11.37	9.78	7.58	6.44	5.79	15.37	5.39
	S	10.04	8.80	6.13	9.45	12.06	10.45	9.79	7.06	5.19	10.49	9.77

In relation to the rural industries, the seasonal distribution of the rainfall, rather than the annual aggregate, is the important consideration. In wheat farming, for instance, sufficient moisture is required (1) to enable the soil to be prepared for planting, which takes place usually in May or June; (2) to promote germination of the seed and steady growth; (3) for the filling of the grain (about August or September for early crops) until harvesting, in November or December. Heavy rains may delay ploughing and sowing, or later in the season may cause disease or rank growth, or beat down the crops. For dairy farming, conducted mainly in the coastal areas, a more even distribution of rainfall is desirable to maintain the pastures in a satisfactory condition throughout the year. For sheep, spring and autumn rains are needed to ensure supplies of water and herbage, and summer rains of sufficient quantity to mitigate the effect of warm sunshine on the pastures. Too much rain is likely to cause disease in the flocks.

Monthly indexes of the rainfall in the wheat, sheep, and dairying districts respectively, are shown in the relevant chapters of this Year Book.

The normal monthly rainfall in each of the divisions is shown in the following table. The averages are based on records of rainfall at various stations over a period of years:—

TABLE 8.—Normal Monthly Rainfall (in inches), Period Ended 1936.

Division.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Coast—													
North ... ..	N	6·63	6·59	7·17	5·82	5·48	4·04	3·84	2·55	2·71	2·85	3·74	4·86
	S	6·11	6·89	7·15	6·69	5·02	4·27	3·79	2·27	3·13	3·38	3·67	5·13
Hunter and Manning	N	4·69	5·82	5·54	5·80	4·96	4·24	4·39	2·90	3·49	3·05	3·34	4·75
	S	3·14	3·30	3·57	3·42	2·87	2·89	3·31	2·11	2·57	2·26	2·43	3·63
Metropolitan Area ...	...	3·58	3·51	4·11	5·40	4·57	3·34	4·42	2·16	2·82	2·66	2·62	3·51
Balance of Cumberland	...	3·05	3·01	3·25	2·90	2·38	2·16	2·82	1·65	1·86	1·99	2·30	2·99
South ... ..	N	3·98	3·72	1·19	4·26	3·89	3·79	4·23	2·37	2·66	2·60	2·58	3·61
	S	3·83	3·58	3·78	3·22	3·27	3·23	2·84	1·98	2·45	2·52	2·43	3·13
Tablelands—													
North ... ..	E	5·26	5·05	4·84	3·05	2·22	2·32	2·05	1·26	1·86	2·51	3·34	4·35
	W	3·92	2·97	2·77	1·89	1·72	2·53	2·25	1·92	2·22	2·77	3·06	3·72
Central ... ..	N	2·43	2·12	2·24	1·85	1·80	2·39	2·01	1·91	1·98	2·12	2·24	2·66
	S	3·29	3·99	3·19	1·71	2·44	3·10	3·03	2·46	2·43	2·59	2·61	3·18
South ... ..	N	2·47	2·06	2·19	1·83	1·95	2·39	2·16	1·89	1·94	2·18	1·96	2·37
Kosciusko Plateau	...	2·77	2·36	2·58	2·20	2·63	3·44	3·00	2·94	3·19	3·30	2·66	2·94
Western Slopes—													
North ... ..	N	3·20	2·56	2·42	1·75	1·70	2·11	2·00	1·55	1·75	2·27	2·47	3·04
	S	2·83	2·33	2·28	1·69	1·53	2·27	1·94	1·79	1·85	2·16	2·44	3·01
Central ... ..	N	2·33	2·32	2·18	1·81	1·64	2·15	2·13	1·64	1·71	1·76	2·09	2·61
	S	2·10	1·67	1·83	1·73	1·71	2·30	1·95	1·89	1·78	1·86	1·77	2·22
South ... ..	N	1·84	1·45	1·76	1·75	1·77	2·60	2·20	2·06	1·89	1·95	1·65	1·98
	S	1·92	1·63	2·26	2·18	2·52	3·92	3·15	3·18	2·63	2·80	2·03	2·21
Plains—													
North ... ..	E	2·56	2·29	2·20	1·50	1·58	2·03	1·77	1·30	1·46	1·66	2·08	2·61
	W	2·30	2·07	1·84	1·27	1·40	1·78	1·43	1·04	1·12	1·33	1·72	2·26
Central ... ..	N	1·82	1·62	1·65	1·52	1·33	1·72	1·47	1·25	1·21	1·26	1·63	1·91
	S	1·64	1·45	1·44	1·52	1·40	1·91	1·55	1·44	1·35	1·38	1·30	1·77
Riverina ... ..	E	1·26	1·21	1·37	1·39	1·56	2·23	1·70	1·76	1·58	1·68	1·28	1·37
	W	1·00	0·91	1·02	1·03	1·32	1·65	1·20	1·23	1·14	1·19	1·03	1·17
Western Division—													
Eastern half ...	N	1·48	1·39	1·22	0·90	1·04	1·24	0·90	0·77	0·80	0·97	1·20	1·55
	S	1·07	1·04	1·03	0·92	1·19	1·44	1·08	1·15	1·09	1·10	1·00	1·28
Western half ...	N	0·79	0·88	0·76	0·57	0·73	0·84	0·51	0·54	0·73	0·66	1·01	1·01
	S	0·67	0·78	0·68	0·69	1·05	1·14	0·75	0·89	0·84	0·87	0·82	0·85

## EVAPORATION.

The rate of evaporation is influenced by the prevailing temperature and by the atmospheric humidity, pressure, and movement. In New South Wales evaporation is an important factor, because in the greater part of the inland districts water for use of stock is generally conserved in open tanks and dams. Actual measurements of the loss by evaporation have been made at a number of stations, and the average monthly evaporation over a period of years is shown below, together with the average monthly rainfall over the same period. The total annual loss by evaporation varies from under 40 inches on the coast and southern tablelands to about 90 inches in the west. In the far north-western corner of the State, for which actual records are not available, the total loss from evaporation is probably equal to nearly 100 inches per year.



TABLE 9.—Average Evaporation (Measured by Loss from Exposed Water) and Rainfall Over a Period of Years.

Station.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Year.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
Wilcannia—													
Evaporation	9.43	7.82	7.15	4.92	2.88	1.83	1.91	2.86	4.41	6.28	7.46	8.87	65.82
Rainfall	0.81	1.15	0.56	0.54	0.85	0.95	0.66	0.58	0.56	0.80	0.80	1.30	9.56
Walgett—													
Evaporation	7.17	6.03	5.45	3.70	2.49	1.70	1.69	2.51	3.64	5.09	6.24	6.89	52.60
Rainfall	2.28	1.55	1.61	1.10	1.20	1.53	1.38	0.98	0.86	1.31	1.45	2.13	17.38
Coonamble—													
Evaporation	11.31	9.40	8.85	6.10	4.19	2.43	2.36	3.15	5.03	8.25	10.06	11.27	82.40
Rainfall	2.17	1.40	1.71	1.14	1.08	1.34	1.15	0.84	1.13	0.71	2.23	2.27	17.17
Leeton—													
Evaporation	8.64	6.82	5.66	3.19	2.01	1.26	1.16	1.48	2.58	4.20	6.41	7.86	51.27
Rainfall	1.35	0.86	0.92	1.33	1.23	1.88	1.44	1.62	1.46	1.48	1.33	1.40	16.35
Umberumberka—													
Evaporation	12.80	10.82	9.31	5.98	4.07	2.80	2.87	4.10	5.93	8.63	10.23	12.04	89.58
Rainfall	0.42	0.64	0.52	0.40	0.84	0.81	0.57	0.52	0.67	0.59	0.96	0.65	7.59
Burrinjuck Dam—													
Evaporation	5.90	4.89	4.11	2.33	1.13	0.66	0.65	1.03	1.89	2.97	4.23	5.22	35.01
Rainfall	1.98	1.84	2.20	2.45	2.85	4.24	4.03	3.89	2.84	2.98	2.16	2.34	33.80
Canberra—													
Evaporation	7.37	5.70	4.44	2.67	1.72	1.02	1.15	1.67	2.78	4.04	5.53	6.62	41.71
Rainfall	2.23	1.70	2.24	1.74	1.34	2.06	2.08	2.22	1.65	2.63	1.93	2.12	23.94
Sydney—													
Evaporation	5.39	4.26	3.66	2.64	1.85	1.45	1.54	1.97	2.75	3.92	4.66	5.41	39.50
Rainfall	3.55	3.36	4.80	5.01	4.87	4.55	4.91	2.75	2.73	2.86	2.59	3.23	45.21

## CLIMATIC DIVISIONS.

The territory of New South Wales may be divided into four climatic divisions, which correspond with the terrain—the coast, the tablelands, the western slopes of the Dividing Range, and the western plains.\*

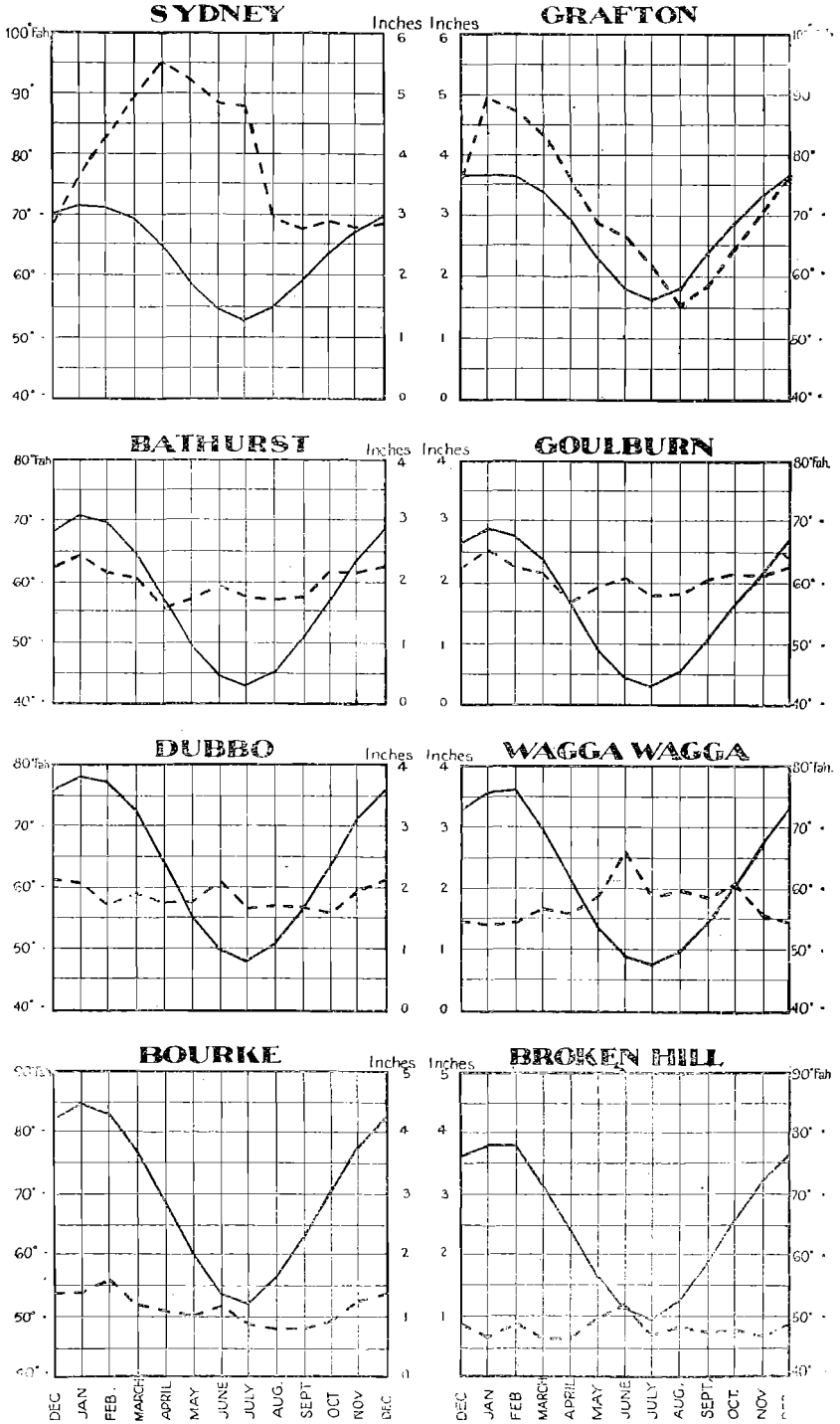
The northern parts of the State are generally warmer than the southern, the difference between the average temperatures of the extreme north and south being about 7° on the coast, 5° on the tablelands, and 7° on the slopes and plains. It should be noted, however, that the length of the State decreases from nearly 700 miles on the coast to about 340 miles on the western boundary. From east to west the average mean annual temperatures vary little except where altitudes are different, but usually the summer is hotter and the winter colder in the interior than on the coast. Thus at Sydney the average temperatures range from 71° in summer to 54° in winter, as compared with 76° in summer and 52° in winter at Wentworth in the same latitude in the western interior. Similar variations are found in the north. The mean daily range at any station is seldom more than 30° or less than 13°.

*Coastal Division.*

In the coastal division, which lies between the Pacific Ocean and the Great Dividing Range, the average rainfall is comparatively high and regular, and the climate, though more humid, is generally milder than in the interior.

\*See map in frontispiece.

MEAN MONTHLY TEMPERATURE AND RAINFALL.



The graph shows Mean Temperature in shade (Deg. Fah.) and the average Monthly Rainfall (inches) at each station over a series of years.  
 Temperature shown by firm line; Rainfall by broken line.

The following table shows the meteorological conditions of the principal stations in the coastal division, arranged in the order of their latitude. These stations are representative of the whole division, and the figures are the averages of a large number of years:—

TABLE 10.—Temperature and Rainfall—Coastal Division.

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual, 1918-1937.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
<i>North Coast—</i>									
Lismore ... ..	13	52	66·6	74·9	56·9	22·8	113·0	23·0	53·78
Grafton ... ..	22	21	68·3	76·9	58·2	24·7	114·0	24·9	34·65
<i>Hunter and Manning—</i>									
Jerry's Plains ...	53	367	64·4	75·5	52·2	28·7	118·0	19·0	24·68
West Maitland ...	18	40	64·5	74·7	53·5	21·7	114·0	28·0	33·75
Newcastle ... ..	1	34	64·4	72·0	55·5	14·4	110·5	31·0	*42·08
Sydney ... ..	5	138	63·2	71·0	54·3	14·0	108·5	35·7	44·39
<i>South Coast—</i>									
Wollongong ... ..	0	54	63·0	70·0	55·0	16·6	110·0	33·6	49·38
Nowra ... ..	6	30	62·8	70·5	54·5	19·7	110·8	31·5	‡39·05
Moruya Heads ...	0	50	60·7	67·6	53·0	17·3	114·8	22·6	36·37
Bega ... ..	8	50	59·8	68·8	50·0	26·4	111·0	20·0	36·35

\*1921 to 1937.

‡1922 to 1937.

Taking the coast as a whole, the difference between the mean summer and mean winter temperature is about 18° only.

The north coast districts are favoured with a warm, moist climate, the rainfall being from 34 to 80 inches annually. The mean temperature for the year is from 66° to 69°, the summer mean being 75° to 77°, and the winter mean 56° to 59°. On the south coast the rainfall varies from 30 to 60 inches, and the mean temperature ranges between 60° and 63°, the summer mean being from 66° at the foot of the ranges to 70° on the sea coast, and the winter from 50° to 55° over the same area.

Coastal rains come from the sea with both south-east and north-east winds, being further augmented in the latter part of the year by thunderstorms from the north-west.

Sydney is situated on the coast about half-way between the extreme northern and southern limits of the State. Its mean annual temperature is 63° Fahr. The mean seasonal range is only 17°, calculated over a period of seventy-nine years, the mean summer temperature being 71° and the winter temperature 54°.

The following table shows the average meteorological conditions of Sydney, based on the experience of the seventy-nine years ended 1937:—

TABLE 11.—Temperature and Rainfall—Sydney.

Month.	Average Hourly Reading of Standard Barometer, corrected to 32° Fah.; Standard Gravity and Mean Sea Level.	Temperature (in shade).			Rainfall.			
		Mean Standard.	Average Reading of Maximum Thermometer.	Average Reading of Minimum Thermometer.	Average.	Greatest.	Least.	Average number of days Rain.
January ... ..	29.893	71.6	78.4	64.9	3.56	15.26	0.25	14
February.. ... ..	29.943	71.3	77.7	65.0	4.23	18.56	0.23	13
March ... ..	30.013	69.4	75.8	62.9	4.90	18.70	0.42	15
April ... ..	30.068	64.6	71.3	57.9	5.46	24.49	0.06	14
May ... ..	30.084	58.9	65.7	52.1	5.03	23.03	0.18	14
June ... ..	30.064	54.7	61.2	48.2	4.83	16.30	0.19	13
July ... ..	30.071	53.0	59.9	46.0	4.79	13.21	0.12	12
August ... ..	30.068	55.2	63.0	47.5	2.86	14.89	0.04	11
September ... ..	30.010	59.2	67.1	51.4	2.86	14.05	0.08	12
October ... ..	29.967	63.6	71.3	55.8	2.85	11.14	0.21	12
November ... ..	29.941	67.0	74.3	59.6	2.82	9.88	0.07	12
December ... ..	29.881	70.0	77.0	62.9	2.97	15.82	0.23	13
Annual ... ..	30.000	63.2	70.2	56.2	47.16	82.76	23.01	155

## Tablelands.

On the northern tableland the rainfall is consistent, ranging from 29 inches in the western parts to 40 inches in the eastern. The temperature is cool and bracing, the annual average being between 56° and 60°; the mean summer temperature lies between 66° and 72°, and the mean winter between 44° and 47°. The southern tableland is the coldest part of the State, the mean annual temperature being about 54°. In summer the mean ranges from 55° to 68°, and in winter from 33° to 45°. At Kiandra, the elevation of which is 4,640 feet, the mean annual temperature is 44.2°. Near the southern extremity of the tableland, on the Snowy and Muniong Ranges, the snow is usually present throughout the year.

The statement below shows, for the tableland districts, particulars of average temperature and rainfall at typical stations over a period of years:—

TABLE 12.—Temperature and Rainfall—Tablelands.

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall—Mean Annual, 1918-1937.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>Northern Tableland—</i>									
Tenterfield ... ..	80	2,827	53.3	68.5	46.9	24.0	101.0	18.0	31.15
Inverell ... ..	124	1,980	59.7	71.5	47.2	29.7	105.5	14.0	28.88
Glen Innes ... ..	90	3,518	56.1	66.4	44.6	24.5	101.4	16.0	31.66
<i>Central Tableland—</i>									
Cassilis (Dalketh) ...	120	1,500	60.0	71.8	47.7	24.1	109.5	17.5	21.41
Mudgee ... ..	121	1,635	60.1	72.6	47.2	28.1	113.2	15.0	24.31
Bathurst ... ..	96	2,200	57.0	69.4	44.4	27.2	112.9	13.0	22.42
Katoomba ... ..	58	3,349	53.9	63.3	43.4	15.6	98.0	26.5	53.43
<i>Southern Tableland—</i>									
Crookwell ... ..	81	2,000	52.8	64.1	41.4	23.6	100.0	15.0	34.49
Goulburn ... ..	54	2,129	56.4	67.8	44.5	23.3	111.0	13.0	23.77
Canberra ... ..	68	1,837	55.7	67.8	43.9	23.6	104.2	14.0	*23.90
Kiandra ... ..	88	4,640	44.2	55.2	32.8	20.9	91.0	<sup>b</sup> below zero	60.26
Bombala ... ..	37	3,000	52.6	62.6	41.9	24.4	101.5	15.2	27.56

\*1924 to 1937.

*Western Slopes.*

On the western slopes the rainfall is distributed uniformly, varying from an annual average of 20 inches in the western parts to 30 inches in the eastern; the most fertile part of the wheat-growing area of the State is situated on the southern part of these slopes, where the average rainfall is about 25 inches per annum. The mean annual temperature ranges from 67° in the north to 59° in the south; in the summer from 80° to 72°, and in the winter from 53° to 46°.

North of the Lachlan River, good rains are expected from the tropical disturbances during February and March, although they may come as late as May, and at times during the remainder of the year.

In the Riverina district, south of the Murrumbidgee generally, and on the south-western slopes, fairly reliable rains, light but frequent, are experienced during the winter and spring months.

The next statement gives information as to average temperature and rainfall for the principal stations on the western slopes over a period of years:—

TABLE 13.—Temperature and Rainfall—Western Slopes.

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual, 1918-1937.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>North Western—</i>	miles.	feet.	°	°	°	°	°	°	inches
Moree ... ..	204	680	67·4	80·2	53·4	23·6	117·0	19·0	21·20
Narrabri ... ..	193	697	66·6	80·1	52·1	27·5	117·0	20·5	24·66
Quirindi ... ..	115	1,278	61·7	74·1	48·5	29·4	109·0	13·0	26·16
<i>Central Western—</i>									
Dubbo ... ..	177	863	65·7	77·2	49·7	27·3	115·4	16·9	21·04
<i>South Western—</i>									
Young... ..	140	1,416	59·4	72·5	46·6	25·7	110·5	20·0	24·75
Wagga Wagga ... ..	158	615	61·5	74·8	48·6	24·8	116·8	22·0	21·49
Urana... ..	213	400	62·1	74·9	48·9	25·7	114·0	25·0	17·36
Albury ... ..	175	531	60·9	74·1	48·0	26·7	117·3	19·9	27·83

*Western Plains.*

The western district consists of a vast plain, its continuity being broken only by the Grey and Barrier Ranges. Owing to the absence of mountains in the interior, the annual rainfall over a great part of this division, which lies in the zone of high pressure, does not exceed 10 inches. It increases from 7 inches on the north-western boundary of the State to 10 and 15 inches along the Darling River, and 20 inches on the eastern limits of the plain country. The lower Murray and Murrumbidgee basins, which extend into the western plains, are closer to the Victorian than the New South Wales coast, and this factor facilitates precipitation over that region under the influence of southern depressions. The mean annual temperature ranges from 69° in the north to 62° in the south; in the summer from 83° to 74°, and in the winter from 50° to 54°.

The summer readings of the thermometer in this district are from 10° to 20° higher than those on the coast. Excessive heat is experienced occasionally during the summer season.

The winter, with an average temperature of 52°, accompanied by clear skies, and an absence of snow, leaves little to be desired from the standpoint of health; and, owing chiefly to the dryness of the climate, these inland regions produce merino wool of the highest quality.

The meteorological conditions of the western plains and the Riverina division will be seen from the following statement, corresponding to those given already for the other divisions of the State:—

TABLE 14.—Temperature and Rainfall—Western Plains.

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual, 1218-1937.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina ... ..	345	430	67·8	81·5	53·5	27·7	120·0	22·0	14·37
Bourke ... ..	386	350	69·1	83·2	54·1	27·7	125·0	25·0	11·87
Wilcannia ... ..	473	246	66·5	80·0	52·5	26·6	120·8	21·8	9·27
Broken Hill ... ..	555	1,000	64·5	77·2	51·4	23·2	115·9	27·0	8·70
Condobolin ... ..	227	700	64·9	78·5	51·0	26·8	120·0	20·0	15·93
Wentworth ... ..	478	144	63·8	75·8	51·8	24·1	117·0	21·0	10·22
Hay ... ..	309	291	62·7	75·2	50·1	26·7	117·3	22·9	13·62
Deniliquin .. ..	287	268	61·8	74·1	49·7	24·2	116·5	22·0	15·59

#### METEOROLOGICAL CONDITIONS DURING 1937 AND 1938.

The rainfall during 1937 was below normal in the greater part of New South Wales, the districts which received falls above the average being the south-western corner and parts of the coastal division. The autumn and winter months were dry—especially April and May, when there was a general deficiency throughout the State. Useful rains fell in June and August and, in the southern areas, in September and October. The closing months of the year were dry and warm.

In Sydney rain fell on 157 days and the aggregate—52 inches—was nearly 5 inches above normal. In March the rainfall was the greatest since 1926 and in June it was only half an inch below the maximum recorded for this month.

There were useful rains in many districts in January and February, 1938, but the falls were generally inadequate, and unfavourable conditions were aggravated by dry warm weather in March. Consequently, drought prevailed in the greater part of the State, exceptions being the northern coastal areas where the summer and autumn rains had been heavy. The position was relieved in the central and northern inland districts during May, and the southern tablelands and south western slopes received normal rains in April and June. With the approach of spring, the rainfall in August—above normal in nearly all divisions—was highly beneficial for crops and pastures. At this time copious rains fell in the catchment areas for the metropolitan water supply and replenished the storages which had been heavily depleted during a protracted period of dry weather.

In October the greater part of the State including the wheat districts received valuable rains. Otherwise the spring and summer months were dry with high temperatures. In January, 1939, the rainfall was above normal in the northern section of the State and in February the Riverina and south-western districts which had experienced a long period of deficient rainfall were relieved.

#### OBSERVATORY.

Sydney Observatory, lat.  $33^{\circ} 51' 41.1''$  south, long.  $151^{\circ} 12' 17.8''$  east, established in the year 1856, is a State institution. The work of the Observatory is astronomical, and the principal instruments are the transit circle, astrograph, equatorial, and seismograph. The principal scientific work is the determination of the position, distribution, and movement of stars in the region allotted to Sydney (viz.,  $52^{\circ}$  to  $65^{\circ}$  south declination) in the great international scheme. In addition, occasional observations, such as those of comets, are made with the equatorial, and systematic records of earth tremors are sent to the Earthquake Committee of the British Association for the Advancement of Science, and the principal seismological stations throughout the world. Practical work embraces the determination and notification of the standard time of the State; correspondence of an educational nature on astronomical matters, and reception of visitors interested in astronomy.

#### STANDARD TIME.

The mean time of the 150th meridian of east longitude, or 10 hours east of Greenwich, has been adopted as the standard time in New South Wales, which is, therefore, 10 hours ahead of the standard time in England. For general purposes, however, legal time in Great Britain is one hour in advance of Greenwich Mean Time during the summer months in that country.

In the district of Broken Hill, South Australian standard time is generally observed, viz.,  $142\frac{1}{2}^{\circ}$  of east longitude, or 9 hours 30 minutes east of Greenwich. In the States of Queensland, Victoria, and Tasmania, the standard time is the same as in New South Wales. In Western Australia the standard time is the  $120^{\circ}$  of east longitude, or 8 hours east of Greenwich.

#### TIDES.

A self-recording tide-gauge has been in operation at Fort Denison, in Port Jackson, since 1867. The tidal datum adopted is low water, ordinary spring tide. Taking this as zero, the mean sea-level is 2.52 feet; ordinary low water, 0.78 feet; ordinary high water, 4.20 feet; and the mean daily range is 3 feet 5 inches. The lowest tide was recorded on 16th July, 1916, when the gauge fell 1 foot 3 inches below datum. The highest tide was recorded on 26th May, 1880, viz., 7 feet  $6\frac{1}{2}$  inches; in 1876 the gauge recorded 7 feet  $4\frac{1}{2}$  inches on 22nd June, and 7 feet 3 inches on 21st July. On 3rd August, 1921, the gauge registered 7 feet 2 inches, and on that day occurred the greatest tidal range on record—6 feet  $9\frac{1}{2}$  inches.

At Port Hunter the average rise and fall of ordinary tides is 3 feet 3 inches, and of spring tides 5 feet  $4\frac{1}{2}$  inches; the greatest range being 6 feet 5 inches. The highest tide registered was 7 feet 4 inches in May, 1898.

On the coast the average rise of spring tides is 5 feet 6 inches approximately.

## CONSTITUTION AND GOVERNMENT.

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**T**HERE are in New South Wales three administrations, viz., the Federal, whose seat is in the Australian Capital Territory at Canberra, controls matters affecting the interests of Australia as a whole; the State, located in Sydney, deals with the more important questions of State and local interest; and the Local Government bodies, with headquarters at convenient centres within their respective areas, control matters of purely local concern in these areas which extend over nearly two-thirds of the State.

The State Government is the oldest, dating in its present form from 1856. Its constitution was modified in 1901, when the Federal Government was established; in 1906, when Local Government was extended over its present area; and in 1934 when the Legislative Council was changed from a nominee to an indirectly elected chamber.

The constitution of the Local Government bodies and certain corporate bodies under the Crown and the powers exercised by them are described in the chapter "Local Government" of this Year Book.

### SYSTEM OF STATE GOVERNMENT.

The Constitution of New South Wales is not framed completely in the Constitution Act of 1902-1937, and is not entirely written. It is drawn from several diverse sources, viz., certain Imperial statutes, such as the Colonial Laws Validity Act (1865) and the Commonwealth of Australia Constitution Act (1900); the Letters Patent and the Instructions to the Governor; an element of inherited English law; some federal statutes, including amendments to the Commonwealth of Australia Constitution Act; certain State statutes; numerous legal decisions; and a large element of English and local convention.

The Imperial Parliament is legally omnipotent in local as well as in imperial affairs, and it may exercise effective control over the affairs of the State by direct legislation. The Statute of Westminster, passed by the Imperial Parliament in 1931, made provision for the removal of certain restrictions on the legislative autonomy of the British Dominions. It provided also that laws of the Parliament of the United Kingdom would cease to have effect in the Dominions unless enacted on the request and by the consent of the Parliaments and Governments concerned. The provisions of the statute have not yet been adopted by the Commonwealth Parliament.

Imperial legislation forms the basis of the Constitution, and the Imperial Parliament regulates all matters of Imperial concern in addition to controlling the extensive powers vested in the Crown by virtue of its prerogative. These include such important matters as foreign relations in peace and war, and control of the forces. The Commonwealth, however, is a member State of the League of Nations, whose representative attends the League Assembly under the sole authority of the Commonwealth Government without any intervention by the Imperial Government or powers from the King in his Imperial capacity. It also has distinct status in the Permanent Court of Arbitration and plenary powers to approve conventions, whilst treaties concluded by the Imperial Government affecting Australia are subject to ratification by the Parliament of the Commonwealth. Thus, the question



of dominion sovereignty has become one of great complexity. It is apparent that, in the determination of its international relationships, the powers of the Commonwealth have expanded.

Matters of Imperial concern are discussed at Imperial conferences, attended by representatives of the British Government and Governments of the Empire. Such conferences, though without constitutional powers, facilitate agreements which may subsequently be validated by the Parliaments of the political units affected, and provide media for the discussion of matters of common interest.

In local affairs the prerogatives of the Crown are generally exercised by the Governor on the advice of the Executive Council, but when Imperial interests are involved the prerogative powers are exercised through the medium of the Privy Council, the Secretary of State for the Colonies, and the Governor.

#### *The Governor.*

In New South Wales the position of the Governor is primarily that of local representative of the Crown, and through him the powers of the Crown in matters of local concern are exercised. In addition he is titular head of the Government of New South Wales; he possesses powers similar to those of a constitutional sovereign, and he performs the formal and ceremonial functions which attach to the Crown in its august capacity.

His constitutional functions are defined and regulated partly by various statutes, which from time to time cast new duties upon him, partly by the Letters Patent constituting his office, and partly by the Instructions to the Governor. The Letters Patent and Instructions were given under the Royal Sign Manual in 1900, and amended in 1909.

These functions cover a wide range of important duties, and it is directed that "in the execution of the powers and authorities vested in him the Governor shall be guided by the advice of the Executive Council." This provision, however, is modified by the further direction that if, in any case the Governor should see sufficient cause to dissent from the opinion of his Ministers, he may act in the exercise of his powers and authority in opposition to the opinion of his Ministers, reporting the matter to His Majesty through the Secretary of State for the Dominion without delay. The extent of the Governor's powers, however, tends to contract, though he possesses important spheres of discretionary action, *e.g.* in regard to dissolution of Parliament. Moreover, he is entitled to full information on all matters to which his assent is sought, and in this way he may exercise a general supervision over his officers, and use his personal influence for the good of the State. The general nature of his position is such that he is guardian of the Constitution and bound to see that the great powers with which he is entrusted are not used otherwise than in the public interest. In extreme cases his discretion constitutes a safeguard against malpractice.

His more important constitutional duties are to appoint the Executive Council and to preside over its deliberations; to summon, prorogue, and dissolve the Legislature; to assent to, refuse to assent to, or reserve bills passed by the Legislature; to keep and use the Public Seal of the State; to appoint all ministers and officers of State; and, in proper cases, to remove and suspend officers of State. He exercises the King's prerogative of mercy, but only on the advice of the Executive Council in capital cases, and of a Minister of the Crown in other cases.

With respect to responsibility for his actions the Governor does not occupy the same position as the King. He is amenable to the law; and, although the State accepts responsibility for his official acts, he is personally liable for his unofficial actions, civil and criminal. Politically he is indirectly responsible to the Imperial Parliament through the Secretary

of State for the Dominions, but in State politics he usually acts on the advice of his Ministers, and they take the responsibility for their advice. However, in an extreme case if good reason existed the local Legislature might be justified in asking for his removal.

The Governor's normal term of office is five years. His salary is £5,000 per annum, which, with certain allowances, is provided in terms of the Constitution Act out of the revenues of the State.

The periods for which the Governor may absent himself from the State are limited by the Instructions. When he is absent the Lieutenant-Governor acts in his stead in all matters of State. For this purpose the Chief Justice is usually appointed. In the event of the Lieutenant-Governor not being available to fill the Governor's position, an Administrator assumes office under a dormant Commission appointing the Senior Judge of the State as Administrator.

Captain the Right Honourable John de Vere Baron Wakehurst, K.C.M.G., assumed the office of Governor on 8th April, 1937. Sir Frederick Richard Jordan, K.C.M.G., is Lieutenant-Governor and Chief Justice of New South Wales.

#### *The Executive.*

All important acts of State are performed or sanctioned by the Governor-in-Council, and, except in the limited spheres where the Governor possesses discretionary powers, he is required, in matters of local concern, to act on the advice of the Executive Council or of a Minister of the Crown.

The Council is established by virtue of the Letters Patent constituting the office of Governor, and it is composed of such persons as the Governor is pleased to appoint. Its members are invariably members of the Ministry formed by the leader of the dominant party in the Legislative Assembly. When a member resigns from the Ministry he resigns also from the Executive Council, otherwise he may be dismissed by the Governor.

The Executive Council meets only when summoned by the Governor, who is required by his Instructions to preside over its deliberations unless absent for "some necessary or reasonable cause." In his absence the Vice-President presides.

#### *The Ministry or Cabinet.*

In New South Wales the terms "Ministry" and "Cabinet" are synonymous, since both bodies by custom consist of those members of Parliament chosen to administer departments of State, and to perform other executive functions. The Ministry is answerable to Parliament for its administration, and it continues in office only so long as it commands the confidence of the Legislative Assembly, from which nearly all its members are chosen. An adverse vote in the Legislative Council does not affect the life of the Ministry. The constitutional practices of the Imperial Parliament with respect to the appointment and resignation of ministers have been adopted tacitly with some minor modifications. Cabinet acts in a similar way to the English Cabinet under direction of the Premier, who supervises the general legislative and administrative policy and makes all communications to the Governor.

Frequent meetings of Cabinet are held to deliberate upon the general policy of the administration, the more important business matters of the State, and the legislative measures to be introduced to Parliament, and to manage the financial business of the State. Its decisions are carried into effect by the Executive Council or by individual Ministers as each case requires.

Administrative matters of minor importance are determined by ministerial heads of departments without reference to the Executive Council, and every Minister possesses considerable discretionary powers in the ordinary affairs of his department.

The Ministry in office in May, 1939, consists of the following members:—

- Premier—The Hon. B. S. B. Stevens, M.L.A.
- Deputy Premier and Minister for Transport.—Lieut.-Col., The Hon. M. F. Bruxner, D.S.O., M.L.A.
- Attorney-General and Vice-President of the Executive Council—The Hon. Sir H. E. Manning, K.B.E., K.C., B.A., LL.B., M.L.C.
- Secretary for Public Works and Minister for Local Government.—The Hon. E. S. Spooner, M.L.A.
- Minister for Education.—The Hon. D. H. Drummond, M.L.A.
- Minister of Justice.—The Hon. L. O. Martin, B.A., LL.B., M.L.A.
- Minister for Health.—The Hon. H. P. FitzSimons, M.L.A.
- Minister for Labour and Industry.—The Hon. H. M. Hawkins, M.L.C.
- Colonial Secretary.—The Hon. G. C. Gollan, M.L.A.
- Secretary for Lands.—The Hon. C. A. Sinclair, B.A., LL.B., M.L.A.
- Minister for Agriculture.—Major the Hon. A. D. Reid, M.C., M.L.A.
- Colonial Treasurer.—The Hon. A. Mair, M.L.A.
- Minister for Social Services.—The Hon. A. Richardson, M.L.A.
- Secretary for Mines and Minister for Forests.—The Hon. R. S. Vincent, M.L.A.

The salaries of Ministers as fixed by statute in 1925 were reduced by 15 per cent. as from 1st April, 1930, and further reductions were made in August, 1931, and December, 1932. The rates were restored to the former level on 1st July, 1938, as shown below:—

TABLE 15.—Salaries of State Ministers.

Ministers.	As from 1st July, 1925.	As from 1st April, 1930.	As from 7th Aug., 1931.	As from 1st Dec., 1932.	As from 1st July, 1938.
	£	£	£	£	£
The Premier . . . . .	2,445	2,078	1,800	1,710	2,445
The Attorney-General . . . . .	2,095	1,781	1,564	1,486	2,095
The Vice-President of the Executive Council (and leader of the Government in the Legislative Council) . . . . .	1,375	1,169	1,072	1,018	1,375
Other Ministers of the Crown . . . . .	17,505	14,879	13,167	12,510	17,505
Total . . . . .	23,420	19,907	17,603	16,724	23,420

These amounts include the annual allowances paid to Ministers as members of the Legislative Assembly.

THE STATE LEGISLATURE.

The State Legislature consists of the Crown and two Houses of Parliament, and all State laws (except in the event of disagreement between the Houses—see page 24) are enacted “by the King’s Most Excellent Majesty, by and with the advice and consent of the Legislative Council and the Legislative Assembly in Parliament assembled.” It exercises a general power of legislation, and possesses plenary and not delegated authority. The Constitution Act of 1902 provides that “the Legislature shall, subject to the provisions of the Commonwealth of Australia Constitution Act, have power to make laws for the peace, welfare, and good government of New South

Wales in all cases whatsoever." It can delegate its powers, and within its territory its actions are restricted only by legislation of the Imperial Parliament intended to apply to New South Wales, and by valid federal enactments.

The two Houses of Parliament are the Legislative Council (or Upper House), and the Legislative Assembly (or Lower House). Their powers are nominally co-ordinate, but it is provided that bills appropriating money or imposing taxation and bills affecting itself must originate in the Legislative Assembly, which is the chamber elected by general franchise, and controls taxation and expenditure. Moreover, the responsibility of the Ministry for financial measures is secured by a provision of the Constitution Act that the Legislative Assembly may not appropriate any part of the Consolidated Revenue Fund or of any other tax or impost for any purpose unless it has first been recommended by a message of the Governor to the Assembly during the current session.

Every member of Parliament must take an oath or make an affirmation of allegiance.

By virtue of the Constitution Act it is a function of the Governor to summon, prorogue, and dissolve Parliament, but it is provided that both Houses shall meet at least once in every year, so that a period of twelve months shall not elapse between sessions. The continuity of Parliament is ensured by law. The Parliamentary Electorates and Elections Act, passed in 1912 and amended in subsequent years, provides that writs for the election of new members must be issued within four days after the dissolution of the Legislative Assembly, that they must be returned within sixty days after issue (unless otherwise directed by the Governor), and that Parliament shall meet within seven days of the return of writs. The duration of Parliament was limited to three years in 1874.

It is agreed tacitly that the procedure of each House shall be conducted according to its prototype in the Imperial Parliament, but comprehensive standing orders for regulation of the business of each House have been drawn up. Provision has been made under the Constitution Act, 1902, as amended by the Constitution Amendment (Legislative Council) Act, No. 2 of 1933, to meet cases of disagreement arising between the two Houses, eliminating the possibility of a deadlock. The procedure to be followed is described on page 24.

With the consent of the Legislative Council, any member of the Legislative Assembly who is an Executive Councillor may sit in the Upper House for the purpose of explaining the provisions of bills relating to or connected with the Department administered by him. He may take part in debate and discussion, but may not vote in the Legislative Council.

Much interest and some controversy has centred around the powers of the Governor in granting a dissolution of Parliament. Strictly speaking, only the Legislative Assembly is dissolved, but Parliament is ended thereby, because both Houses are necessary to constitute a Parliament. The main cases in which a dissolution may be granted arise when, on a question of policy, the Ministry sustains an adverse vote in the Legislative Assembly, and when the Legislative Assembly becomes factious, or will not form a stable administration.

### *The Legislative Council.*

The Legislative Council was a nominee chamber, consisting of a variable number of members appointed for life without remuneration, until 1934 when it was reconstituted in terms of the Constitution Amendment (Legislative Council) Act, No. 2 of 1933.

Prior to the change, the Constitution Act was amended to prescribe that a bill for abolition of the Upper House or for the alteration of its constitution or powers may not be presented for Royal Assent until it has been approved by the electors at a referendum at least two months after the bill has been passed by Parliament.

Following the general elections in June, 1932, the new Government passed legislation to give the Council its present form, and the bill was approved by the electors at a referendum taken on 13th May, 1933. A measure to give effect to the decision of the electors was unsuccessfully contested in the Courts, and received Royal Assent on 25th September, 1933.

The Legislative Council, as reconstituted on 23rd April, 1934, consists of sixty elected members, whose services are rendered without remuneration. The members of the Legislative Assembly and the Legislative Council comprise the "electorate." They record their votes at simultaneous sittings of both Houses. Voting is by secret ballot. Casual vacancies are filled by a like election. Contested elections in which more than one seat is to be filled are decided according to the principle of proportional representation, each voter having one transferable vote; but where only one member is to be elected, a preferential system is used.

Any man or woman who is entitled to vote at the election of members of the Legislative Assembly, and has been resident for at least three years in the Commonwealth of Australia, is eligible for election as a member of the Legislative Council, except that members of the Legislative Assembly are debarred. Membership of the Council is rendered void by the acceptance of any office of profit under the Crown, or of any pension from the Crown; but persons in receipt of pay, half pay, or pension by virtue of service in the Defence Forces, or office of profit in those services, together with holders of certain offices (including the office of Vice-President of the Executive Council) created by Act of Parliament as an office of the Executive Government, remain eligible for membership. The seats of members are rendered vacant by death, resignation, absence, acceptance of foreign allegiance, bankruptcy, acceptance of public contracts, or by criminal conviction. Candidature requires nomination with consent under the hand of two "electors", whilst each "elector" may sign only one nomination paper.

In the election of the first House of sixty members, four separate ballots were taken, and in each fifteen members were elected, the term of service being twelve years in the case of the fifteen first elected, and nine, six and three years respectively for each successive group. Thereafter one-fourth of the members are to be elected every three years at an election to take place during the period of six months immediately preceding the retirement of the fifteen members whose term of service is about to expire, and these members will serve for a term of twelve years. Members elected to fill casual vacancies will serve only for the unexpired period of the term of the vacant seat. An election to fill the fifteen seats which became vacant on 22nd April, 1937, was held on 8th December, 1936.

The presence of one-fourth of the members, exclusive of the President, is necessary to form a quorum. The Legislative Council is required to choose a President from amongst their number. He ceases to hold office

if he ceases to be a member of the Legislative Council, and may be removed from office by a vote of the Chamber, or he may resign his office. He receives a salary of £1,200 per annum. There is also a Chairman of Committees to whom a salary of £700 per annum is paid. Members of the Legislative Council are supplied with free passes on the State railways and tramways, covering the period of membership, and persons who were members of the Council prior to its re-constitution retain their passes for a period equivalent to the period of office as a Legislative Councillor.

In the case of disagreement between the Legislative Assembly and the Legislative Council in respect of money bills, the new constitutional provisions preserve the traditional right of the Legislative Assembly to control the purse. Bills relating to appropriations for annual services may be presented for Royal Assent with or without any amendment suggested by the Council, and may become Acts notwithstanding the failure of the Upper House to agree to them; but any provisions in any such Act dealing with any matter other than the appropriation may not become law.

To overcome disagreements in regard to bills (other than such Appropriation Bills) passed by the Legislative Assembly it is provided that the Legislative Assembly may pass the bill again after an interval of three months. If the Legislative Council rejects it again (or makes amendments unacceptable to the Legislative Assembly) and if a conference of managers appointed by the two Houses and a joint sitting of the two Houses fails to attain agreement, the Legislative Assembly may direct that the bill be submitted to a referendum of the electors. If approved by a majority of electors, the bill becomes law.

#### *The Legislative Assembly.*

The Legislative Assembly is the elective or popular House of Parliament, and is the most important factor in the government of the State. All bills appropriating any part of the public revenue, or for imposing any new rate, tax or impost, must originate in the Assembly, and by its power over Supply it ultimately controls the Executive. It consists of ninety members elected on a system of universal adult suffrage for a maximum period of three years. Any person who is enrolled as an elector of the State is eligible to be elected to the Legislative Assembly, except persons who are members of the Federal Legislature or of the Legislative Council, or who hold non-political offices of profit under the Crown, other than in the army or navy; but any officer of the public service of New South Wales may be elected to the Legislative Assembly on condition that he forthwith resigns his position in the service. All legal impediments to the election of women to the Legislative Assembly were removed in 1918. Several women have since contested seats at the elections; one sat in the 28th Parliament, and there is one woman in the present Legislative Assembly. The seat of a member becomes vacant in cases similar to those stated above for Legislative Councillors.

A Speaker presides over the House, and his election is the first business when the House meets after election. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and determines its procedure. There is also a Chairman of Committees elected by the House at the beginning of each Parliament; he presides over the deliberations of the House in Committee of the Whole, and acts as Deputy-Speaker.

Payment of members of the Legislative Assembly was introduced as from 21st September, 1889. The amount was fixed originally at £300 per annum. Subsequent changes are shown below:—

TABLE 16.—Payment to Members of the Legislative Assembly.

Date of Change.	Amount per annum. £	Date of Change.	Amount per annum. £
September, 1889 .. ..	300	April, 1930 .. ..	744
September, 1912 .. ..	500	August, 1931 .. ..	706
November, 1920 .. ..	870	December, 1932 .. ..	670
July, 1922 .. ..	600	July, 1938 .. ..	875
July, 1925.. ..	875		

Each member receives an official postage stamp allowance of £30 per annum and a free pass on State railways and tramways. The salary of the Speaker is £1,675, and of the Chairman of Committees £1,115 per annum. The leader of the Opposition receives an annual allowance of £250 in addition to his allowance as member.

STATE PARLIAMENTARY COMMITTEES.

A number of committees consisting of members of Parliament are appointed to deal with special matters connected with the business of the State and of either House; from time to time select committees are chosen to inquire into and report on specific matters for the information of Parliament and the public. Each House elects a committee to deal with its Standing Orders and with printing, and a joint committee to supervise the library. In addition there are the more important committees described below.

*Committees of Supply and of Ways and Means.*

These committees consist by custom of the whole of the members of the Legislative Assembly, and they deal with all money matters. The Committee of Supply debates and determines the nature and amount of the expenditure, and the Committee of Ways and Means debates and authorises the issue of the sums from the Consolidated Revenue Fund and frames the resolutions on which taxing proposals are based.

*Parliamentary Standing Committee on Public Works.*

The Public Works Act, 1912, and amendments provide for the constitution of a joint committee of members of the Legislative Council and Legislative Assembly, called the Parliamentary Standing Committee on Public Works, to be elected by ballot in every Parliament. Three of the persons to be elected must be members of the Legislative Council and four must be members of the Legislative Assembly.

The Act prescribes that proposals submitted to Parliament for public works of an estimated cost exceeding £20,000 (except necessary repairs and alteration of existing railway lines and works of water supply, sewerage and drainage) must be referred to the Committee for report.

The Committee has not been constituted since the commencement of the Parliament elected in 1930, and various public works have been excluded from this provision of the Public Works Act by the Acts authorising their construction.

*Public Accounts Committee.*

For the better supervision of the financial business of the State a Public Accounts Committee is elected by the Legislative Assembly in every Parliament, under provisions of the Audit Act, 1902, from among the members of the House, other than Ministers. It consists of five members, and is clothed with powers of inquiry into questions arising in connection with the public accounts and upon all expenditure by a Minister of the Crown made without Parliamentary sanction. It reports on such matters to the Legislative Assembly.

## COURT OF DISPUTED RETURNS.

The Parliamentary Electorates and Elections Act provides for the establishment of a Court of Disputed Returns—a jurisdiction conferred on the Supreme Court. The business of the Court is to inquire into and determine matters connected with election petitions and questions referred to it by the Legislative Assembly concerning the validity of any election or the return of any member, and questions involving the qualifications of members. The law in this respect has been made applicable to disputed elections of the Legislative Council.

Decisions of the Court are final, but must be reported to the House.

## COMMISSIONS AND TRUSTS.

In addition to the Ministerial Departments, various public services are administered by Commissions, Boards, and Trusts; the more important are:—

- Aborigines Protection Board.
- Board of Fire Commissioners of New South Wales.
- Commissioner for Main Roads.
- Commissioner for Railways.
- Commissioner for Road Transport and Tramways.
- Commissioner of Police.
- Electoral Commissioner.
- Forestry Commission.
- Homes for Unemployed Trust.
- Hospitals Commission.
- Housing Improvement Board.
- Hunter District Water Supply and Sewerage Board.
- Industrial Commission.
- Maritime Services Board.
- Metropolitan Meat Industry Commissioner.
- Metropolitan Water, Sewerage and Drainage Board.
- Milk Board.
- Prickly-pear Destruction Commission.
- Public Service Board.
- State Superannuation Board.
- Water Conservation and Irrigation Commission.
- Western Lands Commissioner.
- Workers' Compensation Commission.

In each case the authority controls a specific service, and administers the statute law in relation to it, subject to a limited degree of supervision by a Minister.



*Auditor-General.*

The Auditor-General is appointed by the Governor, and holds office during good behaviour. In certain cases he may be suspended by the Governor, but he is removable from office only on an address from both Houses of Parliament. He is required to take an oath that he will faithfully perform his duties, and he is debarred from entering political life. He is endowed with wide powers of supervision, inspection and audit in regard to the collection and expenditure of public moneys and the manner in which the public accounts are kept. He exercises control over the issue of public moneys, and all warrants must be countersigned by him. Matters connected with the public accounts are subject to special or annual report to Parliament by him, and he may refer any matter to the Public Accounts Committee.

*Agent-General in London.*

The State of New South Wales is represented in London by the Agent-General. As official representative he works in close co-operation with the High Commissioner for Australia, keeps the Government informed of political and economic developments overseas, seeks to promote trade with the United Kingdom and other countries, and generally acts as the agent of the State in London.

The office of the Agent-General is located at Wellington House, The Strand, London.

## STATE ELECTORAL SYSTEM.

The electoral system is controlled by the Electoral Commissioner—who is charged with the administration of the Act and legal provisions relating to the registration or enrolment of electors, the preparation of rolls and the conduct of elections of the Legislative Assembly and of referenda under the Constitution Amendment (Legislative Council) Act. The Electoral Commissioner holds office for seven years and is eligible for reappointment. He may be removed from office only by resolution of both Houses of Parliament or through performing some disqualifying action laid down in the law.

*Franchise.*

The elections of members of the Legislative Assembly are conducted by secret ballot. Adult British subjects, men and women, are qualified for enrolment as electors when they have resided in the Commonwealth for a period of six months, in the State for three months, and in any subdivision of an electoral district for one month preceding the date of claim for enrolment.

Persons are disqualified from voting who are of unsound mind or who have been convicted and are under sentence for an offence punishable in any part of the British Empire by imprisonment for one year or longer.

Each elector is entitled to one vote only. Compulsory enrolment was introduced in 1921, and compulsory voting came into force at the elections of 1930. Joint electoral rolls are compiled for State and Federal purposes.

*Electorates and Electors.*

The electoral law provides that electorates are to be redistributed whenever directed by the Governor. In the event of there being no direction by the Governor, a distribution must take place after the expiration of nine years from the date of the last redistribution. The redistribution is made by a special commission of three persons, viz., the Electoral Commissioner, the Government Statistician, and the Surveyor-General. The last redistribution was made in 1929.

For the purposes of the distribution it is prescribed by the Parliamentary Electorates and Elections (Amendment) Act of 1928 that the State must be divided into three parts, viz., the Sydney area, to which 43 seats are allotted, the Newcastle area 5 seats, and the country area 42 seats.

The following table shows certain particulars as to parliamentary representation for each year in which elections have been held since 1913. Similar information covering the period 1856 to 1916 was published in the 1931-32 edition of this Year Book at page 26:—

TABLE 17.—Parliamentary Representation in New South Wales, 1913 to 1938.

Year of Elections.	Number of Members of Legislative Assembly.	Population per Member.	Proportion of persons enrolled to Total Population.	Total Number of Electors qualified to Vote.	Average number of Electors per Member.
			per cent.		
1913	90	20,500	55·1	1,037,999	11,533
1917	90	21,000	58·5	1,109,830	12,331
1920	90	22,800	56·1	1,154,437	12,827
1922	90	23,950	58·0	1,251,023	13,900
1925	90	25,500	58·3	1,339,080	14,879
1927	90	26,700	58·6	1,409,493	15,661
1930	90	28,100	57·4	1,440,785	16,008
1932	90	28,700	56·8	1,465,008	16,278
1935	90	29,350	57·9	1,528,713	16,986
1938	90	30,200	59·2	1,607,833	17,865

Women voted for the first time in 1904, and since that year practically the whole of the adult population has been qualified to vote.

Elected under a similar franchise, the popular House comprises 65 members in Victoria, 62 members in Queensland and 39 members in South Australia, and the average number of electors per representative was respectively 17,486, 9,783, and 9,356 in these States at the latest elections for which figures are available.

A member of the Legislative Assembly of New South Wales is elected for each of the ninety electorates by a system of preferential voting. Voters must number the candidates in order of preference on the ballot-paper, and votes are informal unless preferences have been duly expressed for all candidates. In counting votes, the candidate is elected who has secured an absolute majority of votes either of first preferences outright, or of first preferences plus votes transferred to him in due order of preference by excluding in turn candidates with the lowest number of votes and re-alloting their votes according to the next preference indicated.

The following table shows the voting at the general elections of members of the Legislative Assembly of New South Wales in 1927 and later years. In the 1930-31 issue of the Year Book similar particulars are shown regarding each election since 1894, when a system based on single electorates and

the principle of "one man one vote" was introduced. The number of electors as stated represents the number qualified to vote:—

TABLE 18.—Voting at General Elections—Legislative Assembly of New South Wales.

Year of Election.	Electors Enrolled (whole State).	Contested Electorates.					
		Electors Enrolled.	Votes Recorded.		Informal Votes		
			Number.	Percentage.	Number.	Percentage	
1927	Men ...	714,886	706,316	*591,820	*83·8	15,986	1·08
	Women ...	694,607	687,938	*558,957	*81·2		
	Total ...	1,409,493	1,394,254	1,150,777	82·5		
1930	Men ...	724,471	717,999	682,747	95·1	15,947	1·17
	Women ...	716,314	710,649	673,676	94·8		
	Total ...	1,440,785	1,428,648	1,356,423	94·9		
1932	Men ...	739,019	715,661	690,094	96·4	30,260	2·21
	Women ...	725,999	702,480	676,993	96·4		
	Total ...	1,465,008	1,418,141	1,367,087	96·4		
1935	Men ...	769,220	679,388	654,383	96·1	39,333	2·92
	Women ...	759,493	668,496	640,369	95·6		
	Total ...	1,528,713	1,347,884	1,294,752	95·8		
1938	Men ...	803,517	633,079	608,727	96·1	32,237	2·65
	Women ...	804,316	635,901	606,767	95·4		
	Total ...	1,607,833	1,268,980	1,215,494	95·8		

\* Estimated, only partly recorded.

Prior to the introduction of compulsory voting at the election of 1930, the proportion of electors who failed to record their votes was large, even if due allowance were made for obstacles to voting. The proportion of votes to enrolment under the voluntary system was highest in 1927, and the lowest 56.2 per cent. was recorded in 1920. Under the compulsory system about 96 per cent. of electors record their votes.

The number of women enrolled in 1938 exceeded the number of men, but the number of women who voted at the general elections was the smaller.

At general elections polling is conducted on the same day in all electorates. Polling-day is a public holiday from noon, and the hotels are closed during the hours of polling (8 a.m. to 8 p.m.).

Electors absent from their districts are permitted to record their votes at any polling-place in the State, such votes being designated "absent votes." Postal voting is provided for in the case of persons precluded from attendance at any polling-place by reason of illness or infirmity, being distant over 10 miles, or travelling.

Since the elections of 1930 an elector, who is not enrolled or whose name has been marked as having voted, may in certain circumstances vote after making a declaration that he has not already voted. Votes recorded under this provision are known as "section votes."

The appended table shows the extent to which the franchise has been exercised by absentee and other voters at general elections in recent years:—

TABLE 19.—General Elections—Legislative Assembly of N.S.W.—Absentee and Postal Votes.

Votes Recorded. (Contested Electorates).	1927.	1930.	1932.	1935.	1938.
Absent Votes ...	64,871	97,958	87,578	92,583	98,535
Postal Votes ...	9,289	15,947	19,649	19,080	21,069
"Section" Votes ...	...	6,757	3,513	2,975	1,937
All Votes ...	1,150,777	1,356,423	1,367,087	1,294,752	1,215,494

*State Parliaments.*

A list of the Parliaments from 1889, when payment of members was instituted, up to December, 1913, appeared in the 1931-32 issue of this Year Book. A list of Parliaments since 1913 is appended:—

TABLE 20.—Parliaments of New South Wales Since 1913.

Number of Parliament.	Return of Writs.	Date of Opening.		Date of Dissolution.		Duration.			Number of Sessions.
						yrs.	mths.	dys.	
23	23 and 29 Dec., 1913* ...	23 Dec.	1913...	21 Feb.	1917...	3	1	29	5
24	10, 16, and 23 April, 1917* ...	17 April	1917 ..	18 Feb.	1920...	2	10	8	4
25	21 April, 1920...	27 April	1920 ..	17 Feb.	1922...	1	10	25	3
26	19 April, 1922...	26 April	1922...	18 April	1925†	3	0	0	5
27	20 June, 1925...	24 June,	1925...	7 Sept.,	1927...	2	2	17	5
28	29 Oct., 1927...	3 Nov.,	1927...	18 Sept.,	1930...	2	10	22	4
29	21 Nov., 1930...	25 Nov.,	1930...	13 May,	1932...	1	5	23	1
30	30 June, 1932...	23 June.,	1932...	12 April,	1935...	2	9	20	4
31	10 June, 1935...	12 June,	1935...	24 Feb.	1938...	2	8	12	4
32	26 April, 1938 ..	12 April,	1938 ..						

\* Under system of second ballot, where no candidate received an absolute majority of votes at first ballot.  
† Expired by effluxion of time.

The normal duration of Parliament is three years. Unless previously dissolved Parliament expires by effluxion of time three years after the day prior to the original date of the return of the writs.

On account of war conditions and the disturbed state of public affairs, the Legislative Assembly Continuance Act, 1916, was passed to provide for an extension of the term of the 23rd Parliament to four years. The Parliament, however, terminated after three years and sixty days.

*State Ministries.*

The various Ministries which have held office since 1913, together with the duration in office of each, are shown below. The life of a Ministry is not co-terminous with the life of a Parliament. In eighty-two years under the present system there have been forty-nine Ministries, but only thirty-two Parliaments. Up to 29th June, 1913, thirty-four Ministries had held office.

TABLE 21.—Ministers of New South Wales Since 1913.

Number.	Ministry. Name of Premier and Party.	In Office.		Duration. yrs. mths. days.
		From—	To—	
35	Holtman (Labour) ...	30 June 1913	15 Nov. 1916	3 4 16
36	Holtman (National) ...	16 Nov. 1916	12 April 1920	3 4 27
37	Storey (Labour) ...	13 April 1920	10 Oct. 1921	1 5 27
38	Dooley (Labour) ...	10 Oct. 1921	20 Dec. 1921	0 2 11
39	Fuller (National) ...	20 Dec. 1921	20 Dec. 1921	About 7 hours.
40	Dooley (Labour) ...	20 Dec. 1921	13 April 1922	0 3 24
41	Fuller (National)* ...	13 April 1922	17 June 1925	3 2 4
42	Lang (Labour) ..	17 June 1925	26 May 1927	1 11 9
43	Lang (Labour)† ...	27 May 1927	18 Oct. 1927	0 4 22
44	Bavin (National)* ...	19 Oct 1927	3 Nov. 1930	3 0 16
45	Lang (Labour) ..	4 Nov. 1930	13 May 1932	1 6 10
46	Stevens (National)* ...	13 May 1932	18 June 1932	0 1 6
47	Stevens (United Australia)*	18 June, 1932	11 Feb. 1935	2 7 25
48	Stevens (United Aust.) *†	11 Feb. 1935	13 April 1938	3 2 2
49	Stevens (United Aust.)* ...	13 April 1938	†	†

\* And Country Party.

† Reconstruction.

‡ In Office.

COST OF STATE PARLIAMENTARY GOVERNMENT.

The following statement shows the cost of State Parliamentary Government in New South Wales during recent years. Expenses of federal and local government are not included:—

TABLE 22.—Cost of State Parliamentary Government.

Head of Expenditure.	1915-16.	1925-26.	1930-31.	1935-36.	1937-38.
	£	£	£	£	£
<b>Governor—</b>					
Salary ... ..	5,000	5,000	5,000	\$ 4,259	5,000
Salaries, etc., of Staff... ..	3,549	4,028	3,518	2,720	2,977
Other expenses ... ..	1,547	1,945	1,095	3,554	19,539
	10,096	10,973	9,613	10,533	27,516
<b>Executive Council—</b>					
Salaries of Officers ... ..	...	570	716	337	440
Other expenses ... ..	...	333	3	38	51
	...	903	719	375	491
<b>Ministry—</b>					
Salaries of Ministers ... ..	11,040	23,420	19,907	16,924	16,724
Other ... ..	5,244	1,078	15	6,365	1,616
	16,284	24,498	19,922	23,289	18,340
<b>Parliament—</b>					
<b>Legislative Council—</b>					
Salaries of President and Chairman of Committees ...	1,220	1,900	1,615	1,511	1,592
Railway passes for Members ...	6,070	15,906	16,855	11,301	11,558
Postage for Members ... ..	...	...	60	40	40
<b>Legislative Assembly—</b>					
Salaries of Speaker and Chairman of Committees ... ..	1,740	2,790	2,198	2,056	1,905
Allowances to Members* ...	40,335	67,417	57,853	52,392	52,402
Railway passes for Members ...	10,387	17,462	18,709	18,012	17,958
Postage for Members ... ..	1,770	2,700	2,704	2,699	2,688
<b>Both Houses—Joint expenditure—</b>					
<b>Standing Committee on Public Works—</b>					
Remuneration of Members ...	3,599	3,966	1,050	...	...
Salaries of Staff and contingencies ... ..	2,626	2,145	1,732	592	682
Salaries of Reporting Staff ...	included	8,269	7,564	7,470	8,334
Library—Salaries of Staff ...	in	2,541	2,982	2,622	3,031
Contingencies... ..	" other "	942	1,051	911	911
Other Salaries of Staff ... ..	below.	23,516	26,029	22,107	26,023
Printing—Hansard ... ..	6,689	6,189	5,677	4,741	2,744
Other ... ..	14,967	13,562	10,981	9,487	11,197
Other Expenses ... ..	24,490	5,478	2,456	7,373	20,873
	113,893	174,783	159,516	143,314	161,938
<b>Electoral—</b>					
Salaries ... ..	1,123	2,104	3,956	2,100	2,404
Contingencies ... ..	56,491 †	8,195	54,448	3,182	40,992
	57,614	10,299	58,404	5,282	43,396
<b>Royal Commissions and Select Committees</b>	4,114	7,790	720	7,110	9,192
<b>Grand Total ... ..</b>	£ 202,001	229,246	248,894	189,903	260,873
<b>Per head of population ... ..</b>	2s. 2d.	1s. 11'7d.	1s. 11'4d.	1s. 5'1d.	1s. 11'0d.

\* Excluding salaries of Ministers, Speaker, and Chairman of Committees. † Includes Liquor Referendum, £30,244. ‡ Governor, £2,796; Lieut.-Governor, £1,463.

In the case of some items of expenditure included above there is not a clear line of demarcation between costs incurred in respect of parliamentary government and the costs of ordinary administration. This applies particularly to the salaries and expenses of ministers of the Crown who fill dual roles as administrative heads and parliamentary representatives, and to the cost of Royal Commissions, which, in many cases, are partly administrative inquiries. In the absence of any means of dissecting the expenditure of this nature these items have been treated as incidental to the system of parliamentary government. On the other hand such factors as the costs of ministerial motor cars and the salaries of ministers' private secretaries are omitted from account as appertaining mainly to administration.

The foregoing statement does not, however, represent the total cost of parliamentary government in New South Wales, because it excludes the cost of the Commonwealth Government. During the year 1937-38 this amounted to £564,096 for the whole Commonwealth. It included the cost of general elections, and was equivalent to 1s. 8d. per head of population.

### THE COMMONWEALTH.

The federation of the six Australian States was inaugurated formally on 1st January, 1901, for their mutual benefit in matters upon which it was agreed that joint action was desirable. A detailed account of the inauguration of Federation and the nature and functions of the Federal Parliament in their relation to the State was published in the Year Book for 1921 at pages 38-40 and 625. The broad principles of federation were:—The transfer of limited and defined powers of legislation to a Federal Parliament consisting of a Senate and a House of Representatives, the former being a revisory chamber wherein the States are equally represented, and the latter, the principal chamber, consisting of members elected from the States in proportion to their population; complete freedom of action for the State Parliaments in their own sphere; a High Court to determine the validity of legislation; and an effective method of amending the constitution. State laws remain operative in all spheres until superseded by laws passed by the Federal Parliament in the exercise of its assigned powers. State laws, however, are invalid only to the extent of their inconsistency with valid federal enactments.

The Senate consists of 36 members, six being elected in each State.

It is prescribed by the Constitution Act that the number of members in the House of Representatives shall be as nearly as practicable twice the number of senators. The number to be elected in each State is determined in the following manner: A quota is ascertained by dividing the number of people of the Commonwealth by twice the number of senators, then the number of the people of each State is divided by the quota. The result indicates the number of representatives for each State, one more member being chosen if on the division there is a remainder greater than one-half of the quota. It is provided also that at least five members shall be elected in each original State. The representation of the States may be adjusted in every fifth year.

The number of representatives elected from the various States to the House of Representatives in 1937 was as follows:—New South Wales, 28; Victoria, 20; Queensland, 10; South Australia, 6; Western Australia, 5; Tasmania, 5. In addition, one representative of the Northern Territory was elected to attend and participate in debates without having the right to vote except on a motion for the disallowance of any ordinance of the Northern Territory or on an amendment of any such motion.

For the purpose of electing representatives to the Senate of the Federal Parliament, each State is treated as one constituency, returning six members each for six years, three of whom retire triennially. The members of the House of Representatives are elected for three years from single-member constituencies. The system of voting is preferential, and the electoral system is similar to that of the State. Compulsory voting was introduced in 1924.

The voting at elections of members of the House of Representatives from New South Wales since 1913 is shown below. Details relating to elections prior to 1913 appear in the 1931-32 edition of this Year Book at page 32:—

TABLE 23.—General Elections—Federal House of Representatives—  
Voting in New South Wales.

Year.	Electors Enrolled (Contested Divisions only).		Votes Recorded.		Percentage of Votes Re- corded to Electors Enrolled.			Informal Votes.	
	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Number.	Proportion per cent.
1913	554,028	482,159	405,152	312,703	73·13	64·85	69·28	22,262	3·10
1914	491,086	429,906	351,172	257,581	71·51	59·92	66·10	14,816	2·43
1917	484,854	447,437	370,618	292,925	76·44	65·47	71·17	19,874	2·98
1919	527,779	508,129	385,614	308,183	73·06	60·65	66·97	26,517	3·82
1922	517,388	498,209	330,362	230,980	63·85	48·17	56·16	25,823	4·53
1925	640,533	627,214	581,678	563,215	90·81	89·80	90·31	21,389	1·87
1928	584,545	576,857	547,095	534,817	93·59	92·71	93·16	52,229	4·83
1929	624,068	614,550	591,438	583,007	94·77	94·87	94·82	33,158	2·82
1931	722,480	710,672	689,905	671,786	95·49	94·53	95·01	48,824	3·59
1934	771,456	759,973	739,222	728,090	95·82	95·80	95·81	48,801	3·33
1937	744,004	742,827	720,032	717,384	96·78	96·57	96·68	33,052	2·22

At the Senate elections of 1937, the total number of votes cast in New South Wales was 1,542,829 of which 136,841 or 8.87 per cent. were informal. Included in the votes cast were 1,392,516 ordinary votes, 25,867 postal, 121,740 absent, 2,502 under section 121 (persons whose names were not on roll by reason of error, etc.), and 204 other declaration votes. The proportion of votes recorded to electors enrolled was 96.65 per cent.

#### FEDERAL REFERENDA.

Analyses of the voting on federal questions previously submitted to referenda were shown in the 1921 edition of this Year Book at page 42, in the 1926-27 edition at page 47, and in the 1931-32 edition at page 32.

Two proposals for alteration of the Federal Constitution were submitted to the electors of Australia by referenda on 6th March, 1937. The bills to which approval was sought were (i) Constitution Alteration (Aviation) 1936, to confer upon the Commonwealth complete control over air navigation and aircraft within Australia; and (ii) Constitution Alteration (Marketing) 1936, to provide that the provisions of Section 92 of the Commonwealth of Australia Constitution Act, that trade, commerce and intercourse among the States shall be absolutely free, should not apply to laws with respect to marketing made by the Commonwealth Parliament and otherwise within its constitutional powers.

Voting was compulsory, and in New South Wales 94.26 per cent. of the electors recorded votes. Ballot papers were issued to 1,461,860 of the total number of 1,550,947 electors enrolled at date of the referenda, and comprised 1,290,456 ordinary votes, 19,909 postal votes, 148,008 absent votes, 3,325 votes by persons whose names were omitted from rolls by reason of error, etc., and 162 other declaration votes. The proportion of informal votes was high—3.79 per cent. in New South Wales and 4.02 per cent. for the Commonwealth on the aviation question and 7.43 per cent. and 7.22 per cent., respectively, in respect of the marketing proposal.

The voting was as follows:—

TABLE 24.—Federal Referenda—Aviation and Marketing Bills—  
Voting, 1937.

Heading.	Votes cast.				Proportion of Effective Votes.	
	For.	Against.	Informal.	Total.	For.	Against.
Aviation—						
New South Wales...	664,589	741,821	55,450	1,461,860	47.25	52.75
Commonwealth ...	1,924,946	1,669,062	150,355	3,744,363	53.56	46.44
Marketing—						
New South Wales...	456,802	896,457	108,601	1,461,860	33.76	66.24
Commonwealth ...	1,259,808	2,214,388	270,167	3,744,363	36.26	63.74

Both proposals were rejected. Although in the Commonwealth as a whole there was a majority favouring the aviation proposals, only two States (Victoria and Queensland) recorded affirmative majorities. The marketing proposals were negatived in every State.

#### SEAT OF FEDERAL GOVERNMENT.

The seat of Federal Government is Canberra, for which a site was ceded to the Commonwealth by New South Wales, in terms of the Constitution Act of the Commonwealth, which prescribes that the Australian Capital City shall be located in this State. The Federal Parliament commenced its regular sittings at Canberra on 9th May, 1927.



## DEFENCE.

UPON the inauguration of the Commonwealth the duty of providing for the defence of Australia devolved upon the Federal Government, and the Parliament of the Commonwealth has paramount power to legislate for the naval and military defence of Australia, and for the control of the forces to execute and maintain the federal laws. The Constitution provides that the States may not raise nor maintain forces, but enjoins the Commonwealth to protect every State against invasion, and, on the application of the executive government of the State, against domestic violence. It is provided in the Defence Act that the citizen forces may not be called out nor utilised in connection with an industrial dispute.

In terms of the Defence Act male citizens between the ages of 18 and 60 years are liable for service in the citizen forces for home defence in time of war. Male citizens are liable also to undergo military or naval training between the ages of 12 and 26 years.

The system of compulsory training was brought into operation on 1st January, 1911. The duration of the training in each year is prescribed by the Act, the trainees being liable for service in the following age groups:—Junior cadets, 12 to 14 years of age; senior cadets, 14 to 18 years; citizen forces, 18 to 26 years.

The duration of the training was curtailed during the war period, also in 1921 and in 1922 owing to the resolutions passed at the Washington Conference on limitation of armaments. In November, 1929, compulsory training was suspended, and the forces were reconstituted on the basis of voluntary enlistment.

## MILITARY FORCES.

Men at ages 18 to 40 years are enlisted in the militia forces for a period of three years subject to re-engagement for further periods of two or three years until they reach the retiring age, 48 years. Youths under 18 years are organised in the senior cadet corps as (a) detachments affiliated with militia units, for which the age for enrolment is 16 or 17 years, or (b) detachments consisting of pupils attending approved educational establishments in which they may be enrolled when they attain the age of 14 years.

A comparative statement of the training strength of the actual military forces is shown below; figures relate to the end of the year, except in 1901, 1913 and 1929:—

TABLE 25.—Military Forces in Training—Commonwealth and New South Wales.

Date.	1901. * 1 Mar.	1913. 30 June.	1922. 31 Dec.	1929. 1 Feb.	1934.	1935.	1936.	1937.
Commonwealth ...	28,886	34,537	37,156	47,931	29,268	28,061	36,063	36,943
New South Wales	9,772	12,105	14,561	18,825	10,578	10,344	13,016	13,479

\* Date of taking over the military forces from States by Commonwealth.

There was a marked increase in the number of trainees in 1936 as the result of the active campaign of recruitment in the latter half of that year.

The following table shows the strength of the land forces in the Commonwealth and New South Wales, classified according to the nature of service at the end of the last three years:—

TABLE 26.—Military Forces—Commonwealth and New South Wales—Classification.

Branch of Service.	Commonwealth.			New South Wales.		
	1935.	1936.	1937.	1935.	1936.	1937.
Permanent Forces ... ..	1,791	2,032	2,319	755	785	950
Militia Forces ... ..	26,270	34,031	34,624	9,589	12,231	12,529
Engineer and Railway Staff Corps	61	57	55	13	12	11
Unattached List of Officers ...	213	188	161	75	67	55
Reserve of Officers ... ..	6,210	5,389	5,358	2,149	1,884	1,862
Chaplains ... ..	255	220	226	66	61	62
A. A. M. C. Reserve ... ..	1,482	1,466	1,434	543	531	511
Total ... ..	36,282	43,383	44,177	13,190	15,571	15,980

The strength of militia forces in New South Wales on 31st December, 1937, was 12,529, and the senior cadets consisted of 1,353 in regimental detachments and 1,505 in educational establishments.

#### *Royal Military College.*

This college was established in 1911 at Duntroon, in the Australian Capital Territory, for the purpose of providing trained officers for the permanent forces. In January, 1931, the college was transferred to Victoria Barracks, Sydney, but was transferred again to Duntroon in February, 1937. Normally, candidates for admission to the college must be under the age of 20 years and have passed the requisite subjects at the public examinations for intermediate or leaving certificates (or their equivalent) in the various States of the Commonwealth. Special provision is made, however, for the admission of members of the forces.

#### *Rifle Clubs.*

On the 30th June, 1938, there were 289 rifle clubs in New South Wales administered by the District Base Commandant, 2nd Military District, with a total membership of 12,783. In addition, there were 5 clubs administered by other Military Districts, and 15 miniature rifle clubs, having a membership of 420. Members of rifle clubs must fire an annual course of musketry of three different practices, but do not undergo drill.

For the purposes of administration, the Military Board controls the activities of rifle clubs. Government grants are made for the construction and maintenance of rifle ranges, prize meetings, efficiency, travelling, etc., and a quantity of ammunition is issued free to members.

Rifle clubs form part of the Australian Military Force Reserve, and are linked with the various militia infantry battalions.

## NAVAL DEFENCE.

The naval defence of Australia was undertaken by the Imperial Navy under agreement between the Imperial and Australian Governments until 1913, when the Imperial squadron was replaced by Australian war vessels.

In December, 1937, the Australian squadron in commission consisted of 3 cruisers, one flotilla leader, 2 "V" class destroyers, and two sloops, with the sloop "Moresby" engaged on surveying duties; and in reserve, 1 cruiser, 1 seaplane carrier, 1 depot ship, 2 "V" class destroyers and 1 oiler.

At 31st December, 1937, the sea-going force consisted of 369 officers and 3,906 ratings and the auxiliary services of 36 officers and 153 ratings. Ninety-nine per cent. of the personnel were Australians, the remainder being on loan from the Royal Navy.

Reserves of officers and men for the Royal Australian Navy are provided from the following sources:—(a) Royal Australian Navy Emergency List, 158 officers; (b) Royal Australian Fleet Reserve, 390 men; (c) Royal Australian Naval Reserve (Seagoing), 65 officers; (d) Royal Australian Naval Reserve, 216 officers and 3,318 men; (e) Royal Australian Naval Volunteer Reserve, 91 officers and 88 men.

Junior officers are trained at the Naval College, Flinders Naval Depot, where 56 cadet midshipmen were undergoing training in January, 1938. The general depot of the Navy is at Westernport, Victoria, where the more advanced training of petty officers and men and the training of the men on first entry are conducted.

## AIR DEFENCE.

A Royal Australian Air Force for defence purposes was established as a separate branch of the defence system on 31st March, 1921, by proclamation under the Defence Act. It is entrusted with the air defence of Australia and the training of personnel for co-operation with the naval and military forces. The force includes the following units:—(a) Headquarters Royal Australian Air Force, with representation in London; (b) an Air Force station in Victoria comprising three landplane squadrons, an aircraft depot, a training depot; (c) a flying training school; (d) an Air Force station in New South Wales comprising three landplane squadrons, one amphibian squadron, an aircraft depot.

At 31st December, 1937, the approved establishment of the Permanent Air Force was 256 officers and 2,216 airmen, and of the Citizen Air Force 85 officers and 314 airmen.

## MUNITIONS SUPPLY.

The Munitions Supply Board, consisting of a Controller-General, a consultative and two other members, is responsible, under the Minister for Defence, for the provision of armament, arms, ammunition, equipment and supplies and stores for the naval, military and air services of the Commonwealth.

In addition to factories in Victoria for the manufacture of ammunition, explosives, guns, etc., and clothing, the Board controls the small arms factory at Lithgow, New South Wales. The factory was opened on 1st June, 1912, and is engaged in the manufacture of rifles and machine guns for land and air services. To 30th June, 1938, capital amounting to £901,638 had been invested in the small arms factory. During the Great War the number of employees reached about 1,300. At 30th June, 1938, there were 335 hands employed.

CHRONOLOGICAL TABLE OF EVENTS IN THE HISTORY  
OF NEW SOUTH WALES.

A brief historical sketch of New South Wales was published in the Official Year Book for 1929-30, at pages 40 to 52, and a chronological table of events in the history of New South Wales from 1770 to 1919 was published in the Official Year Book for 1919, at pages 1 to 8. This table is repeated below in a revised form as from 1901 with a continuation from 1920 to 1938.

- 1901 Federation of Australian Colonies—Interstate free-trade established—Industrial Arbitration Act (State)—Sydney Harbour Trust formed—Closer Settlement Act—Western Lands Act—Introduction of Pacific Islanders prohibited.
- 1902 Mt. Kembla Colliery Explosion (ninety-five lives lost)—Women's Franchise—Pacific Cable completed—First sitting of New South Wales Arbitration Court—Parliamentary Select Committee *re* Greater Sydney—First Federal Tariff.
- 1903 High Court of Australia inaugurated.
- 1904 Reduction of number of members of (State) Parliament from 125 to 90—Educational Reforms commenced—Patents, Trade Marks, etc., transferred to Commonwealth—Commonwealth Conciliation and Arbitration Act.
- 1905 Assisted Immigration reintroduced—Children's Courts instituted—Local Government (Shires) Act extending local government to whole State.
- 1906 Barren Jack (Burrinjuck) Dam authorised—Public School fees abolished—Sydney Central Railway Station opened.
- 1907 Invalidity and Accident Pensions—Telephone connected, Sydney-Melbourne—Opening of blast furnace for manufacture of iron and steel at Lithgow—Medical inspection of School Children initiated—"Harvester" Wage determined.
- 1908 Visit of United States (American) Fleet—Minimum Wage Act—Industrial Wages Boards constituted—Subventions to Friendly Societies Act—Yass-Canberra Federal Capital Site selected—Crown Lands Amendment Act (Conversions)—Cataract Dam completed—Private Hospitals Act.
- 1909 Fisher Library (Sydney University) opened—Old-age Pensions administration transferred to Commonwealth—Pure Food Act.
- 1910 Mitchell Library opened—Referenda favouring transfer of State Debts to Federal Government and rejecting proposed States finance agreement with Commonwealth—Australian Notes Act—Australia silver coinage issued—Saturday Half-holiday instituted in Sydney and the larger towns of N.S.W.—Workmen's Compensation Act—Federal Land Tax—Invalidity and Accident Pensions administration transferred to Commonwealth—Arrival of "Yarra" and "Parramatta," first vessels of Australian Navy—Australian Penny Postage.
- 1911 First Australian Notes issue—Federal Referenda relating to monopolies and industrial legislation; proposals rejected—Federal Capital Site at Yass-Canberra transferred to Commonwealth—Compulsory defence training initiated—Murrumbidgee Irrigation Trust appointed—First wireless station (private) licensed for transaction of public business—Imperial Conference in London—Randwick wireless station transmitted messages over 2,000 miles—First section of North Coast Railway opened—Flight of first Australian Aviator (W. E. Hart) from Sydney to Penrith.
- 1912 Bursary Endowment, Secondary Education—Murray Waters Agreement—Murrumbidgee Irrigation Farms available, and irrigation commenced—Commonwealth Bank (Savings Bank Department) established—Commonwealth Maternity allowances—Sydney (Pennant Hills) Wireless Station opened.
- 1913 Federal Capital City named Canberra, and foundation stones laid—Visit of Dominions Royal Commission—British Trade Commissioners office established at Sydney—First elective Senate, University of Sydney—Arrival at Sydney (4th October) of Australian Fleet, including battle cruiser "Australia" and cruisers "Sydney" and "Melbourne"—Departure of (Imperial) Admiral King-Hall—First Cost of Living and Living Wage Inquiry in Industrial Arbitration Court—Appointment of Interstate Commission—Commonwealth Bank commenced ordinary banking business.

- 1914 Norfolk Island transferred to control of Commonwealth Government—First Aerial Mail, Melbourne to Sydney, carried by M. Guillaux—Direct telephone, Sydney to Adelaide, opened—Murray Waters Agreement (Premiers' Conference)—First Baby Clinic opened—State advances for homes initiated—European War—Expeditionary force of volunteers despatched to co-operate with Imperial forces—Australian Naval Unit transferred to direct Imperial control—Necessary Commodities Control and Wheat Acquisition Acts—War Precautions Act.
- 1915 Australian Expeditionary Forces in action at Dardanelles and in Egypt—Iron and steel works opened at Newcastle—Conservatorium of Music opened—War census—Commonwealth Powers (War) Act—Commonwealth Income Tax—Wheat harvest marketed by Australian Governments.
- 1916 Australian Expeditionary Forces in action in France—Liquor Referendum resulted in closing hotels at 6 p.m.—Fair Rents Court established—Valuation of Land Act—Eight Hours Act (48-hours week)—Soldiers Repatriation Fund established—Military Service Referendum; proposal rejected—Registration of private schools initiated—Workmen's Compensation law extended to all workers—Imperial Wool Purchase Scheme initiated.
- 1917 Transcontinental Railway opened—River Murray Waters Act in operation—Daylight Saving initiated and abandoned—Second Military Service Referendum rejected—Extensive industrial dislocation—Interstate Commission Prices investigation—War-time Profits Tax imposed.
- 1918 European War Armistice declared—N.S.W. Board of Trade constituted—Women's Legal Status Act passed—Commonwealth Repatriation Department created—Poor Persons Legal Remedies Act—Introduction of proportional representation at State Parliamentary elections.
- 1919 Peace signed between European Powers—State Housing scheme initiated—Influenza epidemic—Wheat Silos scheme initiated—First aeroplane flight, England to Australia (twenty-eight days) by Sir Ross and Sir Keith Smith—Commonwealth Royal Commission appointed to inquire into basic wage and cost of living—First Federal General Elections on preferential voting system—Federal Referenda; proposals to extend legislative powers and to provide for nationalisation of monopolies rejected.
- 1920 Proportional representation and multiple electorates (State Parliament)—Profiteering Prevention Act—Control of Australian Note issue transferred to Board of Directors in Note Issue Department, Commonwealth Bank.
- 1921 Forty-four hour week introduced (State)—Voluntary wheat pool inaugurated—First direct wireless press message, England to Australia.
- 1922 Rural Bank established—Sydney Harbour Bridge Act—Conference of employers and employees (Sydney)—Reversion to 48-hour week (State)
- 1923 Agreement to extend certain Victorian Railways into New South Wales.
- 1924 Grafton-Kyogle-South Brisbane Railway Agreement—Migration Agreement with British Government on basis of £34,000,000 loan—Control of Australian Note Issue transferred to Commonwealth Bank Board.
- 1925 Main Roads Board established—Sydney Harbour Bridge commenced—Broadcasting stations established—Compulsory voting at Federal elections—Visit of American Fleet.
- 1926 First section of City Underground Railway opened—Electrification of suburban railway lines commenced—44-hour week re-introduced—Widows' pensions instituted—Workers' Compensation extended—Sydney Branch of Royal Mint ceased operations.
- 1927 First sitting of Federal Parliament at Canberra opened, 9th May—Commercial wireless communication established with England—Family Endowment instituted—Marketing of Primary Products Act—System of single seats and preferential voting introduced at State elections—Forty-four hour week (federal awards)—Western railway opened to Broken Hill.
- 1928 Financial Agreement signed between Australian States—Loan Council created—Liquor Prohibition proposal negated at referendum—Aeroplane flight, United States to Australia, by Kingsford-Smith and Ulm—Aeroplane flight, England to Australia, in sixteen days (Hinkler)—Visit of British Economic Mission.

- 1929 Protracted disputes in timber and coal-mining industries—Royal Commission on Coal Industry—Compulsory voting at State elections—Suspension of compulsory military training.
- 1930 Wireless telephone service to England established—Reversion to 48-hour week (1st July)—Transport Trusts appointed—Unemployment Relief Tax imposed—Aeroplane flight, England to Australia, in 10½ days (Kingsford-Smith)—Acute economic depression—Moratorium Act—Prohibitive duties and embargoes placed on certain imports—Sales tax imposed—Brisbane-Kyogle railway opened.
- 1931 Forty-four hour week re-introduced (1st January)—Government Savings Bank of New South Wales suspended payment (22nd April)—Premiers' Financial Agreement (reduction of expenditure)—Commonwealth Conversion Loan (internal debts £556,000,000)—State Lottery initiated—New trade treaty, Australia and Canada—Government Savings Bank reopened and amalgamated with Commonwealth Savings Bank—Commonwealth wheat bounty—Flour "tax" levied—Legislation for reduction of interest and rents—Commonwealth Court cut wages 10 per cent.
- 1932 Sydney Harbour Bridge opened—Transport commissioners appointed to control transport services and main roads—Conflict between Commonwealth and State Government in reference to State's failure to meet obligations resulted in dismissal of State Cabinet by Governor—Imperial Economic Conference at Ottawa—Clarence River bridge opened; final link Albury to Brisbane standard gauge railway—Farmers' Relief Act passed—Conversion Loan successfully completed in London—Industrial Commission reconstituted.
- 1933 Record wheat harvest—Recovery of wool prices—Economic depression passing into early stages of recovery—World Economic Conference in London—New Legislative Council elected—Further conversion loans placed in London—Census, 30th June, 1933—Railway fares and freights reduced—Family Endowment Tax abolished.
- 1934 Legislative Council re-constituted—Hume Reservoir completed—Recession in wool prices—Federal Wheat Commission—New States Boundaries Commission—Bread Inquiry—Visit of H.R.H. the Duke of Gloucester—Further successful conversion loans (London)—Revival of building industry—Berricuin irrigation scheme launched—England-Australia Air Mail inaugurated.
- 1935 Silver Jubilee of King George V—Visit of Japanese Goodwill Envoy—Sydney County Council (Electricity) formed—Loss of Sir Charles Kingsford Smith over Bay of Bengal—Partial recovery of wheat and wool prices—State industrial undertakings (brickworks, etc.) sold—Federal Banking Commission appointed.
- 1936 Death of H.M. King George V—Further conversion loan in London—Commonwealth imposed import quotas on certain commodities—Sharp rise in wheat prices—Construction of final section of City railway restarted—Abdication of H.M. King Edward VIII and accession of H.M. King George VI.
- 1937 Federal Aviation and Marketing Referenda, 6th March—Coronation of H.M. King George VI—Imperial Conference in London—Commonwealth Court's "basic wage" (including prosperity loading) adopted for State awards—Scheme initiated to encourage home building by co-operative societies.
- 1938 150th Anniversary of foundation of Australia—British Empire Games in Sydney—Empire Producers' Conference in Sydney—National Health and Pensions Insurance (Commonwealth) Act passed—Empire Air Mail Service (England-Australia) Scheme commenced—British Commonwealth Relations Conference—Imperial Trade Conference in London—City of Parramatta proclaimed; 150th Anniversary of Settlement—Flour "Tax" levied; proceeds for wheat farmers.

## COMMERCE.

Power to make laws with respect to trade and commerce with other countries and between the States of Australia is vested in the Commonwealth Parliament.

The first Federal Act relating to customs came into operation by proclamation on 4th October, 1901. The Act, with amendments, provides administrative machinery in relation to customs, prescribes the manner in which duties are to be computed and paid, and authorises the inspection of imports and exports.

Prior to federation a different tariff was in operation in each State, and interstate trade was subject to the same duties as oversea trade. On 8th October, 1901, when the Customs Tariff Act of 1902 was introduced in the Federal Parliament, a uniform tariff for all the States was imposed, trade and commerce between the States became free, and the power of the Commonwealth to impose duties of customs and excise became exclusive, except that the State of Western Australia was given the right to levy duty on interstate imports for a period of five years:

By the Customs Act certain imports are prohibited, and the prohibition may be extended by proclamation to other commodities. The conditions under which goods for export are prepared may be prescribed by regulation, and the exportation of goods which do not conform to the required standards may be prohibited. In terms of the Commerce (Trade Descriptions) Act, 1905-1933, the importation or exportation of any goods may be prohibited by regulation unless they bear a prescribed trade description.

Matters relating to trade and customs are administered by the Federal Department of Trade and Customs which is under the direction of a Minister of the Crown.

The Tariff Board has been appointed for the assistance of the Minister, under an Act which came into operation in March, 1922. The Board consists of four members, including an administrative officer of the Department of Trade and Customs, who is chairman. The Tariff Act, 1921-1934, prescribes that the Minister shall refer to the Board for investigation such matters as appeals against the decisions of the Comptroller-General in respect of the interpretation of the tariff; the necessity for new, increased, or reduced duties or for bounties; the effect of bounties; proposals for applying preferential tariffs to any country; and questions whether a manufacturer is taking undue advantage of the protection afforded by the tariff to charge unnecessarily high prices. In addition, the Minister may refer to the Board for inquiry matters relating to the classification of goods under by-law items in the tariff or to the determination of the value of goods for duty, and he may request them to report as to the effect of the customs and excise tariffs and of the customs laws on the industries of the Commonwealth, and on other matters affecting the encouragement of industries in relation to the tariff.

Certain inquiries conducted by the Tariff Board must be held in public *e.g.*, those relating to revision of the tariff, to proposals for bounties, or to questions whether a manufacturer is taking undue advantage of the protection afforded by the tariff, but evidence of a confidential nature may be taken **in private.**

The Commonwealth Department of Commerce was established as the Department of Markets in 1924 to supervise matters relating to the oversea marketing of Australian produce. Its functions include the collection and dissemination of commercial and industrial data, the supervision of the grade and quality of goods exported, the investigation of matters affecting trade, commerce, and industry, and the control of the Trade Commissioner service abroad. The department is under the control of a Minister of the Crown.

Under the Commerce (Trade Descriptions) Act official control is exercised over the preparation, manufacture, quality, grading, packing and labelling of practically all foodstuffs exported, by a number of specially trained officers who examine the goods either during the course of preparation or prior to exportation.

The distribution abroad of Australian butter and cheese, dried vine fruits, canned fruits, wine and meat is regulated by marketing organisations vested with statutory powers by the Federal Parliament. The statutory boards are the Australian Dairy Produce Board, the Dried Fruits Control Board, the Canned Fruits Control Board, the Wine Overseas Marketing Board and the Australian Meat Board. Control by such boards is exercised by means of a licence issued to exporters under which they are required to sell the goods in overseas markets under such restrictions and conditions as the marketing authorities in Australia prescribe. For some primary products assistance has been given by the Government of the Commonwealth in the form of bounties payable on export. Details of these matters are given in the appropriate chapters of this Year Book.

Trade representation abroad is conducted by Trade Commissioners who have been appointed for service in Egypt, China, Japan, the Netherlands East Indies, Canada and New Zealand. The work in London is undertaken by the High Commissioner for Australia, and an officer under his control is stationed in Paris. In America representation is by an Official Secretary stationed in New York.

The department co-operates with the Australian Overseas Trade Publicity Committee, which represents the dairying, dried and canned fruits, apple and pear, and egg industries, and maintains a Director of Trade Publicity in London. The Committee is assisted by a subsidy from the Commonwealth Government.

The Government of New South Wales is represented in London by the Agent-General.

#### STATISTICS OF IMPORTS AND EXPORTS.

Statistics relating to the oversea trade of the various States of Australia are recorded by the Federal Department of Trade and Customs. The records of imports as shown in this chapter include those re-exported for consumption in other States or elsewhere. Exports classified as "Australian Produce" include products of other Australian States which have been shipped oversea at ports in New South Wales, but they do not include products of New South Wales despatched abroad from ports in other States.

Complete records of interstate trade have not been available since 12th September, 1910, when the Customs Department ceased to record them. Therefore, the figures in this chapter, except those on pages 72 and 73, are exclusive of the large volume of interstate trade, and do not represent the total external trade of New South Wales.



## OVERSEA TRADE.

The values, as shown in the following tables relating to goods imported and exported oversea, are based on the values recorded by the Department of Trade and Customs.

*The value of goods imported* represents the amount on which duty is payable or would be payable if the duty were *ad valorem*, such value being the sum of the following:—(a) The actual price paid by the Australian importer plus any special deduction, or the current domestic value in the country of export at the date of exportation, whichever is the higher; (b) all charges for placing the goods free on board at the port of export; and (c) 10 per cent. of the amounts (a) and (b).

The value of imports is recorded in British currency though the term is not strictly synonymous with "currency of the United Kingdom" (sterling) since values of imports expressed in £ s. d. are regarded for duty purposes as being in British currency. This applies in particular to imports from New Zealand and the Union of South Africa when the currencies of these countries are not at par with the currency of the United Kingdom (sterling). No adjustment on this account has been made in the tables of this chapter when the term sterling has been used as synonymous with British currency.

Conversion to British currency in the case of imports in other currencies is based on the commercial rates of exchange.

*The value of goods exported* is recorded in Australian currency and includes the cost of containers. Until 1st July, 1937, the commodities were assessed at their value in the principal markets in Australia. In regard to certain commodities, however, a different method was adopted at various dates as follows:—

From 1st July, 1929, to 30th June, 1937, *sugar* sold in Australia for export was valued at the f.o.b. price at which it was sold to oversea buyers, and sugar shipped on consignment at the f.o.b. equivalent of prices ruling in the London markets. Also goods on which bounty or rebate was payable on export were assessed at their market value in Australia less the amount of the bounty or rebate.

From 1st July, 1930, to 30th June, 1937, *wool* sold in Australia for export was valued at the actual price paid plus the cost of placing it on board ship, and wool shipped on consignment at the f.o.b. equivalent of prices ruling in Australia.

From 1st July, 1932, to 30th June, 1937, *wheat* sold in Australia for export was valued at the f.o.b. equivalent of the price at which it was sold, and wheat shipped on consignment at the f.o.b. equivalent of the current selling price overseas.

From 1st April, 1934, to 30th June, 1937, *butter* sold in Australia for export was valued at the f.o.b. equivalent of the price at which it was sold, and butter shipped on consignment at the f.o.b. equivalent of the current ruling price overseas. These prices, however, were adjusted from time to time on the basis of information received from the Australian Dairy Produce Export Board.

From 1st July, 1934, to 30th June, 1937, *flour* sold in Australia for export was valued at the f.o.b. equivalent of the price at which the flour was sold, and flour shipped on consignment at the f.o.b. equivalent of prices ruling in Australia.

Since 1st July, 1937, the values of exports generally have been assessed as follows:—

- (1) Goods sold to oversea buyers before export—the f.o.b. equivalent of the price at which the goods were sold, e.g., as regards wool, the actual price paid by the oversea buyer plus the cost of all services incurred by him in placing the wool on board ship.
- (2) Goods shipped on consignment—the Australian f.o.b. equivalent of the current price offering for similar goods in the principal markets of the country to which the goods were despatched for sale. As regards wool, the f.o.b. equivalent of the current price ruling in Australia normally provides a sufficient approximation to the f.o.b. equivalent of the price ultimately received.

The total value in Australian currency of oversea imports and exports, as recorded by the Customs Department, during various years since 1901 is shown in the following table, with the value per head of population. The figures, with the exception of those relating to the year 1901, do not include the value of exports in the form of ships' stores.

TABLE 27.—Oversea Imports and Exports, 1901 to 1938.  
(Values expressed in Australian Currency.)

Year ended 30th June.	Oversea Imports.	Oversea Exports.			Total Trade Oversea.
		Australian Produce.	Other Produce.	Total.	
	£ A	£ A	£ A	£ A	£ A
1901*	17,560,207	†	†	18,210,627	35,770,834
1911*	27,343,428	29,938,415	2,222,986	32,161,401	59,504,829
1921	72,466,388	48,302,717	4,299,089	52,601,806	125,068,194
1929	63,491,123	47,170,407	2,118,483	49,288,890	112,780,013
1930	57,129,636	33,877,534	1,884,273	35,761,807	92,891,443
1931	29,817,013	30,346,929	1,517,998	31,864,927	61,681,940
1932	23,948,174	33,147,646	1,549,907	34,697,553	58,645,727
1933	29,848,732	44,518,406	2,094,381	46,612,787	76,461,519
1934	32,264,818	39,909,246	2,332,759	42,242,005	74,506,823
1935	40,897,621	35,167,572	2,561,660	37,729,232	78,626,853
1936	45,373,652	44,640,164	2,892,036	47,532,200	92,910,852
1937	51,297,217	53,920,115	3,382,397	57,302,512	108,599,729
1938	63,955,611	45,018,310	3,393,191	48,411,501	112,367,112
PER HEAD OF POPULATION.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1901*	12 16 11	†	†	13 6 6	26 3 5
1911*	16 8 5	17 19 7	1 6 8	19 6 3	35 14 8
1921	34 13 4	28 2 2	2 4 1	25 3 3	59 16 7
1929	25 11 3	18 19 9	0 17 1	19 16 10	45 8 1
1930	22 13 7	13 9 0	0 15 0	14 4 0	36 17 7
1931	11 14 3	11 18 6	0 12 0	12 10 6	24 4 9
1932	9 6 6	12 18 2	0 12 1	13 10 3	22 16 9
1933	11 10 5	17 3 7	0 16 2	17 10 0	29 10 2
1934	12 6 11	15 5 5	0 17 10	16 3 3	28 10 2
1935	15 10 6	13 7 0	0 19 5	14 6 5	29 16 11
1936	17 1 8	16 16 1	1 1 0	17 17 10	34 19 6
1937	19 2 9	20 2 3	1 5 3	21 7 6	40 10 3
1938	23 12 2	16 12 5	1 5 1	17 17 6	41 0 8

\* Year ended 31st December. † Not available.

The values quoted above have been stated in Australian currency which was depreciated in relation to the currency of the United Kingdom in

1930-31. On the average the addition to the sterling value of exports arising from the premium on oversea exchange was nearly 18 per cent. in 1930-31, 27 per cent. in 1931-32, and 25 per cent. since 1932-33. Particulars of the rates of exchange are shown in the chapter of this volume entitled Private Finance.

The following table shows particulars relating to the oversea trade of the State, similar to those in table 27, but with values expressed in British currency. Exports in the form of ships' stores are excluded, except in 1901.

TABLE 28.—Oversea Imports and Exports, 1901 to 1938.  
(Values expressed in British Currency.)

Year ended 30th June.	Oversea Imports.	Oversea Exports.			Total Trade Overseas.
		Australian Produce.	Other Produce.	Total.	
	£stg.	£stg.	£stg.	£stg.	£stg.
1901*	17,560,207	†	†	18,210,627	35,770,834
1911*	27,343,428	29,938,415	2,222,986	32,161,401	59,504,829
1921	72,466,388	48,302,717	4,299,089	52,601,806	125,068,194
1926	64,009,919	51,565,742	2,436,072	54,001,814	118,011,733
1929	63,491,123	47,170,407	2,118,483	49,288,890	112,780,013
1930	57,120,636	33,877,534	1,884,273	35,761,807	92,891,443
1931	26,311,411	25,745,092	1,276,732	27,021,824	53,333,235
1932	18,797,584	26,058,705	1,223,590	27,282,295	46,079,879
1933	23,831,322	35,562,879	1,674,017	37,236,896	61,068,218
1934	25,760,333	31,865,651	1,864,927	33,730,578	59,490,911
1935	32,652,791	28,079,600	2,047,865	30,127,465	62,780,256
1936	36,230,461	35,645,707	2,311,909	37,957,616	74,188,077
1937	40,955,861	43,055,759	2,703,793	45,759,552	86,715,413
1938	51,062,364	35,948,779	2,712,327	38,661,106	89,723,470

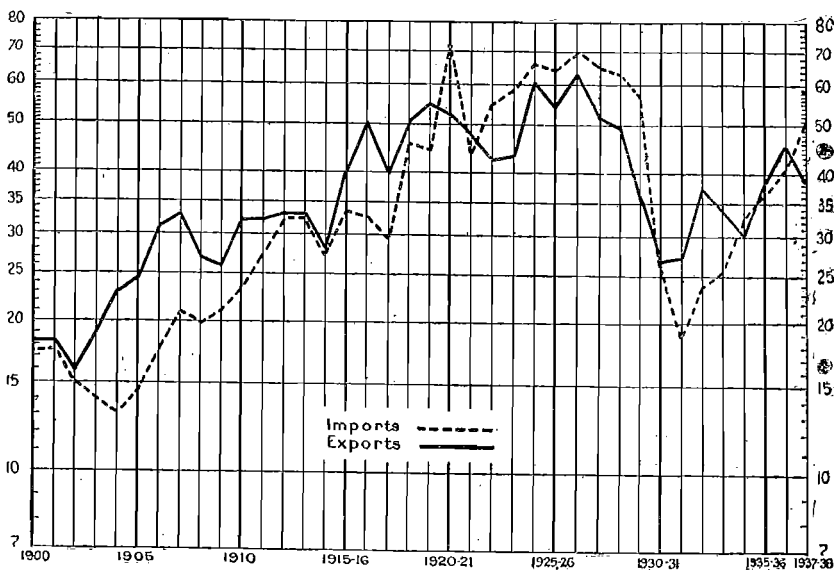
  

PER HEAD OF POPULATION.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1901*	12 16 11	†	†	13 6 6	26 3 5
1911*	16 8 5	17 19 7	1 6 8	19 6 3	35 14 8
1921	34 13 4	23 2 2	2 1 1	25 3 3	59 16 7
1926	27 11 9	22 4 6	1 1 0	23 5 6	50 17 3
1929	25 11 3	18 19 9	0 17 1	19 16 10	45 8 1
1930	22 13 7	13 9 0	0 15 0	14 4 0	36 17 7
1931	10 6 10	10 2 3	0 10 1	10 12 4	20 19 2
1932	7 6 5	10 3 0	0 9 6	10 12 6	17 18 11
1933	9 4 0	13 14 5	0 12 11	14 7 4	23 11 4
1934	9 17 2	12 3 11	0 14 3	12 18 2	22 15 4
1935	12 7 11	10 13 3	0 15 6	11 8 9	23 16 8
1936	13 12 9	13 8 4	0 17 5	14 5 9	27 18 6
1937	15 5 6	16 1 3	-1 0 2	17 1 5	32 6 11
1938	18 17 0	13 5 5	1 0 0	14 5 5	33 2 5

\* Year ended 31st December. † Not available.

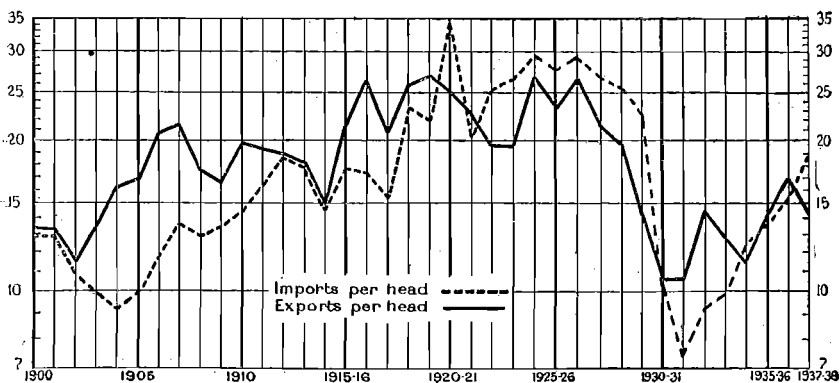
The increase in the aggregate value of trade during the decennium 1901 to 1911 was the result of industrial expansion, and the increase in trade between 1911 and 1921 was due, in a large measure, to enhanced prices. In 1920-21 the value of imports was abnormally high as a result of the prompt despatch of goods ordered abroad during the post-war period of trade expansion, in anticipation of a curtailment of quantity and protracted delivery. After a decline in the following year the value rose rapidly and remained at a high level for several years.

OVERSEA TRADE, 1900 TO 1937-38,  
Ratio Graph.



The numbers at the side of the graph represent £1,000,000 sterling.

OVERSEA TRADE PER HEAD OF POPULATION, 1900 TO 1937-38.  
Ratio Graph.



The numbers at the side of the graph represent £ (Stg.) per head of population.

The diagrams are ratio graphs. The vertical scale of each graph is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual values are shown by means of the numbers at the side of the graphs.

In 1929-30 there was a decline of about 10 per cent., followed by successive falls of 54 per cent. in 1930-31 and 29 per cent. in 1931-32, when the value (in British currency) was less than 30 per cent. of the value in 1928-29. This rapid decrease followed upon measures taken to discourage importations in view of the effects of an adverse trade balance upon economic conditions in Australia, though it was due in part to a fall in prices of the goods imported.

In 1932-33 the value of imports began to rise again and the average increase during the five years ended June, 1937, exceeded £4,400,000 (sterling) per annum. In 1937-38, there was a further increase of £10,000,000 (sterling) and the value (in British currency) was the highest since 1929-30.

The bulk of the exports are products of the rural industries, and the quantities available for export vary with seasonal conditions. Between 1901 and 1911 the value of exports, increasing with production, rose by 77 per cent. During the following decade the industries suffered severely by reason of drought and war, which caused a diminution in production, but the value of exports continued to rise under the influence of higher prices. From 1924-25 to 1928-29 the value was maintained at a high level, though a downward trend was evident towards the close of this period. Under the influence of a steep fall in prices the value of exports declined in 1930-31 to the lowest amount in any year since 1914-15. Then a rising volume of trade began to offset the fall in prices and in subsequent years until 1937-38 the general trend of the annual value was upward. Some fluctuations occurred as a result of the shipment of an unusually large quantity of gold specie, valued at £A13,344,888, in 1932-33, and of changes in the prices of wool which rose and fell in alternate years from 1933-34 to 1935-36.

During 1936-37 there were increases in both volume and value of wool exported and an increase in the value of wheat and flour due to a marked rise in prices.

During 1937-38 there was a decrease of £8,500,000 in wool and £1,700,000 in wheat and flour, while the value of butter exports increased by nearly £760,000. Particulars of the quantity and value of the principal commodities exported are shown in table 39 of this chapter and details as to the quantity and value of exports during the last ten years are published in the Statistical Register of New South Wales.

An index of the volume of exports, 1920-21 to 1937-38, is shown on page 61.

The monthly movement of imports and exports—bullion and specie excluded—from July, 1933, to June, 1938, is illustrated in the following table:—

TABLE 29.—Imports and Exports of Merchandise, Monthly—1933 to 1938.

Month.	Imports.					Exports.				
	1933	1934	1935	1936	1937	1933	1934.	1935.	1936	1937
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
<i>Australian Currency Values.</i>										
	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.	£ 000.
July	2,214	2,856	3,497	4,331	4,926	1,899	1,298	1,995	1,738	2,520
August	2,709	3,731	3,794	4,023	5,011	1,939	1,700	2,090	1,873	2,331
September	2,411	3,361	3,517	3,801	5,248	4,414	2,193	3,171	3,502	3,961
October	2,517	3,394	3,817	4,113	5,206	4,175	3,780	4,366	4,659	4,344
November	2,581	3,217	3,533	4,134	5,545	5,871	3,713	5,243	5,501	4,602
December	2,238	2,912	3,461	3,808	5,107	3,839	3,316	4,794	6,331	4,700
January	2,837	3,534	4,153	4,293	5,021	5,377	3,107	3,838	3,982	2,509
February	2,385	2,762	3,253	3,347	4,861	3,858	3,933	5,170	6,408	3,642
March	2,570	3,963	3,799	4,286	5,289	3,514	2,706	5,253	5,450	4,332
April	2,556	2,780	3,394	4,346	4,791	1,596	3,754	2,123	5,158	4,137
May	2,793	3,325	3,816	3,727	5,456	1,475	2,361	2,373	4,282	3,005
June	3,125	3,195	3,474	4,964	5,215	1,405	2,975	2,127	2,889	2,510
Total	30,936	39,030	43,508	49,173	61,676	39,362	34,826	42,543	51,782	42,593
<i>British Currency Values.</i>										
July	1,767	2,280	2,792	3,458	3,933	1,516	1,036	1,593	1,388	2,012
August	2,163	2,979	3,029	3,212	4,001	1,548	1,358	1,669	1,495	1,861
September	1,925	2,684	2,808	3,035	4,190	3,524	1,751	2,532	2,796	3,163
October	2,010	2,710	3,047	3,284	4,156	3,334	3,018	3,485	3,720	3,468
November	2,061	2,568	2,820	3,301	4,428	4,688	2,964	4,180	4,392	3,674
December	1,787	2,325	2,764	3,040	4,077	3,065	2,648	3,827	5,055	3,753
January	2,265	2,821	3,316	3,427	4,009	4,293	2,480	3,064	3,179	2,003
February	1,904	2,205	2,598	2,672	3,881	3,080	3,140	4,128	5,116	2,908
March	2,052	3,164	3,033	3,422	4,223	2,806	2,160	4,194	4,359	3,458
April	2,041	2,220	2,710	3,470	3,825	1,274	2,998	1,695	4,118	3,303
May	2,229	2,655	3,047	2,970	4,356	1,178	1,877	1,895	3,419	2,399
June	2,495	2,551	2,773	3,963	4,164	1,121	2,375	1,698	2,306	2,004
Total	24,699	31,162	34,737	39,260	49,243	31,427	27,805	33,966	41,343	34,006

As a general rule the inflow of imports is fairly even throughout the year. The volume of exports is usually greater during the months of September to March than in the other months. It rises after the opening of the wool sales in August or September, and becomes more active as the wheat arrives at the seaboard and the production of butter expands.

#### MOVEMENT OF GOLD.

The annual values of imports and exports shown on pages 44 and 46 include consignments of bullion and specie (mainly gold), which in some years were very large, e.g., the exports of 1932-33. These consignments are to be regarded as relating to the trade of the Commonwealth rather than of New South Wales.

In the following statement of oversea trade, imports and exports of bullion and specie are distinguished from those of other commodities:—

TABLE 30.—Imports and Exports of Merchandise and Bullion and Specie, 1911 to 1938.

Year ended 30th June.	Imports.			Exports.						
	Merchandise.	Bullion and Specie.	Total Imports.	Merchandise.			Bullion and Specie.			Total Exports.
				Australian Produce.	Other.	Total.	Australian Produce.	Other.	Total.	
£000	£000	£000	£000	£000	£000	£000	£000	£000	£000	£000
<i>Australian Currency Values.</i>										
1911*	26,089	1,254	27,343	26,957	1,126	27,783	3,281	1,097	4,378	32,161
1921 ...	72,437	29	72,466	44,533	4,284	48,817	3,770	15	3,785	52,002
1929 ...	63,281	210	63,491	46,994	2,089	49,083	177	20	206	49,289
1930 ...	56,927	203	57,130	29,744	1,884	31,628	4,134	...	4,134	35,762
1931 ...	29,538	279	29,817	28,885	1,280	30,174	1,462	229	1,691	31,865
1932 ...	23,442	506	23,948	29,734	1,078	30,812	3,414	472	3,886	34,698
1933 ...	28,783	1,066	29,849	32,021	889	32,910	12,498	1,205	13,703	46,613
1934 ...	30,936	1,329	32,265	38,602	760	39,362	1,308	1,572	2,880	42,242
1935 ...	39,031	1,867	40,898	33,998	828	34,826	1,170	1,733	2,903	37,729
1936 ...	43,508	1,370	45,378	41,495	1,047	42,542	3,145	1,845	4,990	47,532
1937 ...	49,173	2,124	51,297	50,484	1,298	51,782	3,436	2,085	5,521	57,303
1938 ...	61,077	2,279	63,956	41,209	1,384	42,593	3,810	2,009	5,819	48,412
<i>British Currency Values.</i>										
1931 ...	26,071	240	26,311	24,603	1,098	25,701	1,142	179	1,321	27,022
1932 ...	18,399	398	18,797	23,325	845	24,170	2,734	378	3,112	37,284
1933 ...	22,981	850	23,831	25,565	710	26,275	9,998	964	10,962	37,237
1934 ...	24,699	1,081	25,780	30,820	607	31,427	1,046	1,258	2,304	33,731
1935 ...	31,162	1,491	32,653	27,144	681	27,805	936	1,388	2,322	30,127
1936 ...	34,737	1,493	36,230	33,136	836	33,996	2,516	1,476	3,992	37,988
1937 ...	39,200	1,696	40,956	40,307	1,036	41,343	2,748	1,668	4,416	45,759
1938 ...	49,242	1,820	51,062	32,901	1,105	34,006	3,048	1,607	4,655	38,661

\* Year ended 31st December.

Imports of bullion and specie consist mainly of gold from New Guinea, Papua and New Zealand.

The value during 1937-38 amounted to £1,819,744 including gold £1,785,988, silver £33,534 and bronze £222. Of the gold the countries of origin were New Guinea £1,222,228, Fiji £389,693, New Zealand, £100,361, and Papua £71,466.

Exports of bullion and specie in 1937-38 were valued at £5,818,642 including gold £5,766,682, silver £51,475, and bronze £485. Gold to the value of £302,721 was sent to the United Kingdom, £4,730,631 to the United States of America and £73,301 to France.

DIRECTION OF TRADE.

The direction of the oversea trade of New South Wales is indicated in the following statement, which shows the value of imports to and of exports from the principal countries during the last three years. Particulars

regarding the imports relate to the country of origin and the values are expressed in British currency. The values of exports are expressed in Australian currency.

TABLE 31.—Direction of Oversea Trade, 1936 to 1938.

Country.	Oversea Imports (Country of Origin).			Oversea Exports.		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
	£ stg.	£ stg.	£ stg.	£ A	£ A	£ A
United Kingdom ... ..	13,160,663	15,709,978	20,064,109	16,111,579	18,584,309	17,459,593
Canada ... ..	2,192,466	2,753,414	3,806,223	568,253	830,138	734,105
Union of South Africa ... ..	161,404	143,673	173,937	120,072	134,483	177,394
India and the East ... ..	1,968,106	2,415,117	2,646,815	825,386	1,029,442	1,326,522
New Zealand ... ..	756,319	653,071	730,816	2,732,849	3,652,155	4,028,209
Pacific Islands* ... ..	1,722,179	2,222,754	2,217,283	1,376,760	1,568,618	1,814,317
Other British Possessions... ..	231,373	211,480	341,614	606,418	838,736	272,674
<b>Total, British</b> ... ..	<b>20,248,510</b>	<b>24,109,487</b>	<b>29,980,797</b>	<b>22,347,317</b>	<b>26,087,891</b>	<b>25,812,814</b>
Belgium ... ..	261,039	332,700	563,626	3,329,871	3,736,337	2,297,274
France ... ..	302,216	437,078	458,617	3,024,567	3,434,265	5,275,390
Germany ... ..	1,264,055	1,587,567	1,024,329	1,015,973	2,015,443	1,967,018
Italy ... ..	141,299	147,432	344,034	413,888	2,388,776	959,843
Netherlands ... ..	302,856	461,947	374,868	483,703	680,144	296,232
Norway ... ..	184,202	190,025	214,630	4,368	53,091	46,532
Sweden ... ..	356,081	402,501	526,990	54,783	93,220	90,435
Switzerland... ..	245,333	256,365	384,437	82,825	115,263	72,908
Other European ... ..	621,295	623,866	803,040	1,169,516	1,652,615	1,802,338
United States and Hawaii... ..	6,393,805	6,389,152	8,209,456	6,404,579	10,460,607	6,028,946
Japan ... ..	2,220,439	1,752,259	2,389,841	6,928,664	4,194,480	1,968,084
Netherlands East Indies ... ..	1,981,341	2,382,312	2,908,012	307,582	446,583	449,000
China and other Eastern Countries ... ..	637,015	677,193	628,072	1,373,616	726,391	690,266
Pacific Islands ... ..	22,961	65,408	33,546	362,226	431,361	439,856
Other Foreign Countries ... ..	173,668	220,898	249,442	138,722	186,055	208,565
<b>Total, Foreign</b> ... ..	<b>15,197,605</b>	<b>15,982,603</b>	<b>20,013,840</b>	<b>25,184,883</b>	<b>30,614,631</b>	<b>22,598,687</b>
Outside Packages and Containers ... ..	784,346	863,771	1,067,727	...	...	...
<b>Total, All Countries</b> ... ..	<b>36,230,461</b>	<b>40,955,861</b>	<b>51,062,364</b>	<b>47,532,200</b>	<b>57,302,512</b>	<b>48,411,501</b>

\* Includes New Guinea and Papua.

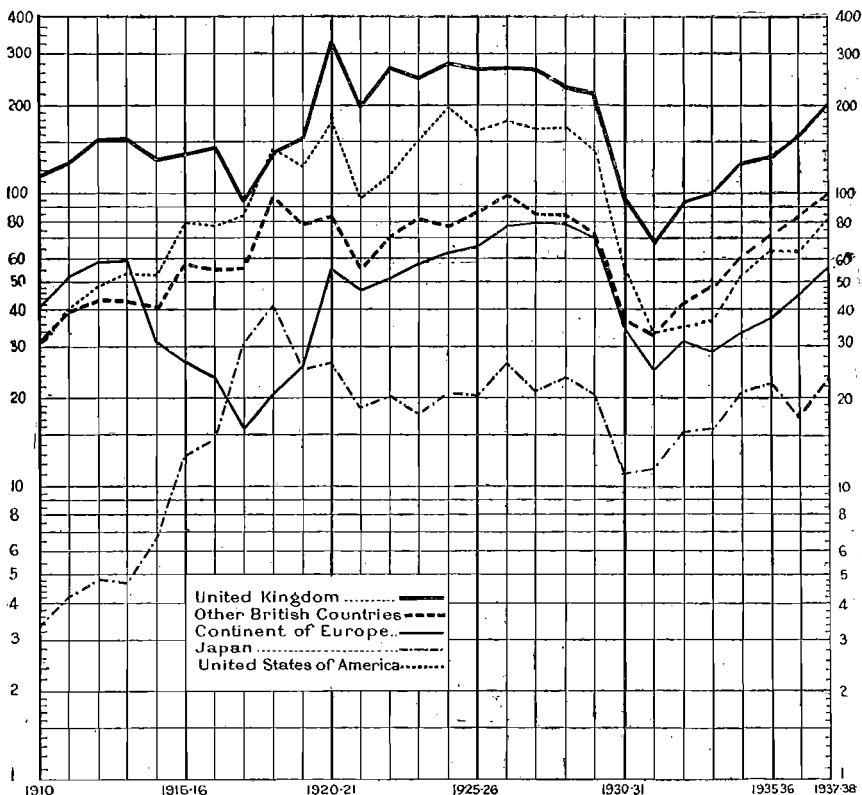
In the overseas trade of New South Wales the value of the goods to and from the United Kingdom exceeds the trade with any other country. In 1937-38 imports valued at £20,064,109 (sterling) or 39.3 per cent. of the total imports were the products of the United Kingdom. Exports shipped to that country were valued at £A17,459,593, representing 36.1 per cent. of the total exports. The corresponding proportions in 1928-29 were imports 37.2 per cent. and exports 26.4 per cent. The figures shown in respect of trade with the United Kingdom are exclusive of imports from and exports to the Irish Free State.

Direct trade with European countries other than the United Kingdom in 1937-38 consisted of imports valued at £5,597,996 or 11 per cent., and exports valued at £12,931,108 or 26.7 per cent. The value of imports from the Continent of Europe in 1928-29 was £7,760,176, the value of exports thereto was £17,732,133, and the relative proportions were 12 per cent. of imports and 36 per cent. of exports.



OVERSEA IMPORTS, COUNTRY OF ORIGIN, 1910 TO 1937-38.

Ratio Graph.



The numbers at the side of the graph represent £100,000 sterling. The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

The interchange between New South Wales and British countries usually shows a pronounced excess of imports from the United Kingdom, Canada, India and Ceylon and an excess of exports to New Zealand and the Pacific Islands. The excess of imports in the trade with the United Kingdom amounted to £stg.850,000 in 1936-37 and £stg.6,000,000 in 1937-38. In 1932-33, when a large amount of gold was shipped, and in the three following years there was an excess of exports.

Trade with most of the foreign countries with which the interchange is large, *e.g.*, France, Germany, Belgium, Italy and Japan, results in an excess of exports. In contrast there is usually an excess of imports from the United States and Netherlands East Indies. In 1936-37 the exports to the United States exceeded the imports owing to heavy gold shipments during that year, and in 1937-38 imports from Japan exceeded exports thereto.

The following statement shows the value in British currency of British and foreign oversea imports in each of the last ten years, as compared with the annual average values in the four quinquennial periods between 1911 and 1931.

TABLE 32.—Origin of Oversea Imports, 1911 to 1938.

Period.	Value of Oversea Imports, according to Country of Origin—Annual Average. (British Currency.)								Total Imports.
	United Kingdom	Other British Countries	Total British Empire.	Continent of Europe.	United States of America	Japan.	Other Foreign Countries	Total Foreign Countries	
	£000	£000	£000	£000	£000	£000	£000	£000	£000
1911 to 1915-16* ...	14,006	4,459	18,465	4,541	5,479	662	1,393	12,075	30,540
1916-17 to 1920-21	17,227	7,370	24,597	2,825	11,979	2,747	2,938	20,489	45,086
1921-22 to 1925-26	25,068	7,396	32,464	5,674	14,405	1,951	2,884	24,914	57,378
1926-27 to 1930-31	21,705	7,566	29,271	6,802	14,210	2,075	3,570	26,657	56,189†
1928-29 ...	23,619	8,449	32,068	7,760	16,884	2,391	4,388	31,423	63,491
1929-30 ...	22,200	7,246	29,446	7,143	13,947	2,080	3,904	27,074	57,130†
1930-31 ...	9,555	3,642	13,197	3,564	5,582	1,108	2,165	12,419	26,311†
1931-32 ...	6,791	3,242	10,033	2,481	3,278	1,141	1,403	8,303	18,797†
1932-33 ...	9,266	4,241	13,507	3,130	3,524	1,531	1,534	9,719	23,831†
1933-34 ...	10,013	4,804	14,817	2,912	3,679	1,600	2,167	10,348	25,760†
1934-35 ...	12,559	6,119	18,678	3,396	5,304	2,117	2,395	13,212	32,653†
1935-36 ...	13,167	7,082	20,249	3,768	6,392	2,220	2,817	15,197	36,230†
1936-37 ...	15,710	8,399	24,109	4,496	6,389	1,752	3,346	15,983	40,956†
1937-38 ...	20,064	9,917	29,981	5,596	8,207	2,390	3,821	20,014	51,062†

## PROPORTION OF TOTAL OVERSEA IMPORTS.

	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1911 to 1915-16* ...	45.9	14.6	60.5	14.9	17.9	2.2	4.5	39.5	100	
1916-17 to 1920-21	38.2	16.4	54.6	6.2	26.6	6.1	6.5	45.4	100	
1921-22 to 1925-26	43.7	12.9	56.6	9.9	25.1	3.4	5.0	43.4	100	
1926-27 to 1930-31	38.8	13.5	52.3	12.2	25.4	3.7	6.4	47.7	100	
1928-29 ...	37.2	13.3	50.5	12.2	26.6	3.8	6.9	49.5	100	
1929-30 ...	39.3	12.8	52.1	12.6	24.7	3.7	6.9	47.9	100	
1930-31 ...	37.3	14.2	51.5	13.9	21.8	4.3	8.5	48.5	100	
1931-32 ...	37.0	17.7	54.7	13.5	17.9	6.2	7.7	45.3	100	
1932-33 ...	39.9	18.2	58.1	13.5	15.2	6.6	6.6	41.9	100	
1933-34 ...	39.8	19.1	58.9	11.8	14.6	6.4	8.5	41.1	100	
1934-35 ...	39.4	19.2	58.6	10.7	16.6	6.6	7.5	41.4	100	
1935-36 ...	38.8	18.3	57.1	10.6	18.0	6.3	8.0	42.9	100	
1936-37 ...	39.2	20.0	60.1	11.2	15.9	4.4	8.4	39.9	100	
1937-38 ...	40.1	19.9	60.0	11.2	16.4	4.8	7.6	40.0	100	

\* Calendar years 1911 to 1913, and years ended 30th June, 1915 and 1916.

† Includes outside packages since 1st January, 1930, not included in previous columns viz., £610,219 in January-June, 1930, £695,067 in 1930-31, £461,244 in 1931-32, £604,052 in 1932-33, £595,497 in 1933-34, £703,540 in 1934-35, £784,346 in 1935-36, £863,771 in 1936-37, and £1,067,727 in 1937-38.

The imports of British origin represent 60 per cent. of the total, and two-thirds of the British goods are imported from the United Kingdom. The proportion of imports from the continent of Europe, which had risen slowly up to 1930-31, declined from 13.9 per cent. in that year to 11.2 per cent. in 1936-37 and 1937-38. Importations from the United States increased very rapidly during the war period and represented 26.6 per cent. of the total in 1928-29. There has since been a decline to 16.4 per cent., but this country still ranks second as a source of imports. The proportion of Japanese goods which exceeded 6 per cent. in the years 1931-32 to 1935-36 was somewhat lower in the last two years. The bulk of the goods classed as "other foreign" are imported from the Netherlands East Indies, the proportion in 1937-38 being 7.6 per cent.

The following comparison relates to the annual value in Australian currency of oversea exports from New South Wales to British and foreign countries since 1911:—

TABLE 33.—Destination of Oversea Exports, 1911 to 1938.

Period.	Value of Oversea Exports to British and Foreign Countries—Annual Average. (Australian Currency)								Total Exports
	United Kingdom	Other British Countries	Total British Empire	Continent of Europe	United States of America	Japan	Other Foreign Countries	Total Foreign Countries	
1911 to 1915-16*	£000 13,212	£000 5,069	£000 18,281	£000 8,117	£000 4,002	£000 1,335	£000 1,673	£000 15,127	£000 33,408
1916-17 to 1920-21	22,279	11,778	34,057	3,349	6,688	2,895	2,722	15,654	49,711
1921-22 to 1925-26	16,614	6,217	22,831	14,656	5,109	5,066	2,002	26,833	49,664
1926-27 to 1930-31	12,983	5,364	18,347	14,967	5,714	5,098	2,176	27,955	46,302
1928-29	13,011	6,037	19,048	17,732	3,166	6,391	2,952	30,241	49,289
1929-30	11,623	5,566	17,189	10,886	3,391	2,785	1,511	18,573	35,762
1930-31	11,285	4,223	15,508	8,632	1,555	4,297	1,873	16,357	31,865
1931-32	13,693	4,342	18,040	6,417	3,189	5,048	2,004	16,658	34,698
1932-33	22,346	4,625	26,971	8,938	2,983	4,642	3,079	19,642	46,613
1933-34	16,123	4,663	20,786	12,979	1,190	5,996	1,291	21,456	42,242
1934-35	16,492	5,267	21,759	7,425	1,328	4,747	2,470	15,970	37,729
1935-36	16,111	6,236	22,347	9,579	6,402	6,929	2,275	25,185	47,532
1936-37	18,584	8,104	26,688	14,169	10,457	4,194	1,795	30,615	57,303
1937-38	17,460	8,353	25,813	12,814	6,026	1,968	1,791	22,599	48,412

PROPORTION OF TOTAL OVERSEA EXPORTS.

	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1911 to 1915-16*	39.5	15.2	54.7	24.3	12.0	4.0	6.0	45.3	100
1916-17 to 1920-21	44.8	23.7	68.5	6.7	13.5	5.8	5.5	31.5	100
1921-22 to 1925-26	33.5	12.5	46.0	29.5	10.3	10.2	4.0	54.0	100
1926-27 to 1930-31	28.0	11.6	39.6	32.3	12.3	11.0	4.8	60.4	100
1928-29	26.4	12.2	38.6	36.0	6.4	13.0	6.0	61.4	100
1929-30	32.5	15.6	48.1	30.4	9.5	7.8	4.2	51.9	100
1930-31	35.4	13.3	48.7	27.1	4.9	13.5	5.8	51.3	100
1931-32	39.5	12.5	52.0	18.5	9.2	14.5	5.8	48.0	100
1932-33	47.9	10.0	57.9	19.2	6.4	9.9	6.6	42.1	100
1933-34	38.2	11.0	49.2	30.7	2.8	14.2	3.1	50.8	100
1934-35	43.7	14.0	57.7	19.7	3.5	12.6	6.5	42.3	100
1935-36	33.9	13.1	47.0	20.2	13.5	14.6	4.7	53.0	100
1936-37	32.4	14.2	46.6	24.7	18.3	7.3	3.1	53.4	100
1937-38	36.1	17.2	53.3	26.5	12.4	4.1	3.7	46.7	100

\* Calendar years 1911 to 1913 and years ended 30th June, 1915 and 1916.

The proportion of exports to British countries in each of the last nine years has been much greater than in the pre-depression period. The proportionate value of exports to the Continent of Europe is influenced largely by variations in the price of wool, which is the principal item in the trade. After a decline from 36 per cent. in 1928-29 to 18.5 per cent. in 1931-32 it has risen substantially during recent years.

The United States of America, which usually provides about one-sixth of the imports, has taken only a small proportion of exports, except when gold of considerable value is included as in the last three years.

In the trade with Eastern Countries the value of imports exceeded £8,572,000 (sterling) in 1937-38 and the value of exports was £A4,429,000. Imports have increased and exports have decreased since 1935-36, when the value of imports was £6,800,000 (sterling) and exports £A9,325,000.

Excluding the export of bullion and specie the distribution of the merchandise exported during 1937-38 was as follows:—British Countries, 60 per cent., including 40 per cent. to the United Kingdom, and foreign countries, 40 per cent., including 30 per cent. to Europe, 5 per cent. to Japan and 3 per cent. to the United States of America.

## ARTICLES OF IMPORT.

A classification of the oversea goods imported into New South Wales during 1928-29 and the last three years is shown in the following table. The items are grouped in accordance with a statistical classification of imports adopted by the Department of Trade and Customs, and values are expressed in British currency.

TABLE 34.—Classification of Oversea Imports.

Classification.	1928-29.	1935-36.	1936-37.	1937-38.
	£ stg.	£ stg.	£ stg.	£ stg.
Foodstuffs of Animal Origin ... ..	1,126,533	732,817	747,957	834,704
Foodstuffs of Vegetable Origin, Bever- ages (non-alcoholic), etc. ... ..	3,445,517	1,844,278	2,231,632	2,272,744
Spirituous and Alcoholic Liquors ... ..	1,040,186	484,852	415,738	500,870
Tobacco and Preparations thereof ... ..	1,905,452	1,175,976	1,246,087	1,447,296
Live Animals ... ..	118,334	88,749	130,505	114,683
Animal Substances not Foodstuffs	665,708	471,579	420,624	639,289
Vegetable Substances and Unmanu- factured Fibres ... ..	1,776,112	1,191,411	1,607,619	1,654,872
Apparel ... ..	2,512,082	607,560	615,687	808,488
Textiles ... ..	10,031,607	5,149,719	5,588,497	6,602,275
Yarns and Manufactured Fibres ... ..	2,280,143	1,062,704	1,053,353	1,177,440
Oils, Fats, and Waxes.. ... ..	4,393,111	2,244,333	2,624,898	3,329,992
Paints and Varnishes ... ..	397,543	297,767	360,394	350,122
Stones and Minerals (including Ores and Concentrates) ... ..	402,354	245,919	235,243	393,253
Machines and Machinery ... ..	7,206,591	4,099,735	5,271,006	6,962,920
Metals and Metal Manufactures other than Machinery ... ..	10,996,937	5,421,004	6,010,014	8,609,902
Rubber and Rubber Manufactures ... ..	1,219,534	532,757	768,661	843,887
Leather and Leather Manufactures ... ..	168,033	55,047	69,194	53,983
Wood and Wicker ... ..	2,555,612	835,335	857,808	1,138,053
Earthenware, China, Glass, etc. ... ..	1,159,811	698,319	768,967	941,215
Paper ... ..	2,346,801	1,568,036	1,846,784	2,252,715
Stationery and Paper Manufactures	1,282,106	777,662	812,925	912,704
Jewellery, Timepieces, and Fancy Goods ... ..	1,342,620	552,260	594,266	780,166
Optical, Surgical, and Scientific In- struments ... ..	891,186	794,150	842,048	1,006,845
Drugs, Chemicals, and Fertilisers ... ..	1,828,559	1,594,712	1,654,709	2,003,326
Miscellaneous ... ..	2,188,098	1,426,252	1,621,260	2,543,149
Outside Packages and Containers	"	784,346	863,771	1,067,727
Bullion and Specie ... ..	210,523	1,493,182	1,696,214	1,819,744
Total Imports ... ..	63,491,123	36,230,461	40,955,861	51,062,364

\* Not recorded.

During 1937-38 imports of machinery, metals and metal manufactures were valued at £15,572,822 or 30 per cent. of the total. Next in order was the group, apparel, textiles and yarns with £8,588,203 or 17 per cent.; then foodstuffs, spirituous liquors and tobacco, £5,055,614 or 10 per cent.; oils, fats and waxes, £3,329,992 or 6 per cent.; and paper and stationery £3,165,419 of 6 per cent. There was an increase of £10,106,503 in the total imports during 1937-38, including machines and machinery, £1,691,914; metals

and metal manufactures, £2,599,888; textiles, £1,013,778; paper, stationery and paper manufactures, £505,710; oils, fats and waxes, £705,094; and drugs, chemicals and fertilisers, £348,617. There were increases also in the other groups except live animals, paints and varnishes, and leather and leather manufactures.

A summary of the principal items comprised in the group machinery and metal manufactures is shown below:—

TABLE 35.—Imports of Machinery and Metal Manufactures.  
(Values in British Currency.)

Item.	1928-29.	1935-36.	1936-37.	1937-38.
Electrical Machinery and Appliances	£ 3,442,023	1,556,530	2,060,189	2,648,733
Other Machinery ... ..	£ 3,764,568	2,543,205	3,210,817	4,314,187
<b>Total, Machinery ...</b>	<b>£ 7,206,591</b>	<b>4,099,735</b>	<b>5,271,006</b>	<b>6,962,920</b>
Motor car—Bodies ... ..	No. 6,719	711	335	242
	£ 690,461	62,476	35,773	24,649
Chassis—Unassembled	No. 33,559	21,897	23,100	30,916
	£ 2,973,573	1,628,290	1,841,800	2,585,868
Assembled ... ..	No. 2,641	621	500	573
	£ 417,523	103,852	98,839	110,691
Other Vehicles and Parts*	£ 1,292,538	573,029	794,789	976,437
<b>Total, Vehicles and Parts</b>	<b>£ 5,374,095</b>	<b>2,367,647</b>	<b>2,771,201</b>	<b>3,697,645</b>
Iron and steel—Plate and Sheet... ..	cwt. 1,478,360	821,440	705,867	1,173,157
	£ 1,250,034	870,516	807,697	1,566,809
Other ... ..	£ 567,186	353,185	381,085	678,450
Pipes and Tubes ... ..	cwt. 556,256	87,118	95,993	147,031
	£ 671,207	126,673	156,132	281,040
Other Metals and Metal Manufactures	£ 3,134,377	1,702,983	1,893,299	2,385,958
<b>Grand Total ... ..</b>	<b>£ 18,203,490</b>	<b>9,520,739</b>	<b>11,281,020</b>	<b>15,572,822</b>

\*Includes parts of bodies and chassis for motor cars.

There was a marked increase as compared with the previous year in the value of imports of vehicles and parts in 1937-38, and the value was higher than in any year since 1928-29. The imports of machinery have increased in each year since 1931-32, and in 1937-38 almost regained the pre-depression level. The total of the whole group in 1937-38 was less by £2,630,668 than in 1928-29 but was £4,291,802 higher than the value in the previous year.

The value of imports in the textile group in recent years until 1937-38 has been less than half the value recorded in 1928-29. There was a substantial increase in 1937-38 in the imports of piece goods, which is the

principal item in the group. A comparative statement of the principal items in this group is shown below:—

TABLE 36.—Imports of Apparel, Textiles, Yarns and Manufactured Fibres.  
(Values in British Currency.)

Item.	1928-29.	1935-36.	1936-37.	1937-38.
	£ stg.	£ stg.	£ stg.	£ stg.
Socks and Stockings ... ..	£ 793,114	13,856	14,576	23,183
Piece-Goods ... ..	£ 7,874,705	3,964,920	4,241,560	5,133,540
Floor Coverings ... ..	£ 1,066,508	562,223	652,575	705,667
Bags and Sacks ... ..	£ 1,239,308	514,567	522,339	516,649
Yarns ... ..	£ 952,427	487,009	458,767	554,069
Other Apparel, Textiles, etc. ... ..	£ 2,897,770	1,277,408	1,367,690	1,655,095
<b>Total ... ..</b>	<b>£ 14,823,832</b>	<b>6,819,983</b>	<b>7,257,537</b>	<b>8,588,203</b>

Details are shown below of the imports of foods and narcotics, which consist for the most part of tropical products, tinned fish, spirits and tobacco.

TABLE 37.—Imports of Foods, Beverages and Tobacco.  
(Values in British currency.)

Item.	1928-29.	1935-36.	1936-37.	1937-38.
Fish, in tins ... ..	{ lb. 12,257,172	13,120,711	13,778,784	14,402,616
	{ £ 568,319	356,557	368,195	459,719
Tea ... ..	{ lb. 28,732,712	26,752,815	29,873,656	27,729,801
	{ £ 2,114,514	1,288,627	1,560,530	1,503,601
Whisky ... ..	{ gal. 650,133	399,183	310,048	393,950
	{ £ 744,358	407,326	334,997	416,270
Other Foods and Beverages ... ..	£ 2,185,045	1,009,437	1,131,605	1,228,728
Tobacco, Cigars, etc. ... ..	{ lb. 17,803,558	13,993,843	15,314,733	16,407,087
	{ £ 1,905,482	1,175,976	1,246,087	1,447,296
<b>Total, Foods, Beverages and Tobacco. £</b>	<b>7,517,718</b>	<b>4,237,923</b>	<b>4,641,414</b>	<b>5,055,614</b>

The quantity of tinned fish imported in 1937-38 was greater than in 1928-29, but the value was appreciably lower. In tea and tobacco the decline in value has been due to lower prices rather than to a smaller volume of trade. Imports of whisky declined steeply during the depression period under the combined influence of higher customs duties and reduced demand, and the lower level has since been maintained.

Details of the principal miscellaneous items of imports are given below:—

TABLE 38.—Imports, Miscellaneous Items.  
(Values in British Currency).

Item.		1928-29.	1935-36.	1936-37.	1937-38.
Copra ... ..	{ cwt.	576,414	366,817	418,226	378,247
	{ £	651,683	200,386	338,331	210,935
Oils—Petroleum Spirit, etc.	{ gal.	72,200,636	73,640,100	83,944,632	108,494,775
	{ £	2,697,151	1,115,888	1,367,719	1,804,400
,, Crude ... ..	{ gal.	26,980,605	28,556,639	31,668,456	31,644,583
	{ £	378,348	295,967	331,354	313,023
Lubricating (Mineral)	{ gal.	6,576,245	5,045,217	5,582,135	7,086,956
	{ £	526,596	249,519	279,113	367,719
Rubber—Crude and Waste	{ cwt.	125,659	130,342	148,825	182,146
	{ £	626,443	410,306	642,297	685,915
Tyres, Pneumatic	{ lb.	1,282,042	88,743	137,202	138,813
	{ £	174,853	6,404	10,760	12,474
Timber, Undressed ...	{ 000 sup. ft.	179,595	192,579	187,923	209,513
	{ £	1,821,245	666,786	674,016	922,366
Printing Paper ... ..	{ tons	75,486	82,502	102,292	85,042
	{ £	1,440,864	933,214	1,141,862	1,181,487
Books (Printed) ... ..	{ £	533,999	417,925	428,810	454,647
Glass and Glassware ... ..	{ £	520,253	273,907	316,808	386,459
Jewellery and Precious Stones	{ £	493,445	150,190	180,437	221,667
Cinematograph Films... ..	{ £	229,072	433,436	422,213	473,947

The quantity of petrol, crude and refined, imported in 1937-38, exceeded the imports in 1928-29 by nearly 41,000,000 gallons or 41 per cent., but the value was less by £958,000 or 31 per cent. Imports of crude rubber are increasing. In comparison with 1928-29 the quantity imported in 1937-38 was greater by 56,500 lb. or 45 per cent. There has been a decline in the importation of pneumatic tyres (tubes and covers) due to the expansion in the local manufacture of these articles.

The imports of cinematograph films have more than doubled in value since 1928-29. The number of vessels other than yachts, launches, etc., included in the imports was twelve in 1928-29, seven in 1934-35, three in 1935-36, six in 1936-37 and fourteen in 1937-38.

#### ARTICLES OF EXPORT.

Raw materials form the great bulk of the overseas exports of Australian produce from New South Wales. In regard to such commodities as wool, wheat, etc., the quantity available for export depends mainly on local seasonal conditions, but the exportation of industrial metals is influenced to a greater extent by market prices as a movement up or down reacts promptly on the productive activity. The quantity and value of the principal commodities exported from New South Wales during each of the last three years are shown below, in comparison with the annual averages during the five years ended 30th June, 1929, *i.e.*, the period of prosperous trading which immediately preceded the decline due to world-wide depression.

TABLE 39.—Oversea Exports of Australian Produce from New South Wales.

Item.	Quantity.				Value (Australian Currency).			
	Annual Average 1924-25 to 1928-29.	1935-36	1936-37.	1937-38.	Annual Average 1924-25 to 1928-29.	1935-36	1936-37	1937-38.
	Thousands omitted.							
Wool—Greasy ... .. lb.	302,525	313,109	337,510	296,233	£A 24,902	£A 19,421	£A 24,601	£A 16,972
Scoured ... .. lb.	21,395	26,607	24,848	18,551	2,495	2,203	2,501	1,668
Tops, etc. ... .. lb.	2,513	4,377	4,029	3,853	568	484	530	477
Total Wool (as in Grease) lb.	354,000	379,941	399,821	344,401	27,965	22,108	27,632	19,117
Hides and Skins—								
Cattle and Calf ... .. No.	564	791	1,136	906	615	418	637	645
Rabbit and Hare ... .. lb.	10,251	6,177	4,196	2,753	2,123	1,158	1,008	648
Sheep, with Wool ... .. No.	2,081	3,099	3,516	3,606	1,190	723	1,072	961
Other Hides and Skins ... ..	...	...	...	...	456	197	208	203
Total Hides and Skins ... ..	...	...	...	...	4,384	2,490	2,925	2,457
Meat—								
Frozen Mutton ... .. lb.	14,550	10,066	24,538	22,851	287	165	398	383
Lamb ... .. lb.	12,165	38,886	41,653	39,233	364	1,070	1,154	1,088
Rabbits and Hares ... .. ps.	2,904	1,442	330	224	271	84	30	19
Other Meat ... ..	...	...	...	...	621	466	593	765
Total, Meat ... ..	...	...	...	...	1,543	1,791	2,175	2,255
Leather ... ..	...	...	...	...	370	315	484	367
Tallow ... .. cwt.	320	109	252	160	592	263	331	196
Butter ... .. lb.	24,926	32,319	20,360	31,373	1,725	1,053	1,137	1,895
Eggs in Shell ... .. doz.	915	5,137	5,430	4,382	71	264	323	268
Wheat ... .. bushels	15,443	23,200	20,252	16,316	4,743	4,243	5,400	3,608
Flour ... .. centals	2,936	4,608	3,736	4,032	1,895	1,721	1,909	1,969
Copper (Ingots) ... .. cwt.	51	...	35	1	175	1	97	2
Lead (pig) ... .. cwt.	1,411	1,148	963	1,343	2,072	1,190	1,433	1,515
Tin (Ingots) ... .. cwt.	29	16	13	15	375	200	193	187
Iron and Steel ... .. cwt.	81	1,048	1,617	1,712	25	484	761	940
Coal ... .. tons	686	306	340	392	797	275	800	354
Timber (undressed) ... .. sup. ft.	21,873	22,599	26,508	28,103	366	293	396	416
Other Merchandise ... ..	...	...	...	...	3,085	4,192	6,286	5,063
Total Merchandise ... ..	...	...	...	...	50,183	41,495	51,782	41,209
Bullion and Specie ... ..	...	...	...	...	3,187	3,145	5,521	3,809
Total Exports... ..	...	...	...	...	53,370	44,640	57,303	45,018

The aggregate values of the exports of the staple products, wool, hides and skins, meat, butter, wheat and flour, in the years 1935-36 to 1937-38 were respectively £34,012,000, £41,178,000 and £31,301,000 as compared with £42,300,000 in 1928-29. In 1937-38 the value of exports of butter increased by £758,000. Other increases were meat £80,000, flour £60,000, pig lead £82,000, coal £54,000, and timber £20,000. There were decreases in respect of wool £8,515,000, hides and skins £463,000, leather £117,000, tallow £135,000, eggs £55,000, wheat £1,792,000 and copper ingots £95,000.

During the quinquennial period 1924-25 to 1928-29, the value of wool exported represented on an average nearly 56 per cent. of the total exports, excluding bullion and specie. In 1933-34 the proportion rose as high as 62.8 per cent. owing to a marked increase in the price of wool, while other staple products such as wheat and flour, remained cheap. In the following year the price of wool fell again, bringing the proportion below 50 per cent. There was improvement in the next two years. Then in 1937-38 both quantity and value declined and the proportion, 46.4 per cent., was the lowest since 1931-32.



In each year from 1933-34 to 1936-37 there were increases in the quantity and value of the exports of wheat and the proportion of the total exports rose from 4.1 per cent. in 1933-34 to 10.4 per cent. in 1936-37. In 1937-38 there was a decline in both quantity and value and the proportion fell to 8.8 per cent.

The relative importance of the various staple products in the oversea trade of the State during each of the last five years is shown below, in comparison with the proportion in the average annual value of exports during the five years ended 30th June, 1929. Exports of bullion and specie are not included:—

TABLE 40.—Principal Exports from New South Wales, Relative Importance.

Item.	Annual Average 1924-25 to 1928-29.	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Wool ... ..	55.7	62.8	49.2	53.5	53.4	46.4
Hides and Skins... ..	8.7	4.1	4.2	6.0	5.6	5.9
Frozen Lamb and Mutton ... ..	1.3	3.4	4.4	3.0	3.0	3.6
Other Meat ... ..	1.8	1.5	2.1	1.3	1.2	1.9
Leather ... ..	.7	.8	.8	.8	.9	.9
Tallow ... ..	1.2	.6	1.1	.6	.6	.5
Butter ... ..	3.4	5.5	6.3	4.0	2.2	4.6
Eggs in Shell ... ..	.1	.8	1.0	.6	.6	.6
Wheat ... ..	9.5	4.1	7.1	10.3	10.4	8.8
Flour ... ..	3.8	3.4	5.4	4.2	3.7	4.8
Lead (pig) ... ..	4.1	1.7	2.1	2.7	2.8	3.7
Tin (ingots) ... ..	.8	.8	.9	.5	.4	.4
Coal ... ..	1.6	.7	.8	.7	.6	.9
Timber (undressed) ... ..	.7	.4	.9	.5	.8	1.0
Other ... ..	6.6	9.4	13.7	11.3	13.8	16.0
Total, Merchandise ...	100	100	100	100	100	100

The following statement shows the average annual export values per unit of the principal commodities in 1928-29 and each of the last four years:—

TABLE 41.—Annual Export Values per unit of Principal Commodities.

Item.	Unit of Quantity.	1928-29.	1934-35.	1935-36.	1936-37.	1937-38.
		s. d.	s. d.	s. d.	s. d.	s. d.
Butter ... ..	lb.	1 6-0	8-9	1 0-1	1 1-3	1 2-5
Coal ... ..	ton	24 11-9	17 10-9	17 11-7	17 7-8	18 0-7
Flour (Wheaten) ... ..	cental	10 10-5	6 8-2	7 5-6	10 2-6	9 9-2
Hides and Skins—						
Cattle Hides ... ..	each	32 4-0	12 6-6	16 0-2	18 1-4	20 3-6
Rabbit and Hare Skins ... ..	lb.	4 8-0	2 0-4	3 9-0	4 9-7	4 8-4
Sheep Skins with Wool ... ..	each	8 5-5	3 7-4	4 9-7	6 1-2	5 3-9
Lead, Pig ... ..	cwt.	22 9-0	13 11-6	20 9-9	29 9-1	22 6-8
Meats, Preserved by Cold Process—						
Beef ... ..	lb.	0 4-8	0 4-1	0 3-5	0 3-5	0 3-9
Lamb ... ..	lb.	0 7-2	0 6-3	0 6-6	0 6-6	0 6-7
Mutton ... ..	lb.	0 5-0	0 3-8	0 3-9	0 3-9	0 4-0
Tallow ... ..	cwt.	36 0-4	24 1-4	31 0-7	26 3-9	24 5-0
Wheat ... ..	bushel	4 10-4	3 2-0	3 7-8	5 4-0	4 5-1
Wool, Greasy ... ..	lb.	1 5-8	0 10-6	1 2-9	1 5-5	1 1-8
Zinc—Bars, etc. ... ..	cwt.	24 11-8	19 11-9	18 3-5	21 2-9	21 2-9
Total Exports of Merchandise ...	...	£ A. 000 40,083	£ A. 000 34,826	£ A. 000 42,543	£ A. 000 51,782	£ A. 000 42,593

In 1933-34 the average value of greasy wool exported—1s. 4½d. per lb.—was only 1½d. per lb. lower than in 1928-29, whereas wheat was cheaper by 1s. 9½d. a bushel and butter by 9½d. per lb. The value of wool in the exports declined by 5d. per lb. in 1934-35; then an upward movement in the next two years restored it almost to pre-depression price, but it dropped again to 1s. 1½d. per lb. in 1937-38. Substantial improvement in the price of wheat was retarded until 1936-37 when the value was higher than in 1928-29. It was somewhat cheaper in 1937-38. The value of butter has been improving slowly during the last few years, but in 1937-38 it was still 3½d. per lb. below the average of 1928-29.

Particulars as to the destination of the principal items of Australian produce exported overseas from New South Wales during 1937-38 are shown below, the values being stated in Australian currency:—

TABLE 42.—Destination of Principal Exports, 1937-38.  
(Australian Produce.)

Country.	Wool.			Hides and Skins.	Frozen Lamb and Mutton.	Tallow.	Butter.	Wheat.	Flour.
	Greasy.	Scoured.	Tops, etc.						
Quantity (Thousands omitted).									
	lb.	lb.	lb.		lb.	cwts.	lb.	bushel.	cental.
United Kingdom ...	102,225	7,859	609	...	58,892	25	26,581	11,541	935
Belgium ...	41,425	2,201	12	...	...	2	...	58	...
France ...	56,496	4,695	53	...	...	2	...	1,845	...
Germany ...	26,736	869	...	...	...	6	...	...	...
Italy ...	14,013	69	26	...	...	3	...	332	...
Other European ...	28,984	1,161	213	...	283	3	...	2,410	72
United States ...	1,912	5	166	...	...	3	...	...	1
China and Hong Kong	...	30	420	...	507	17	926	10	615
Japan ...	25,047	411	80	...	...	18	9	30	...
Other Eastern ...	32	...	39	...	1,681	44	1,961	...	1,734
Other Countries ...	235	1,256	2,235	...	721	37	1,896	90	675
Total ...	296,235	18,556	3,853	...	62,034	160	31,373	16,316	4,932
Value (Thousands omitted).									
	£ A.	£ A.	£ A.	£ A.	£ A.	£ A.	£ A.	£ A.	£ A.
United Kingdom ...	6,294	685	47	548	1,403	29	1,603	2,533	443
Belgium ...	1,980	198	1	30	...	2	...	12	...
France ...	2,981	415	5	701	...	2	...	419	...
Germany ...	1,713	103	...	74	...	7	...	...	...
Italy ...	839	9	2	5	...	3	...	87	...
Other European ...	1,578	101	30	70	6	4	...	524	34
United States ...	77	1	22	778	...	4	...	...	1
China and Hong Kong	...	4	48	...	13	17	57	2	295
Japan ...	1,485	30	7	199	...	24	1	8	...
Other Eastern ...	1	...	3	5	32	53	123	...	845
Other Countries ...	15	122	312	40	16	51	111	23	351
Total ...	16,972	1,668	477	2,450	1,470	196	1,895	3,608	1,969

The bulk of the wool is exported to Great Britain, France, Belgium, Germany, Japan and Italy. In recent years substantial quantities have been sent to Poland and Czechoslovakia. Canada is the principal outlet for wool tops. In addition to the exports of wool shown in the table a large quantity of sheep skins with wool are included with hides and skins. These are sent for the most part to France, the quantity in 1937-38 being 3,606,149 skins valued at £965,110. The United Kingdom and France are the principal markets for wheat and flour; and the United States, France and the United Kingdom for hides and skins. Butter is sent chiefly to the United Kingdom. The table indicates the importance of the eastern trade, particularly to Japan. The Eastern countries took commodities valued at £4,434,000, in 1937-38, including wool £1,578,000, wheat and flour £1,150,000, hides and skins £204,000, butter £181,000, tallow £94,000, and frozen lamb and mutton £45,000.

## VOLUME OF EXPORTS.

The export trade of New South Wales consists to a very large extent of primary products, comparatively few in number, of which quantities, as well as values, are recorded. Therefore, the Customs returns furnish ample data for an approximate measure of changes in the volume of the trade. With the object of ascertaining the extent of the changes in recent years, an index has been compiled from the average values assigned to the principal exports during each year from 1920-21 to 1931-32, the average for each commodity being "weighted" by the average annual quantity exported during this period of twelve years. Then the following statement of the relative volume of trade in Australian produce (exclusive of bullion and specie) during the period has been prepared by applying the index to the value of the exports as recorded:—

TABLE 43.—Volume of Exports.

Year.	Relative Volume of Exports of Australian Produce from New South Wales (1920-21 = 100).	Year.	Relative Volume of Exports of Australian Produce from New South Wales (1920-21 = 100).	Year.	Relative Volume of Exports of Australian Produce from New South Wales (1920-21 = 100).
1920-21	100	1924-27	116	1932-33	143
1921-22	125	1927-28	102	1933-34	116
1922-23	97	1928-29	111	1934-35	134
1923-24	80	1929-30	91	1935-36	124
1924-25	101	1930-31	122	1936-37	125
1925-26	109	1931-32	131	1937-38	120

Wool and wheat are the principal items to be considered in relation to the volume of exports. In 1920-21 the export of wool was comparatively light, but there was a large export of wheat. In the following year exports of wool were unusually heavy, and there was an increase in wheat shipments, so that the volume of exports rose by 25 per cent. During the next two years the quantity of wheat was much smaller, and in 1923-24 a general decline in wool and other rural products caused the volume of trade to fall to a level 20 per cent. below the base year. Trade recovered rapidly as a result of a bounteous wheat crop in 1924-25.

Then the wool industry entered upon a period of high productivity so that there was a large export in each year. The quantity was not so great in 1929-30 as in other years of the period, and there was only a very small shipment of wheat so that the volume of exports was below normal. Abundance was a feature of the production of staple commodities during the period 1930-31 to 1936-37, consequently the volume of trade was heavy.

In 1937-38 the quantity of wool exported was slightly less than in 1929-30, and the smallest since 1924-25. But exports of wheat, flour, meat and butter were substantial and the general volume of trade was 32 per cent. greater than in 1929-30 and only 4 per cent. lower than in 1936-37.

## RE-EXPORTS.

The value of re-exports overseas from New South Wales in 1937-38 was £3,393,191, viz., merchandise, £1,383,945, and bullion and specie, £2,009,246. The re-exports to New Zealand were valued at £417,712 and to the South Sea Islands (in which are included New Guinea and Papua) at £548,312.

The principal items of merchandise re-exported in the last five years are shown below, values being expressed in Australian currency—

TABLE 44.—Re-exports Overseas from New South Wales.

Commodity.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£ A	£ A	£ A	£ A	£ A
Machinery ... ..	118,671	116,050	142,611	144,943	183,045
Metals and Metal Manufactures	100,739	135,125	162,520	169,795	177,435
Tea ... ..	38,672	40,868	37,489	44,251	37,730
Tobacco, etc. ... ..	54,943	54,217	72,030	69,618	73,617
Whisky ... ..	30,819	12,701	16,006	25,045	23,310
Piece Goods ... ..	52,683	42,303	55,145	92,613	39,346
Films for Cinematographs, etc.	73,464	65,709	67,150	111,599	125,085

## OVERSEA EXPORTS—SHIPS' STORES.

The figures relating to oversea exports, as shown in the foregoing tables, do not include exports in the form of ships' stores. This is an important branch of the trade of the State, as will be seen from the following statement of the value of ships' stores exported from New South Wales in various years since 1911. Values are expressed in Australian currency—

TABLE 45.—Ships' Stores Exported Oversea from New South Wales.

Year ended 30th June.	Australian Produce.	Other Produce.	Total.
	£ A	£ A	£ A
1911*	839,700	76,547	916,247
1921	2,028,728	300,969	2,329,697
1929	1,210,007	84,241	1,294,248
1930	914,943	87,010	1,001,953
1931	787,981	95,942	883,923
1932	717,477	77,343	794,820
1933	797,218	73,609	870,827
1934	792,040	93,797	890,837
1935	815,162	89,514	904,676
1936	870,079	100,349	970,428
1937	887,261	121,406	1,008,667
1938	944,252	161,899	1,106,151

\* Calendar Year.

## CUSTOMS AND EXCISE TARIFFS.

The Australian Customs Tariff provides customs duties under three headings—the British Preferential, the Intermediate, and the General Tariff.

The British Preferential Tariff applies to goods which are wholly produced or wholly manufactured in the United Kingdom. It is also extended to cover goods whose factory or works cost is represented by not less than 75 per cent. of United Kingdom, or United Kingdom and Australian labour and material; if the goods are scheduled as not commercially manufactured in Australia, the minimum percentage is 25 per cent., and in certain cases 50 per cent. It is an essential condition in either case that the final processes of manufacture take place in the United Kingdom, and that the goods are consigned direct to Australia. The benefits of this tariff rate

are extended to certain goods the produce of British Crown colonies, protectorates, or territories under British mandate. By separate trade agreements the British Preferential Tariff has been applied to products of the dominions of Canada and New Zealand and the territories of New Guinea and Papua, except where special duties are provided.

The Intermediate Tariff which was a feature of the Australian Customs Tariff until 14th October, 1932, was restored by the Customs Tariff, 1936, and came into operation by proclamation on 1st January, 1937. It granted intermediate rates of duty to specified goods, the produce of the United Kingdom, the dominions and other British possessions, and, in accordance with most favoured nation treatment, to most foreign countries. The rates levied under the Intermediate Tariff are intended to afford protection to Australian industry and to preserve the margins required under the Ottawa Agreement. It also facilitates the implementation of trade agreements by indicating the level of duties which should form the basis of such treaties.

The General Tariff applies to all importations except those admissible under the British Preferential Tariff or the Intermediate Tariff.

The present schedule of Customs duties is the Customs Tariff, 1933-1938 (which embodies previous schedules and amendments thereto), as proposed to be amended by the Customs Tariff proposals tabled in the House of Representatives on 4th May, 1938.

#### *Primage Duties.*

A primage duty of 2½ per cent. ad valorem was imposed for revenue purposes from 10th July, 1930, upon almost all goods, in addition to duties collected in accordance with the tariff. The rate was increased to 4 per cent. on 6th November, 1930, and to 10 per cent. on most items on 11th July, 1931. Primage duties on goods under the British Preferential Tariff were reduced on 5th October, 1933, and since 1st December, 1933, goods of New Zealand origin have been exempt from primage.

Under the Customs Tariff (Primage Duties Act), 1934, ad valorem primage duties at rates of 4 per cent., 5 per cent., or 10 per cent. are levied according to the origin and type of goods. Goods the produce or manufacture of Norfolk Island, New Zealand, Fiji, Papua, and the Territory of New Guinea, are exempt from primage duty as are also a number of specified goods for use by primary producers. Many machines, tools of trade, and raw materials not manufactured or produced in Australia are also free of primage duty when subject to the British Preferential Tariff. Primage duties at the rates applicable to the British Preferential Tariff are imposed on Canadian goods admissible under the British Preferential Tariff, in accordance with the provisions of the Customs Tariff (Canadian Preference) Act, 1934-1938; also, on proclaimed commodities from British self-governed colonies and protectorates. By customs proclamations which came into operation on 1st January, 1937 and after, all countries whose products were admissible under the Intermediate Customs Tariff were accorded a reduction of rate to 4 per cent. or 5 per cent. or exemption from primage duty in respect of specified tariff items. The proclaimed countries included the United Kingdom, the dominions and colonies and most foreign countries.

As primage duties are imposed for revenue purposes they are reviewed each financial year during the consideration of the budget.

*Exchange Adjustment.*

As a result of the world economic depression, the currencies of many countries were depreciated, and international exchange rates fluctuated considerably. Where the exchange rate was unfavourable to Australia, *e.g.*, as between Australia and the United Kingdom, the effect was to give additional protection to Australian industries. The imposition of primage duties on imports in addition to the ordinary duties, and the fall in internal costs of production in Australia further increased the margin of protection.

The question of adjusting protective duties because of the incidence of exchange was referred by the Minister for Trade and Customs to the Tariff Board for inquiry, and their recommendations regarding exchange adjustment were incorporated in the Tariff (Exchange Adjustment) Act, 1933, which came into force on 5th October, 1933. This Act, as subsequently amended, provides for adjustments in ordinary customs duties (other than primage duty and duty imposed by the Customs Tariff Industries Preservation Act) consequent upon depreciation of Australian currency in relation to the currencies of the countries to which the benefits of the British Preferential Tariff extend. These adjustments are as follows, *viz.*:—(a) When, at the date of exportation of the goods involved, Australian currency has depreciated to the extent of not less than 16 $\frac{2}{3}$  per cent., a deduction is to be made of one-fourth of the amount of the duty, or one-eighth of the value of the goods for duty, whichever is the less; or (b) when the depreciation is less than 16 $\frac{2}{3}$  per cent., but not less than 11  $\frac{1}{9}$ th per cent., the deduction is to be one-eighth of the amount of the duty or one-sixteenth of the value of the goods for duty, whichever is the less. The extent of depreciation of Australian currency is determined according to the telegraphic transfer (buying) rate.

Subsequent to the enactment of the Customs Tariff (Exchange Adjustment) Act, 1933, the Tariff Board has adopted the principle of recommending protective rates of duty on the basis of reasonable and adequate protection necessary (a) under existing conditions of exchange, (b) if exchange, Australia on London, suddenly reverted to par, (c) to meet conditions of exchange between parity and the present adverse rate of 25 per cent.

Tariff proposals introduced on 6th December, 1937, and later have imposed duties on certain articles in accordance with the recommendations of the Tariff Board as in (a) above with provision as in (c) for automatic variations of duties in consonance with fluctuations in the rate of exchange. With respect to items so affected deductions applicable under the Tariff (Exchange Adjustment) Act do not apply.

## TRADE DIVERSION.

The object of the trade diversion policy which became effective on 22nd May, 1936, was to divert the import trade from countries in relation to which Australia had unfavourable trade balances, to those countries with which the trade balance was favourable or less unfavourable, in the expectation that the latter countries would increase their purchases of Australian primary products. For this purpose and to promote the expansion of secondary industries, *e.g.*, the manufacture of motor chassis, restrictions were imposed on the importation of certain goods. These goods were admitted under license from those countries with which the balance of trade was favourable, and from all other countries in regard to which although the balance was adverse to the Commonwealth the Government was satisfied with the position.

All goods of British origin were exempt from the licensing system, except motor chassis, and these only when they originated in the United Kingdom.

Notice was given in December, 1937, of the abandonment of the trade diversion policy and of the substitution for the licensing system of a system of adequate duties where such action was considered necessary for the protection of Australian industry.

Following this announcement licenses were granted in the case of importation of goods not competitive with Australian industry irrespective of the country of origin; but in the case of motor chassis and of goods competitive with Australian industry the existing system continued to operate.

On 4th May, 1938, import duties regarded as adequate for the protection of Australian industry were imposed in the case of goods competitive therewith, and licenses have since been granted for the importation of such goods irrespective of the country of origin.

Motor chassis still continue to be subject to the licensing system. The quota, which applies to all countries except the United Kingdom, provides for the annual importation of chassis equal to the number imported during the year ended 30th April, 1936.

#### *Ottawa Agreement.*

As a result of the Imperial Economic Conference, held in Ottawa during July and August, 1932, an agreement was made between the Governments of the Commonwealth and the United Kingdom for increased trade preference. The agreement was ratified by the United Kingdom and Australia Agreement Act, 1932. The term of the agreement expired in August, 1937 after a currency of five years, but it remains in force, as neither party has denounced it.

Briefly the Commonwealth undertook that protection by tariffs would be afforded only to those industries which were reasonably assured of sound opportunities for success, and furthermore, that the tariff would be based on the principle that protective duties should not exceed the level which would give United Kingdom producers full opportunity of reasonable competition on the basis of relative cost of economical and efficient production. In the application of this principle, however, special consideration was reserved for industries which were not fully established. It was also provided that the Tariff Board should review protective duties in accordance with the above principles, and that no new protective duty should be imposed and no existing duty on United Kingdom goods increased in excess of the recommendation of the Board.

The Commonwealth also undertook to repeal proclamations prohibiting the importation of certain goods, to revoke the special duties of 50 per cent. and to reduce or remove primage as soon as the financial position of Australia would permit. The prohibition of the importation of the goods referred to had been lifted completely by 21st August, 1932, and the special duty of 50 per cent. of the rate in force, imposed from 3rd April, 1930, had been removed from all goods affected by 1st March, 1935.

The margin of preference under the British Preferential Tariff for goods imported from the United Kingdom as compared with the most favoured foreign country was determined as follows, viz. :—

- (a) a minimum margin of 15 per cent. when such goods were free of duty or liable to duty not exceeding 19 per cent. ad valorem;

- (b) a minimum margin of 17½ per cent. when the duties exceeded 19 per cent., but did not exceed 29 per cent. ad valorem; and
- (c) a minimum margin of 20 per cent. when the duty exceeded 29 per cent. ad valorem provided that the resulting duty did not exceed 75 per cent. ad valorem.

It was agreed however, that the formula margin should not apply to those goods of a class or kind not commercially produced or manufactured in the United Kingdom, nor where it was considered that its application was unnecessary; also that in the case of certain goods where existing preferential margins exceeded those laid down in the formula, such margins should be maintained.

The Australian Customs Tariff Schedule of 13th October, 1932, provided for marginal preference on goods imported from the United Kingdom, by increasing the existing duty under the General Tariff on many items. This schedule, with alterations made in 1933 and subsequent dates, was embodied in the Customs Tariff Act, 1933-1938.

Since 1932, the policy in relation to protective duties has been to act in broad principle in accordance with the recommendations made by the Tariff Board to which reference is made on page 41.

Prior to the Ottawa Economic Conference, the tariff of the United Kingdom provided preferential customs duties on certain products of British countries. The commodities which chiefly concerned Australia were dried and preserved fruits, jam, fruit pulp, preserved milk, spirits, wine and sugar. Also the United Kingdom imposed a general ad valorem duty of 10 per cent. on goods of foreign countries. By the Ottawa Agreement increased preference was granted to the Commonwealth, and the list of commodities entitled to preference was extended. The United Kingdom also undertook that the 10 per cent. ad valorem duty on certain goods should not be reduced except with the consent of the Commonwealth. The more important of these were leather, tallow, canned meat, zinc, lead, barley, flour, meat extracts, sausage casings, and certain dried fruits. The preference in respect of wheat in grain, copper, lead and zinc was conditional upon Australian producers offering these commodities on first sale in the United Kingdom at price not exceeding the world price. With the object of raising the level of wholesale prices of frozen lamb and mutton in the United Kingdom, the two countries agreed to regulate the importation of these commodities.

An unsuccessful effort was made by the recent Australian trade delegation to London to secure a modification of the principles of the Ottawa Agreement which govern British trade with Australia. These principles are enunciated in articles 9 to 13 of the Agreement and discussion ranged chiefly round article 10 which contains the principle of reasonable competition on the basis of relative cost, and articles 11 and 12 which contain undertakings that protective duties in accordance with this principle should be reviewed by the Tariff Board and that higher duties than those recommended by the Board should not be imposed.

The results of the delegation's discussions with the Ministers of the British Government are contained in a white paper presented to the House of Commons, London, on 21st July, 1938, the text of which was released in Canberra on the same date.

It is proposed to replace the method contained in articles 9 to 13 with a system of specific maximum duties on British goods to operate during the currency of the agreement. Pending the decision of the Australian Government on the new system articles 9 to 13 will continue in force.



but with two specific injunctions, viz.—(i) that the United Kingdom Ministers will not press their objections to the interpretation now placed by the Tariff Board on article 10, and (ii) that the Australian Ministers will make every effort to secure a review of duties by the Tariff Board in accordance with this principle, and to make the Board's recommendations effective.

The white paper also contains a discussion on other matters affecting Australian trade.

#### *Reciprocal Agreements.*

The first trade treaty between Canada and Australia was effected in September, 1925. This treaty was superseded by the Customs Tariff (Canadian Preference) Act, 1931 (assented to on 25th July, 1931), which ratified and confirmed the trade agreement with Canada made at Ottawa on 5th June, 1931. Canada undertook to impose specified duties on certain commodities and to extend to all other goods the benefits of the British Preferential Tariff. Australia agreed to act similarly.

Either country, after three months' notice, may impose General Tariff rates in lieu of the preference rates on goods imported from the other country, when the importation of such goods is detrimental to the sale of similar goods in the importing country.

By the 1931 Act some goods imported from Canada were subject to the Intermediate Tariff then operating. By the Customs Tariff (Canadian Preference) Act, 1934, these goods were made subject to special rates of duties. Amendments have since been made and the schedules at present in operation are contained in the Customs Tariff (Canadian Preference) Act, 1931, as supplemented by the Customs Tariff (Canadian Preference) Act, 1934-1938.

An agreement for mutual trade preference was made between Australia and New Zealand in 1922 and was replaced by a new agreement in 1933. Australia agreed not to impose duties on free goods nor to increase customs rates on certain dutiable goods except with the consent of New Zealand or after six months' notice. New Zealand agreed to act similarly with regard to Australia. In each Dominion the rates under the British Preferential Tariff were applicable to commodities not specified in the agreement. Where the British Preferential rate on any non-scheduled article was less in the exporting Dominion than the British preferential rate in the importing Dominion, then a request might be made that the latter rate should be reduced to the former within three months. Primage duty was not chargeable on goods imported from New Zealand into Australia, but imports to New Zealand from Australia were liable to primage provided the rate did not exceed that charged on similar importations from the United Kingdom. New Zealand also undertook to abolish primage on Australian goods as soon as finances permitted.

The agreement was given effect by the Customs Tariff (New Zealand Preference) Act 1933-1934, and might be terminated by either country after six months' notice.

This agreement has been modified as from 1st March, 1938, to provide for the application by New Zealand of increased rates on—(a) certain manufactured articles of Australian origin which, under the 1933 agreement could not be made subject to increased duties except by mutual consent or after six months' notice and (b) certain other articles of Australian origin, which under the 1933 agreement were subject to rates of duty applicable under the British Preferential Tariff.

The purpose of New Zealand in increasing the duties was to promote the expansion of certain manufacturing industries in New Zealand and to restore to others the level of protection they were afforded before the introduction of a working week of forty hours and the restoration of the wages and conditions of employment in 1931. With the exception of the United Kingdom, which the New Zealand Government in terms of the United Kingdom-New Zealand Trade agreement must maintain in the position of a domestic competitor, Australia's position generally in relation to other competitive supplying countries remains unchanged. Under the modified agreement three months' notice is required from either party for the termination of the agreement or for an increase in the duties on specified goods.

The Customs Tariff (Papua and New Guinea Preference) Act, 1936, which repealed the Act of 1934, admits to Australia, free of duty, certain products of New Guinea and Papua if imported direct from those territories. The chief products affected are cocoa beans, coffee, ginger, coconuts, sago, tapioca, kapok and sesame seeds, vanilla beans, and certain spices and gums. Other commodities of Papuan or New Guinea origin not specifically mentioned in the schedule to the Act are admissible at rates chargeable under the British Preferential Tariff.

A trade agreement between Australia and the Union of South Africa has been in operation since 1st July, 1935. It provides that the products of Australia entering the Union of South Africa or the mandated territory of South West Africa shall be subject to customs duties not higher than those imposed by South Africa on similar products from the most favoured foreign nation. Australia agreed to act similarly with regard to products imported from South Africa and the mandated territory of South West Africa. A reciprocal tariff agreement between the Union of South Africa and Mozambique is exempt from the agreement.

The trade agreement between Australia and Belgium which came into operation on 1st January, 1937, provides for (1) reciprocal most favoured nation treatment; (2) quota arrangement with respect to the importation of Belgian glass; (3) grant to Belgium of intermediate tariff in respect of certain products, primage concessions on a number of items, remission of duty on outside packages in certain cases, an undertaking to refer a number of items to the Tariff Board for inquiry and report, and the reclassification of certain sheet glass not manufactured in Australia; (4) the consolidation of the present duty-free entry into Belgium of Australian wool, sheepskins, hides and tallow, and the consolidation of duties on fresh apples and pears; (5) an undertaking by Belgium that the importation of Australian barley, wheat and frozen meat, will not be prohibited.

This agreement replaces one promulgated in November, 1934, and is terminable by either Government on six months' notice. Its duration is indefinite.

A trade agreement between Australia and Czechoslovakia came into force on 1st January, 1937, for one year, to continue thereafter until terminated by either party on three months' notice.

As regards Australia it provides for (1) the grant to Czechoslovakia of the most favoured nation treatment; (2) an undertaking that prohibitions and restrictions shall not be discriminatory; (3) the equitable treatment of Czechoslovakian goods should quantitative regulation of imports be maintained or adopted; (4) the grant of an intermediate tariff rate on certain items; (5) the continuance of the by-law admission of certain steel which is of a type not manufactured in Australia; and (6) the remission of the primage duty on a limited number of items.

The undertakings in (1) to (3) inclusive are reciprocal in their application. Czechoslovakia undertakes to admit duty free—wool, sheepskins, rabbit skins, and pearl shell; to consolidate the existing low duties on lead; and to grant a reduction of the duty on apples. To each party to the agreement is reserved the right under certain circumstances to impose restrictions on imports provided such measures are applied under the same conditions to similar articles imported from any other foreign country.

The trade agreement between France and Australia came into operation on 1st January, 1937. Its term is one year, but it will continue thereafter until terminated by either party on two months' notice.

The following concessions have been accorded to Australia by the French Government:—The application of the French minimum tariff duties to certain items in which are included wool, hides, skins, wheat, barley, meat and metals; the abolition of the special retaliatory duties of 200 per cent. of the French maximum tariff on butter and wheat; the abolition of the exchange surtax of 15 per cent. on all Australian goods; and the reduction of the import tax on Australian products to a flat rate of 2 per cent.

Australia has made the following concessions to France:—The application of intermediate tariff rates on certain items; the reduction of primage duties on some items; an undertaking to refer certain items to the Tariff Board for inquiry and report; and a pledge to accord French products tariff treatment at least as favourable as that accorded to the products of the most favoured foreign country.

While the French quota restrictions remain it does not necessarily follow that the application of French minimum tariff duties to certain commodities will open the way for large imports of these goods into France. For some items no quotas have been granted, Australian barley and apples being exceptions. For other items France is prepared to examine with goodwill any request by the Commonwealth Government for a percentage of the global quota.

The trade arrangement between Australia and Japan which was operative during the period 1st January, 1937 to 30th June, 1938, has been replaced by one effective for twelve months from 1st July, 1938.

Japan undertakes to grant permits for the importation during the latter period of Australian wool to the extent of two-thirds of the total imports from all countries. If, however, this total exceeds 500,000 bales permits will be granted for the importation of additional Australian wool equal to three-quarters of the excess quantity.

It is also provided that if the imports of Australian wool during the period 1st January, 1937 to 30th June, 1938, are less than 600,000 bales, then a quantity equal to the difference shall be imported into Japan in addition to that admissible in terms of the last paragraph; also this quantity shall not be taken into account in estimating imports of Australian wool into Japan during the year ending 30th June, 1939.

Japan also undertakes to grant foreign exchange permits to enable Australian wool to be imported into Japan in accordance with the terms of this arrangement. In the previous arrangement Japan undertook to permit the importation of not less than 800,000 bales of Australian wool during the period 1st January, 1937 to 30th June, 1938.

Australia undertakes to permit the importation from Japan during the year commencing 1st July, 1938, of 51,250,000 square yards of cotton piece goods, and an equal quantity of artificial silk piece goods. In the latter are included piece goods of staple fibre. The inclusion of staple fibre piece goods is the only alteration made in the textile allocations of the previous trade arrangement. These quotas may be reviewed should it appear that

the importations of Australian wool to Japan will be less than 266,667 bales, plus the quantity (approximately 100,000 bales) representing the carry-over from the period of the previous trade arrangement.

Australia also accords to Japan the benefits of the intermediate tariff with respect to certain piece goods of cotton, artificial silk or staple fibre and exempts them from the payment of primage duty.

#### *Trade Relations with the United States of America.*

The trade diversion policy referred to on page 64 adversely affected the importation of a large range of goods from the United States of America which had for many years enjoyed an extremely favourable trade balance with Australia. In August, 1936, the United States withdrew the most favoured nation treatment accorded to Australian goods, and certain trade benefits shared by Australia with a number of other nations. Further action was taken by Australia, and the United States did not appear on the list of proclaimed countries to which the intermediate tariff was applied as from 1st January, 1937, and to which certain primage duty concessions were extended. The trade diversion policy was abandoned in December, 1937, and the United States restored Australia to the list of countries entitled to receive most favoured nation treatment. This action was followed by discussions between representatives of both countries with the purpose of exploring the possibility of concluding a trade agreement. The stage has not yet been reached when active negotiations between the two countries can take place.

#### *Industries Preservation Act.*

The Customs Tariff (Industries Preservation) Act, 1921-1936, provides that a special dumping duty may be imposed on goods exported to Australia at a price less than the fair market price for home consumption at the time of shipment, or at less than a reasonable price when the importation of such goods is detrimental to an Australian industry engaged in the production or manufacture of a similar class of goods. The duty imposed is the amount by which the export selling price to Australia is less than the fair market value or the reasonable price, as the case may be. Goods sold on consignment are dealt with somewhat similarly. A dumping freight duty may be imposed also on goods carried to Australia either free of freight or at reduced rates of freight. The amount of the dumping duty in such cases is equal to the extent of the freight concession granted.

The Act also provides that the Minister of Trade and Customs, after inquiry by the Tariff Board, may impose an exchange dumping duty on goods imported from a country whose currency has depreciated in relation to Australian currency, if the sale of these goods by reason of such depreciation is detrimental to an Australian industry. The amount of the duty

may be derived from the formula  $\frac{a-b}{b} \times c$  where  $a$  is the nominal par value in sterling of a unit of the currency of the country of origin,  $b$  the value in Australian currency of the same unit at date of exportation, and  $c$  the value for duty of the goods assessed in accordance with the Customs Act, 1901-1936. When dumping duties (except exchange dumping duties) are calculated in any currency other than Australian currency the amount of dumping duty is payable in Australian currency, ascertained according to a fair rate of exchange, such rate to be declared in cases of doubt by the Minister.

#### *Sales Tax.*

Since 1st August, 1930, imports into Australia as well as local secondary products have been subject to the Sales Tax. The rate was  $2\frac{1}{2}$  per cent.

from 1st August, 1930; 6 per cent. from 11th July, 1931; 5 per cent. from 26th October, 1933; 4 per cent. from 11th September, 1936, and 5 per cent. from 22nd September, 1938. Certain goods are exempt.

The Sales Tax Assessment (Fiji Imports) Act, 1934, exempts from sales tax certain goods imported to Australia from Fiji, if not produced in Australia, or which, if produced, are exempt from tax. These goods are also exempt from primage duty.

*Excise Tariffs.*

The Excise Tariff of 1921 imposed duties upon beer, spirits, amylic alcohol, fusel oil, saccharin, starch made from imported rice, tobacco, cigars, cigarettes and snuff. The Excise Tariff 1921-1938 incorporates these duties, and levies duties upon petroleum and shale products, playing cards, concentrated grape must, cigarette tubes and papers, matches, and valves for wireless telegraphy and telephony. The duty on starch has been repealed.

CUSTOMS AND EXCISE REVENUE.

The following statement shows the net amount of customs and excise revenue collected in New South Wales under each division of the tariff during the various years since 1910-11. The collections include receipts on account of goods which were transferred for consumption in other States. A notable instance is the excise collected in New South Wales on cigarettes made locally, though more than half the output of the factories is subsequently exported interstate. On the other hand, the receipts do not include duties on goods from other States consumed in New South Wales:—

TABLE 46.—Customs and Excise Revenue Collected in New South Wales.

Tariff Division	1910-11.	1920-21.	1930-31.	1936-37	1937-38.
<b>Customs—</b>	£	£	£	£	£
Stimulants, Ale, Beer, etc. ...	1,100,212	832,473	556,739	666,700	686,379
Narcotics (Tobacco) ...	506,423	1,013,607	2,104,793	2,202,425	2,284,511
Sugar ...	87,438	1,206	381	2,421	3,319
Agricultural Products and Groceries ...	354,855	339,997	492,401	691,837	681,613
Apparel and Textiles ...	822,576	2,626,199	874,654	1,171,675	1,398,969
Metals and Machinery ...	477,766	2,050,953	692,670	1,021,881	1,305,425
Oils, Paints, and Varnishes ...	92,800	231,733	1,391,318	2,652,073	3,271,815
Earthenware, etc. ...	123,593	276,091	157,686	219,218	263,139
Drugs and Chemicals ...	42,350	214,132	178,889	136,889	169,800
Wood, Wicker, etc. ...	156,632	214,043	140,236	323,469	335,009
Jewellery and Fancy Goods ...	120,335	305,041	339,502	271,624	319,819
Leather and Rubber ...	110,351	284,894	152,823	198,525	242,983
Paper and Stationery ...	83,521	490,762	360,868	217,572	248,019
Vehicles ...	66,317	361,343	120,710	759,001	944,855
Musical Instruments ...	50,707	112,097	6,680	16,331	15,414
Miscellaneous ...	104,395	323,468	318,200	409,295	511,601
Primage Duty ...	...	...	777,952	1,729,429	2,015,249
Other Receipts ...	12,678	29,043	70,570	114,097	129,854
<b>Total, Customs</b> ...	£ 4,306,952	9,797,982	8,746,162	12,804,622	14,827,773
<b>Excise—</b>					
Beer ...	210,728	2,019,397	1,903,032	2,260,704	2,657,523
Spirits ...	119,169	677,537	495,093	645,479	688,360
Tobacco ...	188,763	586,760	752,745	1,713,143	1,897,580
Cigars ...	958	18,072	1,706	1,454,521	1,526,928
Cigarettes ...	250,093	1,721,252	1,381,984	92,869	101,639
Cigarette Papers ...	...	...	...	490,174	413,647
Petrol ...	...	...	220,272	6,645	124,265
Other Excise ...	262,265	...	6,645	102,442	124,265
Licenses ...	2,250	4,479	3,714	3,722	3,794
<b>Total, Excise</b> ...	£ 1,034,235	5,027,407	4,765,251	6,763,054	7,413,775
<b>Total, Customs and Excise</b> ...	£ 5,341,187	14,825,479	13,501,413	19,567,676	22,241,548
<b>Per head of population</b> ...	£ s. d. 3 5 2	£ s. d. 7 1 10	£ s. d. 5 6 1	£ s. d. 7 5 11	£ s. d. 8 4 2

The net collections of customs duties in New South Wales amounted, on an average, to £14,000,000 per annum during the four years ended 30th June, 1930. In 1930-31 the amount—apart from primage—was only £8,000,000, and it declined to £7,000,000 in the following year. The corresponding amount was £11,075,000 in 1936-37 and £12,813,000 in 1937-38. There were increases during the year ended 30th June, 1938, in all tariff divisions except agricultural products and groceries.

Excise revenue declined after 1928-29 when it amounted to £5,887,500. It reached its lowest point in 1931-32 at £4,215,000, then increased in each subsequent year. In 1937-38 it amounted to £7,414,000, an increase of 25.9 per cent. as compared with 1928-29.

The amount of customs and excise revenue obtained from duties on stimulants, etc., and tobacco was £8,878,789 or £3 11s. 6d. per head of population in 1928-29, £8,943,032 or £3 6s. 8d. per head in 1936-37 and £9,741,290 or £3 11s. 11d. per head in 1937-38.

#### INTERSTATE TRADE.

At a conference of the Statisticians of Australia in 1930 it was resolved that steps be taken to publish statistics in respect of interstate trade. With this object in view the following summary has been compiled from data obtained from the Maritime Services Board, the railway authorities of New South Wales, Victoria, and South Australia, and persons and firms engaged in interstate trade. The figures are not complete, but probably represent the bulk of the interstate consignments of the products specified:—

TABLE 47.—Interstate Trade of New South Wales.

Commodity.	Interstate Imports.			Interstate Exports.		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
Wheat ... .. bushels.	28,667	34,008	155,784	5,360,600	5,207,115	3,555,317
Flour ... .. centals.	136,300	136,880	136,726	491,400	499,241	500,566
Oats† ... .. bushels.	97,888	78,698	943,421	*	*	*
Maize ... .. "	329,957	185,152	1,034,465	*	*	*
Barley ... .. "	322,515	400,242	582,581	*	*	*
Potatoes... .. cwt.	1,316,305	1,669,840	1,914,831	60,628	105,516	137,299
Onions ... .. "	467,368	444,410	519,178	2,616	3,346	2,920
Butter (c) ... .. lb.	5,550,100	5,808,488	9,753,548	2,814,400(b)	1,836,744(b)	3,584,716(b)
Cheese ... .. "	3,567,508	3,941,426	3,963,400	*	*	*
Bacon and Ham .. "	9,287,296	8,936,788	8,063,076	*	*	*
Eggs—in shell .. doz.	1,205,580	968,390	1,409,019	*	*	*
Egg Pulp§. .. cub. tons	941	877	852	*	*	*
Wool ... .. lb.	18,142,560	20,286,600	16,392,384	75,785,232	79,653,500	75,851,254
Sheep ... .. No.	1,256,552	1,209,780	1,026,839	2,571,101	2,668,933	3,302,517
Horses ... .. "	15,556	16,970	13,303	7,057	7,394	6,981
Cattle ... .. "	191,432	189,946	146,238	100,534	120,780	102,150
Coal—Cargo ... tons	*	*	*	1,647,397	1,900,028	2,091,142
Bunker ... .. "	*	*	*	354,380	404,996	431,383
Tobacco** ... .. lb.	600,588	592,420	762,409	2,097,319	2,695,250	2,907,209
Cigars** ... .. "	44,922	51,798	59,643	9,843	15,590	14,613
Cigarettes** ... .. "	398,547	430,930	519,149	2,292,900	2,463,495	2,519,471

\* Not available. † Excluding arrivals at Newcastle.

‡ Imports into Sydney only. \*\* Excluding movements in bond.

(a) Imports into Sydney and Newcastle. (b) Includes butter sent to Brisbane for oversea export.

(c) Excluding movement by road.

The imports of maize, dairy products, and cattle are obtained mainly from Queensland. Potatoes, onions, barley and oats are imported from Victoria, potatoes and oats from Tasmania, and large quantities of fresh fruits from all three States. Exports of wheat and flour from New South Wales consist to a large extent of consignments from the southern districts to Victoria; wheat is exported also to Queensland; Victoria is the main outlet for sheep and cattle, and Western Australia for butter, apart from the butter sent to Queensland to be shipped overseas at Brisbane. Coal is exported to all the States except Queensland, and some is re-exported from South Australia to Broken Hill.

Further information relating to the interstate trade with Tasmania, Western Australia, and South Australia, as shown below, has been compiled by the Statisticians of these States, the South Australian records being complete only so far as the items could be traced.

TABLE 48.—Interstate Trade of New South Wales with South Australia Western Australia and Tasmania.

Principal Items of Interstate Trade.	1934-35.		1933-36.		1932-37.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
<i>South Australia.</i>							
Imports from New South Wales—*		£ A		£ A		£ A	
Ores from Broken Hill—							
Granular and Slime Concentrates ... ..	tons	242,744	2,996,035	242,850	3,556,582	245,795	5,162,335
Zinc Concentrates ... ..	tons	62,423	93,642	65,661	98,491	56,063	84,047
Coal ... ..	tons	433,675	520,410	499,012	586,814	552,047	607,252
Butter ... ..	lb.	112,000	7,618	392,000	25,005	...	...
Sheep ... ..	No.	86,146	†	86,294	†	123,484	†
Wool ... ..	lb.	14,723,400	558,017	13,886,518	777,645	14,978,337	772,882
Exports to New South Wales—*							
Lead ... ..	tons	66,789	852,456	65,812	1,240,711	65,290	1,843,282
Iron ore ... ..	...	1,355,096	1,558,360	1,295,207	1,489,488	1,648,461	1,895,730
Motor bodies ... ..	No.	3,307	367,752	12,098	1,162,587	13,694	1,236,665
Coal (to Broken Hill) ... ..	tons	7,505	9,006	10,361	12,433	11,497	12,647
Brandy ... ..	... pf. gal.	71,973	53,980	82,851	62,138	80,427	60,320
Wine ... ..	gal.	832,022	223,777	815,474	217,765	790,660	185,699
<i>Western Australia.</i>							
Imports from New South Wales—		£ A		£ A		£ A	
Butter ... ..	lb.	973,316	66,834	1,082,544	74,867	891,533	61,488
Confectionery ... ..	...	1,789,234	121,882	1,965,565	197,056	2,211,167	156,581
Sugar ... ..	tons	807	29,186	821	22,398	1,690	39,046
Tobacco, manufactured ... ..	lb.	496,619	190,874	477,842	201,045	557,060	234,014
Cigarettes ... ..	...	285,580	269,743	284,772	269,066	294,637	284,050
Apparel and textiles ... ..	...	...	404,790	...	450,225	...	510,181
Coal ... ..	tons	50,085	55,869	50,893	55,145	82,781	98,079
Machinery ... ..	...	...	411,783	...	467,451	...	598,175
Metal manufactures ... ..	...	...	839,093	...	995,816	...	1,225,271
Rubber manufactures ... ..	...	...	128,224	...	134,968	...	146,790
Drugs, chemicals, and fertilisers ... ..	...	...	246,580	...	245,986	...	270,763
Total Imports from New Sth. Wales	...	3,556,680	...	3,912,233	...	4,625,808	...
Total Exports to New South Wales	...	337,933	...	407,751	...	430,619	...
<i>Tasmania.</i>							
Imports from New South Wales—		£ A		£ A		£ A	
Sugar ... ..	tons	12,280	372,947	12,268	383,580	13,468	430,929
Tobacco, cigars, and cigarettes ... ..	...	...	107,772	...	111,576	...	120,528
Machinery and metal manufactures ... ..	...	...	437,100	...	560,040	...	755,955
Total Imports from New Sth. Wales	...	1,951,164	...	2,146,637	...	2,594,389	...
Exports to New South Wales—							
Fruits—Fresh ... ..	bush.	1,124,857	241,823	873,129	253,133	1,014,527	269,692
Preserved, pulped ... ..	lb.	6,421,015	84,755	5,610,761	67,443	7,155,668	77,224
Jams and jellies ... ..	...	8,728,525	168,865	5,153,000	104,559	4,215,640	90,605
Potatoes ... ..	tons.	56,632	442,306	49,085	422,174	97,638	386,763
Copper (blister) ... ..	...	10,958	291,698	11,660	420,170	13,324	648,790
Zinc ... ..	...	27,866	431,731	21,151	384,542	24,105	513,335
Other metals and ores ... ..	...	2,870	289,404	4,174	258,808	28,772	337,717
Woollen manufactures ... ..	...	...	297,156	...	244,857	...	276,750
Total Exports to New South Wales	...	2,937,761	...	3,009,594	...	3,391,948	...

\* As far as recorded.

† Not available.

## SHIPPING.

OWING to the geographic position of New South Wales, efficient transport services are essential to maintain regular and speedy communication with other countries, and to place the staple products upon distant markets in a satisfactory condition without unduly increasing the cost. In modern ships special provision is made for refrigerated cargoes, and improved methods of carrying perishable products have promoted the growth of a permanent export trade in such commodities as butter, frozen meat, and fruit.

### CONTROL OF SHIPPING.

Prior to the inauguration of the Commonwealth in 1901, the shipping of New South Wales was regulated partly by an Imperial enactment, the Merchant Shipping Act, 1894, and partly by the laws of the Parliament of New South Wales. Under the Commonwealth Constitution the Federal Parliament is empowered to make laws with respect to trade and commerce with other countries and among the States, including navigation and shipping, and in relation to such matters as lighthouses, lightships, beacons and buoys, and quarantine.

Special legislation relating to navigation and shipping is contained in the Commonwealth Navigation Act, 1912-1935. It is drafted on the lines of the Merchant Shipping Act and of the Navigation Act of New South Wales and embodies the rules of the international conventions for Safety of Life at Sea.

The provisions of the Act apply to ships registered in Australia (excepting those engaged solely in the domestic trade of any one State) and other British ships on round voyages to or from Australia. The Governor-General may suspend its application to barges, fishing boats, pleasure yachts, missionary ships, or other vessels not carrying passengers or goods for hire; and the High Court of Australia has decided that clauses relating to manning, accommodation, and licensing do not apply to vessels engaged in purely intra-state trade.

A ship other than an intra-state vessel may not engage in the coasting trade of Australia unless licensed to do so, and a license may not be granted to a ship in receipt of a foreign subsidy. Licensees, during the time their ships are so engaged, are obliged to pay to the seamen wages at current rates ruling in Australia, and, in the case of foreign vessels, to comply with the same conditions as to manning and accommodation of the crew as are imposed on Australian registered vessels. Power is reserved to the Marine Administration to grant permits, under certain conditions, to unlicensed British ships to engage in the coasting trade if a licensed British ship is not available for the service, or if the service by licensed shipping is inadequate. A permit may be continuing, or for a single voyage.

The Governor-General has suspended by proclamation under section 7 of the Act the operations of the foregoing provisions in regard to trade between Australia and the Northern Territory, Nauru, Norfolk Island, New



Guinea, and Papua. Provision is made in the Navigation Act, 1935, under the section quoted, that a British ship of not less than 10,000 tons gross tonnage and a sea speed of not less than 14 knots may carry passengers without break of journey from one port in Australia to another with which the port of embarkation is not connected by rail.

The part of the Navigation Act which relates to pilotage has not been brought into operation, and this service is regulated under the State Navigation Act of 1901-1935.

Administrative control over the ports of New South Wales is vested in the Maritime Services Board of New South Wales which is described on page 84. There is also an Advisory Committee to advise the Board in respect of Newcastle. It consists of five members, all appointed by the Government: the chairman is nominated by the Board and the other members are representative of interests concerned with the administration of the port. Prior to the commencement of the Maritime Service Act in February, 1936, the port of Sydney was administered by the Sydney Harbour Trust and the other ports by the State Department of Navigation.

Matters relating to seaboard quarantine are administered by the Commonwealth in terms of the Quarantine Act, 1908-24, and arrangements have been made with the State Government to aid in carrying out the law relating to animal and plant quarantine. The Act defines the vessels, persons, animals, plants, and goods which are subject to quarantine, and provides for examination, detention, and segregation in order to prevent the introduction or spread of diseases or pests. Imported animals or plants may not be landed without a permit granted by a quarantine officer. The master, owner, and agent of a vessel ordered into quarantine are severally responsible for the expenses, but the Commonwealth Government may undertake to bear the cost in respect of vessels trading exclusively between Australasian ports. Quarantine expenses in the case of animals and goods are defrayed by the importer or owner.

Vessels arriving from oversea ports are examined by a quarantine officer at the first port of call in Australia. If the vessel is less than fourteen days from the last oversea port of call (certain South Pacific Island ports excepted) it is inspected again at the next port of call. The quarantine station of New South Wales is situated in Sydney Harbour, near the entrance to the port.

The liability of shipowners, charterers, etc., in regard to the transportation of goods is defined by the Sea-carriage Acts passed by the State and the Commonwealth Parliaments. The State Act passed in 1921 applies to the intra-state trade, and the Commonwealth Act of 1924 applies to the interstate and the outward oversea trade.

#### INTERSTATE AND OVERSEA SHIPPING.

The figures in this chapter relating to shipping are exclusive of particulars concerning ships of war, cable-laying vessels, and yachts, which are not included in the official shipping records. Where tonnage is quoted it is net tonnage.

#### *Vessels Entered and Cleared.*

In compiling the records of oversea and interstate shipping, a vessel is treated as an entry once and as a clearance once for each voyage to and from New South Wales, being entered at the first port of call, and cleared at the port from which it departs. The repeated voyages of every vessel are included.

The aggregate number and tonnage of interstate and oversea vessels which arrived in and departed from ports of New South Wales in various years since 1901, with the average net tonnage per vessel, are shown in the following statement:—

TABLE 49.—Shipping Entered and Cleared, 1901 to 1938.

Year ended 30th June.	Entries.		Clearances.		Average Tonnage per Vessel.
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	
1901*	2,760	4,133,200	2,853	4,274,101	1,498
1911*	3,127	6,822,135	3,146	6,833,782	2,177
1921	3,019	7,123,331	3,023	7,122,209	2,358
1929	2,865	8,516,413	2,847	8,532,023	2,985
1930	2,623	8,258,562	2,600	8,187,996	3,149
1931	2,517	7,938,164	2,568	8,008,827	3,118
1932	2,420	7,838,949	2,451	7,859,067	3,223
1933	2,648	8,781,550	2,648	8,741,934	3,309
1934	2,609	8,625,302	2,633	8,735,148	3,312
1935	2,978	9,643,138	2,977	9,671,251	3,243
1936	2,965	9,826,765	2,943	9,784,413	3,319
1937	3,178	10,569,260	3,165	10,539,623	3,328
1938	3,344	11,166,679	3,353	11,187,356	3,338

\* Year ended 31st December.

The tonnage of shipping, both entries and clearances, in 1934-35 was greater than in any earlier year and it has since increased by nearly 16 per cent.

The number of vessels entered during 1937-38 was 3,344 with an aggregate net tonnage of 11,166,679 as compared with 3,178 vessels with an aggregate tonnage of 10,569,260 in 1936-37, an increase of 5.2 per cent. in number of vessels and 5.7 per cent. in tonnage. The vessels cleared numbered 3,353 with a total tonnage of 11,187,356 as compared with 3,165 vessels of 10,539,623 tons in 1936-37, an increase during the year of 5.9 per cent. in the number and of 6.1 per cent. in tonnage.

Approximately 10 per cent. of the shipping arrives in ballast. During the past ten years the percentage in ballast was greatest in 1931-32, when it was 12.1 per cent. of the total entered, and lowest in 1929-30, when it was only 5.6 per cent. In 1937-38 the number of vessels entered in ballast was 399, with an aggregate tonnage of 897,003 tons, or 8 per cent. of the total. Corresponding figures for 1936-37 were 385 vessels, aggregate tonnage 800,475, or 7.6 per cent. of the total entered.

On the average, 6 per cent. of the vessels are cleared in ballast. The proportion during the past ten years was greatest in 1929-30 when it was 7.3 per cent. and lowest in 1934-35 at 4.5 per cent. In 1937-38 the numbers of vessels cleared in ballast was 270 with an aggregate tonnage of 786,228 tons or 7 per cent. of the total tonnage cleared, as compared with 222 vessels with an aggregate tonnage of 635,443 tons in 1936-37.

The number of vessels entered with cargo in 1937-38 was 2,945 and the tonnage 10,269,676 tons. The vessels cleared with cargo numbered 3,083 and the aggregate tonnage was 10,401,128 tons.

The average tonnage of vessels trading with New South Wales was doubled between 1901 and 1929 and has since increased gradually from 2,985 tons to 3,338 tons.

Few sailing vessels are engaged in the trade of New South Wales. In 1923-24 the number entered was 56, with an aggregate tonnage of 73,466, and the number cleared 66 with a tonnage of 88,260. Ten years later only one sailing vessel of 2,365 tons was recorded as an entry and clearance. There were few in the intervening years until 1937-38 when eleven were entered with an aggregate tonnage of 1,395 and fourteen cleared with a tonnage of 1,113.

A comparison of the shipping of the Australian States shows that the tonnage trading to and from New South Wales is far in excess of the figures of any other State. The following statement shows the entries and clearances during the year ended 30th June, 1938, excluding the coastal trade:—

TABLE 50.—Australian States, Shipping Entered and Cleared, 1937-38.

State.	Interstate and Oversea.			
	Entries.		Clearances.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ... ..	3,344	11,166,679	3,353	11,187,356
Victoria ... ..	3,019	8,537,857	2,991	8,520,864
Queensland ... ..	1,236	4,468,114	1,214	4,395,402
South Australia ... ..	1,490	5,710,783	1,479	5,680,313
Western Australia ... ..	863	4,104,922	866	4,111,171
Tasmania ... ..	1,377	2,202,298	1,440	2,211,473
Northern Territory ... ..	99	122,960	101	122,961

## DIRECTION OF SHIPPING TRADE.

The shipping records do not disclose the full extent of communication between New South Wales and other countries, as they relate only to terminal ports and are exclusive of the trade with intermediate ports, of which some are visited regularly by many vessels on both outward and inward journeys. But the following statement of the tonnage entered from and cleared for interstate ports and oversea countries, grouped according to geographical position, indicates, as far as practicable, the growth or decline of shipping along the main trade routes since 1920-21:—

TABLE 51.—Shipping Cleared, Destination, 1921 to 1938.

Destination.	1920-21.		1930-31.		1930-37.		1937-38.	
	Ves- sels.	Net Tonnage.	Ves- sels.	Net Tonnage.	Ves- sels.	Net Tonnage.	Ves- sels.	Net Tonnage.
Australian States ... ..	3,206	0,382,297	3,164	8,076,145	4,224	11,800,610	4,488	12,535,717
New Zealand ... ..	760	1,473,057	346	901,695	386	1,476,790	424	1,689,502
U. Kingdom and Europe ... ..	582	2,798,459	594	3,499,602	631	3,075,111	623	3,713,307
Africa ... ..	81	225,856	16	50,294	16	50,941	26	87,021
Asia and Pacific Islands ... ..	1,009	2,179,040	691	2,129,777	775	2,589,086	806	2,674,574
North and Central America ... ..	299	1,003,137	297	1,269,104	307	1,505,129	326	1,641,929
South America ... ..	96	183,694	7	20,374	4	11,005	4	11,985
Total ... ..	6,042	14,245,540	5,115	15,946,091	6,343	21,109,272	6,697	22,354,035

Shipping to and from the other Australian States in 1937-38 was greater by 6,153,420 tons than in 1920-21, and it has risen by 4,459,572 tons since 1930-31. Shipping engaged in the New Zealand trade during 1937-38 showed increases of 216,445 and 787,807 tons in comparison with 1920-21 and 1930-31 respectively. The figures relating to New Zealand do not include the tonnage of vessels which called at New Zealand ports en route to and from America. The tonnage engaged in trade with North and Central America has increased by over 63 per cent since 1920-21. The South American trade, which was mainly for the export of coal, has lost its former importance, and trade with Asia and Pacific Islands has been fairly constant.

### INTERSTATE AND OVERSEA CARGOES.

A comparative statement of the interstate and oversea cargoes discharged and shipped in New South Wales in each of the last ten years is shown below.

TABLE 52.—Cargoes Discharged and Shipped, 1929 to 1938.

Year ended 30th June	Cargo Discharged.					Cargo Shipped.				
	Interstate.		Oversea.		Total.	Interstate.		Oversea.		Total.
	Tons Weight.	Tons Measurement.	Tons Weight.	Tons Measurement.		Tons Weight.	Tons Measurement.	Tons Weight.	Tons Measurement.	
	000's omitted									
1929 ...	1,200	618	970	1,315	4,163	1,978	511	1,307	294	4,120
1930 ...	993	517	1,046	1,129	3,685	1,316	489	608	266	2,679
1931 ...	846	348	662	539	2,395	1,661	370	1,655	253	3,089
1932 ...	773	327	603	458	2,163	1,575	394	1,670	245	3,882
1933 ...	1,171	365	760	587	2,893	1,878	419	1,085	271	4,253
1934 ...	1,400	467	772	713	3,352	1,970	492	1,114	270	3,846
1935 ...	2,030	523	850	912	4,324	2,225	542	1,477	341	4,585
1936 ...	2,053	611	985	999	4,648	2,390	607	1,533	302	4,832
1937 ...	2,459	629	1,069	1,061	5,218	2,733	674	1,520	339	5,206
1938 ...	2,823	687	1,336	1,160	6,006	2,968	711	1,500	343	5,522

NOTE.—One ton by measure = 40 cubic feet.

The total weight of cargoes discharged or shipped in ports of New South Wales in 1928-29 was 8,283,000 tons, almost evenly divided into inward and outward. The inward cargoes fell away rapidly between 1928-29 and 1931-32, but the outward trade remained fairly steady, except in 1929-30 when both interstate and oversea cargoes declined. Since 1934-35 there has been a general increase, especially in the inward trade and the total in 1937-38 was 11,528,000 tons. In 1928-29 interstate cargoes represented 53 per cent. of the total and oversea 47 per cent. The corresponding proportions in 1937-38 were 62 per cent. and 38 per cent.

The aggregate weight of interstate inward cargoes declined from 1,878,000 tons in 1928-29 to 1,102,000 tons in 1931-32. During the next two years there was a rapid recovery followed by remarkable expansion, and by 1937-38 the volume of trade had risen to 3,510,000 tons and was 87 per cent. greater than in 1928-29. The main factor contributing to the weight of these cargoes is iron ore, etc., for the iron and steel works at Newcastle and Port Kembla. Sugar from Queensland, potatoes and timber represent a substantial but much smaller proportion of the total.

The inward oversea cargoes contain a wide range of general merchandise. There was a decline of 53.6 per cent. between 1928-29 and 1931-32, followed by a steady improvement until the pre-depression level was passed in 1937-38.

The aggregate weight of the interstate cargoes shipped in New South Wales has been steadily increasing since 1932-33. In the earlier years of the period under review the trade in coal, which represents two-thirds of these cargoes, was affected by a protracted industrial dispute in the northern coal mines from March, 1929 to June, 1930.

Oversea outward cargoes fluctuate according to seasonal conditions which influence the annual production of staple commodities, particularly wheat. During the last four years the aggregate weight of these cargoes has been steady at a high level though somewhat lower than in the three years ended June, 1933.

#### NATIONALITY OF VESSELS.

The majority of the vessels engaged in the trade of New South Wales are under the British flag, the deep-sea trade with the mother country and British possessions being controlled chiefly by shipowners of the United Kingdom, and the interstate trade by Australian shipping companies. In the table below the British and the foreign shipping are shown under distinctive headings.

TABLE 53.—Nationality of Shipping, 1901 to 1938.

Year ended 30th June.	Net Tonnage Entered and Cleared.				Percentage.		
	Australian.	Other British.	Foreign.	Total.	Australian.	Other British.	Foreign.
1901*	3,348,502	3,714,217	1,344,582	8,407,301	39·8	44·2	16·0
1911*	4,645,195	6,594,649	2,416,073	13,655,917	34·0	48·3	17·7
1921	4,739,565	6,739,914	2,766,071	14,245,540	33·3	47·3	19·4
1929	4,656,402	9,247,088	3,144,946	17,048,436	27·3	54·3	18·4
1930	4,338,726	8,785,023	3,322,809	16,446,558	26·4	53·4	20·2
1931	4,639,497	7,930,626	3,376,868	15,946,991	29·1	49·7	21·2
1932	4,310,726	7,925,935	3,491,355	15,698,016	27·5	50·5	22·0
1933	4,977,758	8,491,453	4,054,273	17,523,484	28·4	49·5	23·1
1934	5,356,820	8,260,853	3,742,777	17,360,450	30·8	47·6	21·6
1935	6,176,918	9,057,063	4,030,408	19,314,389	32·0	46·9	21·1
1936	6,094,412	9,458,820	4,057,946	19,611,178	31·6	48·2	20·2
1937	7,279,007	9,806,475	4,023,790	21,109,272	34·5	46·5	19·0
1938	7,824,618	10,469,803	4,059,614	22,354,035	35·0	46·8	18·2

\* Year ended 31st December.

There was no sustained increase in the Australian tonnage between 1911 and 1929, and relatively to the total tonnage the proportion of Australian shipping—about 4,600,000 tons (net)—declined from 34 per cent. to 27.5 per cent. During this period other British tonnage increased from 6,600,000 tons, or 48.3 per cent. of the total, to 9,250,000 tons or 54.3 per cent. and there was a substantial increase in foreign tonnage. The Australian tonnage did not vary greatly during the years 1928-29 to 1931-32.

Then it commenced to expand and it increased by 3,500,000 tons (net) during the six years ended 1937-38 and the proportion rose to 35 per cent. Other British tonnage has been increasing also in recent years though the proportion has been somewhat lower than in 1929 to 1932. Foreign tonnage has been about 4,000,000 tons since 1932-33 and the proportion has been declining.

Particulars relating to the nationality of vessels engaged in trade with New South Wales in 1928-29, 1936-37 and 1937-38 are shown in greater detail in the following statement:—

TABLE 54.—Nationality of Shipping, 1928-29 and 1937-38.

Nationality of Shipping.	Entries and Clearances.						Net Tonnage— Percentage of each Nationality.		
	1928-29.		1936-37.		1937-38.		1928-29	1936-37	1937-38
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.			
<b>British—</b>									
Australia ...	2,651	4,656,402	3,352	7,279,007	3,524	7,824,618	27.3	34.5	35.0
New Zealand ...	421	867,578	360	1,017,867	429	1,047,357	5.1	4.8	4.7
United Kingdom ...	1,573	7,790,698	1,517	8,180,362	1,599	8,796,412	45.8	38.6	39.3
Other British	202	579,812	170	628,246	183	626,034	3.4	3.0	2.8
<b>Total ...</b>	<b>4,847</b>	<b>13,903,490</b>	<b>5,309</b>	<b>17,085,482</b>	<b>5,735</b>	<b>18,294,421</b>	<b>81.6</b>	<b>80.9</b>	<b>81.8</b>
<b>Foreign—</b>									
Denmark ...	13	36,140	16	57,996	11	40,409	.2	.3	.3
France ...	110	235,785	105	160,567	133	215,479	1.4	.7	.9
Germany ...	104	443,792	122	509,985	122	522,394	2.6	2.4	2.8
Italy ...	38	161,890	28	153,796	39	219,405	1.0	.7	1.0
Netherlands ...	99	500,700	111	518,329	112	512,723	3.0	2.5	2.4
Norway ...	97	344,042	170	735,334	168	719,935	2.0	3.5	3.2
Sweden ...	56	175,349	55	196,620	55	194,074	1.0	.9	.9
Japan ...	200	698,986	206	858,765	167	719,650	4.1	4.1	3.2
United States of America ...	140	517,414	97	712,288	97	727,500	3.0	3.4	3.3
Other Nationalities ...	8	23,882	34	120,110	58	152,045	.1	.6	.7
<b>Total ...</b>	<b>865</b>	<b>3,144,946</b>	<b>944</b>	<b>4,023,790</b>	<b>962</b>	<b>4,059,614</b>	<b>18.4</b>	<b>19.1</b>	<b>18.2</b>
<b>Grand Total ...</b>	<b>5,712</b>	<b>17,048,436</b>	<b>6,343</b>	<b>21,109,272</b>	<b>6,697</b>	<b>22,354,035</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The tonnage owned in the United Kingdom represented 39.3 per cent. of the total in 1937-38, and the Australian tonnage 35 per cent. The foreign tonnage is owned for the most part in the United States, Japan, or Norway. The foreign tonnage in 1937-38 was 18.2 per cent. of the total, as compared with 18.4 per cent. in 1928-29 and 19.1 per cent in 1936-37.

During 1937-38 entries and clearances of Australian tonnage in interstate trade amounted to 7,206,837 tons, and voyages in overseas trade to 617,781 tons. Tonnage to and from New Zealand was 346,863. Of the other British tonnage, including ships owned in the United Kingdom, 3,682,279 tons were entered from and cleared for interstate ports and 2,814,902 tons plied between Australia and Great Britain. The tonnage belonging to other nations was employed chiefly in the foreign trade.

During the year 1937-38 the interstate cargoes discharged at ports in New South Wales amounted to 3,510,389 tons, and the oversea cargoes to 2,495,694 tons, and the shipments to interstate ports represented 3,679,015

tons, and to oversea countries 1,842,801 tons. The interstate trade is carried for the most part in Australian ships. The nationality of the vessels which carry the oversea trade is shown below:—

TABLE 55.—Cargoes according to Nationality of Shipping, 1936 to 1938.

Nationality of Shipping.	1935-36.		1936-37.		1937-38.	
	Discharged.	Shipped.	Discharged.	Shipped.	Discharged.	Shipped.
Oversea Cargoes.	tons.	tons.	tons.	tons.	tons.	tons.
Australia ... ..	79,388	139,213	97,342	160,891	111,833	163,053
New Zealand ... ..	49,205	223,814	32,407	252,704	27,179	290,507
United Kingdom ... ..	990,150	931,290	1,188,089	917,286	1,518,212	879,967
Other British ... ..	172,657	53,468	167,044	42,546	146,980	54,746
<b>Total British ... ..</b>	<b>1,291,400</b>	<b>1,347,785</b>	<b>1,484,882</b>	<b>1,373,487</b>	<b>1,804,204</b>	<b>1,388,273</b>
Denmark ... ..	29,195	19,154	21,826	36,753	11,230	22,209
France ... ..	15,167	100,933	3,365	103,830	13,158	116,185
Germany ... ..	47,149	24,466	48,749	34,325	76,684	34,513
Italy ... ..	4,374	1,813	5,368	8,852	16,074	11,069
Japan ... ..	134,904	88,805	86,600	65,781	59,424	47,354
Netherlands ... ..	41,158	58,052	68,769	99,317	64,766	69,040
Norway ... ..	290,848	82,739	281,055	82,596	301,396	39,389
Sweden ... ..	59,575	22,014	49,350	15,520	68,172	16,299
United States of America	69,269	46,089	58,637	55,492	75,752	37,765
Other Foreign ... ..	879	43,025	21,318	14,508	4,834	59,813
<b>Total, Foreign ... ..</b>	<b>692,518</b>	<b>487,150</b>	<b>645,127</b>	<b>485,974</b>	<b>691,490</b>	<b>454,528</b>
<b>Total, Oversea ... ..</b>	<b>1,983,918</b>	<b>1,834,935</b>	<b>2,130,009</b>	<b>1,859,461</b>	<b>2,495,694</b>	<b>1,842,801</b>

Note.—Cargo recorded by measurement is converted to tons on basis of 40 cubic feet = 1 ton.

In 1937-38 British vessels carried 72.3 per cent of the oversea cargo discharged at ports in New South Wales and 75.3 per cent. of the cargo shipped abroad.

The interstate and oversea trade of New South Wales is confined practically to three centres, viz., Sydney, Newcastle, and Port Kembla, and the distribution amongst the ports of the inward trade at intervals since 1901 is shown in the following table. On each voyage a vessel is counted as an entry only at the first port of call in New South Wales and intra-state trade is excluded, therefore the figures do not indicate the total tonnage entered at each port.

TABLE 56.—Principal Ports, Inward Trade, 1901 to 1938.

Year ended 30th June.	Port Jackson (Sydney).		Port Hunter (Newcastle).		Port Kembla.		Other Ports.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
1901*	1,884	2,953,511	702	1,036,178	89†	108,526†	85	34,985
1911*	2,181	5,246,351	701	1,357,132	64	102,866	181	115,736
1921	1,869	4,776,182	1,082	2,255,040	42	85,514	26	6,595
1929	2,071	6,768,664	620	1,355,411	144	366,401	30	25,937
1930	2,044	6,958,916	371	836,229	183	445,473	25	17,044
1931	1,800	6,430,904	601	1,262,149	114	232,228	32	12,883
1932	1,719	6,334,450	546	1,222,757	129	264,122	26	17,620
1933	1,822	6,096,920	661	1,503,653	153	267,914	12	13,068
1934	1,796	6,869,367	644	1,463,669	143	279,674	26	12,572
1935	1,399	7,285,123	873	1,978,776	182	354,407	24	24,832
1936	1,983	7,636,852	770	1,775,980	183	387,592	29	26,332
1937	2,040	8,107,367	888	1,941,852	225	484,728	25	35,792
1938	2,121	8,446,581	957	2,153,553	232	528,043	34	38,502

\*Year ended 31st December.

† Wollongong.

Many vessels, including steamers engaged regularly in the trade of New South Wales, discharge cargo at Sydney, then proceed to Newcastle for coal. Such vessels are counted as entries at Sydney only, therefore the inward shipping of Newcastle is greatly in excess of the tonnage stated in the table. The trade of Port Kembla has increased as a result of the establishment of important industries in the locality. The decline in the inward trade of other ports between 1911 and 1921 was due mainly to the omission of Twofold Bay as a port of call for interstate vessels.

Particulars of the cargoes shipped and discharged at the principal ports in each year since 1928-29 are given in the following table. In recording cargoes certain commodities are assessed at their dead weight in tons, e.g., coal, ores, wool, wheat and other grains, while others such as butter, hides, skins and drapery are recorded in tons measurement, 40 cubic feet being taken as the equivalent of one ton. The greater part of the oversea trade is handled by the port of Sydney and the shipping concerned with coal and the iron and steel industries is conducted for the most part at Newcastle and Port Kembla. The cargoes handled at the latter ports are mainly dead weight cargoes but a large proportion of the cargoes shipped and discharged at Sydney is recorded in "tons measurement." On account of this difference in the nature of the products handled the data contained in the statement show fluctuations in the annual trade of the individual ports rather than a comparison of the trade of one port with that of another.

TABLE 57.—Principal Ports, Cargoes Shipped and Discharged, 1929 to 1938.

Year ended 30th June	Sydney.				Newcastle.		Port Kembla.	
	Interstate.		Oversea.		Interstate.	Oversea.	Interstate.	Oversea.
	Tons Weight.	Tons Measure.	Tons Weight.	Tons Measure.	Tons Weight.	Tons Weight.	Tons Weight.	Tons Weight.
Cargoes Discharged.								
1929	345,850	616,929	791,750	1,315,064	711,637'	123,598	203,455	54,405
1930	361,658	516,797	865,551	1,128,822	427,233	131,458	204,199	49,485
1931	312,287	348,104	571,001	536,894	416,037*	67,821*	86,903*	25,145
1932	376,128	327,441	545,094	457,827	345,321	42,484*	52,851*	15,214
1933	405,844	304,098	650,369	567,158	624,015	79,798	141,162*	30,195
1934	405,829	459,360	657,081	708,417	771,423*	89,047*	230,104	30,528
1935	443,307	507,262	726,324	883,538	1,284,051*	134,165*	318,124*	27,375
1936	478,974	598,895	840,659	972,307	1,206,415*	128,458*	319,730	42,404
1937	515,416	612,456	882,932	1,028,270	1,404,937*	159,532*	465,407	59,275
1938	617,908	672,338	1,082,347	1,135,029	1,669,272*	194,976*	550,871	83,342
Cargoes Shipped.								
1929	138,737	530,400	981,003	284,842	1,647,563	251,581*	134,741*	73,605
1930	246,284	481,573	445,768	255,977	650,269*	57,150*	352,259	105,085
1931	105,922	366,261	1,298,476	240,623	1,428,633*	337,450*	95,584	12,900
1932	101,845	392,749	1,310,937	239,510	1,347,457	314,310	99,335	39,672
1933	132,382	416,121	1,384,501	265,312	1,587,106	240,314	116,925	57,324
1934	132,158	487,593	798,334	261,147	1,672,330*	242,038*	136,961	70,966
1935	181,708	528,842	1,089,028	309,440	1,845,664*	311,045*	169,036	89,758
1936	190,649	594,713	1,165,737	284,031	1,990,887*	285,981*	171,879	83,523
1937	200,887	654,531	1,082,234	314,207	2,301,947*	347,972*	234,167	93,779
1938	214,354	695,255	953,573	313,231	2,500,635*	445,305*	254,572	108,301

\* Includes a small number of tons measurement.

Interstate cargoes discharged and shipped in Sydney Harbour reached a low ebb in 1930-31, when they were 30 per cent. less than in 1928-29. They had regained pre-depression level by 1934-35 and have since increased by more than 30 per cent. The aggregate tonnage of the interstate cargoes handled in this port in 1937-38 was 2,200,000 tons as compared with 1,630,000 tons in 1928-29. There was a decline of about 50 per cent. in the inward oversea cargoes in 1930-31 and the aggregate remained at a low level during the following year. Then a steady upward trend commenced, and in 1937-38 the tonnage was somewhat greater than in 1928-29.



The weight of cargoes shipped overseas from Sydney fluctuates according to the quantity of wheat exported. This was comparatively small in 1929-30 and 1934-35 and somewhat below the average in 1937-38.

The interstate trade of Newcastle and Port Kembla has grown remarkably in consequence of expansion in the iron and steel works. The outward trade of Newcastle which consists mainly of coal has increased steadily during the last six years. There was a temporary diversion of the coal trade from Newcastle to Port Kembla while the northern mines were closed in 1929 and 1930.

#### HARBOURS AND ANCHORAGES.

Along the coast of New South Wales there are numerous ports, estuaries, and roadsteads, which provide shelter to shipping and afford facilities for trade.

There are six natural harbours where vessels of deep draught may enter, viz., Port Stephens, Broken Bay, Port Jackson (Sydney Harbour), Botany Bay, Jervis Bay and Twofold Bay. Port Jackson ranks first by reason of extent, natural facilities, and volume of trade. Port Stephens, 25½ nautical miles north of Newcastle, Broken Bay at the mouth of the Hawkesbury River and Botany Bay 12½ nautical miles south of Sydney have not been developed. Jervis Bay is 82 miles south of Sydney; part of the bay has been ceded to the Commonwealth Government as a port for Canberra, the Australian capital. Twofold Bay is 208 miles south of Sydney. Newcastle is a bar harbour at the mouth of the Hunter River, where extensive accommodation has been provided for oversea shipping. Artificial harbours have been constructed at Coff's Harbour, Wollongong, Port Kembla, Shellharbour, Kiama, and Ulladulla. With the exception of Port Kembla, they are useful only for small vessels.

There are a number of estuarine harbours, but the entrances are usually blocked to some extent by sandbars, formed by the combined action of ocean currents, waves and wind. There are also numerous roadsteads or anchorages which afford shelter to vessels of moderate draught during southerly or south-easterly weather. Breakwaters and training-walls have been constructed to control the sand movement at the majority of the bar harbours, so that the navigating channels may be maintained with little difficulty.

The shipping trade of the ports other than Sydney, Newcastle, and Port Kembla is relatively small.

#### *Sydney Harbour.*

Port Jackson (Sydney Harbour) is the principal port of New South Wales. It has a safe entrance and affords effective protection to shipping under all weather conditions. At the Heads the depth of water is not less than 80 feet at low water, ordinary spring tide. Between the entrance and the harbour proper, a distance of four miles, there are two separate channels, each with a depth of 40 feet at low tide and a width of 700 feet. The total area of the harbour is 14,284 acres, or about 22 square miles, of which approximately half carries a depth of 30 feet or more at low water ordinary spring tide. The mean range of tide is 3 feet 6 inches. The freshores, being irregular, extend over 188 miles, and afford facilities for extensive wharfage.

The control of the port is vested in the Maritime Services Board of New South Wales, a corporate body of five commissioners appointed by the Government of New South Wales. Two of the Commissioners are part-time members representing shipping and commercial interests. The Board's

functions in respect of the port of Sydney include the provision of adequate wharfage, channels, lights and other port facilities, the control of shipping and pilotage, the imposition and collection of rates and charges on goods and vessels, the licensing of harbour craft and the general management and control of the port.

The wharves are situated in close proximity to the business centre of the city, about 4 or 5 miles from the Heads. Excluding private lighter and ferry berths, there are 74,414 feet of wharfage in Sydney Harbour. The principal wharves are leased to the various shipping companies whose vessels engage regularly in the trade of the port, and other wharves are reserved for vessels which visit the port occasionally. Details relating to the number and length of the berths are shown below:—

TABLE 58.—Port of Sydney, Wharves and Jetties, 1938.

Particulars.	Maritime Services Board of New South Wales.		Private Wharfage.		Total.	
	No. of Berths.	Length.	No. of Berths.	Length.	No. of Berths.	Length.
<b>Ship berths—</b>		feet.		feet.		feet.
Oversea ... ..	67	34,772	14	3,810	81	38,591
Interstate ... ..	24	9,355	3	516	27	9,871
Intrastate ... ..	39	11,223	7	1,012	46	12,235
Cross wharves adjoining ships' berths	39	4,693	...	...	39	4,693
Harbour trade berths ... ..	19	4,633	31	4,391	50	9,024
Ferry berths ... ..	25	3,427	...	...	25	3,427
<b>Total ... ..</b>	<b>213</b>	<b>68,103</b>	<b>55</b>	<b>9,738</b>	<b>268</b>	<b>77,841</b>

Works have been constructed on a spit of land, known as Glebe Island, between Rozelle Bay and White Bay, to facilitate the shipment of wheat. Sheds have been erected for the storage of bagged wheat and plant is available for mechanical handling. For bulk wheat there are silos with a capacity of 7,500,000 bushels, and grain may be delivered in bulk into the holds of vessels at the rate of 1,400 tons per hour.

Special facilities for the storage and handling of staple products such as wool, etc., are provided on the waterside, and modern plant has been installed at Ball's Head for replenishing ships' bunkers with oil or coal.

The wharves are situated on the southern shore of the port, and the northern is used mainly for residential sites. The ferry steamers on which traffic is carried across the harbour are certificated as to seaworthiness and licensed by the Maritime Services Board. During 1937-38 certificates were issued to 45 steamers in Port Jackson, licensed to carry 35,616 passengers.

An arch bridge spanning the harbour from Dawes' Point to Milson's Point was opened on 19th March, 1932. It provides for pedestrian, vehicular, railway and tramway traffic. A description of the bridge is published in the chapter of this volume relating to Roads and Bridges.

An account of the dock accommodation provided in Sydney Harbour is shown on a later page in this chapter.

The number and tonnage of vessels which entered Sydney Harbour during the last ten years, as recorded by the Maritime Services Board, are shown below. The figures differ from those in the table on page 81 because they

include vessels engaged in the coastal trade of the State, also vessels which do not report to the Customs authorities on return from a journey to Newcastle for bunker coal:—

TABLE 59.—Port of Sydney, Shipping Entered, 1929 to 1938.

Year ended 30th June.	Coastal (State).		Oversea and Interstate.		Total Shipping.	
	Number.	Net Tonnage.	Number.	Net Tonnage.	Number.	Net Tonnage.
1929	4,564	1,352,945	2,498	7,707,208	7,052	9,060,153
1930	3,743	1,183,437	2,449	7,757,098	6,192	8,940,535
1931	3,798	1,260,344	2,184	7,207,938	5,982	8,468,282
1932	3,716	1,218,489	2,133	7,009,467	5,849	8,227,956
1933	3,978	1,285,050	2,337	8,075,066	6,315	9,360,116
1934	4,165	1,333,234	2,333	8,099,493	6,493	9,432,777
1935	4,327	1,427,486	2,528	8,629,066	6,855	10,056,552
1936	4,398	1,502,746	2,587	8,977,028	6,985	10,479,774
1937	4,626	1,594,708	2,669	9,598,687	7,295	10,993,395
1938	4,974	1,699,763	2,781	9,953,364	7,755	11,653,127

The aggregate tonnage of vessels which entered the port of Sydney declined continuously from 9,547,000 tons in 1926-27 to 8,228,000 tons in 1932-33. Then there was a rapid revival and the tonnage expanded by successive increases to 11,653,000 tons in 1937-38.

An increasing number of motor ships is engaged in the trade of New South Wales; one thousand two hundred and nineteen with an aggregate tonnage of 3,237,804 tons, entered the port of Sydney during 1937-38, as compared with 188 with a tonnage of 581,800 in 1927-28. Steamers entered in 1937-38 numbered 6,529, with an aggregate tonnage of 8,415,212 tons. Of these 405 were oil burners, with a tonnage of 2,841,055 tons. Only seven sailing ships, 111 tons, entered the harbour in this year.

The following statement shows the arrivals in the principal ports of Australasia and Great Britain. The figures include coastwise trade and tonnage which arrived at the respective ports, although not recorded by the Customs Department.

TABLE 60.—Principal Ports of Australasia and Great Britain, Shipping Entered, 1937-38.

Port.	Arrivals incl. Coastwise— Net Tonnage.	Port.	Arrivals incl. Coastwise— Net Tonnage.
<i>Australia</i> (1937-38)—		<i>England</i> (1937)—	
Sydney ... ..	11,653,127	London ... ..	31,249,000
Melbourne ... ..	8,624,754	Liverpool (including Birkenhead) ... ..	17,689,000
Port Adelaide ... ..	5,393,501	Southampton ... ..	13,757,000
Newcastle ... ..	5,332,450	Newcastle and Shields ... ..	9,098,000
Brisbane ... ..	4,751,803	Cardiff ... ..	7,722,000
Fremantle ... ..	3,792,004	Hull ... ..	6,239,000
Townsville ... ..	1,511,046	Plymouth ... ..	6,097,000
Port Kembla ... ..	1,188,016		
Hobart ... ..	1,079,916	<i>Scotland</i> (1937)—	
Albany ... ..	453,187	Glasgow ... ..	6,420,000
<i>New Zealand</i> (1937)—		Greenock ... ..	3,445,000
Wellington ... ..	3,987,274		
Auckland ... ..	3,140,495	<i>North Ireland</i> (1937)—	
Lyttelton ... ..	2,225,749	Belfast ... ..	7,628,000
Otago ... ..	1,184,587		

Up to 30th June, 1928, the revenues collected by the Sydney Harbour Trust (now the Maritime Services Board of New South Wales) were paid into the Consolidated Revenue Fund of the State. This arrangement was altered as from 1st July, 1928, when the accounts of the Harbour Trust were separated from the Consolidated Revenue Account, and a special fund was established for the receipts of the port authority. The Board is required to contribute to the National Debt sinking fund established under the financial agreement between the Commonwealth and the States in the same proportion as its debt bears to the total loan debt of the State. The net profits are payable into a reserve fund to meet losses and to provide for the reduction of rates and charges.

The revenue and expenditure by the port authority at Sydney during each of the last ten years are shown in the following statement, also the capital debt at the end of each year.

TABLE 61.—Port of Sydney, Revenue and Expenditure, 1929 to 1938.

Year ended 30th June.	Capital Debt.	Income.	Expenditure.				Surplus.
			Administration and Maintenance Expenses.	Interest and Sinking Fund.	Exchange, etc.	Total Ex- penditure.	
	£	£	£	£	£	£	£
1929	11,488,441	1,103,598	369,037	614,067	...	983,104	120,494
1930	11,673,981	1,017,934	381,421	629,806	...	1,011,227	6,707
1931	11,622,200	840,077	269,831	635,571	25,805	931,207	(-)91,130
1932	11,611,905	832,186	244,581	593,698	149,281	989,560	(-)157,374
1933	11,596,315	880,012	213,985	569,201	107,917	891,103	(-)11,091
1934	11,585,907	855,959	225,782	535,321	91,270	852,373	3,586
1935	11,518,020	968,147	272,030	511,280	70,655	853,965	114,182
1936	11,450,692	1,040,611	279,446	497,447	72,334	849,227	191,384
1937	11,452,929	1,093,691	293,783	483,209	61,272	838,264	255,427
1938	11,325,087	1,186,279	344,799	482,392	59,592	886,783	299,496

(-) Denotes deficiency.

The total income during 1937-38 was £1,186,279. After the deduction of administration and maintenance expenses £344,799, interest and sinking fund charges £482,392, and exchange and loan management expenses: £59,592, there was a surplus on the year's transactions of £299,496. The ratio of administration and maintenance charges to income was 29 per cent.

The principal sources of revenue were wharfage and transshipment rates, which amounted to £819,117, and rents from properties £282,383. The corresponding amounts for 1936-37 were £745,978 and £273,400.

#### *Newcastle Harbour.*

Newcastle Harbour (Port Hunter) is the second port of New South Wales and the fourth port of Australia in regard to the volume of its shipping trade. The harbour lies in the course of the Hunter River, and its limits are not defined, but an area of about 990 acres is enclosed by about 8 miles of coastline, extending on the western side as far as Port Waratah, omitting Throsby Creek, and on the eastern side to a point due east of the southern end of Moscheto Island. The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width at the entrance between breakwaters is 1,500 feet, and the navigable channel is 600 feet wide with a minimum depth of 25 feet 6 inches at low water ordinary spring tide, but vessels which draw 29 feet can enter at high water spring tides under suitable weather conditions. Works are in progress with the object of ultimately increasing the depth at the entrance to 32 feet.

The harbour is landlocked sufficiently to render it safe for vessels in all kinds of weather, and breakwaters have been erected to improve the entrance and to prevent the ingress of sand from the ocean beaches. Newcastle is primarily a coal-loading port, and the proximity of the coalfields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber. A terminal elevator for the export of bulk wheat has been erected, and wharfage has been provided for wheat loading purposes.

Wharfage accommodation to the extent of 18,392 feet is provided; 9,000 feet are used for the shipment of coal, 6,729 feet for general cargo, 1,770 feet for Government purposes, and 893 feet are leased. The general cargo wharves are connected with the main railway system, and the railway extends along the coal wharves. There are 7 sets of mooring dolphins and jetties for vessels awaiting cargo. A floating dock of 15,000 tons capacity is available at the Government Dockyard, Walsh Island.

The shipping entered during 1937-38 included coastal 2,663 vessels, 1,228,776 tons; interstate, 1,403 vessels, 2,241,914 tons; and overseas, 502 vessels, 1,861,760 tons; total, 4,568 vessels, 5,332,450 tons. In 1936-37 the total was 4,875,732 tons.

Newcastle Harbour is administered by the Maritime Services Board and an advisory committee as described on page 75.

#### RIVER TRAFFIC.

New South Wales has few inland waterways, and although there is some river traffic its extent is not recorded. The coastal rivers especially in the northern districts are navigable for some distance by sea-going vessels and trade is carried further inland by means of small steamers and launches.

The use of the inland rivers for navigation depends mainly on seasonal conditions. Traffic on the Darling is intermittent. At certain times, in seasons when the rainfall is sufficient to maintain a fair volume of water, barges carry wool and other products a considerable distance.

A scheme is in progress for the construction of a storage dam, weirs and locks on the Murray and Murrumbidgee Rivers. The works are being constructed under an agreement between the Governments of the Commonwealth and of the States of New South Wales, Victoria, and South Australia, which provides that, except in times of unusual drought, sufficient water must be maintained for navigation by vessels drawing 5 feet of water.

At 30th June, 1938, thirteen weirs and locks on the Murray and Lake Victoria storage had been completed and were in operation, the Hume Reservoir was complete to its present capacity of 1½ million acre-feet, and the Murray River was permanently navigable by vessels drawing 5 feet for a distance of about 600 miles, viz., from its mouth to some forty miles above Mildura. The following works in connection with the Murray River are in progress; a weir at Yarrawonga and barrages across the five channels at the mouth of the river. Weirs are being constructed also on the Murrumbidgee at Redbank and Maude.

The expenditure for the construction of reservoirs, locks and other works at 30th June, 1938, amounted to £11,251,227, of which New South Wales contributed £3,933,719.

#### HARBOUR FERRY SERVICES.

In the ports of Sydney and Newcastle, ferry services have been established by private companies to transport passengers, etc., across the

harbours. The services are conducted under license issued by the Maritime Services Board. At 30th June, 1938, forty-six boats licensed to carry 35,976 passengers were in service, and 843 persons employed. Approximately 27,348,600 passengers were carried during the year 1937-38, and 5 passengers and 72 employees were injured in accidents. The total revenue amounted to £420,509, and the expenditure to £369,444.

These ferries are distinct from those to which reference is made in the chapter entitled Roads and Bridges, which are maintained by the central Government or by municipalities or shires for the transport of traffic across rivers where bridges have not been erected.

#### RATES OF FREIGHT.

Freight charges represent an important factor in the cost of marketing in oversea countries the products of the industries of New South Wales. Generally the rates charged by British lines of steamships are determined by organisations of shipowners.

An association of shipowners and shippers, known as the Australian Oversea Transport Association, was formed in June, 1929, with the object of organising on an economical basis the shipping services to and from Australia. A series of agreements has been arranged in regard to rates of freight and other conditions affecting the shipment of cargoes by vessels engaged regularly in the trade between Australia and Europe.

During the war period, rates of freight rose to an extraordinary level. The maximum for most commodities was reached in 1919, then the over-supply of shipping led to a general decline and the movement became steadily downward. The decrease is especially noticeable in regard to classes of cargo carried by tramp steamers, *e.g.*, wheat, for which freight was charged at £7 10s. per ton in 1920, and in the following year space was obtained at the rate of £2 6s. 8d. per ton. During the ten years ended June, 1938, rates for most commodities, except wheat, were fairly steady.

As a rule, freight on general cargoes is paid in sterling at the port of destination. If freight was prepaid in Australia in 1930-31 and later years, shippers were required to add to the rates quoted an additional charge on account of exchange. On refrigerated cargoes, exchange was charged at concession rates, *viz.*, 3 per cent. in 1930-31, 23 per cent. from July to December, 1931, and 18 per cent. since 1st January, 1932. The rates of exchange quoted by the Australian banks are shown in the Chapter "Private Finance" of this volume.

The following statement shows the range of rates for the carriage of various commodities by steamer from Sydney to London in 1911 and later years:—

TABLE 62.—Rates of Freight, Sydney to London, 1911 to 1938.

Article.	1911.	1920-21.	1930-31.	1936-37.	1937-38.
Butter ... .. box 56 lb.	2s. to 2s. 6d.	6s.	4s.	4s.	4s.
Copra ... .. ton	40s.	225s. to 120s.	61s. 3d.	61s. 3d.	61s. 3d.
Hides ... .. lb.	40s. to 52s. 6d. †	1½d. to 1d.	½d.	½d.	½d.
Leather ... .. ton	60s.	270s. to 244s.	137s. 9d.	137s. 9d.	137s. 9d.
Mutton—Frozen	lb. ½d. to ¼d.	1½d.	1d.	1d.*	1d.*
Tallow ... .. ton	40s. to 42s. 6d.	180s. to 170s.	70s. 9d.	70s. 9d.	70s. 9d.
Wheat ... .. ton	17s. 6d. to 30s.	120s. to 46s. 8d.	32s. 6d. to 20s.	25s. to 45s.	33s. 9d. to 47s. 0d.
Wool—Greasy ... lb.	½d. to ¼d.	1½d. †	1½d. †	1½d. †	1d. †
Measured Goods—40 cub. ft.	25s. to 45s.	120s. to 105s.	63s.	63s.	63s.
Timber 100 sup. ft.	6s.	35s. to 22s.	11s.	10s. to 11s.	12s. 6d. to 13s. 9d.

† Per ton. † Plus 5% primage, less 10% rebate, and an additional rebate of 1s. 9d. per bale in 1936-37 and 1937-38. \* Less 7½%. || Less 11%.

Wool is carried direct to continental ports in Europe at the same rates as to London, but the rates are higher if it is taken to London and transhipped there to the Continent. The rate for wool from Sydney to Japan was 5d. per lb. in 1935-36 and 1936-37, and 4d. per lb. in 1937-38.

## PORT CHARGES.

The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Federal Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1st February, 1936, the State enactments have been administered by the Maritime Services Board. The various charges are shown in detail in the Statistical Register of New South Wales, published annually, and only a brief reference to the rates collected by each authority is made in this volume.

The gross collections by the State during recent years are shown below in comparison with those during the years 1910-11 and 1920-21:—

TABLE 63.—Port Charges, 1911 to 1938.

Charges.	Year ended 30th June.				
	1911.	1921.	1931.	1937.	1938.
	£	£	£	£	£
Pilotage ... ..	43,856	74,733	58,221	68,707	72,331
Harbour Removal Fees ... ..	7,306	10,647	3,786	3,599	3,825
Harbour and Light Rates ... ..	41,331	49,551	46,015	50,103	50,439
*Navigation Department Fees, etc.	9,256	10,839	1,170	6,167	7,058
Harbour and Tonnage Rates (Out-ports) ... ..	6,792	72,865	116,690	204,700	226,522
*Sydney Harbour Trust—					
Wharfage and Tonnage Rates ...	228,379	475,230	499,736	777,245	844,605
Rents of Wharves and Jetties ...	77,930	188,473	192,649	159,161	164,804
Rents of other premises ... ..	46,178	71,666	102,851	114,240	117,579
Miscellaneous ... ..	22,273	61,629	44,841	43,045	59,291
Total ... ..	483,301	1,015,633	1,065,959	1,426,967	1,546,454

\* Maritime Services Board from 1st February, 1936.

The light dues collected in Australia by the Commonwealth Government during the year ended 30th June, 1938, amounted to £160,378, and receipts under the Federal Navigation Act to £12,841.

*Charges levied on Ships.*

The principal charges imposed under Federal legislation are light dues and fees for the survey of ships, the adjustment of compasses, etc.

The Commonwealth light dues must be paid in respect of every ship entering a port in Australia. The rate, payable quarterly, is 6d. per ton (net), and payment at one port covers all Australian ports which the vessel may enter during the ensuing period of three months. Vessels calling at only one port in Australia *en route* to an oversea destination are charged at the rate of 5d. per ton (net). If a vessel is laid up for a period of at least one month, a proportionate remission of the light dues may be made.

The Federal Navigation Act prescribes that sea-going vessels must be surveyed at least once in every twelve months, and a vessel may not go to

sea without a certificate of survey or equipment issued by the Federal Department of Navigation, or other approved certificate. The fees for survey and for compass adjustment are collected by the Federal Department of Navigation and those in respect of compass adjustments are paid to licensed adjusters. The prescribed survey fees for a twelve-months' certificate in respect of steamers, motor ships, and of sailing ships (50 tons and over) with auxiliary engines, range from £4 where the gross registered tonnage does not exceed 100 tons to £13 10s. if the gross tonnage is between 2,100 and 2,400 tons; and a charge is made for each additional 300 tons at the rate of 30s. for passenger ships and £1 for cargo ships. For ships under 1,800 tons propelled by sails only, the fee ranges from £3 to £6 with 13s. for each additional 300 tons. The survey fees for dry docking certificates range from £1 to £4, and double rates are charged for vessels without certificates of survey. Additional charges are made for the survey of grain cargoes. When the grain does not exceed one-half of the ship's dead weight capacity, the fee is £1 1s. if the grain is in bags and £2 10s. if it is in bulk; otherwise the fee for cargoes of grain in bulk is £5. These charges cover not more than three inspections at Commonwealth Ports. The fees for the adjustment of a ship's compasses range from £2 2s. to £7 7s.

The certification of ships trading exclusively within the limits of the State of New South Wales is a function of the Maritime Services Board of New South Wales. The fees payable for surveys in respect of a twelve months' certificate range from £2 to £8 where the tonnage does not exceed 600 tons, with £2 for each additional 300 tons up to a maximum of £20.

Pilotage rates are charged by the Maritime Services Board of New South Wales in respect of every ship entering or clearing a port in the State where there is a pilotage establishment. Vessels engaged in the whaling trade and vessels in the charge of a master possessing a pilotage certificate are exempt unless a pilot is actually employed. The rate is 1½d. per ton (net), on arrival and on departure for ships (a) in ballast, (b) arriving solely for refitting or docking, (c) resorting to port solely on pleasure or for orders, repairs, provisions or coal, or through stress of weather or otherwise in distress. The rate for other ships is 2½d. per ton on arrival and on departure. The maximum charge is £25 and the minimum is £3 at Sydney or Newcastle, and £1 10s. at other ports.

The harbour and light rate imposed by the State Government is payable half-yearly at the rate of 4d. per ton (net). The exemptions are vessels engaged in the whaling trade, vessels entering port for refitting or docking, for pleasure, orders, repairs, provisions or coal, or in distress, and those in respect of which the rate has been paid at any port in the State during the preceding six months.

Vessels being removed from one place to another in a port where there is a pilot establishment are charged harbour removal dues unless the master possesses a pilotage certificate. The rate for a removal varies from £1 to £4 10s. according to the size of the vessel; half rates are charged after the third removal.

Tonnage rates are payable in respect of vessels of 240 tons and over while berthed at a wharf, the charge being ¾d. per ton (gross) for each period of six hours. Vessels under 240 tons are liable for berthing charges, the daily rate in Sydney Harbour being 1s. to 10s., according to passenger capacity, for vessels engaged in picnic, excursion or passenger traffic, and 2s. 6d. to 10s. for other vessels. Berthing charges in other ports are calculated at the rate of 2s. 6d. for each period of six hours. Where wharves are leased to shipping companies in the port of Sydney the tonnage rates and berthing charges in respect of their vessels are not charged as they accrue, but are commuted in the rent.



Moorings may be laid down in Sydney Harbour with the approval of the Maritime Services Board. An annual license fee of £5 is charged for moorings owned and used by shipping companies; and from 2s. 6d. to 10s. for those used in connection with docking premises or for small vessels. In other ports vessels are allowed to occupy Government mooring buoys for a period of two clear days free of charge, thereafter buoyage rates ranging from £1 to £3 per day are imposed. Exemption from buoyage rates may be granted by the officer in charge of a port if a vessel is detained through stress of weather or when an unforeseen circumstance renders it desirable that the vessel should occupy a Government buoy.

Tugs, ferry boats, hulks, and launches plying for hire in Sydney Harbour must obtain a license, for which the charge is £1 per annum. For water boats supplying water to shipping in the port the annual license fee is £5; for lighters, 2s. per ton up to 200 tons and 1s. for each additional ton, the minimum fee being £2; and for watermen 5s. In other ports the annual license fees for ballast lighters and for watermen are £1 and 10s. respectively. The charge for water supplied to a vessel by the Maritime Services Board is 2s. per 1,000 gallons if the water is taken through hoses supplied by the Board; in other cases the rate is 1s. 6d. per 1,000 gallons.

#### *Harbour and Wharfage Rates.*

In addition to the foregoing charges levied on the vessels and payable by their owners, harbour or wharfage rates payable by the owners of the goods are imposed on the cargoes landed or shipped in the ports. Goods transhipped are subject to transshipment rates and not to inward or outward wharfage or harbour rates. Passengers' luggage is exempt. The schedules of rates for Sydney are contained in the Port of Sydney regulations, and for other ports they are fixed by regulations under the Harbour and Tonnage Rates Act, 1920-1935.

In Sydney Harbour, unless it is otherwise specified in the schedule, the inward rate is 4s. per ton assessed by weight or by measurement (40 cubic feet) at the option of the Board. There are a number of special inward rates—some apply only to Australian products arriving from another port in the Commonwealth, *e.g.*, 2s. 6d. per ton of dairy produce, fresh fish, poultry, iron or steel, fencing wire, copper or stone; 2s. 6d. per 630 superficial feet of rough or sawn timber. The inward rate on coal is 1s. per ton, and on liquid fuel 2s. per ton, but only the transshipment rate—6d. per ton—is levied when these commodities are shipped in Sydney for consumption as bunker fuel by the loading vessel. In cases of vessels trading beyond the Commonwealth, coal loaded for bunker use is subject to the transshipment rate only, less 20 per cent. Kerosene in the case is charged at the rate of 2½d. per case; green fruit—Australian 1½d. and other 2d per package; vegetables, 1½d. per case; timber (other than Australian), 3s. 6d. per 630 super feet; copra, 3s. per ton; guano, 1s. 3d. per ton; sugar for refining, 2s. per ton; wool, 9d. per bale. The general rate on transshipments is 6d. per ton or 40 cubic feet, but there is a number of special rates ranging down to ½d. per ton, which is payable on pumpkins and melons.

The general outward rate in operation in Sydney Harbour is 1s. 6d. per ton or 40 cubic feet. The rate in respect of coal is 6d. per ton; wheat and coke 9d. per ton; wool 9d. per bale; ore 4½d. per ton. These rates are subject to a discount of 20 per cent. if the goods are shipped for conveyance beyond the Commonwealth.

In ports other than Sydney there is a schedule of inward rates for coastwise and interstate goods, and a separate schedule for oversea goods. The inward general rate for coastwise and interstate goods arriving at these ports is 2s. per ton or 40 cubic feet, and special rates include coal and firewood 6d. per ton; coke and fertilisers 1s. per ton; ores 4½d. per ton; ore products 9d. per ton; timber 2s. per 630 super feet. The general inward rate imposed on oversea goods is 4s. per ton by weight or by measurement, and the special rates include coal 1s. per ton; undressed timber 3s. 6d. per 630 super feet; ore 9d. per ton.

The outward rate in ports other than Sydney on coastwise, interstate, and oversea goods is 1s. per ton or 40 cubic feet, unless otherwise specified; ore and ore products are rated at 4½d. per ton; timber—sawn or rough—1s. 3d. per 630 super feet; wool 6d. per bale or 3d. per bag; wheat 9d. per ton. These rates are subject to a reduction of 20 per cent. if the goods are shipped to a destination beyond the Commonwealth.

#### *Storage Charges.*

In order to avoid congestion on the wharves, storage and shed charges are imposed on goods placed on a wharf if not removed within a specified period.

Goods left on an unleased wharf after final discharge of the vessel for a longer period than six days are charged at the rate per ton per day of 4d. for the first week, 5d. for the second week, 6d. for the third week, and 7d. thereafter. Goods left on an unleased wharf for more than two days after having been received for shipment are charged at the rate of 1d. per ton per day. Shed charges are at the rate of one-tenth of a penny per square foot of the floor space occupied. These charges apply to the Port of Sydney only and are payable by the owner of the vessel or his agent.

At ports other than Sydney storage charges do not accrue on goods until forty-eight hours after the completion of the vessel's discharge. The general charge per ton per day is 2d. for the first week; 3d. for the second week; 4d. for the third week; and 6d. for the fourth and subsequent weeks. The charge on wool at Newcastle is 1d. per ton per day; timber is charged for the first four days (after the free period) 1d. per ton per day, and thereafter 2d. per ton per day; and by special approval a reduced rate of 3d. per ton per week operates in respect of wheat until 30th June, 1939.

#### SHIPPING REGISTERS.

Shipping in New South Wales is registered in accordance with the Merchant Shipping Act of the Imperial Parliament, under sections which apply to the United Kingdom and to all British dominions. The Act prescribes that all British vessels engaged in trade must be registered, except those under 15 tons burthen employed in the coasting trade of the part of the British Empire in which the owners reside. Ships not legally registered are not entitled to recognition as British ships and are not permitted to proceed to sea. Although the registration of vessels under 15 tons is not compulsory, many small vessels are registered at the request of the owners, as registration facilitates the transaction of business for the purpose of sale or mortgage. The flag for merchant ships registered in Australia is the red ensign usually flown by British merchant vessels, defaced with a white seven-pointed star indicating the six federated States of Australia and the territories of the Commonwealth and the five smaller white stars representing the Southern Cross.

In New South Wales shipping registers are kept at the ports of Sydney and Newcastle. The following statement shows particulars regarding the shipping on the registers, as at 30th June, 1938:—

TABLE 64.—Shipping on Register, 1937-38.

Tonnage Class.	Steam.		Motor.		Sailing.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Under 50 tons ... ..	186	3,880	282	3,229	184	2,045	652	9,154
50 and under 500...	136	21,695	8	1,334	62	9,257	206	32,286
500 " " 1,000...	18	13,717	2	1,051	3	2,537	23	17,305
1,000 " " 2,000...	6	8,991	2	2,996	3	3,727	11	15,714
2,000 and over ... ..	5	13,072	1	2,626	...	...	6	15,698
Total ... ..	351	61,355	295	11,236	252	17,566	898	90,157

Thirty-one vessels, with an aggregate tonnage of 4,104 tons (net), were sold during 1937-38. Of these 28 with a net tonnage of 1,084 tons were sold to British subjects, and these transactions did not necessarily involve removal from the registers.

#### SHIPBUILDING AND REPAIRING.

Accommodation for building, fitting, and repairing ships has been provided by State and private enterprise at Sydney and Newcastle, and at six other ports in New South Wales.

In Sydney Harbour there are four large graving docks, five floating docks, and seven patent slips.

Two graving docks, the Fitzroy and the Sutherland, situated on Cockatoo Island, were under the control of the Government of New South Wales until February, 1913, when they were transferred to the Commonwealth. They were controlled later by the Australian Commonwealth Shipping Board until 1st March, 1933, when the Commonwealth Government leased the undertaking to a private company under agreement for a term of 21 years. The agreement was ratified by the Cockatoo Dockyard Agreement Act, 1933. The annual rent ranges from a minimum of £1,000 to a maximum of £50,000, the rent for the first year being £1,000. Thereafter it is to be calculated as a proportion—rising from 2½ per cent. to 5 per cent.—of the turnover, less 2½ per cent. of the cost of stores and materials used.

The Sutherland Dock is 690 feet long, and can accommodate a vessel with a breadth of 84 feet, and a draught of 27 feet. The Fitzroy Dock is 474 feet long and its breadth is 47 feet. It can take vessels drawing 13 feet 6 inches. At Cockatoo Dock there are also two patent slips, where vessels drawing 9 feet and 4 feet respectively may be slipped. The works on Cockatoo Island are equipped with plant for shipbuilding as well as for all classes of repairs.

A private company, Mort's Dock and Engineering Company, Limited, owns two graving docks in Sydney Harbour, four floating docks, two of which are out of commission, and three patent slips. The Woolwich Dock is 850 feet long, and at high tide can take vessels drawing 26 feet; Mort's Dock is 631 feet long, and vessels drawing 19 feet 6 inches may be floated into it. The largest of the slips is 270 feet long; it can take a vessel weighing 1,500 tons gross, drawing 11 feet forward and 16 feet aft. The works of the Mort's Dock and Engineering Company are equipped with plant for shipbuilding, as well as for all classes of repairs.

There is another dock, under private ownership, with a lifting power of 300 tons, and the State Government maintains a slip with a lifting capacity of 50 tons.

At Newcastle there are a floating dock and two patent slips attached to the State Government Dockyards at Walsh Island, and two slips which are privately owned.

The works at Walsh Island were established on a site which was originally a sandspit, and has been built up by dredging from the bed of the Hunter River. In 1913, after the Cockatoo Dockyard had been transferred to the Federal Government, workshops were erected at Walsh Island for the construction and repair of Government dredges and other vessels. Subsequently the establishment was extended, and provision was made for the construction of merchant ships and ferry steamers, and for other classes of engineering and iron work. Early in 1933 it was decided to restrict operations exclusively to docking. The length of the dock is 630 feet and it is 82 feet wide, with a capacity for floating vessels up to 15,000 tons. The cost of constructing the floating dock to 30th June, 1938, amounted to £502,330, of which £135,000 was contributed by the Commonwealth. Each of the patent slips is 292 feet in length, one only with a lifting capacity of 300 tons being in use. During the year ended 30th June, 1938, 15 vessels were slipped at Walsh Island and 35 were docked. The gross tonnage of these vessels was 84,720.

Graving docks under the control of the State Government are maintained at the ports of the Tweed, Richmond, Clarence, Manning and Hunter Rivers and at Bateman's Bay, to meet the requirements of vessels engaged in the coastal trade. The largest, on the Richmond River, is 214 feet 6 inches long and 45 feet wide; it can accommodate a vessel with a draught of 9 feet 6 inches. Twenty-eight vessels with a gross tonnage of 2,422 tons were docked at these ports during the year 1937-38.

#### SEAMEN.

Matters relating to the employment of seamen are subject to control by the Commonwealth Government in terms of the Federal Navigation Act. Provision is made for the regulation of the methods of engagement and discharge, the form of agreement, rating, the ship's complement, discipline, hygiene, and accommodation. Mercantile marine offices were established in March, 1922, to undertake functions performed hitherto by State shipping offices at Sydney, Newcastle and Port Kembla where engagements and discharges are registered.

The following statement shows the number of transactions during the last five years. No licences to ship were issued at Port Kembla.

TABLE 65.—Transactions at Mercantile Marine Offices, 1934 to 1938.

Year ended 30th June.	Engagements Registered.			Discharges Registered.			Licenses to Ship.	
	Sydney.	New-castle.	Port Kembla.	Sydney.	New-castle.	Port Kembla.	Sydney.	New-castle.
1934	13,760	2,098	41	13,409	2,022	90	191	27
1935	16,404	2,669	40	16,562	2,582	88	281	50
1936	18,708	2,812	93	18,789	2,735	126	728	90
1937	18,939	3,365	126	19,184	3,298	157	352	54
1938	20,468	3,831	217	20,429	3,827	203	444	90

The rates of wages, hours of labour, and conditions under which crews work on vessels engaged in the interstate and coastal trade of Australia are fixed by awards and agreements under the Commonwealth Conciliation and Arbitration Act. In accordance with the practice of the industrial tribunals the rates are subject to periodical adjustment on account of changes in retail prices.

The rates ruling at 1st December, 1938, were as follows, victualling and accommodation being provided in addition to wages:—

TABLE 66.—Wages of Seamen, Coastal and Interstate Vessels, December, 1938.

Occupation.	Rates of Wages per Month.			
	£	s.	d.	£ s. d.
Officers—Chief ... ..	22	4	6	to 35 19 0
Second ... ..	20	4	6	„ 31 19 0
Third ... ..	21	4	6	„ 27 9 0
Junior ... ..	£20 4s. 6d.			
Engineers—Chief ... ..	23	14	6	to 65 19 0
Second ... ..	22	4	6	„ 41 7 0
Third ... ..	20	4	6	„ 32 19 0
Fourth ... ..	20	14	6	„ 28 6 0
Fifth ... ..	£20 4s. 6d.			
Firemen ... ..	£18 8s. 0d.			
Trimmers ... ..	£16 8s. 0d.			
Able Seamen—Steamers ... ..	£16 8s. 0d.			
Ordinary Seamen ... ..	10	10	6	and 11 1 6
Cooks ... ..	13	15	6	to 23 5 6
Stewards ... ..	14	5	6	„ 19 5 6
Stewardesses ... ..	9	8	0	and 10 10 6

The monthly rates payable to officers and engineers vary according to the size of the vessels on which they are engaged.

Except where provided specifically in the awards and agreements, the ordinary hours of work for seamen are eight per day, and overtime must be paid for time worked in excess of eight hours. Manning conditions are regulated by committees representing the shipowners and the unions.

Compensation to seamen is provided by a federal law, the Seamen's Compensation Act, 1911, which applies to ships in the service of the Commonwealth (exclusive of naval and military service), and to ships trading with Australia, or engaged in any occupation in Australian waters, or in trade and commerce with other countries or among the States. The schedules of the Act indicate the amount of compensation payable, in case of death or total or partial incapacity resulting from personal injury by accident to seamen in the course of their employment. Methods of procedure for the recovery of compensation are prescribed by regulations under the Act.

Seamen employed on New South Wales ships, *i.e.*, ships registered in New South Wales, or owned or chartered by the Government or by a person or body corporate whose place of business is in the State, may claim compensation under the Workers' Compensation Act of New South Wales, if they agree not to proceed under the federal law, provided such ships are engaged solely in the intra-state trade of New South Wales.

#### SAFETY OF LIFE AT SEA.

The navigation laws contain stringent provisions designed to prevent unseaworthy ships from proceeding to sea, and to ensure that all vessels are

manned by competent crews, that life-saving appliances are carried, and that special arrangements are made to safeguard dangerous cargoes. Regulations have been framed for the prevention of collisions, also rules regarding the lights and signals to be used.

On account of the regularity of the coast of New South Wales and the comparative absence of islands, navigation in the seaboard waters is usually safe. Along a coastline less than 700 miles in length there are twenty light-houses; and lighted beacons, leading lights, and other guides have been placed for the safety of harbour navigation in the ports of Sydney, Newcastle, Port Kembla and other shipping places. The highway lights on the sea coast, twenty in number, are under the control of the Commonwealth.

Pilotage is a State service under the provisions of the Navigation Act of New South Wales. A pilot must be engaged for every vessel entering or leaving a port of New South Wales at which there is a pilotage establishment unless the master holds a certificate of exemption. Such certificates may be granted to British subjects only, for use in respect of British ships registered in Australia or New Zealand and employed in the trade between ports in Australasia and the South Sea Islands or engaged in whaling. The pilotage rates are shown on page 90.

Wrecks and shipping casualties which occur to British merchant shipping on or near the coast of New South Wales are investigated by Courts of Marine Inquiry. The majority of wrecks reported are small coasters under 200 tons. The following statement shows the wrecks reported in each year from 1931 to 1938. No wrecks were reported in 1935-36. The figures relate to vessels with crews who were domiciled in New South Wales:—

TABLE 67.—Shipwrecks, 1931 to 1938.

Year ended 30th June.	British Vessels.				Tonnage (net).	Crews and Passengers.	Lives Lost.
	Steam.	Motor.	Sailing.	Total.			
1931	2	1	...	3	2,722	258	...
1932	2	...	1	3	1,265	42	...
1933	4	1	...	5	589	9	1
1934	8	...	1	9	1,283	75	17
1935	1	...	...	1	18	43	3
1937	3	1	...	4	1,084	41	8
1938	3	4	...	7	218	112	23

Lifeboat stations are maintained at Sydney and at Newcastle, and motor lifeboats and life-saving appliances are kept at certain places along the coast. The pilot vessels are fitted for rescue work, and steam tugs are subsidised for assisting vessels in distress.

The Royal Shipwreck Relief and Humane Society of New South Wales affords relief to distressed seamen and their dependants and to the crews and necessitous passengers of vessels wrecked in New South Wales waters. It is maintained by public subscription, without subsidy from the State. The value of relief given during 1936-37 and 1937-38 amounted to £729 and £878 respectively.

## AVIATION.

Civil aviation in Australia is subject to the Commonwealth Air Navigation Act, 1920-1936, which authorises the Governor-General to make regulations for giving effect to the Convention for the Regulation of Aerial Navigation (signed in Paris on 13th October, 1919), and of providing for the control of air navigation (a) in relation to trade and commerce with other countries and among the States, and (b) within any territory of the Commonwealth. The Air Navigation Act passed by the Parliament of New South Wales in 1938 provides for the application of the Commonwealth Air Navigation regulations to aircraft and air navigation within the State. This law was enacted in conformity with legislation of the other Australian States so that a uniform system of regulations may prevail throughout the Commonwealth.

The Commonwealth Government has surveyed routes and established landing grounds in various parts of Australia, and affords assistance to certain private organisations and aero clubs for the encouragement of civil aviation.

Mascot aerodrome is the airport of Sydney. Works for the completion of the airport and the construction of administrative buildings are still in progress; radio, night lighting and meteorological facilities have been provided and the landing area is being extended and improved.

Newcastle is served by an aerodrome at District Park. Among the many towns at which landing facilities are available are Bega, Broken Hill, Coff's Harbour, Coonamble, Cootamundra, Canberra (A.C.T.), Dubbo, Deniliquin, Grafton, Goulburn, Hay, Holbrook, Junee, Kempsey, Lismore, Moree, Narrandera, Narromine, Nowra, Nyngan, Parkes, Tamworth, Tenterfield, Wagga Wagga, and Wingham.

A temporary flying-boat base at Rose Bay (Sydney) is being equipped for use as the terminus of the Australia-England flying-boat service. In anticipation of increased air transport between capital cities, and for proposed night air mail services, aerodromes are being improved and equipped with night-landing facilities at Evans Head, Coff's Harbour, Kempsey, Goulburn and Holbrook.

As additional aids to air navigation the Commonwealth Government has approved of the establishment of meteorological and radio stations at aerodromes in the capital cities and at other selected centres. Radio aids have been provided at Mascot, Kempsey and Canberra (A.C.T.) and a station is to be established at Holbrook. Meteorological facilities providing full forecasting services have been installed at Mascot and Canberra and a subsidiary station is to be established at Armidale.

Aero clubs in Sydney and Newcastle provide facilities for flying training and practice. The Commonwealth Government grants assistance to clubs by providing hangar accommodation, free use of aerodromes, club houses which are leased to the clubs, grants towards the cost of the maintenance of aircraft, and bonus payments in respect of members graduating for and renewing pilots' licenses.

Flying training is given also at Sydney by the Kingsford Smith Air Service Ltd., Airflite Ltd., and by Julius Gardiner Pty. Ltd. The latter company also operates in country districts. Training at Broken Hill is undertaken by the Broken Hill Aero Club.

In order to foster gliding activities the Commonwealth Government subsidises a selected gliding club in each State, making payments according to the amount of gliding and training conducted. The Sydney University Gliding Club works under this arrangement.

The regular air services are classified as follows:—(a) Subsidised services carrying passengers, mails and freight; (b) unsubsidised services carrying mails (under agreement with the Postmaster-General's Department), passengers and freight; and (c) unsubsidised services carrying passengers and freight. Particulars relating to these services at 30th June, 1938, are as follows, viz.:—

- (a) Subsidised Services—Butler Air Transport Ltd., Cootamundra-Charleville (Queensland), 629 miles, twice weekly each way; Adastra Airways Ltd., Sydney-Bega, 205 miles, twice weekly each way; W. R. Carpenter and Co. Ltd., Sydney-Rabaul (New Guinea), 2,522 miles, one weekly each way.
- (b) Unsubsidised Services (carrying mails)—Australian National Airways Pty. Ltd., Sydney-Melbourne (direct), 455 miles, twice daily each way; Sydney-Canberra-Wagga-Melbourne, 478 miles, once daily each way; Adelaide-Broken Hill-Mildura-Adelaide, 638 miles, round trip weekly; Adelaide-Renmark-Broken Hill, 287 miles, once daily each way; Ansett Airways Ltd., Sydney-Narrandera-Melbourne, 500 miles, once daily each way; Broken Hill-Mildura-Melbourne, 460 miles, once daily each way; Adelaide-Mildura-Narrandera, 460 miles, once daily each way; Airlines of Australia Ltd., Sydney-Brisbane, 475 miles, twice daily each way, but once on Sunday; Victoria and Interstate Airways Pty. Ltd., Melbourne-Hay, 233 miles, daily each way; North-Western Airlines Ltd., Sydney-Moree, 330 miles, thrice weekly each way; Guinea Airways Ltd., Adelaide-Mildura-Cootamundra-Sydney, 737 miles, once daily each way.
- (c) Unsubsidised Services (not carrying mails)—Adastra Airway Ltd., Sydney-Bega, 205 miles, four times weekly in each direction; Ansett Airways Ltd., Sydney-Melbourne (direct), 455 miles, Sundays.

Air communication with Europe is maintained by Qantas Empire Airways Ltd. and the Royal Netherlands Indies Airways Ltd. (K.N.I.L.M.).

The British company conducts a flying-boat service between Sydney and Singapore via Darwin. Junction is made with the London service at Singapore. Flying-boats leave Sydney thrice weekly; the route extends over 4,669 miles and ten days are taken to complete the journey to London. Passenger rates each way are: Sydney-Singapore, single £A65, return £A117; Sydney-London, single £A180, return £A342. Mail is carried and the postage rate for letters from Australia to Great Britain is 5d. per half-ounce. Postage from Great Britain to Australia is at the ordinary rate, no surcharge being imposed.

The Dutch company provides a land plane service between Sydney and Batavia via Darwin. Junction is made with the Amsterdam (London) service at Batavia. Aeroplanes leave Sydney twice weekly; the route extends over 4,131 miles and eight days are taken to complete the journey. No mails are carried. Single fares to and from Batavia and Amsterdam (London) are £A60 and £A180 respectively.



Particulars relating to aircraft in each of the last five years are shown below. The figures refer to aircraft registered in New South Wales and owing to interstate flying do not cover all the aviation which has taken place within the State.

TABLE 68.—Aviation in New South Wales, 1934 to 1938.

Particulars.	Year ended 30th June.				
	1934.	1935.	1936.	1937.	1938.
Companies or persons owning aircraft (a)	40	54	54	44	53
Aircraft (a)— ... ..	58	72	81	68	96
Licensed Pilots (a)—					
Private ... ..	144	199	217	236	303
Commercial ... ..	66	65	71	79	101
Flights—Number ... ..	19,374	19,585	23,239	25,596	44,993
Hours ... ..	9,933	13,534	20,141	24,619	31,113
Mileage (approximate) ... ..	887,289	1,220,452	1,935,346	2,650,630	3,358,269
Passengers carried ... ..	14,394	22,746	22,691	24,699	41,172
Accidents—Persons killed ... ..	6	2	8	10	1
Persons injured ... ..	2	2	4	2	2
Goods—Weight carried ... .. lb.	10,209	28,273	137,103	234,879	268,228
Mails—Weight carried ... .. lb.	7,435	8,946	(b)12,624	(b)22,712	(b)33,479

(a) At 30th June.  
destined for overseas.

(b) Exclusive of particulars of mails carried on interstate services but

## POSTS AND TELEGRAPHS.

The postal, telegraph, and telephone services of New South Wales have been controlled by the Commonwealth Government since 1st March, 1901. The services are administered by a Minister of the Crown, with a permanent salaried officer in charge of the central executive office, and a deputy in each State.

Wireless services are operated under license issued by the Postmaster General and the Postal Department is responsible for the technical services relating to the broadcasting system.

In the provision of facilities for communication throughout Australia and with other parts of the world the Department keeps pace with the advance of science and invention.

With the extension of the telephone system, the introduction of wireless telegraphy, and of the aerial transportation of mails many technical difficulties arise. For the investigation of these matters and other problems relating to its activities the Department maintains research laboratories.

The rates and charges for the postal and other services are uniform in all the States of the Commonwealth.

### POSTAL SERVICES.

Post offices have been established throughout New South Wales, even in localities where there are few residents. If the volume of business does not warrant the establishment of a full service, receiving offices are opened for the collection of mail matter for conveyance to and from the nearest post office. Including receiving offices, there were 2,505 post offices in the State at 30th June, 1937. Of these 412 were official, 19 semi-official, and 2,074 non-official. The transport of mails in outlying districts has been expedited considerably in recent years by reason of an extended use of motor vehicles and by aerial services. The number of inland mail services in operation in New South Wales in 1936-37 was 2,108. The cost of road services amounted to £230,410, and of railway services to £152,702.

Ocean mail services are conducted in accordance with arrangements made between the Commonwealth Government and the steamship owners. Some of the services between Australia and the Pacific Islands are subsidised by the Commonwealth, and the Orient Steamship Company receives £110,000 per annum for a four-weekly service with Europe. Mails are conveyed along other routes at poundage rates. They are despatched at least once a fortnight to Europe, *via* Suez, and there is regular communication with America and with Eastern ports. The oversea aerial mail services are described in the preceding chapter.

The following table shows particulars of articles posted in New South Wales for delivery within the Commonwealth and of articles despatched to and received from places beyond the Commonwealth for each year since 1932-33. Particulars of postal matter received from other Australian States are not available.

TABLE 69.—Letters, etc., Posted and Received in New South Wales,\* 1933 to 1937.

Particulars.	Year ended 30th June.				
	1933.	1934.	1935.	1936.	1937.
Letters, Post Cards, Letter Cards and Packets—	Thousands omitted.				
Posted for delivery within the Commonwealth ... ..	275,475	279,277	295,175	305,912	321,900
Despatched to and received from places beyond the Commonwealth	20,704	22,704	22,318	20,827	22,526
Total ... ..	296,179	301,981	317,493	326,739	344,426
Registered Articles†—					
Posted for delivery within the Commonwealth ... ..	2,255	2,305	2,485	2,567	2,736
Despatched to and received from places beyond the Commonwealth	299	310	321	342	388
Total ... ..	2,554	2,615	2,806	2,909	3,124
Newspapers—					
Posted for delivery within the Commonwealth ... ..	55,645	57,869	60,303	62,564	65,833
Despatched to and received from places beyond the Commonwealth	9,803	9,376	10,315	9,114	9,937
Total ... ..	65,448	67,245	70,618	71,678	75,770
Parcels‡—					
Posted for delivery within the Commonwealth ... ..	3,707	3,525	3,433	3,601	3,765
Despatched to and received from places beyond the Commonwealth	182	193	212	226	234
Total ... ..	3,889	3,718	3,645	3,827	3,999

\* Includes Australian Capital Territory. † Excluding Registered Parcels. ‡ Includes Registered Parcels.

The Dead Letter Office in New South Wales handled 693,175 letters and postcards and 264 packets and circulars during 1936-37. Of these 786,750 were returned direct to the writers or delivered, 131,084 were destroyed, and 39,668 were returned as unclaimed to other countries. Money and valuables amounting to £35,625 were contained in postal articles sent to the Dead Letter Office.

A system of value-payable parcel post has been established, mainly for the convenience of people who reside at a distance from trading centres. The Department accepts for transmission within the Commonwealth parcels or letters sent in execution of orders, and collects from the addressees on behalf of the senders the charges due thereon. The system applies also to registered articles transmitted to or from Papua or Nauru. During the year ended 30th June, 1937, the number of such articles posted in New South Wales was 326,045. The value collected was £398,582, and the revenue, that is postage and commission, £43,214.

The postage rate for letters to places within the British Empire is 2d. per oz.; it was increased from 1½d. in August, 1930. The rate for transmission by air mail is 5d. per half-ounce.

#### TELEGRAPHS AND CABLES.

The telegraph system embraces the whole Commonwealth. It has been extended steadily since January, 1858, when the system was opened to the public in New South Wales, and modern equipment has been installed in the chief centres to expedite the transmission of messages.

Cable communication with Europe and other countries is supplied by various routes leaving Australia at four different points, Sydney, Cottesloe (Fremantle), Southport (Queensland), and Darwin.

The oldest, dating from 1871, is from Darwin via Java and Singapore. Two routes are available from Cottesloe (Fremantle)—one to London via Durban (South Africa) and the other to London and the East via Singapore.

From Sydney two routes are available, using the cables laid by the Pacific Cable Board to New Zealand and Canada. The first is via Southport (Queensland) and Norfolk Island to Suva, and the second via Auckland (New Zealand) to Suva. From Suva there is a duplicate route via Fanning Island and Canada to London or American countries.

The Pacific Cable Board's system was purchased by Cable and Wireless, Limited, from the Governments (British, Canadian, etc.) who owned it when the Empire merger of cable and wireless communications was arranged in 1929.

Lines have also been laid between the Australian mainland and Tasmania. A cable between Bundaberg (Queensland) and New Caledonia was maintained for many years by a French company, but a wireless link has been substituted and the cable has been abandoned.

The Eastern Extension Australasia and China Telegraph Company Limited, in association with Cable and Wireless Limited (London), controls all cables from Australia, except the cable linking Tasmania with the mainland.

For a cable message to any part of the British Empire the ordinary rate is 1s. 3d. per word, and five-letter code messages are charged two-thirds of the ordinary rate. Deferred cablegrams written in plain language and subject to a delay not exceeding twenty-four hours may be exchanged at half the ordinary rates with Great Britain, and with most other British and foreign countries. Daily letter telegrams with normal delivery on the morning of the second day after the day of acceptance may be exchanged with a number of countries at one-third of the ordinary rates and a minimum charge for twenty-five words. Press telegrams are handled by telegraph or cable at cheap rates under special conditions.

The following table shows the number of telegrams despatched in New South Wales for delivery within the Commonwealth, including messages to Tasmania and the number of cablegrams despatched to and received from countries outside Australia, in various years since 1901. The total number of telegrams handled in New South Wales cannot be stated, as full particulars are not available regarding messages received from other States. Cablegrams and telegrams in transit through the State are not included.

TABLE 70.—New South Wales, Telegrams and Cablegrams, 1901 to 1937.

Year.	Telegraph Stations.	Telegrams despatched for delivery in Australia.	Cablegrams.		Revenue Received.
			Despatched.	Received.	
1901	978	2,660,724	59,360	72,735	£ 186,135
1911	1,406	4,314,252	129,809	123,910	253,398
1920-21	2,252	5,906,243	249,705	263,482	489,805
1928-29	3,069	5,972,606	415,813	388,093	526,508
1930-31	3,065	4,609,851	326,857	282,253	384,452
1931-32	3,072	4,362,975	301,117	287,696	354,296
1932-33	2,978	4,416,168	311,142	298,814	347,707
1933-34	2,997	4,704,809	322,382	321,493	370,869
1934-35	3,025	5,088,853	332,859	324,575	409,137
1935-36	3,042	5,473,040	343,896	335,051	433,810
1936-37	3,059	5,843,656	370,741	371,467	462,742

The revenue from the telegraph business reached its peak in 1928-29 and then declined steadily until 1932-33. In 1936-37 it showed an increase of £28,932 on the previous year.

#### WIRELESS TELEGRAPHY.

During the years 1912 to 1914, a chain of stations was erected around Australia by the Commonwealth to give wireless communication with shipping; three of the stations, including the Sydney station, being capable of long distance communication. The stations were controlled by the Department of the Navy during the years 1915 to 1920. In May, 1922, the commercial radio stations were transferred, under an agreement with the Federal Government, to the Amalgamated Wireless (Australasia), Limited, in which the Commonwealth has a controlling interest. The company undertook to erect a high-power station in Australia for communication with Great Britain and Canada, where corresponding stations were to be established. In consequence of the development of the beam system the agreement was altered in 1924, and services under the beam system have been provided, instead of high-power stations. The service between Australia and Great Britain was opened on 8th April, 1927, and between Australia and Canada on 16th June, 1928.

The rates for messages exchanged with any part of the Empire were reduced on 25th April, 1938, to 1s. 3d. per word for ordinary messages, with cheaper rates for those in code language and deferred messages.

Paid messages sent by beam wireless from New South Wales (including the Australian Capital Territory) during 1937-38 numbered 221,012, equivalent to 3,536,206 words; those received numbered 191,831, equivalent to 4,603,933 words. The corresponding particulars for 1936-37 were—Messages despatched, 158,179, or 3,541,542 words; messages received, 134,925, or 4,247,742 words. There is a preponderance of press messages in the

inward traffic and the number of words per message is greater than in the outward traffic, which consists to a greater extent of ordinary messages.

Coastal radio traffic during 1937-38 were—95,428 paid messages, 1,525,671 words; 9,636 service messages, 97,824 words; and 7,687 weather messages, 158,964 words. The traffic in 1936-37 consisted of 96,165 paid messages, 1,730,447 words; 7,944 service messages, 84,680 words; and 6,808 weather messages, 133,751 words.

The Overseas Radio Telephone Service which was established between Australia and Great Britain in April, 1930, has been extended, and communication by this means may be made with the principal countries of the world.

A Beam Wireless Picturegram service was established between Australia and Great Britain and North America on 1st October, 1934.

Wireless beacons for the use of aircraft were installed at some of the principal aerodromes during 1937-38.

Private installations for wireless communication and for broadcasting are operated under license, but are not permitted to engage in commercial traffic unless authorised to do so. A national broadcasting service was inaugurated in July, 1929, and two private stations in New South Wales were transferred to the control of the Commonwealth Government. The programme services were provided by private enterprise under contract with the Commonwealth Government until 1st July, 1932, when the Australian Broadcasting Commission undertook the work.

At 30th June, 1938, there were 6 national broadcasting stations, viz., two in the metropolitan area and one each at Corowa, Newcastle, Grafton and Orange. Licensed broadcasting stations at this date numbered 32, of which 6 were in the metropolitan area. There was also a licensed station in the Australian Capital Territory.

Wireless licenses in force in New South Wales (excluding the Australian Capital Territory) at 30th June, 1934 to 1938, were as follows:—

TABLE 71.—Wireless Licenses, 1934 to 1938.

Licenses.	In force at 30th June—				
	1934.	1935.	1936.	1937.	1938.
<b>Station—</b>					
Coast ... ..	2	2	2	2	2
Ship ... ..	16	22	75	92	89
Land ... ..	8	9	8	8	8
Broadcasting* ... ..	16	17	23	25	32
<b>Broadcast listeners</b> ... ..	225,897	277,576	314,426	356,859	402,315
<b>Experimental</b> ... ..	454	512	605	676	724
<b>Portable</b> ... ..	9	11	12	13	15
<b>Aircraft</b> ... ..	...	6	1	5	10
<b>Special</b> ... ..	26	29	32	34	39
<b>Total</b> ... ..	226,428	278,184	315,184	357,714	403,234

\* Excluding National Broadcasting Stations.

In June, 1934, there were 225,897 broadcast listeners' licenses in force in New South Wales and the number increased progressively to 402,315 in June, 1938, the increase being 176,418 or more than 78 per cent.

At 30th June, 1938, experimental licenses numbered 724, an increase of 270 since 1933-34. The licenses in the Australian Capital Territory at 30th June, 1938, included one broadcasting, 1,663 broadcast listeners' and eight experimental licenses.

The revenue collected in New South Wales in respect of broadcast listeners' licenses in 1937-38 amounted to £423,356, of which £181,358 accrued to the Post Office. The collections during 1936-37 totalled £375,859, of which the Postmaster-General's Department received £161,254.

### TELEPHONES.

The telephone system was established in Sydney in 1880, and the system has been installed in a large number of country districts. In the metropolitan district a number of automatic exchanges are in operation. Trunk lines serve practically all settled areas in Australia. The line between Sydney and Melbourne was brought into use in 1907, and between Sydney and Brisbane in 1924. The services were extended to Northern Queensland and to Western Australia during the years 1930 and 1931. The "carrier wave" system of operating long-distance telephone traffic is in use so that a number of conversations may be conducted simultaneously over one pair of wires.

The following table shows the growth of the telephone service in New South Wales since 1901:—

TABLE 72.—Telephones, 1901 to 1937.

Year.	Exchanges.	Number of Lines Connected.	Public Telephones.	Telephone Instruments connected.
1901	*48	9,864	72	13,778
1911	*268	34,551	722	43,032
1920-21	*921	74,490	1,693	96,710
1928-29	1,890	146,492	2,779	193,718
1929-30	1,951	150,606	2,879	199,607
1930-31	1,946	141,445	2,944	188,345
1931-32	1,942	135,179	2,986	181,326
1932-33	1,935	135,859	3,229	182,992
1933-34	1,935	139,485	3,353	188,694
1934-35	1,951	150,257	3,459	202,363
1935-36	1,967	160,323	3,561	215,803
1936-37	1,985	170,724	3,758	229,727

\* Prior to 1926-27 offices with only one line connected were not included.

At 30th June, 1937, there were in New South Wales 1,985 telephone exchanges with which 170,724 lines were connected. The instruments in use numbered 229,727, including 223,712 subscribers' instruments, 3,758 public telephones, and 2,257 connected with private lines. The revenue derived from the telephone services during the year amounted to £2,902,740.

The annual ground rent for an exclusive telephone service ranges from £3 in respect of exchanges where the number of subscribers' lines does not exceed 300, to £4 10s. for a residence service and £5 10s. for a business service where there are over 10,000 lines. For each effective outward call where the number of lines connected with the exchange does not exceed 300, a charge of 1d. per call is made; at other exchanges the charge is 1½d.

#### 4 FINANCIAL RESULTS OF POSTAL SERVICES.

Particulars regarding the financial results of operations in the various branches of the Postmaster-General's Department in New South Wales during the year ended 30th June, 1937, are as follows:—

TABLE 73.—Postmaster-General's Department in New South Wales, Revenue and Expenditure, 1936-37.

Branch.	Earnings.	Working Expenses.	Surplus.	Interest on Capital and Exchange Charges.	Net Profit.
	£	£	£	£	£
Postal ... ..	2,834,006	1,913,959	920,047	64,897	855,150
Telegraph ... ..	512,635	440,249	72,386	48,483	23,903
Telephone ... ..	2,902,740	1,753,411	1,149,329	580,509	568,820
Wireless ... ..	156,568	99,337	57,231	4,632	52,599
<b>Total, All Branches ... ..</b>	<b>6,405,949</b>	<b>4,206,956</b>	<b>2,198,993</b>	<b>698,521</b>	<b>1,500,472</b>

The total surplus for the year amounted to £1,500,472, an increase of £164,138 upon that for 1935-36. The postal branch showed the greatest net profit at £855,150.

A comparative statement of finances for the past five years is shown below:—

TABLE 74.—Postmaster-General's Department in New South Wales, Revenue and Expenditure, 1933 to 1937.

Year ended 30th June.	Earnings.	Working Expenses.	Surplus.	Interest on Capital and Exchange Charges.	Net Profit.
	£	£	£	£	£
1933	4,904,797	3,422,405	1,482,392	942,264	540,128
1934	5,205,354	3,562,269	1,643,085	768,944	874,141
1935	5,575,538	3,728,092	1,847,446	774,283	1,073,163
1936	5,959,954	3,936,424	2,023,530	687,196	1,336,334
1937	6,405,949	4,206,956	2,198,993	698,521	1,500,472

The net profit in 1929 was £92,670, and it increased each subsequent year except 1931, when it fell to £54,923. It reached the peak in 1937 at £1,500,472.

#### EMPLOYEES.

At 30th June, 1937, there were 17,303 persons employed by the Postal Department in New South Wales. Of these, 8,971 were permanent employees, 2,363 non-official postmasters, 592 telephone office keepers, 2,352 mail contractors (including drivers), and 3,024 others.



## LAND TRANSPORT.

The initial problem of establishing an efficient system of transport in New South Wales was rendered difficult by several causes, viz., the existence of a belt of rugged highlands comparatively near the coast readily passable at only a few points; the consequent difficulty in connecting the coast with the interior; the absence of navigable rivers and waterways; and the scattered nature of the settlement.

The rugged approaches to the Great Dividing Range defied the efforts of explorers until 1813, when an expedition succeeded in crossing the mountains, and the first road over the range was opened in 1815. Shortly afterwards a way was discovered across the mountains in the vicinity of Lake George, near the spot where Goulburn now stands. These routes remained the easiest lines of communication with the interior to the west and south, and when railways were built they followed the roads. Strangely enough, the only real gap in the mountains, situated opposite Newcastle, and discovered by Cunningham in 1825, has not yet been utilised for traffic. The Great Northern Railway traverses the mountains by way of a higher gap at Murrurundi.

The early policy of the government made Sydney the centre of the whole settlement commercially as well as politically. With the advantageous situation on an unrivalled natural harbour, it became from the earliest times the point from which the roads radiated, and to which trade and commerce were drawn, despite the facts that the neighbourhood was not well adapted for agriculture and that access to the fertile interior was impeded by difficult mountains. In point of situation Port Stephens and Jervis Bay, excellent natural harbours situated respectively 85 miles north and 82 miles south of Sydney, are both qualified to constitute commercial outlets for the interior, especially Port Stephens, which is the most central port of the State and has the advantage of large coal supplies in close proximity. The development of this port has been urged strongly as part of a decentralisation scheme, and Jervis Bay may eventually become a shipping centre. There is not a good harbour north of Port Stephens; and Twofold Bay, on the far South Coast, is probably too difficult of access from the interior to develop into an oversea shipping port.

The interior of New South Wales is connected with the sea by rail at Sydney, Newcastle, and Port Kembla. The North Coast railway which runs parallel with the coast line, touches the seaboard at Coffs Harbour. One of its branches runs to Byron Bay near the northern extremity, then turns north to run parallel with the coast to Murwillumbah. Another branch traverses the coastal strip to Dorrigo on the western side of the line, but does not yet extend across the Dividing Range. Parts of the southern Riverina are served by border railways which form part of the Victorian Government system giving access to ports on the southern coast of Australia.

The favourable climatic conditions and vast spaces of New South Wales are conducive to the development of aviation. Air services within the State and with other States and countries form an integral part of the State's transport system.

*Land Transport Services.*

State ownership of land transport services in New South Wales embraces practically all the railways and tramways, and an increasing share of the motor omnibus services in Sydney and Newcastle. The land transport services conducted by private enterprise are subject to a measure of State supervision.

A series of important changes was made between 1930 and 1932 in respect of the administration of these services. Previously the railways and tramways were controlled by the same statutory body, which consisted of three Commissioners appointed by the Governor, the other land transport services were subject to a measure of supervision by the police and local authorities, and matters relating to the maintenance and construction of main roads were administered by the Main Roads Board. Large sums of money had been expended by the Main Roads Board on the improvement of the highways, and motor transport services for both passenger and goods traffic had expanded rapidly to the detriment of the railway and tramway revenues.

The Transport Act, 1930, which relates to land transport services, except railways, was designed to effect an improvement in the tramway services and to provide a greater measure of control over privately-owned motor services with the object of eliminating wasteful duplication. A Commissioner of Road Transport was appointed to administer the Act, transport trusts were constituted to supervise the services in the metropolitan and Newcastle districts, the tramways were removed from the control of the Railway Commissioners and vested in the transport trusts to be administered by a management board, and the Government was authorised to appoint advisory committees from time to time to report upon matters relating to transport.

The Metropolitan Transport Trust was appointed in terms of the Transport Act in August, 1930, to exercise supervision in a district comprised by the county of Cumberland, and the parish of Cowan, in the county of Northumberland, was added by proclamation on 1st October, 1930. The Newcastle and District Transport Trust was appointed in October, 1930, for an area embracing the city of Newcastle, its suburban municipalities and parts of the shires of Tarro and Lake Macquarie. The trusts had the exclusive right of operating tramway services, they were empowered to levy special license fees in respect of motor omnibus services, and in assessing the fees to take into consideration the measure of competition with the tramways. In August, 1931, the State Transport (Co-ordination) Act was passed and the State Transport (Co-ordination) Board was appointed for the purpose of improving and co-ordinating the services and facilities relating to transport. The board was required to furnish a report to the Government as to steps to be taken to co-ordinate the activities of the various transport authorities and the Main Roads Board, and to provide for the administration of the services under one corporate body. The Act also contained provisions which commenced on 2nd November, 1931, imposing further obligations upon persons conducting motor transport services and gave the board authority to levy special charges in respect of passengers and goods carried in motor vehicles.

Legislation for merging the transport administrative authorities was embodied in the Ministry for Transport Act passed in March, 1932. A Department of Transport was created under a responsible Minister of the Crown, the offices of the Railway Commissioners, the Transport Trusts,

the Commissioner of Road Transport, the Tramways Management Board, the Main Roads Board, and the State Transport (Co-ordination) Board were abolished, and their functions were transferred to a Board of Transport Commissioners comprised by a Chief Commissioner, seven other Transport Commissioners to supervise the various branches of the Department, and the Commissioner of Police.

After a short period another important change was made in terms of the Transport (Division of Functions) Act, 1932, which was proclaimed on 29th December, 1932. The Board of Transport Commissioners was abolished, the Ministry of Transport was divided into three departments, each under the control of a Commissioner, viz., (1) railways, (2) road transport and tramways, (3) main roads, and authority was given for the appointment of an assistant commissioner in each department.

## ROADS AND BRIDGES.

### Length of Roads.

The total length of the roads in the State was estimated in 1936 at 123,475 miles. The nature of the roads and their distribution in municipalities and shires are shown in the following table:

TABLE 75.—Length of Roads, 1936.

Nature of Road, Street or Lane.	Municipalities.			Shires.	Western Division.	Total N.S.W.
	Metropolitan.	Newcastle.	Other.			
	miles.	miles.	miles.	miles.	miles.	miles.
Concrete ... ..	212	14	19	88	...	333
Wood-paved ... ..	32	...	...	...	...	32
Premixed Tar ... ..	416	27	146	250	...	839
Penetrated Tar ... ..	1,144	67	550	1,195	...	2,956
Waterbound Macadam ... ..	712	35	682	4,348	...	5,777
Gravel ... ..	315	124	1,946	21,088	512	23,985
Formed only ... ..	435	31	1,260	21,156	1,157	24,039
Cleared only ... ..	108	22	1,056	26,332	3,079	30,597
Natural Surface ... ..	137	5	753	36,488	2,534	39,917
<b>Total ... ..</b>	<b>3,511</b>	<b>325</b>	<b>6,412</b>	<b>110,945</b>	<b>7,282</b>	<b>128,475</b>

The density of roads varies greatly as between the different divisions shown. Within the populous Sydney and Newcastle districts there are, on the average, approximately 14 miles of road to every square mile of area. In the other municipalities, which include the larger country towns outside Sydney and Newcastle, the average is 3.4 miles, of which 2.5 miles are formed roads (i.e., excluding cleared only and natural surface). In the shires, which consist for the most part of agricultural and pastoral lands, the averages per square mile are much lower; viz., all roads 0.6 miles and formed roads 0.26 miles. There has been little road development in the unincorporated Western Division, as this vast area of about 125,000 square miles is devoted almost exclusively to sheep-raising on large holdings.

The principal roads leading southward from Sydney are the Prince's Highway (State Highway No. 1), 348 miles, traversing the coastal districts to the Victorian Border, and the Hume Highway (State Highway No. 2), 367 miles, via Goulburn and Gundagai to Albury. The Monaro Highway (State Highway No. 4), 226 miles, connects Tathra and Bega on the coast with the Hume Highway near Lower Tarcutta via Cooma and Tumut.

The main connecting roads to Canberra are: the Federal Highway (State Highway No. 3), 42 miles, branching from the Hume Highway near Yarra via Collector; State Highway No. 15 (23 miles) from the Hume Highway near Yass, via Hall and Murrumbateman; and State Highway No. 19 (111 miles) from the Victorian Border near Delegate via Bombala and Cooma.

The northern highways are the Pacific Highway (State Highway No. 10), 599 miles, traversing the coastal districts from North Sydney to Newcastle, thence via Hexham and the coastal towns to the Queensland Border at Tweed Heads; the New England Highway (State Highway No. 9), 453 miles, from Hexham, via Maitland and along the tablelands through

Glen Innes and Tenterfield to the Queensland Border near Mount Lindsay. The Oxley Highway (State Highway No. 11), 379 miles, branching from the Pacific Highway near Wauchope, connects the coast with the Mitchell Highway at Trangie, via Walcha, Gunnedah and Coonabarabran. The Gwydir Highway (State Highway No. 12), 326 miles, branches from the Pacific Highway at South Grafton westerly to Collarenebri, via Glen Innes, Inverell and Moree. State Highway No. 16 (274 miles) branches from the Pacific Highway at Ballina westerly via Casino, Tenterfield and Bonshaw to the Queensland Border at Goondiwindi.

The Great Western Highway (State Highway No. 5), 131 miles, from Sydney, connects with the Mitchell and Mid-Western Highways at Bathurst. The Mid-Western Highway (State Highway No. 6), 326 miles, runs from Bathurst to Hay via Cowra and Wyalong, and the Mitchell Highway (State Highway No. 7), 444 miles, from Bathurst via Orange, Dubbo, Trangie, Nyngan and Bourke to the Queensland Border at Bar-ringun. The Barrier Highway (State Highway No. 8), 400 miles, branches from the Mitchell Highway at Nyngan and runs westerly via Cobar, Wilcannia and Broken Hill to the South Australian Border near Cockburn.

In the north-west State Highway No. 18 (225 miles) branches from the Oxley Highway at Gilgandra and runs generally northerly via Coon-amble, Walgett and Goodooga to the Queensland Border near Brenda.

In the south-west the Sturt Highway (State Highway No. 14), 375 miles, branches from the Hume Highway at Lower Tarcutta and runs westerly, following the Murrumbidgee River, via Wagga, Hay, Balranald and Euston to the bridge over the Murray River at Mildura. State Highway No. 20 (104 miles) follows the Murray River via Mulwala, Corowa and Albury to the Bethanga Bridge over the Murray River, near Albury. State Highway No. 21 (602 miles) runs generally north-westerly from Moama on the Murray River via Hay, Booligal, Ivanhoe, Wilcannia and Cobham Lake to the Queensland Border near Olive Downs in the north-western corner of the State. State Highway No. 17 (558 miles) connects Boggabilla on the Queensland Border with Tocumwal on the Victorian Border via Moree, Narrabri, Coonabarabran, Gilgandra, Dubbo, Peak Hill, Parkes, Wyalong, Narrandera and Jerilderie.

State Highway No. 13 (16 miles) connects the Hume Highway at Lansdowne with the Pacific Highway at Hornsby.

### *Supervision of Roads.*

Prior to the enactment of legislation providing for the incorporation of shires, the State was divided into road districts, each under the supervision of an officer directly responsible to the Commissioner for Roads. These officers had under their care the greater part of the roads and bridges of the State outside the municipalities, and the municipal councils were generally responsible for roads and bridges within the incorporated areas. Road trusts formed under various Acts had the supervision of the expenditure of certain grants for the maintenance of roads in districts chiefly of minor importance as well as some important roads in the vicinity of the metropolis.

When the local government system was extended over the whole of the eastern and central divisions of the State by the Local Government Act of 1906 the councils of the municipalities and shires took over the administration of the roads, bridges, etc., under the control of the Roads Department, with the exception of those in the unincorporated areas of the Western Division, and certain bridges and ferries proclaimed as "national

works." The Act provided for the payment of endowment to municipalities and shires, the minimum endowment payable to shires being fixed at £150,000 per annum, and the Minister was empowered to withhold payment of endowment from a council if his requirements in respect of main roads were not satisfied.

Between 1906 and 1912 the amount of endowment allotted to shires was increased from £150,000 to £360,000, but the expenditure by the councils on the important roadways was not sufficient to maintain them in a serviceable condition. It was decided, therefore, to reduce the amount of general endowment to the minimum, and to make a separate vote to councils for the upkeep of the main roads. This arrangement was continued until the rapid development of motor transport led to a change and the Main Roads Act was passed in 1924 to place the main roads under the supervision of a statutory body.

#### *Main Roads Administration.*

The Main Roads Act, 1924, was brought into operation by proclamation as from 1st January, 1925. The first Main Roads Board was appointed in the following month and commenced operations on 12th March, 1925. The Board functioned for a period of seven years then its work was transferred to the control of a Board of Transport Commissioners to be administered in co-ordination with the railways and tramways and other transport services. Subsequently the main roads administration was reorganised as a separate department in the Ministry of Transport under the control of a commissioner who, with an assistant commissioner, is appointed for a term of seven years (see page 108).

Under existing arrangements the Main Roads Department exercises control over all Governmental activities in connection with road works. These activities embrace works on main and developmental roads throughout the State, all roads in the unincorporated portion of the Western Division and proclaimed national works, principally bridges and ferries, which were constructed from Government funds.

The Department co-operates with the municipal and shire councils in the work of constructing and maintaining a well-organised system of main highways, with the primary object of developing the lands in the State, feeding the railways with traffic, giving the primary producers access to markets, and providing facilities for modern motor traffic.

Public roads except those within the City of Sydney, may be proclaimed as main roads upon the recommendation of the Commissioner. The most important classes of main roads are (1) the State highways which form the principal avenues of road communication between the coast and the interior or throughout the State and connect with similar avenues in other States; (2) trunk roads which are the secondary avenues, forming with the State highways the framework of a general system of inter-communication throughout the State; (3) ordinary main roads which are those not classified as highways or trunk roads. Any road, not being a main road, may be proclaimed as a developmental road if it will help to develop a district, and in 1936 provision was made for the declaration of developmental works, *i.e.*, works carried out on portion of a road. A portion or the whole cost of construction of developmental roads and works may be provided from a fund formed in the Main Roads Department for the purpose.

A classification of the proclaimed main roads in the State at 30th June, 1938, is shown below:—

TABLE 76.—Length of Proclaimed Main Roads.

Class of Road.	County of Cumberland.	Country.	Total.
	Miles.	Miles.	Miles.
State Highways ... ..	193	5,004	5,197
Trunk Roads ... ..	...	2,155	2,155
Ordinary Main Roads ... ..	463	8,356	8,819
Total ... ..	656	15,515	16,171

There were, in addition, 2,491 miles of developmental roads and 99 miles of secondary roads—19 miles of the former and the full length of the latter class of roads being within the county of Cumberland.

The terms of the Main Roads Act require that the moneys of the Main Roads Department be kept in separate funds: (1) the County of Cumberland Main Roads Fund for metropolitan main roads, *i.e.*, those in the county of Cumberland which, for the purposes of the Act, is deemed to include the municipalities of Katoomba and Blackheath, and the shire of the Blue Mountains, also small sections of the Bulli, Colo, and Blaxland shires added in 1929; (2) the Country Main Roads Fund; (3) the Developmental Roads Fund. Another fund—the Federal Aid Roads Fund—was kept for moneys to be applied to road works in terms of an agreement between the States and the Commonwealth, as described later; it was closed at 30th June, 1934.

The income of the two Main Roads funds is derived chiefly from (a) the proceeds of taxes in respect of motor vehicles; (b) grants from the Federal Government; (c) contributions by municipal and shire councils; (d) loan moneys appropriated for the main roads.

The resources of the Developmental Roads Fund are derived mainly from loan appropriations of the State Government. Until 1930-31 substantial grants were received from the proceeds of Commonwealth petrol tax and State revenues, and amounts of £135,000 in 1933-34 and 1934-35, and £67,500 in 1935-36 from the Country Main Roads Fund.

In the initial stages of the Department's activities substantial grants were paid to the various funds from the State revenues, and in 1930-31 payments were made from unemployment relief funds. Otherwise these grants have been of small amount. The total amount up to 30th June, 1938, was £745,938, of which £616,265 was received during the three years ended June 1928, and £113,296 in 1930-31.

The proceeds of taxation in respect of motor vehicles owned by residents of the metropolitan district are apportioned in equal shares between the two Main Roads funds, and the Country Main Roads fund receives the taxes on motor vehicles registered in the country. This fund receives payments also from funds controlled by the Commissioner for Road Transport, into which motor registration and license fees and taxes and fees

in respect of motor omnibus services are paid to meet the cost of registration and collection of taxes and certain costs of the transport services, such as police supervision of traffic and the maintenance of roads used by motor omnibuses.

The councils in the metropolitan road district except the City of Sydney may be required to contribute to the County of Cumberland Main Roads Fund at a rate not exceeding  $\frac{3}{4}$ d. in the £ of the unimproved capital value of ratable property. The maximum rate was fixed at  $\frac{1}{4}$ d. in the £ for the years 1925 to 1932 inclusive, and then reduced to  $\frac{7}{16}$ d. The rate payable in respect of land used for agricultural and pastoral purposes is one-half the rate levied on other lands in the district. The rate in the City of Sydney was also one-half the ordinary rate until this area was exempted from 1st January, 1938.

Contributions by country councils to the Country Main Roads Fund depend upon the amount expended on the main roads, the maximum in any year being the sum equal to a rate of  $\frac{1}{2}$ d. in the £ on the unimproved capital value of ratable property. Usually contributions by country councils are not paid to the Department's funds as in the case of metropolitan councils, but are applied directly in meeting the share of cost of works borne by the councils.

The main roads funds are expended on the construction and maintenance of main roads in the respective districts, and on administrative expenses and loan charges, including interest, exchange, sinking fund and management.

In the metropolitan district, where the levy on councils is compulsory, the whole cost of construction and maintenance of main roads is paid from the funds of the Main Roads Department, but the actual work may be done by the councils.

In the country districts assistance in respect of road works may be granted by the Department to the council of any area through which a main road passes, and the council may be required to contribute part of the cost of the work as prescribed by the Act. Voluntary offers from the councils to pay a greater proportion of the cost than is prescribed may be accepted; or, in special circumstances, the whole cost of any particular work may be paid from the roads funds or the cost may be advanced to be repaid by the councils. The proportion of the cost of works on country roads borne by the Department of Main Roads varies with the class of roads. From 1st July, 1928, the Department has paid the whole cost of works on State highways in the country, and at least two-thirds of the expenditure on trunk roads and half the cost on ordinary main roads. From 1st July, 1936, the proportion of cost borne by the Department was increased to three-quarters in respect of trunk roads and two-thirds for ordinary main roads. Additional assistance has been granted since 1st November, 1932, for bridge construction, viz. the whole cost of bridges over 20 feet span on trunk roads and three-fourths on ordinary main roads.

The cost of constructing developmental roads and works is borne in full by the Main Roads Department but, upon completion, local councils are required to maintain such roads and works in satisfactory condition. Under early provisions of the law councils were required also to pay interest for a period of twenty years on loans expended on developmental roads. They were released from the obligation to pay interest on new loan expenditure subsequent to 30th June, 1928, and their liability in respect of loans expended up to 30th June, 1928, ceased as from 1st July, 1935.

Loan charges on the whole amount of their loan indebtedness to the State Treasury are debited to the two main roads funds. Until 30th June, 1933, liability in respect of loan debt incurred up to 30th June,



1928, was limited to one-half in the County of Cumberland and to such amount in respect of country main roads as was repayable by councils.

The Developmental Roads Fund was released from all liability in respect of its loan indebtedness as from 1st January, 1936. Until 30th June, 1933, this fund had been debited with loan charges which were collected from councils, and from 1st July, 1933, to 31st December, 1935, with the full amount of charges on loan debt incurred up to 30th June, 1931.

As a special emergency measure the sum of £200,000, viz., £46,000 from the Cumberland Main Roads Fund and £154,000 from the Country Main Roads Fund, was transferred to Consolidated Revenue in 1932-33.

#### *Commonwealth Grants for Main Roads.*

Apart from the assistance granted by the State Government for the construction and upkeep of roads, the Commonwealth Parliament, in each year from 1st July, 1923, to 30th June, 1926, appropriated moneys to assist the States in regard to roads. The amounts of the Federal grants were paid into a trust fund at the Commonwealth Treasury, and made available to the States as expenditure approved by the Federal authorities was incurred.

In 1926 the Federal Government amended the system of federal aid for road construction. The Federal Aid Roads Act was passed to authorise the Commonwealth to contract agreements with the various States, providing for the distribution among the States of a sum of £20,000,000 in ten equal annual instalments for the construction and reconstruction of federal aid roads defined as—(i) Main roads which open up and develop new country; (ii) trunk roads between important towns; (iii) arterial roads to carry the concentrated traffic from developmental, main trunk, and other roads. It was provided that at least one-fourth of all moneys expended under the Act should be on construction. The annual instalments were allocated amongst the States on the basis of three-fifths population and two-fifths area.

The funds provided by the Commonwealth were obtained from Customs duties on motor-cars and motor accessories, and each State participating in the scheme was required to expend a minimum amount equal to three-fourths of the sums provided by the Commonwealth. The State's share might be derived either from loans or from State revenue, at least one-eighth of it being derived from revenue, and the amount derived from loans was subject to a sinking fund of 3 per cent. per annum at a rate of interest sufficient to extinguish the indebtedness in twenty years. In terms of the agreement which was signed in June, 1927, New South Wales received an annual grant of £552,000 from the Federal Government, and was required to provide annually from its own resources £414,000, including at least £51,750 from revenue.

In 1931 the agreement was amended. The States were relieved of the duty of providing pro rata contributions as from 1st February, 1930, and the Commonwealth agreed to continue the annual grant at the existing rate until 30th June, 1931, then to grant until 31st December, 1936, (subsequently extended to 30th June, 1937), the amount yielded by a customs duty of 2½d. per gallon on petrol imported into Australia and an excise duty of 1½d. per gallon on petrol refined in Australia. Moreover, the use of the money available from the petrol tax was extended to maintenance and repairs as well as construction, without the limitation as to classes of roads upon which the money could be expended.

Upon expiry the agreement was renewed for a further period of ten years, as from 1st July, 1937, and the rate of Commonwealth grant was increased to 3d. per gallon on petrol imported and 2d. per gallon on petrol

locally refined. The proceeds of the extra  $\frac{1}{2}$ d. per gallon on petrol may be applied to road and other works connected with transport, and the Commonwealth Government may require one-twelfth to be expended upon the maintenance of roads giving access to Commonwealth properties. The sinking fund contribution in respect of State loan expenditure under the 1926 agreement was reduced from 3 per cent. to  $2\frac{1}{2}$  per cent. per annum as from 1st July, 1937.

During the period 1927-28 to 1930-31 the operations of the Main Roads Department in connection with federal aid roads were conducted through the Federal Aid Roads Fund, into which was paid nearly all the receipts from the Commonwealth petrol tax. In subsequent years the receipts from Commonwealth petrol tax were apportioned between the County of Cumberland and Country Main Roads Funds in the same ratio as the receipts from State motor taxation.

Details of the income and expenditure of the funds of the Main Roads Department for the financial years ended 30th June, 1935, to 1938, are shown below, also the total amounts from 12th March, 1925, to 30th June, 1938:—

TABLE 77.—Main Roads Department, Aggregate Income and Expenditure.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.	Total to 30th June, 1938.
	£	£	£	£	£
<i>Income.</i>					
Motor taxes, fees, etc. ...	1,460,155	1,797,934	1,882,071	1,891,228	18,332,227
Contributions by Councils ...	247,052	247,711	244,116	224,929	4,011,434
Loans raised by Councils ...	...	...	...	...	693,613
State Appropriations—					
From Revenue ...	...	...	...	...	745,938
From Loans ...	329,223	274,674	455,860	215,547	6,629,418
Federal Grants ...	653,176	739,540	811,476	1,143,144	8,151,279
Miscellaneous ...	56,071	137,359	72,614	52,032	750,425
<b>Total ...</b>	<b>£ 2,745,677</b>	<b>3,197,218</b>	<b>3,466,137</b>	<b>3,526,880</b>	<b>39,314,334</b>
<i>Expenditure.</i>					
Construction ...	1,298,284	1,102,219	1,348,539	1,696,157	19,912,740
Maintenance ...	1,381,430	1,368,575	1,569,719	1,483,619	13,871,358
Loans—					
Repayment and Sinking Fund ...	191,842	204,182	206,095	212,380	2,052,967
Interest ...	211,789	190,130	155,947	147,961	1,718,732
Exchange and Manage- ment ...	26,573	25,057	18,999	17,757	159,210
Administrative Expenses ...	76,776	80,943	86,816	100,826	944,551
Miscellaneous ...	2,163	843	575	1,296	72,197
<b>Total ...</b>	<b>£ 3,188,857</b>	<b>2,971,949</b>	<b>3,386,690</b>	<b>3,659,996</b>	<b>38,731,755</b>

Income in 1937-38 was higher by £60,743 than in the previous year. The largest increase was £331,668 in Federal grants and there was a decrease of £240,313 in State loan appropriations. Receipts from Federal grants included an additional  $\frac{1}{2}$ d. per gallon on petrol.

Expenditure increased by £273,306 in 1937-38, increases of £347,618 in construction and £14,010 in administration being partly offset by a decrease of £86,100 in maintenance.

The most important item of income is motor taxes, fees, etc., which yielded 53.6 per cent. of the total income in 1937-38, as compared with 32.4 per cent. from Federal grants, 6.1 per cent. from State loan appropriations and 6.4 per cent. from councils' contributions. The proportionate

distribution of the aggregate income up to 30th June, 1938, according to its sources was: motor taxes, fees, etc., 46.6 per cent.; Federal grants, 20.8 per cent.; loans, 18.6 per cent.; councils' contributions, 10.2 per cent.; State revenue grants, 1.9 per cent.; and miscellaneous, 1.9 per cent.

The contributions by councils have been on a reduced scale since 1928-29 when they amounted to £431,012. The decrease has been due to a fall in property values, a reduction in 1933 in the rate levied and the abolition of the rate in the City of Sydney at the beginning of 1938.

The maintenance of roads and bridges absorbed 40.5 per cent. of the total expenditure during 1937-38, construction 46.4 per cent., loan redemption 5.8 per cent., interest, exchange, etc., 4.5 per cent., and administration 2.8 per cent.

The expenditure on the construction of roads and bridges exceeded the amount spent on maintenance in each year up to 1930-31, when the respective aggregates were £12,180,254 and £4,931,823. As more and more road-works were completed, however, the annual commitments for maintenance expanded beyond expenditure on construction, and from 1931-32 to 1937-38 the aggregate expenditure on maintenance was £8,939,535 and on construction £7,732,486.

Of the aggregate expenditure to 30th June, 1938, the sum of £2,052,967 was utilised in providing for the redemption of loans, which had been already included as expenditure on construction. Deducting the amount duplicated in the accounts the aggregate expenditure to 30th June, 1938, on road works and annual charges other than debt redemption, was £36,678,788, of which 54.3 per cent. was disbursed on construction, 37.8 per cent. on maintenance, 5.1 per cent. on interest, exchange, etc., 2.6 per cent. on administration, and 0.2 per cent. on miscellaneous items.

Details of the expenditure and income of each of the funds during the year 1937-38 are shown in the following statement:—

TABLE 78.—Main Roads Department—Income and Expenditure, 1937-38.

Particulars.	Cumberland Main Roads.	Country Main Roads.	Develop- mental Roads.	Total. All Funds.
<i>Income.</i>				
Motor Taxes, Fees, etc. ...	£ 449,602	£ 1,441,626	£ ...	£ 1,891,228
Contributions by Councils ...	220,776	4,153	...	224,929
State Appropriations from				
Loans ... ..	3,550	148,997	63,000	215,547
Federal Grants ... ..	268,719	874,425	...	1,143,144
Miscellaneous ... ..	23,796	28,236	...	52,032
<b>Total. ...</b> £	<b>966,443</b>	<b>2,497,437</b>	<b>63,000</b>	<b>3,526,880</b>
<i>Expenditure.</i>				
Construction ... ..	431,347	1,181,485	83,325	1,696,157
Maintenance ... ..	299,983	1,183,636	...	1,483,619
Loans—				
Repayment and Sinking Fund ... ..	172,803	39,577	...	212,380
Interest ... ..	59,213	88,748	...	147,961
Exchange and Manage- ment ... ..	6,174	11,583	...	17,757
Administrative Expenses ...	22,704	75,463	2,659	100,826
Miscellaneous ... ..	723	573	...	1,296
<b>Total ...</b> £	<b>992,947</b>	<b>2,581,035</b>	<b>85,984</b>	<b>3,659,906</b>

The method prescribed for the allocation of motor taxes and federal grants resulted in the payment of 76 per cent. of these items to the Country Main Roads Fund and 24 per cent. to the Cumberland Fund.

The expenditure on construction from the Cumberland and Country Main Roads Funds in 1937-38 amounted to £1,612,832, of which £933,822 was expended on State highways, £561,392 on trunk and ordinary main roads, and £117,618 on surveys, supervision and other unallocated expenses. In respect of maintenance, £562,592 was spent on State highways, £680,512 on trunk and ordinary main roads, £112,533 on Western Division roads, £101,460 on bridges and ferries, and £26,522 on unallocated expenses.

The income and expenditure of the Main Roads Department in each year since its establishment are shown in the following table. The Federal Aid Roads moneys amounting to £3,837,075 expended on road construction and loan interest and repayment between July, 1927 and June, 1934, have been allocated in the table to existing funds, according to the classes of roads on which the moneys were expended, viz., in the County of Cumberland £620,884; on country main roads £2,924,434; and on developmental roads £291,757.

TABLE 79.—Main Roads Department—Income and Expenditure of Various Funds to 30th June, 1938.

Year.	Cumberland Main Roads.	Country Main Roads.	Developmental Roads.	Total all Roads.
<i>Income.</i>				
	£	£	£	£
1925-26* ... ..	1,121,275	1,990,095	264,003	3,375,373
1926-27 ... ..	716,825	850,998	276,000	1,843,823
1927-28 ... ..	1,607,021	2,940,505	151,302	4,698,828
1928-29 ... ..	1,507,512	2,401,340	417,001	4,325,853
1929-30 ... ..	898,599	1,975,908	193,098	3,067,605
1930-31 ... ..	786,061	1,668,612	164,319	2,618,992
1931-32 ... ..	710,068	1,323,577	864	2,034,509
1932-33 ... ..	625,592	1,271,508	33,404	1,930,504
1933-34 ... ..	727,212	1,527,917	227,806	2,482,935
1934-35 ... ..	737,159	1,742,818	265,700	2,745,677
1935-36 ... ..	843,879	2,151,662	201,677	3,197,218
1936-37 ... ..	863,063	2,495,484	107,590	3,466,137
1937-38 ... ..	966,443	2,497,437	63,000	3,526,880
Total to 30-6-38 ...	12,110,709	24,837,861	2,365,764	39,314,334
<i>Expenditure.</i>				
1925-26* ... ..	685,290	776,084	101,468	1,562,842
1926-27 ... ..	969,723	1,524,087	152,007	2,645,817
1927-28 ... ..	1,195,859	1,914,603	195,304	3,305,766
1928-29 ... ..	1,215,440	2,348,796	377,443	3,941,679
1929-30 ... ..	1,415,911	2,746,660	362,813	4,525,384
1930-31 ... ..	863,657	1,769,865	216,816	2,850,338
1931-32 ... ..	608,914	1,065,337	41,663	1,705,914
1932-33 ... ..	655,132	1,598,875	58,868	2,312,875
1933-34 ... ..	721,684	1,790,105	161,859	2,673,648
1934-35 ... ..	908,894	1,951,517	328,446	3,188,857
1935-36 ... ..	791,817	1,981,812	198,320	2,971,949
1936-37 ... ..	798,142	2,487,245	101,303	3,386,690
1937-38 ... ..	992,947	2,581,065	85,984	3,659,996
Total to 30-6-38 ...	11,823,410	24,526,051	2,382,294	38,731,755

\* From 12th March, 1925, to 30th June, 1926.

The funds, as represented by income, placed at the disposal of the Main Roads Department were at a high level during the first four years of operations. The average was £3,560,969 per annum including receipts from loans £1,266,711 and State revenues £154,566. The amount then declined to £1,930,504 in 1932-33, due largely to the curtailment of loan funds, the cessation of grants from State revenues and the transfer during the year of £200,000 to the Consolidated Revenue Fund of the State. Moreover, a decline in the volume of motor traffic subsequent to 1929-30 resulted in a diminished yield from motor taxation. Between 1932-33 and 1937-38 the amount increased by £1,596,376, towards which motor taxation contributed £862,508, Federal grant (petrol tax) £640,094 and receipts from loans £129,348.

The actual expenditure from the funds to 30th June, 1938, was £36,678,788, excluding £2,052,967 in respect of repayment of loans as shown on page 116.

#### *Bridges and Ferries.*

Nearly all the large bridges of recent date have been constructed of iron and steel and reinforced concrete, and some of them have been erected under difficult engineering conditions, owing to the peculiarity of the river flow in certain parts of the country. The municipal and shire councils are empowered to control the bridges, with the exception of those under the control of the Main Roads Department. The most notable bridge-building project is the Sydney Harbour Bridge described below.

A wooden bridge across Middle Harbour at the Spit was built in 1924 by the Sydney Harbour Trust for the Manly Municipal Council. Tolls were levied to defray the cost until it had been paid in full, then the bridge was transferred to the Government in 1930. A bridge across the Georges' River was built by the Sutherland Shire Council under similar conditions, and one across the Parramatta River was built by the Ryde Municipal Council. The former bridge was opened for traffic in May, 1929, and the latter in December, 1935.

Where local conditions and limited traffic have not favoured the erection of a bridge, a punt or ferry has been installed. The principal ferries which are worked otherwise than by hand have been proclaimed as national services. The majority of ferries throughout the State are operated free of charge to the public. Tolls are charged, however, at Peat's Ferry, where Diesel powered vessels link up the Pacific Highway across the Hawkesbury River. A bridge is under construction to replace this ferry.

#### *Sydney Harbour Bridge.*

The Sydney Harbour Bridge, crossing between Dawes Point on the southern and Milson's Point on the northern side, is the largest arch bridge in the world. Its total length, with railway and roadway approaches is 2½ miles. The railway across the bridge connects the City Railway at Wynyard Station and the northern suburban line at Waverton Station. The bridge was opened for traffic on 19th March, 1932. Its administration is vested in the Department of Main Roads.

The main bridge consists of a steel arch span of 1,650 feet, with a rise of 850 feet at the centre of the lower chord at crown, and the highest point of the top chord is 440 feet above mean sea level. It is flanked on either side by granite-faced concrete abutment towers and pylons and by five steel approach spans. The clearance for shipping is 170 feet from high-water level. The width of the deck overall is 160 feet; it carries a roadway 57 feet wide in the centre, with a pair of railway tracks on each side, and a footway 10 feet wide on each extreme outside. The main arch is composed of silicon steel and the deck of carbon steel. The weight of steelwork in the bridge is 50,300 tons, of which 37,000 tons are in the main span.

The total capital cost of the bridge to 30th June, 1938, was £9,878,624, but the final cost will probably approximate £9,500,000 after adjustment in respect of payments still outstanding and realisations from the sale of surplus resumed lands. The expenditure to 30th June, 1938, included £4,802,634 paid to the contractors in respect of the main bridge and steel approaches, £2,336,034 expended by the Public Works Department on the bridge and approaches, £1,151,907 on resumptions, £93,061 on Lavender Bay railway station and minor works, and £1,494,988 interest and exchange capitalised.

It was prescribed by the Sydney Harbour Bridge Act, 1922, that two-thirds of the cost was to be debited to the Government railways, and that one-third was to be paid by means of a special levy at the rate of  $\frac{1}{2}$ d. in the £ of unimproved capital value of land in certain municipalities and shires adjacent to the bridge. Under amending legislation, however, it is provided that tolls be charged for traffic other than pedestrian, and that the railway and tramway authorities pay a prescribed amount in respect of each paying passenger carried across the bridge.

The special levy upon the local areas was reduced to  $\frac{1}{3}$ d. in the £ in 1933 to  $\frac{1}{4}$ d. in 1936 and was abolished at the end of 1937.

The charges payable in respect of vehicular traffic across the bridge (other than railway or tramway traffic) are shown below. The charges for vans and heavy vehicles were reduced in September 1934 and a charge of 1d. for children under fourteen years riding in vehicles was abolished.

	s.	d.
Motor cars and motor cycles with side cars ... .. each	0	6
Bicycles, tricycles, motor cycles without side cars, light vehicles propelled by hand or horse drawn ... .. "	0	3
Vans, lorries, drays, or other vehicles of which the tare weight does not exceed 2 tons ... .. "	0	9
Vans, lorries, drays, or other vehicles of which the tare weight exceeds 2 tons, but does not exceed 3 tons ... .. "	1	6
Vehicles over 3 tons tare weight ... .. "	2	0
Persons aged 14 years and over, riding in vehicles (other than the driver) ... .. "	0	3
Horse and rider ... .. "	0	3

One pair of railway tracks is used for trams. The tram fare for the bridge section was reduced from 4d. to 3d. per adult passenger on 1st October, 1932, and to 2d. on 1st January, 1938; the fare for children was 2d. until 1st January, 1938, and 1d. thereafter. Motor omnibus services were extended across the bridge on 1st August, 1937; the fares charged are the same as for tram passengers.

Road tolls and contributions for railway and tramway passengers and by councils are paid into the Bridge Account. The income and expenditure from 19th March, 1932, to 30th June, 1938, are shown below:—

TABLE 80.—Sydney Harbour Bridge, Income and Expenditure.

Particulars.	19th Mar. 1932 to 30th June, 1934.	1934-35.	1935-36.	1936-37.	1937-38.	Total to 30th June, 1938.
	£	£	£	£	£	£
<b>Income—</b>						
Road Tolls ... ..	371,675	189,461	215,873	234,283	261,428	1,272,720
Railway Contributions ... ..	139,677	104,457	107,320	113,838	115,880	581,172
Tramway „ ... ..	105,577	51,543	53,971	54,607	54,716	320,414
Omnibus „ ... ..	...	...	...	...	5,042	5,042
Councils' „ ... ..	454,691	98,530	81,320	65,712	33,516	733,769
Other ... ..	10,601	4,188	7,035	9,165	8,522	39,511
<b>Total Income</b> ... ..	£1,082,221	448,179	465,519	477,605	479,104	2,952,628
<b>Expenditure—</b>						
Maintenance ... ..	35,450	24,442	44,385	33,235	46,421	183,933
Collection of Road Tolls ... ..	17,331	7,725	8,365	8,505	10,111	52,037
<b>Loan Charges—</b>						
Interest ... ..	791,070	369,105	324,777	286,504	296,066	2,067,522
Exchange ... ..	133,062	54,796	46,384	37,652	38,339	310,233
Management ... ..	9,734	2,390	5,761	2,916	3,021	23,822
Sinking Fund ... ..	65,767	35,461	34,027	35,492	38,884	209,631
Other ... ..	7,861	1,655	3,461	1,908	1,909	16,194
<b>Total Expenditure</b> ... ..	£1,060,275	495,574	467,160	405,612	434,751	2,863,372

*Government Expenditure on Roads, Bridges, etc.*

Although the State possesses an extensive railway system, the main roads are still the sole means of communication throughout a large part of the interior and serve as valuable feeders to the railways. The following return shows the expenditure including loan expenditure by the State Government and the Main Roads Department on works of a local character, such as roads, bridges, punts, ferries, public watering places, etc., in various years from 1906 to 1938:—

TABLE 81.—Government Expenditure on Roads and Other Local Works, 1906 to 1938.

Year ended 30th June.	Expenditure from votes of Public Works Department.	Expenditure from Funds of Main Roads Department.	Endowments and Grants to Councils from votes of Local Government Department.			Total Expenditure, (exc. Sydney Harbour Bridge).	Sydney Harbour Bridge and Approaches.
			Shires.	Munici- palities.	Total.		
	£	£	£	£	£	£	
1906	497,061	...	...	4,944	4,944	502,005	...
1916	114,011	...	353,048	62,467	415,505	529,516	...
1921	212,407	...	316,180	108,353	424,533	636,940	...
1926	321,785	1,385,889	255,465	9,654	265,119	1,972,793	211,968
1929	479,662	3,602,789	301,220	30,290	331,510	4,413,961	1,068,246
1930	464,271	4,093,621	312,178	69,129	381,307	4,939,199	1,350,618
1931	435,749	2,433,754	518,372	382,050	900,422	3,769,925	1,258,289
1932	161,903	1,321,949	201,388	21,283	222,671	1,706,523	1,127,775
1933	199,614	1,952,674	226,534	128,850	355,384	2,507,672	262,425
1934	286,001	2,143,855	831,144	1,190,972	2,022,116	4,456,972	27,182
1935	221,249	2,679,714	1,547,982	1,794,058	3,342,040	6,243,003	29,403
1936	79,666	2,470,794	1,508,138	2,099,028	3,607,166	6,157,626	46,171
1937	135,633	2,918,258	1,294,306	1,596,942	2,891,248	5,945,139	33,803
1938	502,925	3,179,776	1,247,667	1,175,596	2,423,263	6,105,964	46,541

\* Construction and Maintenance only.

The moneys expended by the Main Roads Department have not been provided wholly by the State Government, part of them being grants from the Government of the Commonwealth and contributions, etc., by the councils of the municipalities and shires. In addition to the expenditure shown in the table there has been a considerable amount of expenditure on roads, bridges, etc., by local government bodies and on streets by private individuals in preparing land for subdivisional sales.

The grants to municipalities and shires increased substantially in 1933-34 following the introduction of a system of emergency relief works for the unemployed as described in the chapter "Employment" of this volume. These works were controlled by the councils and the Government paid the wages and part of the other costs. The expenditure was mainly on roads and streets, and smaller sums were spent on parks, reserves, beaches and other local improvements. The amount of grants paid to the councils for emergency relief works was £1,806,603 in 1933-34, £2,814,202 in 1934-35, £3,343,939 in 1935-36, £2,143,346 in 1936-37, and £333,366 in 1937-38.

The grants under the emergency relief plan were reduced during the last two years after the Government had initiated a new scheme for assisting the councils to undertake an extended programme of loan works, including water and sewerage works as well as roads, parks, etc.



## RAILWAYS.

The railways open for traffic at 30th June, 1938, included 6,114 miles of line vested in the Railway Commissioner of New South Wales; a line 2½ miles long running from Liverpool to Holdsworthy which is owned by the Federal Government; 203 miles of border railways in the Riverina district owned by the State of Victoria and 88 miles of private railways available for general traffic. The total length of the routes covered by these railways was 6,407 miles. The length of State railways laid with one or more tracks is shown on page 126.

### STATE RAILWAYS.

Administrative authority for the control of the State railways is vested in a Commissioner for Railways, appointed for seven years, and there is an assistant commissioner to exercise such powers and charged with such duties as the Commissioner may determine. Changes in the administrative arrangements are described on page 108.

The railway property is vested in the Railway Commissioner as a body corporate to conduct the services on existing lines and to construct the new lines authorised by the Legislature. By-laws for the regulation of the services, including those by which rates of freight and fares are prescribed, must be approved by the Government before they become operative.

The Government Tourist Bureau and tourist resorts have been administered by the Commissioner for Railways since 1st January, 1938, but the finances of these activities are not included in the railway accounts.

Up to 30th June, 1928, railway receipts were paid into consolidated revenue, and moneys to be expended on the services as well as funds for construction were appropriated annually by Parliament. This procedure was altered as from 1st July, 1928, when the railway accounts were separated from the Consolidated Revenue Fund to be kept in the Government Railways Fund in terms of the Government Railways Amendment Act, 1928. Receipts, loan moneys appropriated by Parliament for railway purposes, and fines and penalties recovered by the Commissioner are paid into this fund.

Provision has been made for the establishment of a renewals fund to meet Parliamentary appropriations for renewals, reconstruction and conversion of lines, buildings and other wasting assets. These provisions are to commence on a date to be proclaimed, and after proclamation the Commissioner will be required to transfer from revenue to the renewals fund an amount determined annually by the Governor after investigation by a Committee of Review. The renewals fund will receive also any additional amounts appropriated by Parliament. The net profit in any year, as certified by the Auditor-General, is transferable to a reserve account to be available only to meet losses incurred in any year, and for the reduction of rates and fares.

The Committee of Review consists of the Auditor-General, the Commissioner for Railways, and the Under Secretary to the Treasury. Two additional members may be appointed by the Governor. The Committee will determine the capital debt of the railways as at 30th June, 1928, but pending such determination the amount has been tentatively certified by the Auditor-General.

The Railways Fund shares proportionately in the benefits and obligations of the State under the financial agreement between the Commonwealth and the States, which is described in the chapter of this volume entitled "Public Finance," as if the fund had not been separated from the Consolidated Revenue Fund. Thus a proportion of the interest, management expenses, oversea exchange and sinking fund contributions payable on the State loan debt is chargeable to the railway revenues. The charge for exchange was imposed for the first time in 1930-31, following depreciation of the Australian currency. A contribution for sinking fund was not charged until 1st October, 1937, the provisions of the Act of 1928 relating thereto having been held in suspense.

Provision was made in the amending Act of 1928 for annual contributions from State revenues to make good two-thirds of the loss incurred on country developmental railways, the amount of contribution not to exceed £800,000 in any year. The maximum amount of £800,000 was paid in 1928-29 and each succeeding year.

The construction of new railways is subject to authorisation by Parliament in terms of the Public Works Act, 1912. This Act requires that proposals for new lines estimated to cost more than £20,000 be submitted to the Legislative Assembly, then referred to the Parliamentary Standing Committee on Public Works, consisting of members of both Houses of Parliament. If, after receiving the Committee's report, the Assembly resolves that the work be undertaken, a bill is to be introduced to sanction it. A Public Works Committee has not been appointed in any Parliament elected since 1930 and the construction of any new line in recent years has been excluded by the authorising Act from these provisions of the Public Works Act.

The order of construction and the rate of progress of railway lines and works are determined by the Commissioner unless the Governor specially orders otherwise. Interest on lines under construction may be added to the capital cost.

The finances of the railways and tramways, as Government business undertakings, and their relation to the revenue, expenditure, and public debt of the State, are discussed in the chapter of this volume entitled "Public Finance."

#### LENGTH OF STATE RAILWAYS.

The statistics of State railways shown in this chapter refer to the lines vested in the Railway Commissioner of New South Wales, including the Campbelltown to Camden and Yass tramways, which are operated in conjunction with the railways.

The first railway line, 14 miles in length, was opened for traffic between Sydney and Parramatta on 26th September, 1855, and communication was established between Newcastle and East Maitland on 11th April, 1857.

The total length of the lines open at 30th June, 1938, was 6,114 miles, distributed as follows:—Southern system, 2,162 miles; Western, 2,206 miles; and Northern, 1,746 miles. In addition there were 1,254 miles of sidings and crossovers.

The growth of the State railway system is illustrated in the following table:—

TABLE 82.—Railways, Lines Open and Capital Cost, 1855 to 1938.

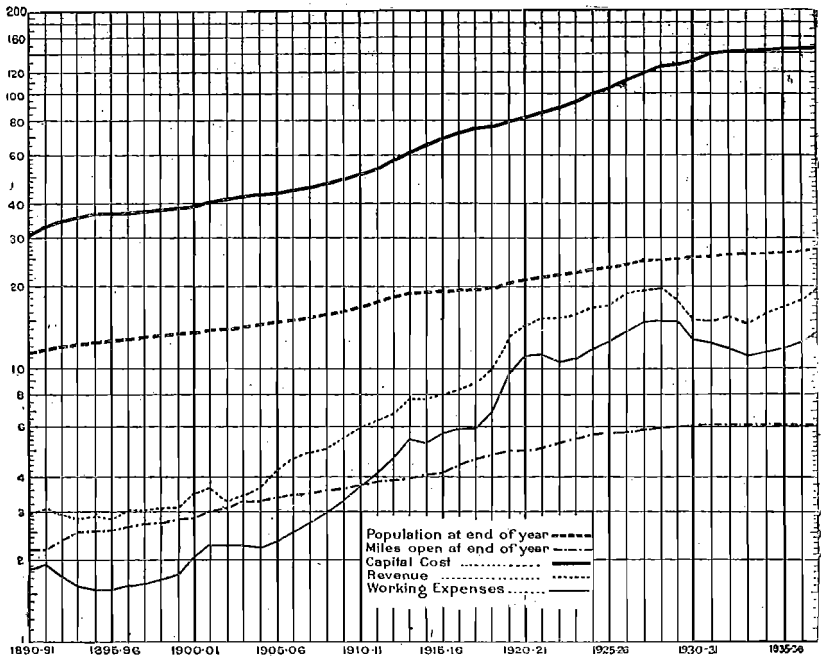
Period.*	Lines opened for traffic during the period.	Lines open for traffic at end of period.			Capital expenditure on lines open for traffic—	
		Total length.	Population per mille.	Area per mille.	During the period.	Total at end of period.
	Miles.	Miles.	No.	Sq. miles.	£	£
1855-64 ...	143	143	2,789	2,170	2,631,790	2,631,790
1865-74 ...	260	403	1,427	770	4,212,756	6,844,546
1875-84 ...	1,215	1,618	559	192	13,235,592	20,080,138
1885-94 ...	883	2,501	490	124	15,775,133	35,855,271
1895-1904 ...	789	3,281	435	95	6,433,246	42,288,517
1905-14 ...	686	3,967	472	78	18,976,352	61,264,869
1915-24 ...	1,556	5,523	406	56	32,090,298	93,355,167
1925-34 ...	641	6,164	425	50	47,578,154	140,933,321
1935 ...	...	6,164	429	50	793,591	141,726,912
1936 ...	†	6,124	435	50	2,116,160	143,843,072
1937 ...	...	6,124	440	50	1,414,210	145,257,282
1938 ...	‡	6,114	444	50	1,550,791	146,808,073

\* Calendar years to end of 1887, later years ended 30th June. † 40 miles dismantled.  
‡ 10 miles dismantled.

Rail transport facilities have been extended not only by the construction of new railways but also by the laying of additional tracks on existing lines and by facilities for speedier transport such as electrification, to which much of the capital expenditure in recent years has been applied.

The mileage of lines open for traffic has not been extended since 1932-33, when 39 miles were opened. Work was commenced early in 1936 on two new lines. One line from Sutherland, on the Illawarra line  $15\frac{1}{2}$  miles south of Sydney, to Cronulla, on the coast, will be approximately 6 miles in length, and the other from Maryvale, on the western line, to Sandy Hollow, on a branch of the northern railway, approximately 150 miles. The latter line will connect the western, north-western, northern and coastal systems, and bring the north-western portion of the State into direct communication by rail with the port of Newcastle. In February, 1938, the construction of a branch line from Bungendore to Captain's Flat was commenced under agreement with a private company, which has undertaken to develop the rich mineral deposits of the Captain's Flat district. Work is proceeding also on the uncompleted portion of the City Railway, between Wynyard and St. James Stations.

**RAILWAYS, 1890-91 TO 1937-38.**  
(Ratio Graph.)



The numbers at the side of the graph represent £1,000,000 of capital cost, revenue and working expenses, 100,000 of population and 1,000 miles of railway.

The diagram is a ratio graph. The vertical scale is logarithmic and the curves rise and fall according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

The following statement shows the length of line laid with one or more tracks at intervals since 30th June, 1901:—

TABLE 83.—Railways, Length and Classification of Tracks, 1901 to 1938.

At 30th June.	Single.	Double.	Triple.	Quadruple.	Sextuple.	Total.
	miles.	miles.	miles.	miles.	miles	miles.
1901	2,678	158½	...	8½	...	2,845
1911	3,476½	276	...	8½	...	3,761
1921	4,423	572	7½	34½	1*	5,013
1926	5,083	606½	9½	42	1*	5,742
1931	5,381	612	8	35	8†	6,044
1936	5,455	617	8	36	8†	6,124
1937	5,455	617	8	36	8†	6,124
1938	5,445	617	8	36	8†	6,114

\* Five tracks. † Includes 47 chains with eight tracks.

There are duplicate lines on the main western line as far as Kelso and on two other sections between Kelso and Orange; the southern line is duplicated as far as Cootamundra, the northern line as far as Branxton, and the south coast line to Wollongong, except certain tunnels and bridges.

*City and Suburban Electric Railways.*

The city electric railway when complete will form a two-track loop railway around the city, running, for the most part underground, along the eastern side of the city to Circular Quay and returning along the western side to the Central Station. The scheme includes the construction of a branch from the city railway to Bondi for the eastern suburbs, and a branch from the main suburban line to Balmain to serve the western suburbs.

The eastern section of the city railway was completed as far as St. James Station, about a mile from Central Station, in December, 1926, and the western section was opened for traffic between Central and Wynyard Stations—approximately 1½ miles—in February, 1932. The section to St. James is used as an extension of the Illawarra Suburban railway serving suburbs situated south of Sydney. This line has two branches, one from Sydenham to Bankstown, and the other from Tempe to East Hills, but services on the former line run to Wynyard. A line from Bankstown connects with the main southern railway at Regent's Park, 2 miles from Lidcombe.

When the western section to Wynyard was opened for traffic, suburban services along the main western, southern and northern lines were extended into the city, and they were connected with the North Sydney line by the opening of the Sydney Harbour Bridge in March, 1932.

The main trunk line, on which a large proportion of the suburban traffic is carried, runs in a westerly direction from Sydney through Granville and Parramatta. The main southern system branches from the western line at Lidcombe (10 miles from Central Station), and another branch runs southward from Granville (13 miles from Central Station) joining the line from Lidcombe at Cabramatta. The northern system branches from the main trunk line at Strathfield (7 miles from Central Station), and the North Shore line runs from Hornsby on the northern railway through the suburbs on the northern side of the harbour across the Harbour Bridge to Wynyard.

The suburban railways are for the most part operated by electricity; the total length of the lines under the electric system at 30th June, 1938, was 94 miles, as shown below:—

TABLE 84.—Electric Railways, Length, 30th June, 1938.

Line.	Length of Route.		Line.	Length of Route.	
	miles	chs.		miles	chs.
City Railway ... ..	2	45	Southern—		
Illawarra—			Lidcombe to Cabramatta...	7	7
Sydney to National Park...	17	57	Granville to Liverpool ...	9	15
Sydenham to Bankstown...	8	33	Warwick Farm Racecourse	1	1
Tempe to Kingsgrove ...	3	43	North Shore Line ... ..	14	38
Western—					
Sydney to Parramatta ...	14	60			
Clyde-Rosehill Racecourse	1	16			
Northern—					
Strathfield to Hornsby ...	14	13	Total ... ..	94	8

Nearly all these lines are laid with at least two tracks, 21 miles being laid with four tracks or more.

## COST OF STATE RAILWAYS.

The total capital expenditure on lines open for traffic as at 30th June, 1938, amounted to £146,808,073, excluding the cost of the line, 2½ miles in length, from Wynyard across the Sydney Harbour Bridge to Waverton. The cost of construction was £101,209,219, and the expenditure on rolling stock and other equipment £45,598,854, viz.: Rolling Stock, £27,194,670; electric power stations, substations and plant, £8,448,483; machinery £2,275,635; workshops, £2,775,930; reconditioning of track, £3,019,100; furniture, £10,036; and floating capital for the purchase of stores, £1,875,000.

The average cost of the railways per mile open for traffic at 30th June, 1938, was £24,022 for construction, rolling stock and other equipment, including £16,561 for construction. The cost of construction varies greatly according to the class of traffic for which the lines are constructed and the number of tracks laid, also by reason of the different physical characteristics of the wide expanse of territory through which they run.

The track on main trunk lines was originally laid with 80 lb. rails, on branch lines with 71½ lb. and 60 lb. rails, and on lines in the electrified area with 100 lb. rails. As renewals are required, 107 lb. rails are laid in the electrified area on heavy passenger lines and on the main trunk lines, 90 lb. rails on secondary lines, and 80 lb. recovered rails on unballasted branch lines. Sleepers of Australian hardwood, measuring 8 ft. x 9 in. x 4½ in., are laid at the rate of 20 per 45 ft. of 90 lb. and 107 lb. rail, and per 40 ft. of 80 lb. rail.

Of £146,808,073 expended to 30th June, 1938, an amount of £666,864 was provided from consolidated revenue, and £3,019,100 represented the outstanding balance of an advance from the Treasury for the purpose of improving railway tracks and rolling stock. Both these amounts are free of interest, but the latter is repayable in annual instalments over a period of twenty years, commencing in 1935-36. The amount advanced during 1937-38 was £558,000, making a total of £3,300,000. The sum of £280,900 has been repaid, viz.; £43,000 in 1935-36, £100,800 in 1936-1937 and £137,100 in 1937-38.

Interest on the balance of the capital debt of the railways is chargeable at the average rate payable on the public debt of the State, as shown in the chapter of this Year Book relating to public finance. The rate in 1937-38 was 3.66774 per cent.

The capital expenditure on railways open for traffic, the interest charges and net earnings in various years since 1901 are shown below:—

TABLE 85.—Railways, Capital, Charges and Net Earnings, 1901 to 1938.

Year ended June.	Capital Expended on Lines open.	Interest, Exchange and Loan Expenses.			Net Earnings.	Annual Contribution from Consolidated Revenue.	Deficit.
		Interest.	Exchange, etc.	Total.			
	£000.	£000.	£000.	£000.	£000.	£000.	£000.
1901 ... ..	38,933	1,425	...	1,425	1,456	...	31*
1911 ... ..	50,972	1,797	...	1,797	2,351	...	554*
1916 ... ..	68,826	2,569	...	2,569	2,345	...	224
1921 ... ..	82,304	3,812	...	3,812	3,235	...	577
1926 ... ..	105,238	5,250	...	5,250	4,419	...	831
1929 ... ..	124,529	6,150	...	6,150	4,638	800	712
1930 ... ..	136,318	6,421	...	6,421	2,864	800	2,757
1931 ... ..	132,£65	6,700	795	7,585	2,363	800	4,422
1932 ... ..	139,667	6,519	1,337	7,856	2,491	800	4,565
1933 ... ..	140,797	6,353	1,246	7,599	3,439	800	3,360
1934 ... ..	140,933	5,972	1,103	7,075	3,687	800	2,688
1935 ... ..	141,727	5,678	843	6,521	4,437	800	1,284
1936 ... ..	143,843	5,700	904	6,604	5,106	800	698
1937 ... ..	145,257	5,444	759	6,233	5,461	800	28*
1938 ... ..	146,803	5,340	1,135†	6,475†	5,726	800	51*

\* Surplus.

† Includes Sinking Fund £371,000. (See context below.)

State railways are regarded as a developmental agency in the settlement of the country rather than as a revenue-producing enterprise, and services on a number of lines are conducted at a loss. In addition, railway finances bear the burden of substantial concessions made for the direct benefit of primary and secondary industries. These include rebates from ordinary charges for the transport of livestock and fodder, and concessions in respect of the carriage of raw materials and the products of certain manufacturing industries which are assisted for national reasons.

Despite these handicaps, the net earnings of the railways in the pre-war years usually exceeded interest by a substantial amount. Subsequently operating expenses rose and interest charges increased with the rapid extension of capital equipment and higher rates of interest, and from 1914-15 earnings were insufficient to pay interest charges, except in the three years 1922-23 to 1924-25. The deficiency amounted to £1,609,267 in 1927-28 and its reduction to £712,434 in 1928-29 was due to the payment by the Government for the first time of an annual contribution of £800,000 towards losses incurred on developmental country lines. Earnings declined seriously after 1928-29, but there was no offsetting movement in working expenses until 1930-31, then an additional heavy charge was assumed in respect of exchange on interest remitted overseas and the deficit was as much as £4,565,000 in 1931-32. Progressive recovery in financial results from this peak has been due to reductions in working expenses, interest and exchange and, since 1934-35, increased earnings.

Earnings increased by £1,669,620 during 1937-38, working expenses by £1,404,666 and net earnings by £264,954. As charges for interest, exchange and debt management decreased by £128,465, there was an improvement of £393,419 in the net result as compared with the previous year. In 1937-38, however, the Railways Fund was charged for the first time with contributions to the National Debt Sinking Fund. The contributions, dating

from 1st October, 1937, amounted to £530,000 for the nine months. Of this sum £159,653 was charged to working expenses, assets of corresponding value being written off, and £370,347 was appropriated from net earnings. The net profit in 1937-38 was reduced thereby to £51,469.

Capital charges, comprising interest, exchange and debt management—less the Treasury contribution of £800,000 towards the loss on non-paying lines—absorbed 27.2 per cent. of earnings in 1937-38; and the contribution for sinking fund purposes, including the portion charged as working expenses, absorbed 2.7 per cent.

#### EARNINGS AND EXPENSES.

As the carriage of goods and livestock is the principal source of railway revenue, the earnings in each year are affected by the seasons experienced in the agricultural and pastoral districts. In unfavourable seasons the carriage of fodder and the transfer of live stock at reduced rates cause a diminution in the earnings, and at the same time an increase in the working expenses. The extension of the lines into sparsely settled districts also causes an increase in the proportion of working expenses to total earnings, as many of these lines do not earn the cost of maintenance. A statement of earnings and working expenses at intervals since 1901 appears hereunder:—

TABLE 86.—Railways, Gross Earnings and Working Expenses, 1901 to 1938.

Year.	Gross Earnings.	Working Expenses.		Net Earnings.	
		Amount.	Proportion to Gross Earnings.	Amount.	Per cent. on Capital.
	£	£	per cent.	£	per cent.
1901	3,573,779	2,118,201	59.3	1,455,578	3.78
1911	6,042,205	3,691,061	61.1	2,351,144	4.67
1916	8,006,078	5,661,168	70.7	2,344,910	3.45
1921	14,267,205	11,032,677	77.3	3,234,528	4.01
1926	16,939,032	12,519,993	73.9	4,419,039	4.30
1929	19,615,616	14,978,050	76.4	4,637,566	3.82
1930	17,826,692	14,962,423	83.9	2,864,269	2.28
1931	15,205,741	12,842,333	84.5	2,363,408	1.80
1932	15,001,022	12,510,029	83.4	2,490,993	1.85
1933	15,405,320	11,966,648	77.7	3,438,672	2.45
1934	14,890,186	11,203,520	75.2	3,686,666	2.62
1935	16,002,699	11,565,658	72.3	4,437,041	3.14
1936	16,953,581	11,848,070	69.9	5,105,511	3.58
1937	17,816,496	12,355,322	69.4	5,461,174	3.78
1938	19,486,116	13,759,988	70.6	5,726,128	3.92

The ratio of working expenses to gross earnings in 1930-31 was the highest yet recorded. The reduction in subsequent years up to 1936-37 was due to a decline in working expenses until 1933-34, and thereafter to increased earnings in excess of the larger working expenses entailed in coping with a greater volume of traffic. The ratio 69.4 per cent. in 1936-37 was the lowest since 1918-19. It rose to 70.6 per cent. in 1937-38, when there were substantial increases in rates of wages.



The following table shows the gross earnings, working expenses, and net earnings per train mile and per average mile open at intervals since 1901:—

TABLE 87.—Railways, Operating Results per Mile, 1901 to 1938.

Year ended 30th June.	Per Train Mile.			Per Average Mile Open.		
	Gross Earnings.	Working Expenses.	Net Earnings.	Gross Earnings.	Working Expenses.	Net Earnings.
1901	d. 79·68	d. 47·23	d. 32·45	£ 1,268	£ 751	£ 517
1911	85·27	52·09	33·18	1,627	994	633
1921	150·23	116·17	34·06	2,843	2,198	645
1926	165·09	122·02	43·07	2,960	2,188	772
1929	171·93	131·28	40·65	3,323	2,537	786
1930	160·16	134·42	25·74	2,992	2,511	481
1931	143·15	120·90	22·25	2,529	2,136	393
1932	139·28	116·15	23·13	2,480	2,068	412
1933	144·64	112·35	32·29	2,501	1,943	558
1934	141·66	106·81	35·15	2,416	1,818	598
1935	146·17	105·64	40·53	2,596	1,876	720
1936	146·88	102·65	44·23	2,768	1,934	834
1937	149·79	103·87	45·92	2,409	2,017	892
1938	154·84	109·34	45·50	3,187	2,251	936

## NON-PAYING LINES.

Many of the railways of New South Wales have been constructed with the view to promote settlement and develop the natural resources of the State rather than to meet requirements already existing, and traffic over a number of lines is conducted at a loss. Even on portions of the main lines the earnings do not cover working expenses and interest on the capital cost, and most of the branch lines are unprofitable.

Particulars relating to a number of lines are shown below, mainly for the year ended 31st December, 1937, together with aggregate figures for the preceding year:—

TABLE 88.—Railways, Non-paying Lines, 1937.

Lines.	Length.	Capital Cost.	Interest and Exchange.	Working Expenses.	Earnings.	Loss after providing for Working Expenses, Interest, etc.
<b>Northern—</b>						
Main Line—Tamworth to Wallangarra .. .. .	miles 210	£ 3 153,480	£ 139,757	£ 220,013	£ 207,511	£ 152,259
Branch lines .. .. .	549	3,231,175	143,200	229,687	213,748	159,139
Total Northern .. .. .	759	6,384,655	282,957	449,700	421,259	311,398
North Coast and Branches .. .. .	564	12,981,711	575,327	900,226	1,073,078	462,475
Southern—Branch lines .. .. .	1,444	11,776,048	617,695	621,643	615,625	493,613
South Coast—Kiama to Nowra .. .. .	23	435,373	19,317	28,657	23,853	24,116
<b>Western—</b>						
Main Line—Nyngan to Bourke .. .. .	126	806,582	35,746	57,242	66,026	26,962
Branch lines .. .. .	1,259	9,134,532	404,327	686,856	685,230	406,453
Total Western .. .. .	1,385	9,941,114	440,573	744,098	751,256	433,415
Suburban .. .. .	34	1,223,469	54,221	117,505	68,770	102,956
Total Specified Lines, 1937 .. .. .	4,209	42,742,870	1,889,090	2,921,829	2,983,847	1,827,972
" " " 1936 .. .. .	4,219	42,683,800	1,867,404	2,847,809	2,867,504	1,537,619

Similar data in calendar years are not available for all lines; but the foregoing figures indicate that the greater part of the loss on railways is incurred in respect of lines on which about 30 per cent. of the capital cost was expended.

DISTRIBUTION OF EARNINGS AND EXPENSES.

A statement of the various items of earnings and working expenses of all lines during 1928-29 and four subsequent years is shown below:—

TABLE 89.—Railways, Classification of Earnings and Expenses.

Particulars.	1928-29.	1931-32.	1935-36.	1936-37.	1937-38.
<i>Earnings.</i>	£	£	£	£	£
Passengers ... ..	7,238,329	4,943,790	5,433,176	5,622,929	5,994,542
Mails, parcels, horses, etc. ...	886,387	662,640	753,486	809,957	849,441
<b>Total Coaching</b> ... ..	<b>£ 8,124,716</b>	<b>5,606,430</b>	<b>6,186,662</b>	<b>6,432,886</b>	<b>6,843,983</b>
Refreshment-rooms ... ..	£ 745,070	502,484	555,482	609,780	656,378
<i>Goods—</i>					
Merchandise ... ..	6,196,543	4,533,059	5,732,147	5,953,787	6,534,062
Wool ... ..	804,064	849,641	642,493	695,783	710,687
Livestock ... ..	1,315,552	1,250,462	1,055,511	1,187,463	1,323,969
Minerals ... ..	2,063,033	1,220,153	1,724,770	1,727,645	2,103,122
Miscellaneous ... ..	...	...	...	140,056	158,999
<b>Total Goods</b> ... ..	<b>£ 10,379,192</b>	<b>7,853,315</b>	<b>9,154,921</b>	<b>9,704,734</b>	<b>10,830,839</b>
Rents ... ..	221,088	168,937	169,807	179,364	185,375
Sale of electrical energy ... ..	} 145,550	{ 737,929	749,361	802,070	873,273
Miscellaneous ... ..					
<b>Total Earnings</b> ... ..	<b>£ 19,615,616</b>	<b>15,001,022</b>	<b>16,953,581</b>	<b>17,816,496</b>	<b>19,486,116</b>
<i>Working Expenses.</i>					
Maintenance of way and works	2,538,981	2,346,791	2,161,368	2,319,717	2,614,489
Rolling Stock—					
Maintenance ... ..	3,448,215	2,848,143	2,697,567	2,741,195	3,022,837
Motive power—					
Coal, etc. ... ..	1,151,235	689,610	545,659	576,764	675,148
Other ... ..	2,203,501	1,563,938	1,444,695	1,498,523	1,678,972
Other rolling stock ... ..	200,513	178,939	155,065	165,304	185,466
Transportation and traffic ... ..	3,848,525	3,059,815	2,925,093	3,005,729	3,323,903
Electrical ... ..	292,176	694,418	612,900	636,585	775,714
General charges and stores ... ..	506,093	433,439	450,255	504,281	534,185
Refreshment-rooms ... ..	728,811	523,886	544,168	594,924	642,274
Contribution to Superannuation Fund ... ..	60,000	171,000	311,300	312,300	307,000
<b>Total Working Expenses</b> ... ..	<b>£ 14,978,050</b>	<b>12,510,029</b>	<b>11,848,070</b>	<b>12,355,322</b>	<b>13,759,988</b>
<b>Net Earnings</b> ... ..	<b>£ 4,637,566</b>	<b>2,490,993</b>	<b>5,105,511</b>	<b>5,461,174</b>	<b>5,726,128</b>

\* Comparison of items of earnings affected slightly by changes in classification made in 1936-37.

Earnings in 1928-29, were the highest yet recorded. In 1931-32, they included a new item of receipts, sales of electricity £738,000, but were lower by £4,600,000, than in 1928-29. Fares and freight rates were reduced in 1933-34 and definite improvement was apparent in the following year. By 1937-38, earnings almost regained the level of 1928-29, and the increase as compared with 1931-32 was £4,485,094 or 29.9 per cent.; earnings from coaching increased by 22.1 per cent. and receipts from goods traffic by 37.9 per cent.

During 1937-38 the earnings derived from the carriage of passengers represented 30.8 per cent. of the total; mails, parcels, etc., 4.3 per cent.; goods, 55.6 per cent.; refreshment rooms, 3.4 per cent.; sales of electricity to tramways, etc., 4.5 per cent.; rent and miscellaneous items, 1.4 per cent. The expenditure on locomotive power represented 17.1 per cent. of the working expenses; transportation and traffic, 24.2 per cent.; maintenance of rolling stock, 23.3 per cent.; and maintenance of ways and works, 19.0 per cent.

## COACHING TRAFFIC.

Particulars of the passenger traffic—suburban and country—and the receipts therefrom are shown in the following statement. Suburban lines are those within 34 miles of Sydney or Newcastle. The figures relating to miles travelled in years prior to 1926 are not strictly comparable with those of later years, owing to an alteration in the method of estimating the mileage travelled by season ticket holders:—

TABLE 90.—Railways, Passenger Traffic, 1901 to 1938.

Year ended June 30.	Passenger Train Mileage.	Number of Passenger Journeys.			Miles Travelled.			Amount Received from Passengers.
		Suburban.	Country.	Total.	Suburban.	Country.	Total.	
000 omitted.								£
1901 ...	4,927	26,042	3,219	29,261	134,638	*	*	1,143,430
1911 ...	8,094	54,103	6,817	60,920	367,729	*	*	2,074,860
1921 ...	11,301	110,256	10,479	120,735	799,886	*	*	5,736,256
1926 ...	14,038	119,825	10,901	130,726	912,757	762,334	1,675,091	6,311,660
1929 ...	16,738	140,158	10,958	151,116	1,046,854	774,847	1,820,701	7,238,329
1930 ...	16,952	137,548	10,345	147,893	1,018,192	712,581	1,731,073	6,610,951
1931 ...	16,496	119,016	7,796	126,812	867,733	546,328	1,414,061	5,172,359
1932 ...	17,148	120,864	7,495	128,359	860,811	505,953	1,366,764	4,943,790
1933 ...	16,382	124,987	7,880	132,867	899,257	522,848	1,422,105	5,025,484
1934 ...	16,326	133,805	8,715	142,520	966,650	576,881	1,543,531	4,869,235
1935 ...	16,926	150,548	9,664	160,212	1,095,558	649,517	1,745,075	5,153,196
1936 ...	17,448	161,061	10,082	171,143	1,193,929	670,439	1,864,368	5,433,176
1937 ...	17,837	166,591	11,246	177,837	1,250,336	702,551	1,952,887	5,622,929
1938 ...	18,742	176,737	12,612	189,349	1,347,471	785,495	2,132,966	5,994,542

\* Not available on comparable basis.

Passenger traffic increased very rapidly between 1901 and 1921. The increase was most marked on suburban lines, where it continued until 1928-29. On country lines passenger journeys during this decade were most numerous in 1926-27, but the passenger mileage, 782,798,000 miles in this year, was slightly less than in 1927-28. The volume of traffic declined sharply after 1928-29. The first sign of improvement was an increase in suburban passengers in 1931-32. In the following year the increase became general and traffic has since expanded steadily. In 1937-38 the number of journeys and the mileage were the highest recorded.

Further analysis of the traffic figures indicates that the expansion between 1920-21 and 1928-29 occurred for the most part in second-class journeys on the suburban lines. First class traffic on suburban lines showed but little movement up to 1926-27, then the number of passenger journeys declined from 14,565,000 in that year to 5,381,000 in 1933-34, and in 1937-38 numbered only 6,106,000. A marked decline occurred also in first-class journeys on country lines, where the number declined from 2,742,000 in 1926-27 to 1,395,000 in 1932-33. There was an increase to 1,634,000 in 1937-38.

Second-class suburban journeys declined from 125,858,000 in 1928-29 to 108,129,000 in 1930-31, and have since risen to 170,631,000. Second-class journeys on country lines ranged from 8,054,000 in 1920-21 to 8,570,000 in 1927-28, then fell below 6,100,000 in 1930-31. In 1937-38 the number was 10,978,000.

In the aggregate, second-class passengers paid £4,757,927, or 79 per cent. of the total receipts from passengers in 1937-38, and first-class passengers £1,236,615, or 21 per cent. Corresponding ratios were 65 per cent., and 35 per cent. in 1920-21, and 69 per cent. and 31 per cent. in 1928-29.

Particulars are shown below regarding first and second class passenger traffic on suburban and country lines during the years ended June, 1929, and 1938:—

TABLE 91.—Railways, Passenger Traffic, 1st and 2nd Class.

Particulars.	Year ended June, 1929.			Year ended June, 1938.		
	First Class.	Second Class.	Total.	First Class.	Second Class.	Total.
<i>Suburban Lines.</i>						
Journeys—						
Ordinary Passengers ... 000	3,852	49,950	53,802	1,266	77,096	78,362
Season Ticket Holders ... 000	10,448	40,852	51,300	4,840	57,567	62,407
Workmen's ... 000	...	35,056	35,056	...	35,968	35,968
Total Journeys ... 000	14,300	125,858	140,158	6,106	170,631	176,737
Miles Travelled ... 000	113,777	932,077	1,045,854	56,610	1,290,861	1,347,471
Average Mileage per Passenger	7·96	7·41	7·46	9·27	7·57	7·62
Amount Received from Passengers ... £	300,264	2,665,755	3,026,019	137,836	2,780,153	2,917,989
Average Receipts per Passenger per mile ... d.	0·76	0·69	0·69	0·58	0·52	0·52
<i>Country Lines.</i>						
Passengers ... 000	2,597	8,361	10,958	1,634	10,978	12,612
Miles travelled ... 000	267,785	507,062	774,847	183,854	601,641	785,495
Average Mileage per Passenger ...	103·10	60·65	70·71	112·55	54·80	62·28
Amount Received from Passengers ... £	1,868,149	2,344,161	4,212,310	1,098,770	1,977,774	3,076,553
Average Receipts per Passenger per mile ... d.	1·67	1·11	1·30	1·43	0·79	0·94

On suburban lines the average journey by first-class passengers was 9½ miles and the average rate 0·58d. per mile. The average second-class suburban journey was 7½ miles at 0·52d. per mile. On country lines the average journey in 1937-38 by first-class passengers was 112½ miles, and by second-class nearly 55 miles, the rates per mile being 1·43d. and 0·79d., respectively.

The journeys of second-class passengers represented 95 per cent. of the mileage in 1937-38 and a similar proportion of the receipts on suburban lines. The corresponding proportions on country lines were 76 per cent. of the mileage and 64 per cent. of the receipts.

Information relating to the density of passenger traffic on suburban and country lines from 1929 onwards is contained in the following table:—

TABLE 92.—Railways, Density of Passenger Traffic, 1929 to 1938.

Year ended 30th June.	Average Number of Passengers carried per Train Mile.	Average Mileage per Passenger Journey.	Average Receipts per Passenger Mile.	Average Fare per Passenger Journey.	Density of Traffic per Average Mile Worked.
<i>Suburban Lines.*</i>					
1929 ... ..	139	7·46	d. 0·69	d. 5·18	3,805,872
1930 ... ..	129	7·40	0·68	5 07	3,626,040
1931 ... ..	103	7·29	0·67	4·92	3,090,219
1932 ... ..	93	7·12	0·69	4·93	3,008,947
1933 ... ..	105	7·19	0·67	4·85	3,138,110
1934 ... ..	114	7·22	0·58	4·18	3,373,292
1935 ... ..	127	7·28	0·54	3·90	3,823,135
1936 ... ..	136	7·41	0·53	3·90	4,166,417
1937 ... ..	141	7·51	0·52	3·91	4,363,262
1938 ... ..	145	7·62	0·52	3·96	4,702,231
<i>Country Lines.*</i>					
1929 ... ..	84	70·71	1·30	92·26	133,385
1930 ... ..	79	68·91	1·25	85·08	121,520
1931 ... ..	68	70·08	1·20	84·13	92,270
1932 ... ..	64	57·50	1·17	78·83	85,008
1933 ... ..	67	66·35	1·15	76·15	86,269
1934 ... ..	74	66·19	1·06	69·85	95,103
1935 ... ..	78	67·21	1·00	67·28	107,078
1936 ... ..	77	66·50	1·01	67·01	111,254
1937 ... ..	78	62·47	0·99	62·05	116,582
1938 ... ..	83	62·28	0·94	58·54	130,572

\* Suburban lines are those within 34 miles of Sydney or Newcastle.

The density of suburban traffic declined by 21·1 per cent. between 1928-29 and 1931-32, but regained the former level in 1934-35. Since that year it has increased by 23 per cent. The increase after 1931-32 followed upon reductions in fares, and was greater in second-class traffic than in first-class, hence the average receipt per passenger mile has declined materially.

The density of country traffic declined by 36 per cent. between 1928-29 and 1931-32, but by 1937-38 had recovered to within 2 per cent. of its former level. With the exception of a slight increase in 1935-36, the receipts per passenger mile have been falling since 1928-29.

### GOODS TRAFFIC.

The following figures show the volume of the goods traffic in recent years, as compared with 1901 and 1911. The term "ton-mileage" used in the statement is the product of the load in tons, and the distance over which it is carried:—

TABLE 93.—Railways, Goods Traffic, 1901 to 1938.

Year ended 30th June.	Goods train mileage.	Goods and Live-stock: Tonnage.	Ton mileage (000 omitted)*	Gross Earnings.
				£
1901	5,836,587	6,398,227	404,740	2,203,249
1911	8,913,171	10,355,565	810,949	3,585,424
1921	11,490,782	15,563,131	1,418,386	7,270,856
1926	10,587,285	15,032,811	1,509,555	8,941,123
1927	11,282,100	17,224,894	1,654,815	10,490,593
1929	10,644,549	14,516,643	1,690,560	10,379,192
1930	9,761,798	12,150,964	1,498,723	9,353,867
1931	8,997,391	10,743,109	1,425,184	7,841,406
1932	8,700,471	10,211,322	1,407,450	7,853,315
1933	9,179,998	11,147,866	1,550,327	8,169,056
1934	8,846,935	11,364,235	1,410,854	7,802,130
1935	9,349,228	13,018,620	1,522,781	8,582,612
1936	11,252,956	13,839,012	1,666,603	9,154,921
1937	10,710,525	14,684,885	1,731,904	9,704,734
1938	11,461,174	16,480,379	1,854,936	10,830,339

\*Exclusive of coal on which only wayleave charges were collected.

Variations in the volume of goods traffic result naturally from changes in seasonal conditions, particularly as regards primary products. The tonnage in 1926-27 was the largest on record, and all classes of freight were at a high level. Declining coal trade contributed largely to the decrease of 2,703,251 tons during the next two years. With the onset of depression the decline continued until 1931-32, when the total tonnage was the lowest since 1909-10. Minerals (other than coal, coke and shale) declined to less than one-third and general merchandise (other than grain and flour) to about one-half of the tonnage in 1923-29. There was, however, a substantial increase in the quantity of grain, flour, etc.

Since 1931-32 the tonnage of goods has increased in each year. There has been steady expansion in minerals and merchandise, the quantity of coal carried in 1937-38 being the largest since 1926-27. The volume of grain and wool traffic has been maintained at a high level, notwithstanding fluctuations due to seasonal conditions. The tonnage of livestock increased during the last two years as animals were carried from one district to another while drought prevailed over a large part of the State and were returned to their original pastures after relief rains had fallen.

The total goods traffic in 1937-38 was nearly 2,000,000 tons greater than in 1928-29 and only 745,000 tons less than in 1926-27.

The next statement shows the tonnage of the several classes of goods carried on the railways in various years since 1901:—

TABLE 94.—Railways, Classification of Goods Tonnage, 1901 to 1938.

Year ended 30th June.	General Merchandise.		Wool.	Live Stock.	Minerals.		Total Goods.
	Grain, Flour, etc.	Other.			Coal, Coke, and Shale.	Other.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1901	504,880	1,267,742	99,104	200,339	3,956,033	370,129	6,398,227
1911	787,632	2,298,078	137,599	485,021	6,059,648	587,587	10,355,565
1921	1,216,834	3,375,443	93,760	732,804	8,881,796	1,262,494	15,563,131
1926	1,450,813	3,656,355	154,946	766,557	7,145,225	1,858,915	15,032,811
1927	1,523,519	3,971,798	189,605	810,515	8,289,937	2,439,520	17,224,894
1929	1,767,585	3,631,914	179,960	729,581	5,801,880	2,405,723	14,516,643
1930	1,211,030	3,245,905	170,884	783,599	4,761,633	1,977,913	12,150,961
1931	2,128,431	2,067,786	162,031	639,043	4,564,964	1,180,854	10,743,109
1932	2,233,809	1,975,640	186,610	612,443	4,498,158	704,662	10,211,322
1933	2,368,743	2,185,373	198,243	656,097	4,890,533	848,877	11,147,866
1934	1,730,792	2,409,176	174,795	721,096	5,286,596	1,041,780	11,364,235
1935	1,919,600	2,733,667	185,079	694,927	6,222,076	1,263,271	13,018,620
1936	1,986,624	2,903,406	176,181	799,698	6,703,697	1,269,406	13,839,012
1937	1,863,764	3,184,287	189,420	832,691	7,247,918	1,366,805	14,684,885
1938	1,885,032	3,633,902	185,009	890,633	8,022,537	1,863,216	16,480,379

The gross earnings in respect of the various classes of goods carried during 1937-38 were as follow:—Coal, coke, and shale, £1,566,168; other minerals, £536,954; live stock, £1,323,969; grain and flour, £1,301,794; wool, £710,687; general merchandise, £5,232,267; miscellaneous earnings for demurrage, etc., £159,000.

The following table contains information relating to the density of goods traffic.

TABLE 95.—Railways; Density of Goods Traffic, 1911 to 1938.

Year ended 30th June—	Average Train. Load (paying and free).	Average Miles per Ton.	Earnings per Ton-mile.*	Density of Traffic per Average Mile worked.
	tons.		d.	tons.
1911 ... ..	90.98	80.65	0.91	218,408
1921 ... ..	148.44	92.94	1.10	282,631
1926 ... ..	164.94	101.93	1.39	263,802
1927 ... ..	165.30	98.13	1.50	287,994
1929 ... ..	183.17	118.16	1.45	286,376
1930 ... ..	177.06	126.35	1.48	251,778
1931 ... ..	183.62	134.25	1.30	237,260
1932 ... ..	186.00	139.99	1.33	233,030
1933 ... ..	193.30	142.38	1.25	252,129
1934 ... ..	187.48	127.49	1.31	229,253
1935 ... ..	188.11	120.23	1.34	247,411
1936 ... ..	189.43	123.32	1.31	272,588
1937 ... ..	185.70	120.80	1.32	283,269
1938 ... ..	184.51	114.05	1.38	303,909

\* Exclusive of coal on which shunting charges only were collected.

The density and average earnings in goods traffic fluctuate to a greater extent than in passenger traffic, because they are affected by changes in the classes of freight carried as well as by changes in rates.

## PASSENGER FARES.

Passenger traffic is greatest on the suburban lines, viz., those within a 34 miles radius of Sydney or Newcastle, and fares on these lines are lower than those for equal distances elsewhere. The following table shows the ordinary fares charged for single journeys at intervals since 1921, over stated distances from either Sydney or Newcastle. Cheap return fares are available for journeys to tourist districts and holiday resorts. Since November, 1933, concession rates have been available to suburban travellers over the week-end period:—

TABLE 96.—Railways, Fares for Single Tickets.

Distance.	30th June, 1921.		30th June, 1926.		30th June, 1931.		30th June, 1938.*	
	First-class.	Second-class.	First-class.	Second-class.	First-class.	Second-class.	First-class.	Second-class.
Miles.	s d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	0 3½	0 2	0 2	0 1½	0 2½	0 2	0 2	0 1
5	0 8	0 6	0 8	0 6	0 8½	0 6½	0 7	0 5
10	1 3	0 10½	1 2	0 10½	1 3	0 11	1 0	0 9
20	2 5	1 6	2 0	1 6	2 1	1 7	1 11	1 5
30	3 7	2 4	2 10	2 1½	3 0	2 3½	2 8	2 0
34	4 1	2 7½	3 2	2 4½	3 4	2 6½	3 0	2 3
50	7 7	5 0	6 8	4 9	6 10	4 11	6 0	4 4
100	18 7	12 2	17 7	12 0	17 9	12 2	15 5	10 10
200	40 7	25 7	37 7	25 4	37 9	25 6	33 1	22 11
300	62 2	38 3	56 5	37 11	56 7	38 1	49 2	34 2
400	83 7	49 10	73 8	49 5	73 10	49 7	64 7	44 9
500	100 8	57 10	86 4	57 10	86 6	58 0	75 9	52 3

\* These rates were increased by 10 per cent. as from 1st March, 1939.

During 1923-24 second-class fares were lowered slightly and first-class fares were reduced to an appreciable extent. In December, 1927, fares were raised again, the increases on second-class tickets ranging from 33 per cent. to 7 per cent. in the suburban area. A reduction of 10 per cent. was made in second-class fares, and a slightly greater reduction in first-class fares from 1st November, 1933. The next change dated from 1st March, 1939, when there was an average increase of 10 per cent.

Return tickets which cover travel outside the Metropolitan or Newcastle suburban areas are issued at single fare plus one-third.



Particulars relating to changes in the cost of monthly periodical tickets since 1921 are shown below:—

TABLE 97.—Railways, Fares—Monthly Periodical Tickets.

Distance.	30th June, 1921.		30th June, 1926.		30th June, 1931.		30th June, 1933.*	
	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.	First Class.	Second Class.
Miles.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	14 6	9 9	12 11	9 8	13 9	10 4	10 0	7 6
5	30 9	20 6	27 4	20 6	29 4	22 0	25 9	19 6
10	44 0	29 0	38 3	28 8	41 0	30 9	36 9	27 6
20	58 0	39 3	52 3	39 2	55 11	42 0	50 3	37 9
30	66 6	44 9	58 0	43 6	62 1	46 7	55 9	42 0
34	69 3	46 0	59 9	44 10	64 0	48 0	57 6	43 3
50	79 9	51 0	77 0	51 3	81 6	54 3	69 9	48 3
100	112 6	66 9	100 3	66 9	106 6	70 9	92 6	63 9
200	156 3	92 6	138 9	92 6	147 0	98 0	128 6	88 9
300	181 9	112 6	168 0	112 0	178 0	113 9	155 9	107 6
400	207 0	131 3	197 0	131 3	208 9	139 0	182 0	125 6
500	231 6	150 6	225 9	150 6	239 3	159 6	207 6	143 0

\* These rates were increased by 10 per cent. as from 1st March, 1939.

The fares quoted represent the maximum charges, but liberal concessions are made to females, students and youths in business. During 1922 there were slight reductions in respect of second-class periodical tickets, and charges for first-class tickets over long distances were substantially reduced. Further reductions were made in 1924, in fares for distances up to 34 miles. At the beginning of January, 1928, fares were raised by about 7 per cent. in the suburban areas and by 6 per cent. over longer distances, and in November, 1933, a reduction of 10 per cent. was made. An average increase of 10 per cent. was made on 1st March, 1939.

Workmen's weekly tickets are issued for the Metropolitan and Newcastle suburban lines, as well as between stations in the section Helensburgh-Port Kembla. The tickets are available for one journey each way Mondays to Saturdays, inclusive, the forward journey being restricted to trains which reach the passenger's destination within specified hours. The fares for these tickets were increased by about 30 per cent. in December, 1927, and reduced by 15 per cent. in October, 1932. A flat rate of 5s. for distances of

15 miles or over was introduced on 1st January, 1939, and the rates were increased by 10 per cent. on 1st March, 1939. The charges at various dates since June, 1911, were as follow:—

TABLE 98.—Railways, Fares for Workmen's Weekly Tickets.

Distance.	Workmen's Weekly Tickets—Second Class.					
	June, 1911.	June, 1916.	June, 1921.	June, 1931.	Dec., 1932.	Jan. 1939.*
Miles.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	0 6	0 9	1 3	1 8	1 5	1 5
5	1 6	1 9	2 11	3 11	3 4	3 4
10	2 2	2 6	4 1	5 6	4 8	4 8
20	3 0	3 4	5 5	7 4	6 4	} 5 0
30	3 10	4 2	6 11	9 0	7 10	
34	4 2	4 6	7 5	9 8	8 2	

\* An average increase of 10 per cent. was made on 1st March, 1939,

## FREIGHT CHARGES.

The system adopted in fixing freights on merchandise and live stock is to charge the lowest scale of freight on commodities of low values and on those which are used to assist production. The charge per ton mile decreases as the distance hauled increases.

The following table gives the charges per ton for haulage of different classes of freight over distances of 100 and 500 miles at various dates since June, 1921:—

TABLE 99.—Railways, Freight Charges.

Class of Freight.	30th June, 1921.		30th June, 1926.		30th June, 1931.		30th June, 1938.†	
	100 miles.	500 miles.	100 miles.	500 miles.	100 miles.	500 miles.	100 miles.	500 miles.
Ordinary Goods (per ton)—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Highest Class Freight...	75 0	193 3	76 8	197 6	76 8	197 6	76 8	197 6
Lowest " " ...	6 6	15 0	6 9	12 4	6 9	12 4	6 9	12 4
Agricultural Produce ...	11 5	18 2	11 5	19 0	12 0	19 11	12 0	19 11
Butter ...	31 7	94 0	24 10	57 7	27 4	63 4	27 4	63 4
Beef, Mutton, Veal, etc. (frozen) ...	14 7	72 11	18 11	43 11	18 11	43 11	18 11	43 11
Wool—Greasy ...	37 11	104 4	41 8	109 5	41 8	109 5	} 37 6	} 98 6
" —Scoured ...	44 3	113 10	45 10	115 8	45 10	115 8		
Live Stock (per 4-wheeled truck)—	110 5	303 4	109 9	299 9	120 9	329 8	108 8	296 8
Minerals—Crude Ore—								
Not exceeding £20 per ton in value ...	} 6 5	} 22 6	} 6 5	} 22 5½	} 6 5	} 22 5½	} 7 1*	} 19 9*
Not exceeding £10 per ton in value ...								

\* Not exceeding £50 per ton in value.

† These rates except for agricultural produce, wool and ore were increased by 10 per cent. in March, 1939.

The highest class freight includes expensive, bulky, or fragile articles, such as boots, drapery, drugs, groceries, furniture, liquors, glass-ware, cutlery, ironmongery, confectionery, and carpets; the lowest class applies to fertilisers.

Some of the rates were increased in November, 1926. Rates for wool and livestock were reduced by 10 per cent. in the latter part of 1932, and in July, 1933, and increased by approximately 10 per cent. in October, 1937.

The rates for nearly all classes of freight were increased by about 10 per cent. on 1st March, 1939; exceptions included wool, agricultural produce and crude ores.

## GRADIENTS.

In many cases the railways of New South Wales pass through mountainous country over the Great Dividing Range which separates the narrow coastal plain from the interior. Consequently there are steep gradients and sharp curves in many sections, including parts of the trunk lines where the traffic is heavy.

In the southern system, the railway station at Roslyn, near Crookwell, is situated at an altitude of 3,225 feet above sea level; and at Nimmitabel, on the Goulburn to Bombala railway, the height is 3,503 feet. In the western system a height of 3,503 feet is attained at Newnes Junction, on the Blue Mountains, and 3,623 feet at Oberon, the terminus of a branch line from Tarana. On the northern line Ben Lomond is 4,473 feet above sea level.

The following statement shows the number of miles on different gradients in June, 1938:—

TABLE 100.—Railway Gradients, June, 1938.

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	miles.	miles.	miles.	miles.
18 to 30	16½	4½	3½	24½
31 " 40	72	61	55½	188½
41 " 50	74½	53½	88	216
51 " 60	71½	78½	66½	216½
61 " 70	60½	69	42¾	172½
71 " 80	188½	142½	181½	512½
81 " 90	48½	58	52½	159
91 " 100	119½	178½	98	395½
101 " 150	256½	286½	177½	720½
151 " 200	137½	123½	98½	359½
201 " 250	72½	77½	50½	200½
251 " 300	102½	111	72½	285½
301 " level	942½	961½	758½	2,663
Total	2,162½	2,205½	1,745½	6,113½

## SIGNALLING AND SAFETY APPLIANCES.

In the matter of signalling and safety appliances the railways of New South Wales have progressed with modern invention. The points are interlocked on all the lines with the exception of a few in remote country districts where the traffic is light. The automatic signalling system is in operation on all the suburban lines under the electrical system.

Particulars regarding the various systems employed for the safe working of the line in 1928 and 1938 are shown below:—

TABLE 101.—Railways, Safe-working Systems, 1928 and 1938.

	1928.		1938.	
	Mls.	Chs.	Mls.	Chs.
Single Track.				
By automatic or track block system ... ..	82	28	3	36
electric train tablet ... ..	215	52	168	26
electric train staff ... ..	2,724	74	3,035	11
train staff and ticket ... ..	2,174	62	2,297	45
train staff and one engine only ... ..	2	72	15	27
	5,200	48	5,519	65
Double Track.				
By automatic or track block system ... ..	359	74	428	23
absolute manual block system ... ..	346	1	288	35
permissive manual block system ... ..	4	60	3	41
	710	55	720	19

A system of train control by telephone has been installed, so that the movements of trains may be controlled by officers located in a central office. Each controller is provided with special equipment for direct telephone communication with the stations, sidings and important connections in the section of the lines under his supervision. The system is in operation on 2,959 miles of the total route mileage of 6,114.

The passenger and freight vehicles in use on the railways are fitted with automatic brakes.

## ROLLING STOCK.

A classification of the rolling stock of the State railways is shown in the following table:—

TABLE 102.—Railways, Rolling Stock.

Classification.	June, 1922.		June, 1932.		June, 1938.	
	No.	Capacity.	No.	Capacity.	No.	Capacity.
Locomotive—Steam ... ..	1,321	Tractive power. 000 lb. 32,349	1,432	Tractive power. 000 lb. 37,791	1,306	Tractive power. 000 lb. 35,988
Diesel Power Vans ... ..	...	...	...	...	4	40
Coaching—		Pas'gers.		Pas'gers.		Pas'gers.
Passenger ... ..	1,674	97,324	2,185	137,631	2,244	139,109
Motor Passenger ... ..	1	33	37	1,924	53	2,764
Sleeping and Special	97	2,338	122	2,699	127	2,067
Horse Boxes, Brake Vans, etc. ... ..	422	158	369	631	363	560
Rail Buses ... ..	...	...	...	...	3	51
Total ... ..	2,194	99,853	2,713	142,885	2,790	145,151
Goods—		tons.		tons.		tons.
Open Waggon ... ..	16,498	262,693	17,329	284,662	17,149	273,070
Livestock Waggon ... ..	2,957	18,370	3,004	19,066	2,916	18,519
Louvred Vans ... ..	967	9,932	1,026	16,416	1,181	19,188
Refrigerator Vans ... ..	161	2,382	233	3,368	302	4,724
Brake Vans... ..	639	...	705	...	665	...
Other ... ..	251	3,250	65	775	64	900
Total ... ..	21,473	296,627	22,362	324,287	22,277	316,400
Service Stock ... ..	1,846	...	1,490	...	1,427	...

The average tractive power of the railway locomotives, as at 30th June, 1938, was 27,556 lb.; and of the Diesel power vans 9,900 lb.; the average capacity of the passenger vehicles was 62 passengers, and of the goods stock 15 tons.

*Rail Motor Services.*

Rail motors have been provided in a number of country districts where the population is not sufficient to warrant the provision of ordinary services. The first rail motor was put into operation in 1919 on the line between Grafton and Lismore, a distance of 87 miles. Modern motor trains are being equipped for the improvement and extension of these services. Rolling stock consists of 53 motor passenger vehicles, including 17 trailer cars, with seating capacity for 2,764 passengers, the average per car being 62.

To provide for the economical operation of services on country lines on which traffic is very light experiments have been conducted in the running of rail motor buses. Three buses have been constructed with an average capacity of 17 passengers.

*Diesel-engined Trains.*

A Diesel train service between Parkes and Broken Hill, a distance of 422 miles, was commenced on 27th September, 1937. The rolling stock, which is completely air conditioned, comprises 4 Diesel power vans with an average tractive power of 9,900 lb., and 12 trailer cars having an average seating capacity of 53.

## VICTORIAN GOVERNMENT RAILWAYS IN NEW SOUTH WALES.

In the southern portion of New South Wales the Government of Victoria has acquired certain railway interests by the purchase from a private company of a line between Deniliquin and Moama, and by agreement with the Government of New South Wales for the construction and maintenance of five border railways.

The agreement provides for railways on the 5ft. 3in. gauge, but the works within New South Wales are constructed suitably for conversion to the standard gauge, viz., 4 ft. 8½ in. The lines are operated by the Victorian Railway Commissioners, but the fares and rates for the carriage of passengers, goods, and livestock thereon must not be less than the rates charged for similar mileage on the Victorian Railways. In the construction and working of the lines the same conditions and rates of wages as prevail in Victoria must be observed.

Two of the lines authorised under the agreement have been opened for traffic, viz., from Barnes, on the Moama line, to Balranald, and from Murrabit (Gonn Crossing) to Poonboon (Stony Crossing). Part of the line from Euston to Lette, 30 miles, to serve en route the Benanee Settlement Area, has been constructed and traffic is conducted as far as Koorakee, 14 miles. The line from Yarrawonga to Oaklands, 38 miles, is being operated by the constructing authority pending transfer to the Railway Commissioner. The fifth line, which has not yet been commenced will cross the Murray at or near Golgol, New South Wales, and extend into this State for a distance not exceeding 20 miles.

The railway between Deniliquin and Moama, 44 miles on the 5 ft. 3 in. gauge, was constructed by a private company, and opened for traffic in 1876. It became part of the Victorian Railway system in December, 1923. A branch line to Balranald, 120 miles, was opened for traffic in March, 1926, and the line from Gonn Crossing to Stony Crossing, 38½ miles, on 16th March, 1928. The capital cost of these lines at 28th February, 1938, was £991,485. During the year ended February, 1938, the receipts amounted to £63,506, working expenses to £61,581, and interest to £46,052. The train mileage was 112,289, the number of passengers 13,767, and the goods traffic 106,628 tons.

## PRIVATE RAILWAY LINES.

The established policy in New South Wales has been to keep the railways under State control, and with the exception of short lines connecting coal and other mines with the main railways, there are only 88 miles of private lines open for general traffic.

During the year 1888 a line of 3 ft. 6 in. gauge, 35 miles 48 chains in length, was laid down from Silvertown and Broken Hill to the South Australian border. A short line connects the Government railway at Liverpool with the Warwick Farm Racecourse.

The Seaham Coal Company's line connects the West Wallsend and Seaham Collieries with Cockle Creek. The South Maitland system supplies the mining districts of East Greta, Stanford-Merthyr, and Cessnock. The Hexham-Minmi line runs between the collieries in the townships mentioned. The New Red Head line runs between Belmont and Adamstown. A line

33 miles in length belonging to the Commonwealth Oil Corporation extending from Newnes Junction, on the Western line, to the Wolgan Valley has been abandoned.

The following table shows the operations of the private railway lines open to the public for general traffic during the year ended June, 1938:—

TABLE 103.—Private Railways, 1937-38.

Name of Private Railway.	Line.		Total Capital Expended.	Train Miles run.	Passengers carried.	Goods carried.	Live Stock carried.
	Length.	Gauge					
Silverton ... ..	m. 36	ch. 58	£ 541,917	No. 94,325	No. 32,599	tons. 730,400	No. 280,205
Warwick Farm ... ..	1	14 8½	18,824	*168	*97,396	...	...
Seaham-West Wallsend	5	10 4 8½	16,000	1,040	...	123,190	...
South Maitland—							
East Greta, Stanford							
Merthyr, and Cessnock	19	35 4 8½	664,299	300,192	888,243	47,432	...
Hexham-Minni and							
Richmond Vale ... ..	16	0 4 8½	125,000	90,128	...	852,436	...
New Red Head ... ..	9	38 4 8½	180,286	*88,782	*255,505	*1,023,323	...

\* Included in figures relating to Government Railways.

The Silverton Company has 16 locomotives and 634 goods vehicles, and passenger carriages are hired from the South Australian Government railways as required. The Seaham Colliery has 2 locomotives, and Government rolling stock is hired. On the South Maitland system there are 22 locomotives and 44 goods carriages, and passenger services are conducted by the State railways. The Hexham-Minni Company has 23 locomotives 1 passenger carriage, and 9 goods carriages. The Warwick Farm and New Red Head lines are operated by the Government Railway Commissioner.

In addition to the private railway lines shown in the previous table, there are several lines connected with coal and other mines.

## RAILWAY GAUGES OF AUSTRALIA.

Particulars of the gauges of the railways in each State as at 30th June, 1937, are shown below. The figures relate to Government lines and to private railways open for general traffic, classified according to the States in which they are located. Particulars of private lines used exclusively for special traffic are not included in the figures:—

TABLE 104.—Railway Lines and Gauges in Australia.

State.	Miles at each Gauge open for traffic.						Total Miles.
	2ft.	2ft. 6in.	3ft.	3ft. 6in.	4ft. 8½in.	5ft. 3in.	
New South Wales ... ..	...	...	...	37	6,177	203	6,417
Victoria ... ..	...	122	11	...	...	4,410	4,543
Queensland ... ..	159	...	...	6,567	69	...	6,795
South Australia and							
Northern Territory	...	...	...	2,217	598	1,451	4,26
Western Australia ... ..	...	...	...	4,635	454	...	5,086
Tasmania ... ..	18	...	...	764	...	...	782
Australian Capital ... ..	...	...	...	...	5	...	5
Total ... ..	177	122	11	14,220	7,303	6,064	27,897

The distances by rail between Sydney and the other capital cities are as follows:—Brisbane *via* North Coast line 611 miles, Brisbane *via* Wallangarra 715 miles, Melbourne 591 miles, Adelaide *via* Melbourne 1,074 miles, and Perth *via* Melbourne 2,691 miles. The journey from Sydney to Broken Hill *via* Melbourne and Adelaide is more than 1,400 miles, but a line across New South Wales opened for traffic in November, 1927, affords direct communication over a distance of 698½ miles.

The diversity of gauges on interstate railway communication has given rise to discussion between the Commonwealth and State Governments, and the subject of a uniform gauge to connect the capital cities of the mainland was investigated by a Royal Commission in 1921. It has been resolved that the adoption of a uniform gauge is essential to the development and defence of the Commonwealth, and that the gauge should be 4 ft. 8½ in., but agreement has not been reached in regard to any comprehensive scheme for giving effect to the resolutions. As an outcome of the negotiations, however, breaks of gauge have been eliminated at several points, and the route has been shortened.

Prior to September, 1930, rail communication between Sydney and Brisbane passed through the border town of Wallangarra, where the 3 ft. 6 in. gauge of the Queensland railways met the 4 ft. 8½ in. gauge of the New South Wales system. Then a line of uniform gauge—4 ft. 8½ in.—from Kyogle, on the North Coast railway in New South Wales, to Brisbane was opened for traffic, the route between Sydney and Brisbane being 104 miles shorter than the journey via Wallangarra. The cost of constructing the Kyogle-Brisbane line and of strengthening the line between Grafton and Kyogle, approximately £4,450,000, was shared by the Commonwealth and the States of New South Wales and Queensland.

An agreement made in 1925 by the Commonwealth and South Australian Governments provided for the extension from Port Augusta to Red Hill, of the Commonwealth 4 ft. 8½ in. line in South Australia, and for the laying of a third rail on the 5 ft. 3 in. line between Red Hill and Adelaide. In 1935 the agreement was amended to provide for the extension of the Commonwealth line from Port Augusta only as far as Port Pirie, a distance of 56½ miles, and for the construction by the State Government of a 5 ft. 3 in. line 27½ miles in length from Red Hill to Port Pirie. With the opening of these lines in July, 1937, the journey between Adelaide and Port Augusta was shortened by 69 miles, and the break of gauge at Port Pirie replaced the breaks at Port Augusta and Terowie on the route formerly used. As compensation for its share in the cost of construction and the loss of revenue caused by the diversion of traffic, the State of South Australia is to receive £20,000 annually from the Commonwealth for a period of twenty years.

In the journey from Brisbane, Queensland, to Perth, Western Australia, breaks of gauge occur at Albury, on the border of New South Wales and Victoria; at Port Pirie, in South Australia; and at Kalgoorlie, where the Commonwealth and Western Australian lines connect.

#### STATE TRAMWAYS.

The tramways of New South Wales, with the exception of one short line, are the property of the State Government. The metropolis and Newcastle are the only districts in which tramway services are in operation. Services in Maitland and Broken Hill were abolished at the beginning of the year 1927.



The tramways were administered by the Railway Commissioners until 1930, when the tramway property—except the electric power stations—was vested in the Transport Trusts, and the services in Newcastle, as well as in Sydney, were placed under the administration of a Management Board constituted in terms of the Transport Act, 1930. The tramway employees were transferred to the service of the Metropolitan Transport Trust, and the staff required for the Newcastle services was made available by the Metropolitan Trust under agreement between the trusts. The administration of the tramways was transferred to the Board of Transport Commissioners in March, 1932, and to the Commissioner for Road Transport and Tramways in December, 1932, as described on page 108.

The information relating to tramways as shown in this chapter is inclusive of particulars of the trolley bus services which are administered in conjunction with the tramways.

The gauge of the tramways is 4 ft. 8½ inches, and all the services are operated by electric power. Steam services in the Newcastle district were discontinued in November, 1930, and the last steam service in the Metropolitan district in July, 1937.

#### LENGTH OF STATE TRAMWAYS.

Services were conducted at 30th June, 1938, on 181 miles 36 chains of tramways and 8 miles 42 chains of trolley bus route. The distribution of the route and track mileages, as shown in the following table, is exclusive of 51 miles 54 chains of sidings, loops, and cross-overs.

TABLE 105.—Tramways, Length of Lines Open, June, 1938.

Line.	Route Mileage.*	Track Mileage.
Metropolitan—	mils. ch.	mils. ch.
City and Suburban ... ..	(a) 114 58	217 31
North Sydney ... ..	23 32	44 57
Ashfield to Mortlake and Cabarita ... ..	8 38	15 9
Rockdale to Brighton-le-Sands ... ..	1 50	1 50
Manly to The Spit and Manly to Harbord and Narrabeen	11 48	16 36
Kogarah-Rockdale-Sans Souci ... ..	(b) 6 32	11 10
Total, Metropolitan ... ..	(c) 166 18	306 33
Newcastle City and Suburban ... ..	23 60	41 52
Total, Tramways June, 1938...	(e) 189 78	348 5

\* Includes Trolley Bus Routes—(a) 2 mls. 10 chns.; (b) 6 mls. 32 chns.; (c) 8 mls. 42 chns.

There has been very little extension of the tramway system in recent years, since the North Sydney services were extended across the Harbour Bridge to Wynyard Station in March, 1932. A service by electric trolley bus was commenced in Sydney in January, 1934, and another service replaced the Kogarah-Sans Souci steam tramway in July, 1937.

#### FINANCES OF TRAMWAYS.

When the tramways were removed from the control of the Railway Commissioners in August, 1930, the electric power stations representing a capital cost of £3,340,000 were transferred to the Railway Commissioners.

Then the capital indebtedness of the tramways was declared by the Transport Act, 1930, to be £8,431,805 viz., £7,487,154 in respect of the metropolitan tramways, and £944,651, in respect of the Newcastle tramways, these amounts being subject to revision by a committee of review appointed by the Governor.

- The capital cost at 30th June, 1938, amounted to £9,138,905, including cost of construction £5,192,167, rolling stock £2,871,943, machinery, workshops and sub-stations £924,795 and stores £150,000.

In the following table are given particulars of the mileage, cost and earnings of the State tramways at intervals since 1901. The working expenses shown in this table and in tables 107 to 109 represent the expenses before depreciation was charged, and the net earnings represent the excess of gross revenue over the expenses, as stated. A regular charge for depreciation was not made prior to 1933-34 although abandoned assets had been written off from time to time. In later years an amount was appropriated from net earnings for arrears of depreciation and current depreciation has been charged to working expenses since 1934-35; details are shown in table 110.

TABLE 106.—Tramways, Capital Cost and Gross Operating Results, 1901 to 1938.

Year ended 30th June.	Total Length of Lines.	Capital Cost.	Gross Revenue.	Working Expenses.	Net Earnings.	* Interest Returned on Capital.
	Miles.	£	£	£	£	per cent.
1901	79½	2,194,493	551,674	462,471	89,203	4.10
1911	189½	5,121,586	1,305,631	1,143,049	221,682	4.53
1921	227½	9,060,757	3,471,733	2,943,252	528,486	5.93
1926	228½	11,434,523	3,619,496	3,319,990	299,506	2.65
1929	210½	11,743,189	4,457,890	3,835,044	622,246	5.33
1930	210½	11,764,978	3,908,470	3,625,564	277,906	2.36
1931	200	8,486,850	3,053,471	3,106,225	(—) 47,754	..
1932	192½	8,336,200	3,305,222	3,046,532	258,690	3.10
1933	192½	8,367,532	3,266,847	2,780,871	485,976	5.81
1934	189½	8,565,978	3,237,942	2,533,333	704,604	8.23
1935	189½	9,093,293	3,321,774	2,608,947	712,827	7.84
1936	188½	9,005,789	3,353,530	2,684,652	708,928	7.81
1937	189	9,046,640	3,423,205	2,709,426	713,779	7.87
1938	190	9,138,905	3,529,368	2,944,792	584,576	6.53

\* Before charging depreciation—see table 110.

The revenue of the tramways prior to 1930 included large sums received from sales of electrical energy to outside bodies and the transfer of the electricity generating stations coupled with a marked decline in traffic caused the revenue to fall from £4,457,890 in 1928-29 to £3,058,471 in 1930-31. This decline of £1,399,419 being only partly offset by a reduction of £729,419 in working expenses, there was a deficiency of £47,754 in the latter year, as compared with an excess of revenue amounting to £622,246 in 1928-29.

The volume of traffic began to increase in 1931-32 after restrictions had been imposed on competitive motor omnibus services (see page 158) and the North Sydney tramways had been extended in March, 1932, across the Harbour Bridge to the City.

Thereafter, substantial savings were effected in working expenses and, notwithstanding a reduction in fares introduced in October, 1932, net earnings rose rapidly to exceed £700,000 in each of the years 1933-34 to

1936-37. There was an increase of £235,366 in working expenses in 1937-38, due largely to a marked advance in wages, and net earnings declined to £584,576, as compared with £713,779 in 1936-37.

The proportion of revenue absorbed by working expenses in 1937-38 was 83.44 per cent., as compared with 79.15 per cent. in 1936-37. The ratio was 101.56 per cent. in 1930-31, but it declined steadily from this exceptionally high level to 78.24 per cent. in 1933-34.

Net earnings in 1937-38 represented a return of 6.53 per cent. on mean capital owing to the Treasury, as compared with 7.87 per cent. in 1936-37. The addition of current depreciation to working expenses, however, would reduce the ratios to 5.12 per cent. and 6.51 per cent., respectively. These rates are much higher than the average rate of interest payable on the State loan liabilities, which was 3.67 per cent. in 1937-38.

A comparative statement of the profit or loss on the tramways after allowing for interest, contributions to sinking fund, and exchange on interest transmitted overseas is shown below:—

TABLE 107.—Tramways, Capital Charges and Net Results, 1911 to 1938.

Year ended 30th June.	Net earnings.	Interest.	Sinking Fund.	Exchange.	Profit (+) Loss (—) allowing for interest.
	£	£	£	£	£
1911 ... ..	221,682	174,055	...	...	(+) 47,627
1921 ... ..	528,486	421,814	...	...	(+) 106,672
1926 ... ..	299,500	577,900	...	...	(—) 278,400
1929 ... ..	622,246	600,000	31,589	...	(—) 9,343
1930 ... ..	277,906	630,150	33,000	...	(—) 385,244
1931 ... ..	(—) 47,754	449,185	26,386	15,170	(—) 538,495
1932 ... ..	258,690	412,700	29,630	106,500	(—) 290,140
1933 ... ..	485,976	387,057	28,000	69,000	(+) 1,919
1934 ... ..	704,604	361,346	33,250	61,390	(+) 248,618
1935 ... ..	712,827	350,040	33,600	50,265	(+) 269,922
1936 ... ..	703,928	334,980	26,609	49,310	(+) 293,029
1937 ... ..	713,779	323,000	37,000	43,400	(+) 310,379
1938 ... ..	584,576	327,278	37,676	41,348	(+) 178,274

\* Before charging depreciation—see table 110.

In the earlier years of the period under review the net earnings were usually sufficient to yield a substantial surplus after paying interest. Then interest charges increased and in nearly every year from 1923-24 to 1931-32, inclusive, there was a substantial deficiency. Additional charges for sinking fund were imposed from 1928-29 and for oversea exchange from 1930-31, and the deficiency in this year amounted to £538,495.

In the following year the deficiency was £290,140 and in each of the last six years net earnings have yielded a surplus after charges for interest, sinking fund and oversea exchange were paid. The surplus—less than £2,000 in 1932-33—grew to £310,379 in 1936-37, the improvement being due to a decrease in charges as well as expansion in net earnings. Particulars regarding provision for depreciation and net profits are shown in table 110.

In the following statement particulars regarding the Metropolitan tramways are shown for a period of ten years:—

TABLE 108.—Finances of Metropolitan Tramways, 1929 to 1938.

Year ended June.	Length of line 30th June	Capital Cost.	Gross Revenue.	Working Expenses.*	Net Earnings.*	Interest, Exchange and Sinking Fund.	Profit (+) Loss (-) after paying Interest, Etc.*
	miles.	£	£	£	£	£	£
1929	176	10,162,357	4,106,527	3,532,362	574,165	574,110	(+) 27,055
1930	176	10,202,850	3,591,171	3,331,745	259,426	574,899	(-) 315,473
1931	176	7,516,845	2,894,285	2,891,834	2,451	435,547	(-) 433,096
1932	169	7,416,739	3,117,334	2,851,449	265,885	488,880	(-) 222,995
1933	169	7,438,171	3,058,696	2,616,153	442,543	431,357	(+) 11,186
1934	167	7,660,987	3,026,962	2,373,574	653,388	406,400	(+) 246,988
1935	166	8,212,939	3,107,760	2,443,418	664,342	397,215	(+) 267,127
1936	165	8,142,822	3,165,730	2,508,685	657,045	385,265	(+) 271,780
1937	165	8,201,326	3,208,871	2,540,955	667,916	362,242	(+) 305,674
1938	166	8,308,605	3,304,526	2,762,383	542,143	362,247	(+) 179,896

\* Before charging depreciation—see table 110.

Heavy losses were incurred in the Metropolitan tramway services in the years 1929-30 to 1931-32. An important factor in the subsequent recovery was the extension into the City of the North Shore lines, which formerly had acted as feeders to the harbour ferry services. Moreover, greater economy was exercised in operating the services.

Details relating to the Newcastle tramways are shown below:—

TABLE 109.—Finances of Newcastle Tramways, 1929 to 1938.

Year ended June.	Length of line 30th June.	Capital Cost.	Gross Revenue.	Working Expenses.*	Net Earnings.*	Interest, Exchange and Sinking Fund.	Profit (+) Loss (-) after paying Interest, Etc.*
	miles.	£	£	£	£	£	£
1929	34½	1,580,832	351,363	301,577	49,786	84,479	(-) 34,693
1930	34½	1,562,128	312,299	293,819	18,480	88,251	(-) 69,771
1931	24	920,005	164,186	214,391	50,205†	55,194	(-) 105,399
1932	24	919,461	187,888	195,083	7,195†	59,950	(-) 67,145
1933	24	919,411	208,151	164,718	43,433	52,700	(-) 9,267
1934	24	904,989	210,980	159,764	51,216	49,586	(+) 1,630
1935	24	880,354	214,014	165,529	48,485	45,690	(+) 2,795
1936	24	862,967	222,850	175,967	46,883	42,674	(+) 4,229
1937	24	845,314	214,334	168,471	45,863	41,158	(+) 4,705
1938	24	830,300	224,842	182,409	42,433	44,055	(-) 1,622

\* Before charging depreciation—see table 110.

† Excess of working expenses.

The tramways in Newcastle comprise only a small group of lines and the financial results were affected in a greater degree than in the metropolis by the transfer of electric power stations to the Railway Commissioner in 1930. The general experience of the tramways in the district has not been favourable during the last decade. Net earnings were not nearly sufficient to cover capital charges from 1928-29 to 1932-33 and were slightly deficient in 1937-38, though a small surplus was earned in the intervening years.

The practice of making provision for depreciation in the financial statements relating to the tramways was initiated in 1933-34, but in compiling the tables 106 to 109 above such charges have been disregarded in order to render the figures comparable over a period of years. In the following table details are shown of the amounts charged to working expenses for current depreciation or appropriated from net earnings for arrears and of the net earnings and profits after depreciation was charged.

TABLE 110.—Tramways, Provision for Depreciation, 1934 to 1938.

Year ended 30th June.	Gross Revenue.	Working Expenses.		Net Earnings.	Appropriations.		Net Profit.
		General.	Current Deprecia- tion.		Interest, Sinking Fund and Exchange.	Arrears of Deprecia- tion.	
Metropolitan Tramways.							
	£	£	£	£	£	£	£
1934 ...	3,026,962	2,373,574	...	653,388	406,400	188,243	58,745
1935 ...	3,107,760	2,443,418	100,134	564,208	397,215	84,870	82,123
1936 ...	3,165,730	2,508,685	125,994	531,051	385,265	65,040	80,746
1937 ...	3,208,871	2,540,955	116,275	551,641	362,242	88,489	100,910
1938 ...	3,304,526	2,762,383	119,768	422,375	362,247	16,920	43,208
Newcastle Tramways.							
1934 ...	210,980	159,764	...	51,216	49,586	21,002	(-) 19,372
1935 ...	214,014	165,529	6,875	41,610	45,690	20,771	(-) 24,851
1936 ...	222,850	175,967	7,360	39,523	42,654	17,287	(-) 20,418
1937 ...	214,334	168,471	6,550	39,313	41,158	17,617	(-) 19,462
1938 ...	224,842	182,409	6,307	36,126	44,055	14,714	(-) 22,643
Total.							
1934 ...	3,237,942	2,533,338	...	704,604	455,986	209,245	39,373
1935 ...	3,321,774	2,608,947	107,009	605,818	442,905	105,641	57,272
1936 ...	3,388,580	2,684,652	133,354	570,574	427,919	82,327	60,328
1937 ...	3,423,205	2,709,426	122,825	590,954	403,400	106,106	81,448
1938 ...	3,529,368	2,944,792	126,075	458,501	406,302	31,634	20,565

(-) Denotes net loss.

In recent years substantial sums have been set aside from revenue with the object of preserving the capital of the tramways. The amount in 1937-38 was £195,385 or 5.5 per cent. of revenue and comprised provision for depreciation £157,709 and contribution to sinking fund £37,676. Since 1st July, 1933, a sum of £1,024,216 has been provided for depreciation and £168,135 for sinking fund; the total amount £1,192,351 represents 7.1 per cent. of revenue.

In the metropolitan tramways there has been a substantial surplus in each year over all charges incurred and contributions towards arrears of depreciation. On the other hand, the revenue of the Newcastle tramways was insufficient to meet working expenses, loan charges and current depreciation.

## METROPOLITAN TRAMWAYS SERVICES.

Particulars regarding the various groups of metropolitan tramways during 1936-37 and 1937-38 are shown below:—

TABLE 111.—Tramways, Details of Metropolitan Services.

Particulars.	City and Suburban.	North Sydney.	Manly Lines.	Ashfield Lines.	Rockdale Line.	Kogarah Line (Steam). *
1936-37.						
Length... ..miles.	114.6	23.4	11.6	8.5	1.6	5.6
Cost ... ..£	6,542,099	953,852	309,615	189,078	46,157	47,636
Car Mileage ... 000	27,405	3,449	650	719	132	305
Passengers ... 000	240,143	28,820†	5,205	8,004	1,772	2,550
Earnings ... ..£	2,667,693	366,460	61,734	73,861	14,806	24,317
Expenses ... ..£	2,096,449	299,290	49,108	56,166	9,575	30,851
Current						
Depreciation	£ 96,848	12,279	3,372	2,317	1,054	338
Net Earnings	£ 474,396	54,891	9,254	15,378	4,177	(—)6,872
Interest and						
Exchange ...	£ 263,471	39,151	12,378	7,550	1,829	1,903
Sinking Fund	£ 26,622	3,956	1,250	763	185	192
Depreciation						
Arrears ... ..£	66,886	10,529	1,428	1,028	64	246
Surplus... ..£	117,417	1,255	...	6,037	2,099	...
Deficiency ... ..£	...	...	5,802	...	...	9,213
1937-38.						
Length ... ..miles	114.7	23.4	11.6	8.5	1.6	6.4
Cost... ..£	6,644,762	950,637	309,235	188,622	46,170	123,662
Car Mileage ... 000	27,935	3,459	669	728	134	381
Passengers ... 000	249,872	28,384†	5,327	8,238	1,864	3,695
Earnings ... ..£	2,750,429	365,794	62,980	75,733	14,894	34,451
Expenses ... ..£	2,289,145	317,895	52,754	56,508	11,136	32,441
Current						
Depreciation	£ 95,519	12,878	3,431	2,320	1,065	4,471
Net Earnings	£ 365,765	35,021	6,795	16,905	2,693	(—)2,461
Interest and						
Exchange ...	£ 261,327	38,159	12,272	7,461	1,829	4,870
Sinking Fund	£ 26,802	3,914	1,259	765	187	500
Depreciation						
Arrears ... ..£	8,417	865	504	...	...	...
Surplus... ..£	69,219	...	...	8,679	677	...
Deficiency ... ..£	...	7,917	7,240	...	...	7,831

\*Electric Trolley Bus Service in 1937-38.

† Exclusive of Sydney Harbour Bridge passengers whose journey did not extend beyond bridge section.

With the exception of the Kogarah service, the revenue of each group has been more than sufficient to meet working expenses and current depreciation, though the net earnings of the Manly lines in both years, and of the North Sydney lines in 1937-38, were insufficient to meet interest and sinking fund charges.

An operating deficiency has resulted from the Kogarah service in every year since 1911-12. With the substitution of an electric trolley bus service and a small extension of the route there has been an improvement.

## TRAMWAY TRAFFIC.

The following statement contains a comparison of the passenger traffic and the tram mileage since 1901:—

TABLE 112.—Tramways, Passengers and Car Mileage, 1901 to 1938.

Year ended 30th June.	Length of line open at 30th June.	Passengers.		Car Mileage.	Earnings per car mile.	Working Expenses per car mile.
		Tramway Sections.	Sydney Harbour Bridge Section.			
	miles.	No.	No.		s. d.	s. d.
1901	79½	93,703,685	...	6,835,926	1 7½	1 4½
1911	189½	230,275,938	...	22,541,429	1 2½	1 0½
1921	227½	337,689,873	...	28,654,172	2 5	2 0½
1926	228½	339,411,765	...	34,214,733	2 1½	1 11½
1929	210½	333,476,049	...	34,081,498	2 7½	2 3
1930	210½	307,789,621	...	32,862,832	2 4½	2 2½
1931	200	266,346,801	...	32,193,040	1 10½	1 11½
1932	192½	284,708,886	2,143,136	35,914,272	1 10	1 8½
1933	192½	287,386,142	8,343,974	36,860,528	1 9½	1 6
1934	189½	286,953,234	9,637,731	36,375,517	1 9½	1 4½
1935	189½	297,773,090	9,793,528	35,996,418	1 10½	1 5½
1936	188½	303,697,326	10,254,475	35,378,335	1 11	1 6½
1937	189	306,833,464	10,375,247	35,200,152	1 11½	1 6½
1938	190	318,071,306	10,396,137	35,794,804	1 11½	1 7½

\* Some of the Sydney Harbour Bridge passengers, viz., those whose journey extended beyond the bridge section, are included also in preceding column. † Excluding depreciation.

As a general rule, a single ticket is issued for each passenger journey and the ticket records indicate the number of passengers. An exception is made in regard to journeys across the Sydney Harbour Bridge, where a special ticket is issued for the bridge section (i.e., between Wynyard and North Sydney stations), and a second ticket if the journey extends over any other part of the North Sydney tram lines. The passengers, who receive two tickets for their journey, are recorded twice, hence it has not been practicable to state the actual number of passenger journeys since the opening of the Bridge in March, 1932. The majority of the Bridge passengers are included also in the number of passengers on the other sections.

The net earnings per mile amounted to 4½d. in 1928-29, when both earnings and expenses per mile were very high. By reason of a decline in revenue there was an excess of working expenses amounting to ½d. per mile in 1930-31. Then followed a rapid improvement and by 1933-34 net earnings per mile had grown to 4¾d., to be maintained at this level for four years. In 1937-38 there was a decrease to 4d., due to higher working expenses.

Particulars of the passengers carried and car mileage on the Metropolitan and Newcastle lines are shown below:—

TABLE 113.—Tramways, Metropolitan and Newcastle Traffic, 1928 to 1938.

Year ended June.	Metropolitan Lines.			Newcastle Lines.	
	Passengers.		Car Mileage.	Passengers.	Car Mileage.
	Tramway Sections.	Harbour Bridge Section. *			
	000.	000.	000.	000.	000.
1928 ... ..	325,833	...	31,826	20,181	2,645
1929 ... ..	315,668	...	31,576	17,808	2,506
1930 ... ..	293,126	...	30,519	14,664	2,343
1931 ... ..	253,243	...	29,620	13,104	2,573
1932 ... ..	267,211	2,143	33,000	17,498	2,914
1933 ... ..	268,392	8,344	34,299	18,994	2,561
1934 ... ..	267,707	9,638	33,814	19,246	2,562
1935 ... ..	277,987	9,793	33,396	19,786	2,600
1936 ... ..	283,104	10,254	32,776	20,593	2,602
1937 ... ..	286,495	10,375	32,661	20,338	2,539
1938 ... ..	297,400	10,396	33,312	20,671	2,483

\*Some of the Sydney Harbour Bridge passengers, viz., those whose journey extended beyond the bridge section are included also in preceding columns.

#### TRAM FARES.

The tramways are divided into sections of an average length of nearly 2 miles in the metropolitan district and 1½ miles in Newcastle.

The fares charged on trams since 1st November, 1920, and the dates when alterations were made are shown below:—

TABLE 114.—Tramways, Scale of Fares.

Sections.	Date of Alteration—(ordinary rates).				Concession Rates, Mon.-Fri., 10 a.m. to 4 p.m. since December, 1930.
	November, 1920.	December, 1927.	December, 1930.	October, 1932.	
One ... ..	d.	d.	d.	d.	d.
Two ... ..	2	2	2	2	2
Three ... ..	3	4	4	3	3
Four ... ..	4	5	5	4†	4
Five ... ..	5	6	6	5	4
Five and six ... ..	6	6	6	6	4
Harbour Bridge ... ..	...	...	4*	3†	3†

\* March, 1932. † Maximum fare on Newcastle lines. ‡ 2d. from 1st January, 1939.

The fares on Sundays were higher by 1d. per journey between 1st November, 1920, and 11th February, 1923, when this extra charge was abolished. On 2nd February, 1931, the concession fares for journeys between the hours 10 a.m. and 4 p.m. on week-days (except Saturdays) became general on the Newcastle tramways irrespective of the day or hour of the journey, thus making the maximum fare 4d. for three or more sections.

Children are carried at lower rates. The fare for children under 12 years of age was 1d. for one, two, or three sections, and 2d. for longer journeys, until 1st August, 1934, when the fare was reduced to 1d. per journey for children under 14 years. The Harbour Bridge fare for children was reduced from 2d. to 1d. on 1st January, 1939.



Apart from reductions in fares, the cost of travelling by trams has been made cheaper in recent years by the lengthening and overlapping of sections.

## PRIVATE TRAMWAYS.

There is only one tramway under private control within the State, viz., a steam line, which passes through the town of Parramatta, commencing at the Park and continuing as far as the Newington Wharf at Duck River, a distance of 2 miles 66 chains. The line has been constructed to the standard gauge of 4 ft. 8½ in., and was opened in 1883.

## RAILWAY AND TRAMWAY WORKSHOPS.

A large number of workshops have been established to meet the requirements of the various branches of the State railways and tramways. The principal railway shops are situated at Eveleigh, close to the Central Railway Station, and at Chullora, 11 miles distant. The latter site extends over an area of 485 acres and there is ample room for extensions to meet increasing requirements of the railway system. There are large workshops at Newcastle, Goulburn, and Bathurst to supply the needs of the permanent-way branch by the preparation of structural steelwork, fish-plates, tools, implements and other articles. Engine repairs are undertaken at Honeysuckle Point (Newcastle) and at a number of smaller workshops in country localities.

The principal tramway workshops are situated at Randwick, in Sydney, and there is a smaller establishment at Newcastle.

Particulars regarding the factories for railway and tramway rolling stock are published in the chapter of this volume entitled Factories.

## RAILWAY AND TRAMWAY ELECTRICITY SUPPLY.

For the supply and distribution of electric current to the State railways and tramways there are three main generating stations under the control of the Commissioner for Railways, viz., Ultimo and White Bay in Sydney, and one in Newcastle. A smaller station was opened in January, 1923, at Lithgow, near the State coal mine. A number of substations are in operation throughout the suburban areas.

Particulars regarding the electrical energy generated at each power station and the purposes for which it was used are shown below:—

TABLE 115.—Electricity Generated and Used for Railways and Tramways.

Particulars.	1934-35.	1935-36.	1936-37.	1937-38.
Generating Stations—	kilowatt hours.	kilowatt hours.	kilowatt hours.	kilowatt hours.
White Bay ... ..	242,622,380	258,604,650	258,760,580	285,452,560
Ultimo ... ..	168,293,849	164,756,122	176,384,274	175,650,481
Newcastle ... ..	85,000,405	104,889,403	114,158,538	120,416,522
Lithgow ... ..	12,749,650	14,243,825	16,247,630	20,853,635
Total ... ..	508,666,284	542,494,000	565,551,022	602,373,198
Purpose of Supply—				
Suburban Railways...	183,355,499	187,246,853	186,832,133	197,867,163
Tramways ... ..	144,542,699	145,495,898	146,660,770	149,859,809
Outside Bodies ...	127,362,874	151,642,817	168,262,418	187,647,560
Balance—Departmental Uses ..	53,405,212	58,108,432	63,795,701	66,998,666
Total ... ..	508,666,284	542,494,000	565,551,022	602,373,198

## RAILWAYS AND TRAMWAYS COAL SUPPLIES.

Coal for use in connection with the State railways and tramways is an important item of working expenses, the annual consumption being about 1,500,000 tons. As a result of the gradual electrification of the suburban railways the use of coal for locomotives diminished and the consumption for the generation of electricity increased. The quantity used during each of the last ten years was as follows:—

TABLE 116.—Railways and Tramways, Coal Used, 1929 to 1938.

Year.	Coal used in Connection with Railways and Tramways.				
	Locomotive Purposes.	Electric Power Stations.	Gas Making.	Other Purposes.	Total.
	tons.	tons.	tons.	tons.	tons.
1928-29	1,212,272	391,904	7,038	45,719	1,656,933
1929-30	1,097,049	370,627	6,471	33,939	1,508,086
1930-31	961,739	340,328	5,615	29,299	1,336,981
1931-32	896,147	332,497	5,744	28,657	1,263,045
1932-33	907,291	350,515	5,079	24,804	1,287,689
1933-34	865,837	345,716	4,702	24,395	1,240,650
1934-35	906,511	362,291	4,875	25,000	1,298,677
1935-36	972,800	390,368	5,140	25,852	1,394,250
1936-37	985,580	402,742	5,260	22,958	1,416,540
1937-38	1,041,106	434,266	5,565	23,304	1,504,241

## RAILWAY AND TRAMWAY EMPLOYEES AND WAGES.

The average number of persons employed on State railways and tramways open for traffic during 1920-21 and later years is shown in the following statement, also the amount of salaries and wages paid. The figures are exclusive of the staff of the construction branch.

TABLE 117.—Railway and Tramway Employees and Wages, 1921 to 1938.

Year ended 30th June.	Average Number of Employees.			Salaries and Wages Paid.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
				£	£	£
1921 ...	37,558	9,018	46,576	9,153,080	2,278,998	11,432,087
1926 ...	42,174	11,246	53,420	11,192,851	2,947,313	14,140,164
1929 ...	43,972	11,121	55,093	12,422,298	3,121,457	15,543,755
1930 ...	41,342	10,493	51,835	11,656,142	3,005,881	14,662,023
1931 ...	40,620	8,388	49,008	10,167,293	2,119,794	12,287,087
1932 ...	40,329	8,356	48,685	9,637,122	2,015,941	11,653,063
1933 ...	38,881	8,166	47,047	8,462,906	1,772,640	10,235,546
1934 ...	38,174	7,848	46,022	8,154,378	1,664,574	9,818,952
1935 ...	39,637	8,040	47,677	8,782,701	1,737,396	10,520,097
1936 ...	41,779	8,155	49,934	9,775,667	1,813,575	11,589,242
1937 ...	40,331	8,157	48,488	9,626,478	1,845,621	11,472,099
1938 ...	41,128	8,356	49,484	10,668,200	2,060,377	12,728,577

\* Employees in electric power stations classified as tramway employees, 1921 to 1930, and as railway employees in 1931 and later years.

Particulars relating to the staff of the tramways in the years 1930-31 and 1931-32, shown above, refer to persons employed by the Tramways Management Board in Sydney and Newcastle. When the tramways were separated from the railways in August, 1930, employees, numbering 1,200 (engaged mainly in the supply of electric power for trams), were transferred to the railway staff, and have been classified since as railway employees.

## RAILWAY AND TRAMWAY ACCIDENTS.

All accidents are recorded which occur in the working of the State railways and tramways, or on railway or tramway premises, to persons other than railway and tramway employees, however slight the injuries may be. In the case of employees all accidents must be reported which cause the employee to be absent from his ordinary work for at least five hours on any of the three days immediately following the day on which the accident occurred.

The railway and tramway accidents during each of the last five years, are shown in the following table:—

TABLE 118.—Railways and Tramways, Accidents, 1934 to 1938.

Year ended 30th June.	Passengers.		Employees.		Others.		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
<i>Railway Accidents.</i>								
1934 ...	6	177	19	3,085	38	259	63	3,521
1935 ...	7	218	15	3,647	44	252	66	4,117
1936 ...	6	201	20	4,391	55	294	81	4,886
1937 ...	8	217	20	4,678	49	308	77	5,203
1938 ...	8	232	26	5,413	50	368	84	6,013
<i>Tramway Accidents.</i>								
1934 ...	7	277	6	916	23	275	36	1,468
1935 ...	14	361	2	1,068	19	297	35	1,726
1936 ...	15	400	2	1,063	16	293	33	1,756
1937 ...	13	443	5	1,177	23	270	41	1,890
1938 ...	13	543	1	1,326	19	287	33	2,156

Most of the deaths are caused by the movement of vehicles, the number in 1937-38 being 66 in the railways and 33 in the tramways. Persons injured by the movement of vehicles numbered 593 in the railways and 1,571 in the tramways, the injuries arising from other causes being 5,420 and 585 respectively.

The number of passengers carried on the railways during the year ended June, 1938, was 189,349,000, and on the tramways about 325,000,000. The accident rates per million passengers were as follows:—Railways: Killed 0.04; injured, 1.22. Tramways: Killed, 0.04; injured, 1.67.

The amount of compensation paid in respect of injuries to passengers and damage to goods during each of the last five years was as follows:—

TABLE 119.—Railways and Tramways, Compensation for Accidents, 1934 to 1938.

Accidents.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Railway—	£	£	£	£	£
Passengers, etc.	6,943	2,175	7,275	4,536	8,451
Goods ...	15,132	15,187	15,177	18,258	20,759
Tramway... ..	12,179	14,012	14,845	23,247	27,649
Total ...	34,254	31,374	37,297	46,041	56,859

## MOTOR AND OTHER LICENSED VEHICLES.

Special laws govern the use of motor and other vehicles. They have been framed with a view to minimise the risk of accident and facilitate the flow of traffic; to promote economy in the organisation of State owned and commercial transport services and to procure funds for roads and for administration.

The police exercise general authority to take action against dangerous and disorderly traffic and they regulate the street traffic, vehicular and pedestrian, in the Metropolitan Transport District, and since 1937 in the Newcastle Transport District. Outside these districts municipal and shire councils may enact by-laws for the regulation of street traffic, other than motor traffic.

The speed at which motor vehicles may be driven upon public streets has been limited since December 1937 to 30 miles per hour within built-up areas, and, unless it may be proved that a greater speed was not excessive, to 50 miles per hour elsewhere. Built-up areas are defined generally as those in which provision has been made for street lighting, but streets may be excluded from or included in the definition by direction of the Minister for Transport.

Motor vehicles must be registered if driven upon public streets and horse-drawn vehicles if they ply or stand in a public street for hire. Number plates must be displayed on all registered vehicles and visible registration labels on motor vehicles.

Drivers of motor vehicles, and of registered horse-drawn vehicles, are required to be licensed. Drivers of motor vehicles are tested as to ability and hold their licenses subject to observance of the traffic regulations. The normal term of registrations and licenses and renewals thereof is a year, but since 1st December, 1932, quarterly registrations of motor vehicles have been permitted, at the option of the owners.

The registration of vehicles, licensing of drivers and collection of various taxes, fees and charges are functions of the Commissioner for Road Transport and Tramways. The police test applicants for drivers licenses and, by arrangement with the Commissioner for Road Transport and Tramways, they effect the registrations and collect the taxes and fees in certain areas.

Motor vehicles licensed for transporting passengers or goods are subject to special supervision by the Commissioner for Road Transport and Tramways in terms of the Transport Act, 1930, and the State Transport (Co-ordination) Act, 1931. The Commissioner is required to take measures to render the streets safe for pedestrians, to secure to the public efficient road transport services at just and reasonable rates, to eliminate wasteful duplication, and to safeguard the State owned transport systems against unreasonable competition.

In terms of the Transport Act, 1930, a service license must be obtained for each privately owned motor omnibus service within the Metropolitan and Newcastle Transport Districts, also a license for each omnibus driver and conductor. The registration of the vehicles is conditional upon compliance

with regulations as to design, construction and provision for the safety and comfort of passengers. In the service license are specified the route to be traversed, the time table to be observed and the fares to be charged. Where a service enters into competition with railway or other transport services, conditions may be imposed to prevent undue competition and overlapping. An annual fee is payable in respect of each service license, the maximum rate being £4 for each passenger each omnibus is authorised to carry. The actual fee for each license is fixed in relation to the extent of the benefit conferred on the holder, the nature of the route traversed and the effect of the service on State owned transport services. The fee for experimental, developmental or unprofitable services may be fixed at a nominal rate.

The State Transport (Co-ordination) Act, 1931, applies to all motor vehicles used in the State for the conveyance of passengers or goods for hire or for any consideration or in the course of any trade or business. For such vehicles a license under this Act may be required in addition to any other license or registration, including the omnibus service license described above.

By a license under the State Transport (Co-ordination) Act, conditions may be imposed as to areas or routes to be served, fares and freights to be charged, and the classes of freight to be carried. In addition the licensee may be required to pay charges in respect of passengers and goods carried, the maximum charges being 1d. per passenger for each mile or section (whichever is the shorter) or part thereof, or for goods 3d. per ton of the aggregate weight of the vehicle unladen and its carrying capacity for each mile or part thereof. Vehicles engaged in the carriage of goods to the nearest railway station are not subject to the charge and other exemptions may be granted.

Since the inception of the Act the charges have not been imposed in respect of journeys not exceeding 20 miles, except in the case of motor omnibuses running in competition with the railways or tramways; and since 24th June, 1932, the exemption has been granted for journeys up to 50 miles and for the transport of perishable goods to market irrespective of distance.

#### MOTOR REGISTRATIONS.

The number of vehicles on the register at intervals since 1911 is shown in the following statement. In the use of the figures the following circumstances should be taken into consideration, viz.:—

- (a) A revision of the records in October, 1931, indicated that the method formerly used in assessing monthly figures had resulted in overstatement and to correct this the number of registered vehicles at that date was reduced by 3,261, viz., 1938 cars, 565 lorries and 758 cycles.
- (b) The exact number of omnibuses at the end of the years 1930 and 1931, cannot be ascertained, because, at the earlier date, renewal of registrations was delayed in some cases pending compliance with the Transport Act, 1930, and the records at the later date covered a number of vehicles registered for services which were discontinued at the end of October, 1931, in consequence of the enactment of the State Transport (Co-ordination) Act.
- (c) Government motor vehicles numbering approximately 1,700 in July, 1933, were included in the records for the first time at that date.

TABLE 120.—Motor Vehicles on Register, 1911 to 1938.

End of year or month.	Registrations in force.								Per 100 of population.	
	Car.	Van or Lorry.	Cycle.	Metropolitan Public Vehicles*.		Trader's Plate.	All Motor Vehicles.	Cars only.	All Motor vehicles.	
				Cab.	Omnibus.					
1911 ...	3,975	3	2,788	175	4	...	6,945	0.23	0.41	
1916 ...	14,175	877	7,070	268	12	254	22,656	0.75	1.20	
1921 ...	28,665	3,900	11,291	407	180	413	44,856	1.34	2.10	
1926 ...	104,675	24,709	25,424	779	486	1,320	157,393	4.40	6.62	
1929 ...	170,039	44,868	30,655	1,364	612	2,022	249,560	6.75	9.90	
1930 ...	164,169	44,464	27,258	1,221	523	1,593	239,228	6.45	9.39	
1931 ...	144,749	39,226	23,124	1,091	776	458	209,424	5.64	8.16	
1932 ...	147,043	41,897	23,037	1,068	360	429	213,834	5.67	8.25	
1933 ...	152,851	46,615	22,751	1,052	450	492	224,211	5.85	8.58	
1934 ...	161,342	52,581	22,793	1,053	488	655	238,912	6.12	9.06	
1935—June	164,483	54,919	22,777	1,055	503	691	244,428	6.22	9.24	
Dec.	172,156	59,614	23,119	1,063	526	776	257,254	6.48	9.68	
1936—June	177,289	62,149	23,048	1,113	528	851	264,978	6.65	9.94	
Dec.	183,406	67,257	23,418	1,155	567	909	276,712	6.84	10.32	
1937—June	189,794	70,341	23,439	1,169	594	1,005	286,342	7.05	10.63	
Dec.	198,925	76,141	24,049	1,194	672	1,075	302,056	7.34	11.14	
1938—June	204,688	78,944	24,032	1,214	712	1,118	310,608	7.52	11.42	
Dec.	212,002	83,425	24,353	1,260	733	1,167	322,940	7.75	11.80	

\* Includes Newcastle Transport District in 1930 and later years.

The figures illustrate the remarkable development of motor transport. Expansion was uninterrupted until March, 1930, though the rate of increase diminished after 1927. Between March, 1930, and June, 1932, the number of registered vehicles decreased by approximately 44,000. Then the number began to rise again and the record of March, 1930, was exceeded in October 1935. The largest increase in any year was 36,500 vehicles in 1927. The increase was 19,400 vehicles in 1936, 25,300 in 1937 and 20,900 in 1938. The proportion of vehicles registered for quarterly periods was 14 per cent. in 1933 and 26 per cent. in 1938. The proportion of quarterly registrations is highest in the case of vans, lorries and taxi-cabs.

The number of motor vehicles registered during each year from 1927 is shown in the following statement, with separate details regarding new vehicles and old vehicles registered after a change of ownership. Renewals of registration are not included:—

TABLE 121.—Motor Registrations, New and Old Vehicles, 1927 to 1938

Year.	Registrations of Motor Vehicles (excluding renewals).										Cycles (new and old).
	Cars.		Lorries and Vans.		Metropolitan Public Vehicles*				Total (excluding Cycles).		
	New.	Old.	New.	Old.	Cabs.		Omnibuses.		New.	Old.	
1927	30,757	11,094	9,157	3,657	215	142	105	88	40,234	14,981	9,726
1928	30,188	12,812	7,497	4,537	156	213	66	78	37,907	17,640	11,288
1929	26,825	13,888	8,477	5,131	213	209	80	59	35,001	19,237	10,579
1930	11,152	13,197	4,172	5,936	79	158	57	34	15,460	19,325	8,096
1931	3,273	16,560	1,200	7,104	7	99	16	51	4,556	23,814	7,681
1932	3,045	20,531	937	9,478	...	35	1	36	4,533	30,080	7,864
1933	5,709	21,440	2,400	11,787	15	132	13	209	8,137	33,568	8,490
1934	10,776	19,205	4,527	12,437	308	162	43	77	15,654	31,961	8,481
1935	15,061	18,247	6,630	12,200	573	123	53	69	22,317	30,039	8,180
1936	18,336	18,358	8,447	12,797	502	126	101	61	27,880	31,342	7,796
1937	23,979	19,448	10,434	13,090	597	106	150	60	35,160	32,710	7,878
1938	21,976	19,327	9,718	12,833	546	109	144	75	32,384	32,394	7,253

\* Registrations in Newcastle district included as from 13th October, 1930.

The registration of new vehicles, other than cycles, was at a high level during the years 1927 to 1929. The number then declined steeply, and in 1931 and 1932 it was less than one-eighth of the number in 1927.

The registrations of second-hand vehicles after change of ownership increased up to 1933, especially in the years when registrations of new cars were at a minimum. The number of second-hand vehicles registered after change of ownership has been comparatively steady in recent years.

MOTOR DRIVERS' LICENSES.

The development in motor transport facilities is illustrated also by the following statement of the number of annual licenses to drive motor vehicles issued during the years specified:—

TABLE 122.—Motor Drivers' Licenses, 1911 to 1938.

Year.	Annual Licenses Issued.				
	Metropolitan Public motor vehicles.*			Other motor vehicles.	
	Cab drivers.	Omnibus.		Car, Van and Lorry drivers.	Cycle riders.
		Drivers.	Conductors.		
1911	248	6	9	5,526	3,323
1916	387	21	5	22,645	9,444
1921	627	441	200	53,061	16,115
1926	2,174	1,926	1,118	185,874	32,228
1929	1,997	2,107	1,077	300,205	36,784
1930	1,989	1,981	958	305,165	33,935
1931	1,663	1,856	849	280,014	29,794
1932	1,699	1,327	352	275,232	28,730
1933	1,867	1,443	277	282,337	28,455
1934	2,060	1,498	234	296,096	28,132
1935	2,681	1,695	242	324,903	28,071
1936	3,267	1,812	339	347,584	28,995
1937	3,720	2,006	602	377,334	29,949
1938	4,283	2,234	775	405,904	30,312

\* Newcastle district included in 1930 and later years.

MOTOR TAXES, FEES, CHARGES, ETC.

Proceeds of taxes and fees relating to road transport are paid to the credit of special funds, viz., the Road Transport and Traffic Fund, Public Vehicles Fund, and State Transport (Co-ordination) Fund, which are under the control of the Commissioner for Road Transport and Tramways, and to the funds of the Department of Main Roads.

The allocation of receipts to these funds is as follows:—

*The Road Transport and Traffic Fund* receives fees from the registration of vehicles and licensing of drivers.

*The Public Vehicles Fund* receives annual service license fees payable on motor omnibuses, also taxes on public motor vehicles which ply in the Metropolitan and Newcastle Transport Districts.

*The State Transport (Co-ordination) Fund* receives all collections under the State Transport (Co-ordination) Act, including license fees and charges for the carriage of passengers and goods.

The *Main Roads Funds* receive the taxes on motor vehicles other than those paid to the Public Vehicles Fund.

Details of the scales of taxes, fees and charges, and the amounts collected during 1937-38 are shown below.

*Motor Taxes.*—A tax is levied on every motor vehicle, and it must be paid by the person in whose name the vehicle is registered when the certificate of registration is issued or renewed. The rates of tax are based upon the weight of the vehicle and the type of tyre used, except in the case of motor cycles. Prior to 1st January, 1925, they were fixed in relation to horse-power. When registration is effected quarterly the tax is charged at 27½ per cent. of the annual tax.

The rates of tax are as follows:—

TABLE 123.—Motor Taxes—Rates.

Vehicle.	Rate of Tax.*		Vehicle.	Rate of Tax.*
	With solid tyres.	Other.		
	s. d.	s. d.		s. d.
Car—per ½ cwt. ...	3 3	2 9	Motor Cycle—each ...	22 6
Lorry „ ...	3 6	2 9	„ „ with side	
Omnibus „ ...	5 6	4 3	car—each ...	40 0
			Tractors†, trailers, etc.,	
			per ½ cwt. ...	3 6

\* The rates stated are reduced by 6d. per ½ cwt. if the vehicle is British manufacture.  
 † Maximum tax on tractors, £15.

Tractors, motor lorries, and other motor vehicles owned by farmers and used solely for carting the produce of their farms are taxable at half-rates. A reduction of 6d. per ½ cwt. is allowed on vehicles of British manufacture.

Vehicles used by traders for trial purposes are exempt from tax, also ambulances, road making equipment, sanitary and cleansing equipment of local councils, and farmers' or timber cutters' trailers used solely in carting farm produce or timber from forest to mill.

The tax and registration fee (£1) payable annually for a British-made car or light lorry of a type in common use, weighing 25 cwt., is £6 12s. 6d., or if the vehicle is of foreign manufacture, £7 17s. 6d. If registration is effected quarterly the tax for four successive quarters amounts to £1 10s. 11d. or £1 17s. 10d. per quarter according to country of origin, and the registration fee is £1 for the first quarter and 5s. for each subsequent quarter while registration is continuous.

The motor taxes collected during 1937-38 amounted to £1,925,774, of which £42,205 was credited to the Public Vehicles Fund and £1,883,569 to the Main Roads Funds.

*Registration Fees.*—Fees for the registration of motor vehicles are payable when the certificate of registration is issued or renewed. The fees for annual registrations are as follows:—Motor cycle, 2s. 6d.; motor omnibus in the Metropolitan and Newcastle Transport Districts, £2; and other motor vehicles £1. The fee for trader's plates is £2 for motor cycles and £3 for other motor vehicles. For quarterly registration the annual fee is payable in respect of the first quarter and one-fourth of the annual fee for each subsequent quarter while registration is continuous. The annual fee for horse-drawn cabs and vans plying for hire within the Metropolitan and Newcastle Transport Districts is £1.



Registration fees amounting to £327,049 were collected during 1937-38, and paid to the Road Transport and Traffic Fund.

In local governing areas outside the Transport Districts, councils may require the registration of vehicles plying for hire and may impose annual fees not exceeding £1 for vehicles and 5s. for drivers. Vehicles used to convey passengers in the unincorporated portion of the Western Division must be licensed under the Stage Carriages Act, for which an annual fee of 5s. may be charged. These fees are not included in the amount stated above.

*Drivers' Licenses.*—The annual fee for a license to drive a motor vehicle is 10s., and for a license to ride a motor cycle 5s. For learners' permits, current for one month, the fee is 5s. Within the Transport Districts conductors of motor omnibuses and drivers of registered horse-drawn vehicles must be licensed, the annual fees being 10s. and 5s. respectively. Drivers' license fees collected in 1937-38 and paid to the Road Transport and Traffic Fund amounted to £223,342.

*Miscellaneous Fees and Charges.*—Small fees are charged in respect of the transfer and cancellation of registration, replacement of lost and damaged number plates, certificates, etc. These fees, amounting to £22,597 in 1937-38, were paid to the Road Transport and Traffic Fund.

*Service License Fees* are chargeable under the Transport Act, 1930, in respect of motor omnibuses operating in the transport districts, as described on page 158. Collections amounting to £11,340 in 1937-38 were paid to the Public Vehicles Fund.

*Fees and Charges under State Transport (Co-ordination) Act.*—Provisions of this Act governing the licensing of vehicles engaged in the carriage of passengers and goods are outlined briefly on page 159. The license fees vary from 2s. 6d. to 5s. 6d. in respect of vehicles, and agents of persons operating road transport services are charged an annual license fee of £1. The fees collected in 1937-38 amounted to £24,731.

Charges imposed in respect of passengers and goods, for which the maximum rates are stated on page 159, amounted to £50,055 in 1937-38, viz., £13,677 for passengers and £36,878 for goods. Other receipts consisted of permits (at 1s. each) for the carriage of passengers and goods otherwise than in accordance with the terms of licenses £1,477, and penalties, etc., £504.

All collections under this Act are paid to the State Transport (Co-ordination) Fund.

The total receipts from taxes, fees and charges during the past eleven years are summarised in the following table:—

TABLE 124.—Motor Taxes, Fees, etc.—Receipts, 1928 to 1938.

Year ended 30th June.	Tax.	Fees for Registration of Vehicles and Licensing of Drivers.	Additional fees, etc., in respect of Commercial Motor Vehicles.			Miscellaneous Collections— Exchange, Search Fees, etc.	Total Collections.
			License Fees.	Charges for Pas- sengers and Goods.	Other.		
	£	£	£	£	£	£	£
1928	1,130,280	348,706	...	...	...	2,344	1,481,330
1929	1,310,565	399,888	...	...	...	2,903	1,713,356
1930	1,388,771	418,605	...	...	...	3,191	1,810,567
1931	1,258,641	383,639	27,689	...	...	2,424	1,672,393
1932	1,188,984	362,861	27,877	36,600	1,014	3,421	1,620,757
1933	1,193,224	378,190	15,845	20,896	1,014	3,977	1,613,146
1934	1,301,109	420,861	24,726	24,133	814	4,595	1,776,238
1935	1,433,232	445,939	26,538	28,957	1,086	4,850	1,940,602
1936	1,596,227	484,513	30,350	52,952	1,333	5,012	2,170,387
1937	1,750,886	525,815	33,377	42,977	1,496	4,006	2,358,557
1938	1,925,774	572,988	36,071	50,555	1,575	3,951	2,590,914

## DISBURSEMENT OF MOTOR TAXES, FEES, ETC.

Prior to 1st July, 1924, motor taxes, fees, etc., were paid to, and expenditure for road work, traffic administration and other kindred purposes was paid from the Consolidated Revenue Fund. As from 1st July, 1924, motor revenue was specially allocated to road and traffic purposes, 90 per cent. being payable to the newly constituted Main Roads Funds and 10 per cent. to Consolidated Revenue Fund to recoup costs of traffic administration incurred by the police. This procedure was followed until 30th June, 1929, except in 1926-27, when the amount payable to the Main Roads funds was limited to £564,834, and a sum of £479,323 was paid to the Consolidated Revenue Fund in addition to the 10 per cent. for police services. Since the commencement of the Transport Act, 1930, motor revenue has been allocated to special funds as described on page 161. The recoup to the Consolidated Revenue Fund was reduced by this Act from 10 per cent. of total motor revenue to 5 per cent. of motor taxes other than taxes payable to the Public Vehicles Fund, and the charge was abolished at the end of December, 1935.

As a special emergency measure in the period of financial stringency £200,000 was transferred from the funds of the Department of Main Roads to Consolidated Revenue Fund during 1932-33.

The proceeds of motor taxes, fees, etc., paid into the special funds, are disbursed in meeting the cost of administration and for other purposes relating to transport.

The Road Transport and Traffic Fund meets half the cost of maintaining street surfaces used for tram tracks; the cost of police services in regulating traffic, registering vehicles and licensing drivers; and the costs of providing traffic facilities and of administering the Department of Road Transport and Tramways (apart from its transport services). Any credit balance at the close of a financial year is payable to the Country Main Roads Fund.

In the Public Vehicles Fund, the taxes and half the service license fees on motor omnibuses, together with a proportion of the tax on tourist motor vehicles, are paid to the Department of Main Roads and local councils for the maintenance of routes traversed by such vehicles. One-half of the omnibus service license fees is applied to the reduction of the capital indebtedness of the Department of Road Transport and Tramways and the balance of taxes on vehicles may be utilised in acquiring land for departmental purposes and in providing traffic facilities.

The State Transport (Co-ordination) Fund is used to defray the costs of administering the State Transport (Co-ordination) Act; and with the Minister's approval it may be used to subsidise motor services which act as feeders to the railways and tramways, or to make payments to the railways and tramways.

The manner in which motor taxes and other funds at the disposal of the Department of Main Roads may be expended is described on page 114.

The following summary shows the purposes on which revenue derived from road transport vehicles has been expended during the past seven years:—

TABLE 125.—Expenditure from Motor Taxes, Fees, etc., 1932 to 1938.

Year ended 30th June.	Paid to Road Making Authorities.	Provision of Traffic Facilities.	Administration of Traffic and Road Transport (including Police Regulation).	Paid to Railway and Tramway Funds.	Paid to Consolidated Revenue.	Total.
	£	£	£	£	£	£
1932 ... ..	1,230,350	2,605	304,304	13,844	...	1,551,103
1933 ... ..	1,065,544	3,780	319,620	42,790	200,000	1,631,734
1934 ... ..	1,412,697	1,656	304,009	14,822	...	1,733,184
1935 ... ..	1,508,665	4,635	376,505	31,169	...	1,920,974
1936 ... ..	1,717,113	18,224	343,867	26,889	...	2,106,093
1937 ... ..	1,914,983	7,134	355,915	67,907	...	2,345,939
1938 ... ..	1,923,034	21,954	569,272	52,132	...	2,566,392

At 30th June, 1938, a credit balance of £212,923 was held in the Public Vehicles Fund and £55,414 in the State Transport (Co-ordination) Fund. These amounts represent revenue collections not yet expended.

#### MOTOR OMNIBUS SERVICES.

Motor omnibus services in the Metropolitan and Newcastle Transport Districts are subject to the provisions of the Transport Act, 1930, and the services in all districts to the State Transport (Co-ordination) Act, 1931. The powers exercised by the Commissioner for Road Transport and Tramways in terms of these Acts, *e.g.*, to license services and vehicles, determine conditions and standards of service, and impose charges and fees are stated on page 158.

Particulars of motor omnibus traffic in the metropolitan district were collected for the first time in 1928-29 and in the Newcastle district in 1930-31. These are shown in tables 126 and 127 in respect of Government and privately owned services. Rapid growth of traffic prior to 1928-29 is indicated by an increase in the number of registered motor omnibuses in the Metropolitan district, *viz.*, from 180 in 1921 to 612 in 1929. Particulars showing the extent of omnibus traffic in country areas are not collected.

## GOVERNMENT MOTOR OMNIBUS SERVICES.

The Government services are operated by the Commissioner for Road Transport and Tramways. The first service was commenced in the Metropolitan Transport District on 25th December, 1932. A service was commenced in Newcastle on 22nd September, 1932, but it was operated in conjunction with the tramways until 30th June, 1936, and separate records were not kept until 1936-37. The growth of the Government services is shown in the following table. Particulars of the trolley bus services, administered in conjunction with the tramways are not included:—

TABLE 126.—Government Motor Omnibus Services, 1933 to 1938.

Year ended 30th June.	No. of Services. †	No. of Omni- buses in Service. †	Bus Miles Run.	Passengers Carried.	Capital Indebted- ness. †	Revenue.	Expenditure.	
							Working Expenses, Interest and Sinking Fund.	Deprecia- tion.
Metropolitan Transport District.								
			000	000	£	£	£	£
1933*	16	66	835	2,625	60,000	50,865	44,366	4,985
1934	22	93	3,353	14,707	56,801	227,113	190,080	31,928
1935	24	101	4,224	19,629	71,543	295,924	†242,544	39,386
1936	25	126	5,111	23,783	72,436	369,166	†295,433	44,234
1937	38	201	6,755	32,221	173,596	482,331	360,850	87,080
1938	50	263	9,967	50,096	298,141	708,898	571,898	119,974
Newcastle Transport District.								
			000	000	£	£	£	£
1937	8	24	435	1,315	24,835	22,167	26,409	5,090
1938	8	23	983	2,557	23,912	56,458	53,859	12,090

\* From 25th December, 1932.

† As at 30th June.

‡ As adjusted by deduction of excess interest charges.

The length of omnibus routes at 30th June, 1938, was 448 miles, consisting of 366½ miles in the Metropolitan district and 81½ miles in the Newcastle district. During 1937-38, the length of the metropolitan routes was increased by 99½ miles.

The metropolitan services have returned a profit in each year after paying interest, exchange and sinking fund charges on capital debt owing to the Treasury. The profit realised in 1937-38 was £17,026 as compared with £34,401 in 1936-37. Losses amounting to £9,332 in 1936-37 and to £9,491 in 1937-38, were incurred on the Newcastle services. The aggregate net profit for both services combined up to 30th June, 1938, amounted to £82,714.

The expenditure of the metropolitan services in 1937-38 included service license fees £8,270, interest £8,582, exchange £1,094, sinking fund £582 and an amount of £8,289 written off the capitalised payments to private owners in excess of the value of plant taken over by the Commissioner. Corresponding items for Newcastle services were £268, £1,012, £132, £91 and £3,281 respectively.

Capital for the commencement of the services was provided from loan funds by the Treasury. Funds for subsequent expansion were obtained partly from similar loans and partly from revenue set aside to provide for depreciation, and accumulated profits. At 30th June, 1938, the capital

outlay of the combined services on assets and equipment in use amounted to £700,059, and a balance of £5,078 remained as a charge to capital account in respect of payments, in excess of valuations, for assets taken over from private operators. Funds available to meet the total capital outlay, £705,137, and to provide working capital amounted to £716,373, consisting of loan capital obtained from the Treasury £322,053, depreciation moneys £302,112 and accumulated profits £82,714.

#### PRIVATE MOTOR OMNIBUS SERVICES.

Motor omnibus services were the province of private operators until the inauguration of the first Government service on 25th December, 1932. The rapid growth of this form of transport in unregulated competition with State-owned tramways and railways led to a revision of the transport laws in 1930 and 1931, and the activities of private omnibus proprietors were considerably curtailed by the elimination of overlapping services.

Particulars of the private motor omnibus services in the Metropolitan and Newcastle districts are shown in the following table:—

TABLE 127.—Private Motor Omnibus Services, Metropolitan and Newcastle.

Year ended 30th June.	No. of Services. *	No. of Omni- buses in Service. *	Bus Miles Run.	Passengers Carried.	Book value of Plant. *	Revenue.	Expenditure.
Metropolitan Transport District.							
			000	000	£	£	£
1929 ...	†	†	16,912	89,845	568,727	1,446,876	1,293,437
1930 ...	†	492	19,928	94,482	618,035	1,540,455	1,398,120
1931 ...	219	483	19,548	92,125	486,797	1,357,505	1,352,649
1932 ...	101	252	11,013	43,545	211,447	624,102	668,117
1933 ...	147	235	8,061	29,005	151,573	368,636	387,962
1934 ...	140	260	7,640	24,369	135,422	313,113	308,752
1935 ...	144	274	7,651	25,467	113,711	313,069	305,746
1936 ...	146	284	8,011	27,494	130,673	333,862	325,073
1937 ...	133	256	7,853	27,118	117,933	336,380	318,545
1938 ...	134	200	7,115	25,609	150,956	335,469	311,497
Newcastle Transport District.							
			000	000	£	£	£
1931 ...	64	83	3,113	8,248	76,448	140,110	139,914
1932 ...	37	46	1,916	3,759	35,984	68,270	78,225
1933 ...	35	45	1,391	2,580	23,575	48,928	53,350
1934 ...	35	46	1,345	2,671	20,065	49,537	48,323
1935 ...	35	49	1,419	2,877	22,292	52,107	50,372
1936 ...	34	49	1,524	3,276	32,168	59,871	56,828
1937 ...	24	28	1,338	2,810	14,161	51,393	47,321
1938 ...	23	31	978	2,216	22,087	38,962	34,134

\* As at 30th June. † Not available.

#### TRAFFIC ACCIDENTS.

The statistics of traffic accidents in New South Wales are based upon reports made by the police and supplementary information which in recent years has been gleaned from evidence given at Coroners' inquiries and other sources. Many accidents of a less serious nature are not reported. The information available up to the year 1933-34 is restricted to traffic accidents reported in the Metropolitan district and motor accidents in other parts of the State. The figures for various years between 1911 and 1931

are shown below. Though incomplete they indicate that there was a very rapid increase in the number of accidents between 1921 and 1929, and a decline during the early years of the depression.

TABLE 128.—Traffic Accidents, 1911 to 1931.

Year.	Metropolitan Traffic District.					Balance of State—Motor Accidents only.		
	Accidents Reported.	Casualties.				Accidents Reported.	Persons.	
		Motor Accidents.		All Traffic Accidents.			Killed.	Injured.
		Killed.	Injured.	Killed.	Injured.			
1911 ...	No. 2,203	No. 5	No. 130	No. 28	No. 1,212	No. *	No. *	No. *
1916 ...	2,081	10	338	36	1,166	*	*	*
1921 ...	2,877	36	792	62	1,616	105	22	90
1926 ...	11,691	144	3,660	187	4,861	1,339	114	920
1929 ...	17,359	239	6,243	272	7,299	2,689	176	1,687
1931 ...	11,470	184	4,492	210	5,371	1,734	106	1,133

\* Particulars not available.

An analysis of the traffic accidents reported in each year since 1933-34 has been made by the Commissioner for Road Transport and Tramways and from this the information shown in the following tables has been obtained. The number of accidents reported in the last five years, and the casualties resulting therefrom, are shown below:—

TABLE 129.—Traffic Accidents 1934 to 1938.

Year ended 30th June.	Accidents reported.	Casualties in each Area.							
		Country of Cumberland.		Newcastle Transport District.		Balance of State.		Total, N.S.W.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1934 ...	No. 7,281	No. 205	No. 4,356	No. 22	No. 263	No. 92	No. 889	No. 319	No. 5,508
1935 ...	8,786	242	5,064	28	281	138	1,141	408	6,486
1936 ...	9,833	292	4,848	30	250	203	1,342	525	6,440
1937 ...	11,460	304	5,614	27	320	216	1,750	547	7,684
1938 ...	12,575	315	6,080	29	382	256	2,153	600	8,615

Accidents and deaths have increased in each of the past five years; also the number of persons injured, except in 1935-36. Casualties are most numerous in the more densely populated parts of the county of Cumberland but the greatest relative increase has occurred in outlying areas.

Casualties have increased at a faster rate than the number of vehicles on the register, although the number of deaths per 1,000 vehicles was

slightly lower in the last two years than in 1935-36. Particulars regarding the number of persons killed and injured in relation to the number of vehicles registered and the population are shown in the following table:—

TABLE 130.—Traffic Casualties, Ratio to Vehicles Registered and to Population.

Year ended 30th June.	Per 1,000 Vehicles Registered.		Per 10,000 Population.	
	Killed.	Injured.	Killed.	Injured.
1934 ... ..	1.41	24.4	1.22	23.49
1935 ... ..	1.68	26.9	1.53	24.60
1936 ... ..	2.07	25.0	1.98	24.27
1937 ... ..	2.00	28.2	2.02	28.64
1938 ... ..	2.00	29.3	2.21	31.80

The foregoing ratios are based upon the number of vehicles registered and no account is taken of the mileage travelled by vehicles. A rate based on the volume of traffic would provide a more accurate measure of the risk but the data are not available.

Occupants of vehicles outnumber other persons killed and injured in traffic accidents, though pedestrians represent nearly one-third of the fatal cases and the number of pedal cyclists is relatively high. The number of persons affected, classified into these three groups, are shown below:—

TABLE 131.—Traffic Accidents, Classification of Persons Killed and Injured.

Year ended 30th June.	Drivers and Passengers.		Pedal Cyclists.		Pedestrians.		Proportion of Pedestrians to Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
	No.	No.	No.	No.	No.	No.	Per cent.	Per cent.
1934 ... ..	154	2,949	44	578	121	1,981	37.9	35.9
1935 ... ..	211	3,559	36	673	161	2,254	39.5	34.7
1936 ... ..	291	3,568	69	964	165	1,908	31.4	29.6
1937 ... ..	299	4,300	71	1,176	177	2,208	32.4	28.7
1938 ... ..	335	4,998	74	1,292	191	2,325	31.8	26.9

The proportion of deaths in each of these classes to total deaths in the traffic accidents during the past five years was as follows:—Drivers and passengers 53.8 per cent.; pedestrians 34 per cent.; pedal cyclists 12.2 per cent. Of the persons injured the proportions in these groups were 55.8 per cent.; 30.7 per cent.; and 13.5 per cent, respectively.

A distribution of the accidents according to the class of vehicles or persons involved in the accidents or responsible for them indicates that pedestrians were responsible for nearly 16 per cent. of the accidents during the last three years, and the casualties which ensued represented 23 per cent. of the total number of persons killed and a similar proportion of those injured. Corresponding details regarding pedal cyclists were 9.3 per cent.

of the accidents and about 12 per cent. of the casualties. The following table shows details relating to accidents in the year 1937-38:—

TABLE 132.—Traffic Accidents, Vehicles, Persons and Animals, Involved, etc., 1937-38.

Class of Vehicle, etc.	Accidents in which involved.	Accidents for which responsible.		Casualties for which responsible.			
		Number.	Pro-portion.	Killed.		Injured.	
				Persons.	Pro-portion.	Persons.	Pro-portion.
	No.		Per cent.	No.	Per cent.	No.	Per cent.
Car ... ..	8,087	4,810	38.3	163	27.2	3,064	35.6
Lorry and Van ... ..	3,216	1,787	14.2	77	12.8	870	10.1
Motor-cycle, solo ... ..	894	521	4.1	54	9.0	424	4.9
"  "  pillion ... ..	293	222	1.8	29	4.8	362	4.2
"  "  side-car ... ..	318	192	1.5	19	3.2	182	2.1
Taxi ... ..	2,127	884	7.0	4	0.7	139	1.6
Omnibus... ..	399	109	0.9	...	...	20	0.2
Pedal Cycle ... ..	1,660	1,143	9.1	70	11.7	1,023	11.9
Tram, Trolley Bus ... ..	1,249	287	2.3	1	0.2	102	1.2
Horse Vehicle ... ..	283	132	1.0	8	1.3	68	0.8
Horse ... ..	38	25	0.2	7	1.1	15	0.2
Pedestrian ... ..	2,361	1,923	15.3	125	20.8	1,902	22.1
Billycart, Scooter, etc. ... ..	43	40	0.3	3	0.5	35	0.4
Tram Passenger ... ..	346	301	2.4	16	2.7	290	3.4
Motor " ... ..	78	80	0.6	18	3.0	63	0.7
Other " ... ..	6	6	0.1	...	...	6	0.1
Animals, other than							
Horses... ..	91	87	0.7	3	0.5	31	0.3
Trailer ... ..	34	10	0.1	1	0.2	3	...
Other ... ..	29	16	0.1	2	0.3	16	0.2
<b>Total ... ..</b>	<b>...</b>	<b>12,575</b>	<b>100.0</b>	<b>600</b>	<b>100.0</b>	<b>8,615</b>	<b>100.0</b>

In proportion to the number of motor vehicles on the register, motor cycles are responsible for more casualties than either cars or lorries. The ratio for taxi-cabs also is high but this may be attributed partly to relatively greater mileage traversed by taxi-cabs and the fact that they are driven for the most part in the areas where the traffic is dense.

The number of persons killed and injured in relation to the various classes of motor vehicles responsible for the accidents in 1937-38 was as follows:—

TABLE 133.—Traffic Casualties, Ratio According to Kind of Motor Vehicle Responsible, 1937-38.

Motor Vehicles responsible for Accidents.	Per 1,000 Vehicles Registered.	
	Killed.	Injured.
Cars ... ..	0.8	15.6
Lorries ... ..	1.0	11.7
Motor cycle—Solo and pillion ... ..	4.9	32.4
Motor cycle—Side car ... ..	2.7	26.0
Taxi-cabs ... ..	3.4	117.2
Omnibus ... ..	...	30.6



## SOCIAL CONDITION.

THE social condition of the people of New South Wales is favoured by an equable climate with abundant sunshine and adequate rainfall for the development of varied natural resources from which a plentiful supply of food and other necessaries of life are derived. Wages, hours of labour, and other working conditions in most industries are regulated with the object of preserving the health of the workers and of enabling even the lowest paid adult male employee to maintain a family according to a reasonable standard of living. Family allowances are paid for the benefit of dependent children in families with small incomes, and pensions for the aged and infirm, and special provision is made for the welfare of the unemployed and other persons in need of assistance.

The system of government is based on a broad franchise which embraces every adult citizen. The legal system is based on principles which give equal status to all citizens. The land laws are designed to promote healthy rural settlement. The railways, being owned by the State, are used for national purposes, and the federal tariff laws aim at the extension of local industries without encroachment upon existing standards of industrial employment. Legal restrictions have been placed upon gambling, and upon the manufacture and sale of intoxicating liquors and deleterious drugs, in order to minimise the social evils attendant upon poverty and drunkenness. Education is free at both primary and secondary public schools.

The mildness of the climate enables the people to engage in outdoor recreation at all times of the year. Measures for the prevention of sickness and the encouragement of hygienic conditions of life find their reflex in low death rates and in the decreasing incidence of preventable diseases.

### PUBLIC HEALTH AND RELIEF SERVICES.

The principal State services in relation to public health in New South Wales are organised as the Department of Public Health under the control of a Minister of the Crown. The department includes two branches, one directed by the Board of Health and the other by the Director-General of Public Health. Their functions, though distinct, are closely co-ordinated, and the Director-General, who is a medical practitioner and a permanent salaried officer of the Government, is *ex officio* President of the Board of Health. The Board consists of ten members, including five legally qualified medical practitioners, all being nominated by the Government. It is the executive and administrative authority in connection with the health laws. It acts in an advisory capacity towards the Minister for Public Health and the Government, and exercises general supervision in regard to public health matters. The Director-General of Public Health controls the State medical services and the State institutions for the treatment of the sick and infirm, and microbiological laboratories in Sydney and Broken Hill.

The executive personnel of the Department of Public Health includes medical officers and sanitary inspectors. The former are appointed by the Government, and are permanent salaried officers, who devote the whole of their time to matters relating to public health.

Medical officers exercise constant supervision in the metropolitan area, in the Hunter River district, which includes Newcastle, and in Broken Hill; and they visit other localities when required. In every town a local medical practitioner is appointed as a Government medical officer for the purpose of attending to Government medical work, *e.g.*, inquests, sickness in gaols, etc.

In the Department of Public Health the principal activities are organised in special divisions, *e.g.*, industrial hygiene, maternal and baby welfare, tuberculosis, laboratories, sanitation, and pure food, each in charge of a specially-qualified officer. The medical officers of the Department act also as medical referees in regard to claims for workers compensation.

The Hospitals Commission, under the presidency of the Minister for Public Health, supervises public hospitals; and there is a school medical service in the Department of Education.

The most important legislative enactments relating to public health are the Public Health Act, dealing with public health and sanitation; Acts relating to dairies supervision, noxious trades, diseased animals and meat, pure food, and to hospitals; and provisions of the Local Government Act which specify the powers and duties of the municipal and shire councils for safeguarding health in the incorporated areas. The authorities are empowered to take steps to prevent the spread of infectious diseases, to regulate the erection of dwellings, and to order the demolition or improvement of insanitary buildings, to prohibit the manufacture or distribution of unwholesome or adulterated foods and drugs, (with special powers in relation to milk and meat) to regulate the conduct of noxious trades, to deal with nuisances, etc. Control of sanitation by means of by-laws and regulations is the method adopted generally, as being readily adaptable to the varying conditions of a widely-scattered community.

Executive duties in relation to public health devolve primarily upon the local authorities, who carry out the functions under supervision of the Board of Health as the central controlling authority. Within municipalities the duties are undertaken by the local councils, and outside municipal areas they are performed either by the shire councils or by persons or bodies specially appointed for the purpose.

In addition to the organisation under the control of the State Government there is a Federal Department of Public Health, which discharges important functions in regard to quarantine, industrial hygiene, etc., and conducts research relating to causes of diseases and of deaths, and to methods of prevention and cure.

The National Health and Medical Research Council advises the Commonwealth and State Governments on health questions generally and devises measures for co-operation and for promoting uniformity in legislation and administration. The membership includes the principal health officers of each State, with the Federal Director-General of Health as chairman.

The services of the State Government, concerned with family allowances, widows' pensions, social aid for unemployed persons and their dependants, and other forms of charitable relief, are under the control of the Minister for Social Services, with a permanent officer of the Public Service as Director of Government Relief. A central bureau has been established with the object of co-ordinating charitable relief by State or private organisations in order to prevent fraud and duplication.

The Child Welfare Department is administered by the Minister for Education.

The Commonwealth Government provides old age pensions, invalid pensions and maternity allowances and Federal legislation has been enacted for a system of national insurance.

#### GOVERNMENT EXPENDITURE ON PUBLIC HEALTH AND CHARITABLE RELIEF.

The expenditure from public revenues on eleemosynary objects in New South Wales, including expenditure by the Commonwealth, amounted to £14,905,321, or £5 10s. 0d. per head of population in 1937-38. In addition,

large sums were expended from loans on works for the relief of unemployment and on buildings such as hospitals. A comparative statement of the principal items of expenditure from revenue during 1931-32 and the last four years is shown below. The amounts shown as State expenditure represent disbursements from the Consolidated Revenue Fund, and, in 1931-32, payments from the Unemployment Relief and Family Endowment Funds, since merged into the Consolidated Revenue Fund.

TABLE 134.—Government Expenditure on Public Health and Charitable Relief, 1932 to 1938.

Expenditure from Revenue on—	1931-32.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
<b>Public Health—</b>					
Government hospitals; subsidies to hospitals, etc. ....	727,638	826,113	894,841	1,027,402	1,153,918
Mental hospitals and like institutions	594,737	616,711	666,129	696,935	768,211
Baby health centres, maternity homes, etc. ....	47,594	50,734	55,172	59,694	74,330
Inspection of food, dairies, etc. ....	17,756	14,189	15,452	15,830	16,955
Medical examination of school children	20,939	20,727	22,240	24,619	28,447
Administration, medical services, etc. ....	124,635	121,275	131,296	139,226	163,344
Other ....	9,614	8,134	10,894	4,708	1,092
Total ... ..	1,542,913	1,652,883	1,795,024	1,968,414	2,206,297
<b>Social amelioration—</b>					
Relief of destitute, blind, aged, etc. ....	832,623	352,972	362,439	390,101	390,364
Maintenance of deserted wives, widows and children ... ..	502,674	315,050	306,832	298,295	305,608
Widows' pensions ... ..	645,457	532,416	558,431	539,623	601,511
Care of aboriginals ... ..	47,885	48,301	50,610	50,787	53,773
Unemployment Relief ... ..	766,613	83,000	902,015	1,051,303	1,824,988
Food relief ... ..	5,070,732	1,076,679	980,760	1,114,950	1,263,001
Family allowances ... ..	1,805,685	1,898,315	1,804,393	1,595,183	1,469,932
Administration ... ..	323,876*	223,883	221,400	213,105	239,864
Homes for unemployed ... ..	...	...	...	...	25,000
Other ... ..	67,245	61,821	56,410	53,243	53,920
Total ... ..	9,568,790	4,593,328	5,243,290	5,306,685	6,228,861
Grand Total (State) ... ..	11,111,763	6,246,211	7,038,314	7,275,099	8,435,158
<b>Commonwealth—</b>					
Old age and invalid pensions ... ..	4,276,522	4,709,580	5,132,722	5,684,963	6,315,550
Maternity allowances ... ..	149,870	130,886	133,055	145,495	154,613
Total (Commonwealth) ... ..	4,426,392	4,840,466	5,265,777	5,830,458	6,470,163
Grand Total— (State and Commonwealth) ... ..	15,538,095	11,086,677	12,304,091	13,105,557	14,905,321
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<b>Expenditure per head of population—</b>					
By State ... ..	4 5 7	2 7 5	2 13 0	2 14 3	3 2 3
By Commonwealth ... ..	1 14 6	1 16 9	1 19 8	2 3 6	2 7 9
Total ... ..	6 0 1	4 4 2	4 12 8	4 17 9	5 10 0

\* Includes interest on Treasury advances to Family Endowment Fund.

There has been a steady increase in State expenditure on hospitals and other health services and in Commonwealth expenditure on pensions. Fluctuations in State expenditure from revenue on social amelioration are due mainly to changes of policy in regard to apportioning Unemployment Relief Works expenditure as between revenue and loans. State loan expenditure on unemployment relief works was nil in 1931-32; £6,993,427 in 1934-35; £5,423,827 in 1935-36; £3,252,458 in 1936-37 and £2,815,386 in 1937-38. Particulars of the aggregate expenditure on relief works—from revenue and loans—are shown in the Chapter Employment of this volume.

The steady increase in the cost of pensions and maternity allowances paid by the Commonwealth during the last four years, was due mainly to higher rates paid to those who benefit thereby.

## SOCIAL AID SERVICE.

As a means of preventing and relieving distress arising from poverty or unemployment the Government of New South Wales established (towards the end of 1937) a Social Aid Service, with the aim not only of relieving the persons concerned, but, as far as practicable, of improving their health and living conditions and their fitness for employment.

This social aid system is a development from the food relief system, which in turn had developed from an arrangement whereby charitable societies, such as the Benevolent Society of New South Wales, in co-operation with the State Government, distributed relief to necessitous persons. When the onset of depression brought about a rapid increase in unemployment the existing charitable organisations were unable to provide for all in need of assistance, and the Government gradually took over the function of providing sustenance.

In the metropolitan district and the industrial areas of Newcastle, the northern coalfields and Wollongong, depots were opened for the issue of food relief in co-operation with the State labour exchanges, with definite rules in respect of eligibility and scales of relief. In the country districts food relief has always been administered by the police, and they exercise a measure of discretion to determine eligibility in the light of personal knowledge of the applicants.

Under the social aid system instituted in 1937 the former food relief depots in the metropolis, Newcastle and the northern and southern coalfields were converted into social service bureaux (operated in conjunction with employment bureaux). Welfare officers were appointed to supervise social aid in the various districts with the assistance of departmental medical officers and welfare nurses. At the same time there was instituted for families in receipt of social aid a service of medical attention and medicine (on a basis similar to that provided by friendly societies), the cost being met by the Government.

Ordinary food relief is issued on a uniform scale graduated according to the size of the family to be maintained, and in determining eligibility the family income is taken into consideration. Supplementary special foods (milk, eggs and green vegetables) are provided in respect of persons certified as being in need of them, also special diets for indigent invalids or sick persons. In 1937 arrangements were made to supplement the food orders by a pint of milk per day for mothers (before and after child birth) and for children under seven years of age in families receiving social aid, and to extend eligibility for aid by excluding from the family income a considerable proportion of the earnings of the various members of the family. Moreover, it was provided that persons for whom special foods are issued must be examined by the departmental medical officers and/or welfare nurses with a view to arranging where possible for appropriate medical, dental or other remedial treatment of physical disabilities. It was provided also that the issue of clothing and boots (formerly made at irregular intervals) should be made twice a year to persons in receipt of social aid or part-time relief work. Cases of special distress are partly relieved by cash payments.

Measures taken in regard to Homes for Unemployed Trust are described later in this chapter, and unemployment relief works and the State Employment Exchanges are described in the chapter dealing with employment in this volume.

*Eligibility for Social Aid.*

The general conditions precedent to the issue of social aid are (1) the applicant must have been unemployed for at least 14 days; (2) he must have been registered at a State labour exchange for at least 7 days; and (3) he must sign a declaration that his income during the fortnight preceding application did not exceed a certain limit—known as permissive income—which varies according to the number of his dependants. The condition as to registration for employment does not apply where the applicant is aged or incapacitated, or an invalid, or a woman responsible for the care of invalids or young children.

The recipient of social aid selects from approved traders the suppliers from whom he wishes to obtain his requirements, and indicates the proportion of the total value of his food order which he wishes to be allocated to the various traders—grocer, butcher, baker and milk-vendor. Orders to supply food to a specified value are issued direct to the suppliers. The recipient also selects a doctor and chemist from approved lists. Clothing and boots as selected by the recipient from standardised lists are obtained and distributed by officers of the Social Service Bureau.

In assessing the permissive income, the income of all members of the family, except old-age and invalid pensioners, is taken into consideration, and the following items are included: Earnings (except where exempt as shown below), gifts of money, family allowances, Government charitable allowances (except where paid away in rent), rents from property, 25 per cent. of amounts paid by boarders, military and war widows' pensions in excess of 15s. per fortnight, other pensions and similar payments (excluding old-age and invalid pensions and maternity allowances). Earnings of each son, daughter, brother or sister in the household of a recipient of food relief are exempt up to 60s. per fortnight if adult or 40s. if under 21 years of age. Appropriate exemption is allowed also in respect of earnings by the head of the household.

Old-age and invalid pensioners in the household are disregarded in the determination of the permissive income limit and the scale of food relief. Children under twelve months are excluded in regard to the relief scale. Relief on the same scale as for single adults is issued for juveniles from the age of 15 years, also for children aged 14 years for whom family endowment, or widows' pension, or similar allowance, is not paid.

*Scales of Food Relief.*

The scales of permissive income and the value of food orders (exclusive of special foods) are shown below:—

TABLE 135.—Scales of Food Relief and Permissible Income.

Family Unit.	Limit of Income per Fortnight. (a)	Value of Food Relief per Fortnight.	Family Unit.	Limit of Income per Fortnight. (a)	Value of Food Relief per Fortnight.
Single man or woman ...	s. 25	s. d. 15 0	Married couple, 3 children ...	s. 65	s. d. 45 0
Married couple ...	40	28 0	" " 4 children ...	70	51 0
" " 1 child ...	50	38 0	" " 5 children ...	75	57 0
" " 2 children ...	60	39 0	Each additional child ...	10	0 0

(a) Excluding income mentioned above.

In Broken Hill, Silvertown and certain other western towns the scales of food relief are higher than those shown in the foregoing table.

*Recipients of Food Relief.*

The following statement shows the number of recipients and their dependants for whom food relief was issued in June of each of the last six years and in December, 1938; also, for the purpose of comparison, the number of men engaged in part-time employment on relief work at these dates:—

TABLE 136.—Recipients of Food Relief and Relief Workers, 1933 to 1938.

Particulars.	June, 1933.	June, 1934.	June, 1935.	June, 1936.	June, 1937.	June, 1938.	December, 1938.
Food Relief—							
Recipients ...	83,151	28,759	25,531	24,988	30,135	33,694	31,477
Recipients and de- pendants ...	192,777	62,341	54,802	58,680	71,615	82,343	74,585
Relief Workers—							
Part-time... ..	34,229	75,648	72,373	55,770	24,976	19,198	20,068

The decline in the number of persons in receipt of food relief in the twelve months ended June, 1934, was due partly to a general improvement in employment but mainly to the transfer of a large number of men to part-time employment under a scheme known as emergency relief work, which is described in the chapter "Employment" of this Year Book. Between June, 1934, and June 1936, the number of recipients of food relief declined by nearly 3,700, and the part-time relief workers by nearly 20,000.

During 1936-37 the aggregate number of part-time relief workers and food relief recipients declined by 25,600. The decrease in relief workers was 30,800 but the transfer of some of these to food relief caused an increase in recipients. There was a further reduction of 5,800 in the number of relief workers during 1937-38 and another increase in respect of food relief but this was due to some extent to the more liberal conditions of eligibility for social aid.

It has been the practice to increase the relief at Christmas time. At Christmas, 1936, a cash payment equivalent to a food order for one week and a half was paid from a grant by the Commonwealth. At the time of the coronation of His Majesty King George VI, and at Christmas, 1937 to 1939 the State Government granted each recipient of food relief a cash payment equivalent to one week's food order.

## TREATMENT OF SICKNESS.

Institutions for the treatment of sickness and disease are numerous throughout the State. There are private hospitals which are owned by private persons and conducted as business enterprises; public hospitals which are maintained by the State, or by the people resident in the districts in which the hospitals are located, with the assistance of subsidy from the public funds, or by charitable organisations; special hospitals, State and private, for the treatment of mental and nervous ailments; and a State lazaret.

The State exercises a measure of supervision over the practice of professional persons engaged in the treatment of sickness and disease, and medical practitioners, dentists, pharmacists, and optometrists are required to register with a board established for each profession under statutory authority.

The number of registered medical practitioners, dentists, pharmacists and optometrists at the end of various years since 1929 is shown below:—

TABLE 137.—Medical Practitioners, Dentists, Pharmacists and Optometrists on Register, 1929 to 1938.

Year.	Number on Registers at 31st December.			
	Medical Practitioners.	Dentists.	Pharmacists.	Optometrists.
1929	3,124	1,416	1,843	*
1932	3,179	1,415	1,889	645
1935	3,275	1,417	2,004	620
1936	3,332	1,443	2,092	605
1937	3,395	1,471	2,142	603
1938	3,478	1,472	2,228	602

\* Not registered.

There were 355 persons (other than pharmacists) licensed to deal in poisons in 1938; and 7 persons licensed to manufacture opium and other dangerous drugs and 61 licensed to distribute them.

Nurses are required to register in terms of the Nurses Registration Act, 1924, and amendments. Four classes of nurses may be registered, viz., general, mental, midwifery, and infants'. In the case of midwifery nurses, registration must be renewed annually. The number of registrations at 31st December, 1938, was as follows:—General nurses, 10,227, midwifery 6,116, mental 1,124, infants' 88. Information is not available as to the actual number of nurses, as many are registered under more than one classification.

Special free services for maternity cases have been provided by the Department of Public Health since January, 1939, so that the advice of a specialist may be obtained upon the request of the medical practitioner in attendance upon mothers in poor circumstances; and a blood donor service is available when required.

For the treatment of sickness and accident in sparsely populated districts, the Government subsidises medical practitioners with a view to encouraging them to practise in outlying bush settlements. Usually the subsidy is the amount necessary to bring earnings to a certain sum.

Aerial medical services are provided by the Australian Aerial Medical Services at a number of inland centres in Australia including Broken Hill (which is maintained jointly by the New South Wales and South Australian sections of the organisation). A medical practitioner, air pilot and mechanic and a wireless operator are stationed at each centre; and hospital and nursing facilities, an aeroplane and radio equipment are available. The services are subsidised by the Commonwealth and State Governments.

Two organisations, the Bush Nursing Association and the Country Women's Association, make provision for nurses in country localities. A local committee supervises the work of the nurse in each district, pays her expenses and fixes charges for her services, etc. Persons in necessitous circumstances are exempt from the payment of the fees. Both these organisations have arranged for the maintenance of cottage homes in a number of remote localities. The cottages serve as residences for the nurses and as accommodation for patients in cases of emergency.

The District Nursing Association engages nurses to visit the sick, gratuitously if needed, in the metropolitan district.

Ambulance transport services for sick and injured persons are controlled by a board, incorporated in 1919. The board delimits certain districts for administrative purposes, and in each district a committee is elected annually by the contributors to its fund. Ambulance cars of special design are used, and those in the metropolitan district have been fitted with appliances for transmitting and receiving radio messages to and from headquarters in Sydney. The number of cases transported during the year ended June, 1938, was 206,876, and the mileage was 1,869,500.

#### *Private Hospitals.*

A private hospital may not be conducted except under licence in accordance with the Private Hospitals Act of 1908, as amended by the Nurses Registration Act, 1924. The legislation applies to all establishments in which a charge is made for treatment, except those maintained or subsidised by the State or licensed under the Lunacy Act or the Inebriates Act. The licences are issued annually by the Minister for Public Health on the recommendation of the Board of Health, and it is prescribed that every private hospital must be under the direct control of a person approved by the Board. Licensees are required to comply with regulations as to structure, management, and inspection.

At 31st December, 1938, the private hospitals numbered 549, viz., 207 in the metropolitan district and 342 in the country, and the total number of beds available was 5,224. The classification of the hospitals and their accommodation, according to the nature of the cases received, are shown in the following statement:—

TABLE 138.—Private Hospitals—Number and Accommodation, at 31st December, 1938.

District.	Private Hospitals.				Number of Beds.			
	Medical, Surgical, and Lying-in.	Medical and Surgical.	Lying-in.	Total.	Medical, Surgical, and Lying-in.	Medical and Surgical.	Lying-in.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
Sydney ... ..	81	35	91	207	1,723	786	399	2,908
Country ... ..	179	13	150	342	1,543	156	617	2,316
Total ... ..	260	48	241	549	3,266	942	1,016	5,224

In 401 hospitals the accommodation at the end of 1938 did not exceed 10 beds, in 105 there were from 11 to 20 beds, and in 43 hospitals there were more than 20 beds.

#### *Public Hospitals.*

Institutions for the care of the sick are classed as public hospitals, unless they are owned and maintained entirely by private persons. Some are maintained wholly by the State, viz., a convalescent hospital in the metropolitan area, the Sanatorium for Consumptives at Waterfall, the David Berry Hospital at Berry, and the hospitals attached to the asylums for the infirm at Newington, Lidcombe and Liverpool (see page 197). The Prince Henry Hospital, formerly a State institution known as the Coast Hospital, was incorporated under a board of directors in August, 1936, and brought within the purview of the Hospitals Commission.



Some of the public hospitals are under the ægis of religious denominations, and are conducted by religious communities who own the establishments or by committees nominated by subscribers. They are open to persons of all creeds, and the majority of them receive a subsidy from the State.

By the Public Hospitals Act, 1929-1937, provision has been made for a systematic organisation of the public hospital services. The Act is administered by the Hospitals Commission, which is constituted by the Minister for Public Health as chairman and four other members appointed by the Governor. One of the members is vice-chairman, exercising powers and authorities delegated by the chairman. Members other than the chairman and vice-chairman are remunerated by fees.

The public hospitals and organisations which provide district and bush nursing services and aerial medical services, are classified in two main groups, according to the schedules of the Act. One group, termed the "incorporated hospitals," consists entirely of suburban and country hospitals incorporated by the Act. The second group, known as "separate institutions," includes the large general hospitals in or around the metropolis; the hospitals of the Benevolent Society of New South Wales and the Australian Red Cross Society; the hospitals for children, tubercular cases, convalescents, or incurables; the dental hospital; the hospitals conducted by religious organisations; and the Australian Aerial Medical Services (New South Wales section).

Each incorporated hospital is managed by a board consisting of not less than nine nor more than twelve directors. Where the number is nine or ten, four directors are appointed by the Governor on recommendation of the Hospitals Commission; and where the number is eleven or twelve, five are so appointed. The other directors are elected triennially by the subscribers. A person who contributes as member of a contribution scheme or otherwise, except by way of payment for relief, an amount of at least ten shillings is deemed to be a subscriber for the year in which the amount is paid; also persons nominated by firms or associations who contributed to the funds of the hospital, and those nominated by auxiliary associations, the number of nominees being fixed according to the amount contributed by firms, etc., or raised by auxiliaries. Persons who render meritorious service to a hospital or contribute £10 in one sum may become life members.

The Act defines the liability of patients to pay a reasonable sum for the cost of hospital services and such sum is recoverable in the courts of law; though destitute persons may not be refused relief by reason only of inability to pay therefor. If authorised by the Commission, portion of a hospital may be set aside for paying patients, who may contract for private or intermediate accommodation.

It is the duty of the Hospitals Commission to inspect the hospitals which receive or apply for subsidy, to report to the Government as to the amount of State aid required to meet the needs of the hospitals, to determine which hospitals shall be subsidised, and the amount of subsidy to be paid to each institution. Under certain conditions the Commission may exercise special powers to close or amalgamate incorporated hospitals with a view to effective and economical administration, or to authorise the board of a hospital to provide accommodation for the treatment of infectious diseases, or convalescent or incurable cases, or to define the functions and activities of a hospital.

Moneys appropriated by Parliament for the assistance of hospitals are paid into the Hospital Fund administered by the Commission for distribution amongst the hospitals. The amount transferred from the Consolidated

Revenue Fund to the fund in each year since the Public Hospitals Act was brought into operation in November, 1929, is shown below. The transfers since 1931 represent the proceeds of the State lotteries (see page 234).

TABLE 139.—Hospital Fund—Transfers from Consolidated Revenue, 1930 to 1938.

Year ended June.			Amount.	Year ended June.			Amount.
			£				£
1930	...	...	340,500	1935	...	...	606,181
1931	...	...	433,527	1936	...	...	661,809
1932	...	...	520,892	1937	...	...	892,360
1933	...	...	710,000	1938	...	...	1,024,335
1934	...	...	705,238				

The amounts shown in the table do not represent the total Government expenditure on hospitals, being exclusive of the cost of State institutions and of sums granted or advanced to hospitals for buildings or equipment as indicated by the accounts of the hospitals (see Table 141).

In 1937-38 the amount of £987,680 was distributed in 182 institutions, viz., £547,042 to 36 metropolitan institutions and £340,638 to 146 in the country districts. The largest subsidies to metropolitan hospitals were Prince Henry £104,408, Royal Prince Alfred £115,159, Sydney £101,540, Royal North Shore £54,905, Royal Alexandra for Children £49,000. St. George District Hospital received £25,754; the Benevolent Society of New South Wales was allotted £24,000 for three institutions, and subsidies were granted to the Women's Hospital, Crown-street, £18,500, the Royal South Sydney £11,000, and Balmain £14,003. Subsidies to institutions outside the metropolitan area included £38,151 to Newcastle, £19,839 to Broken Hill, £12,206 to Cessnock, £11,000 to Maitland, between £7,400 and £7,900 to Lismore, Lithgow, Goulburn, Kurri Kurri and Orange, and between £6,500 and £7,000 to Dubbo, Wagga, Wallsend and Wollongong. The hospitals conducted by religious organisations were subsidised to the extent of £66,750, viz., £53,700 to six institutions in the metropolitan district and £13,050 to eight in the country.

Particulars relating to the accommodation provided in hospitals under the supervision of the Hospitals Commission and the number of patients treated are shown below:—

TABLE 140.—Public Hospitals—Accommodation and Patients, 1931 to 1937.

Year ended June.	Hospitals.	Beds.		Patients treated in Hospital.	Out-Patients.		
		Number Available.	Number Occupied Daily Average.		Number.	Attendances.	
1931	...	170	*	6,610	142,548	443,676	1,164,613
1932	...	172	*	6,481	146,361	481,170	1,315,491
1933	...	174	10,160	6,896	154,083	532,416	1,211,985
1934	...	173	10,953	7,538	169,243	576,548	1,491,196
1935	...	173	11,781	8,069	181,097	503,689	1,458,344
1936	...	172	12,223	8,621	199,484	563,918	1,602,863
1937	...	205	13,500	9,669	215,113	522,610	1,723,305

\* Not available.

The increase in the number of hospitals under supervision in 1936-37 was due mainly to an extension of the Hospitals Commission's administration to some hospitals already in operation and the actual increase in accommodation was not so great as indicated by the figures in the table.

The patients treated in the hospitals in 1937 included 55,032, or 25.6 per cent. of the total, for whom no charge was made. Their stay in hospital amounted in the aggregate to 902,300 days.

In addition to the accommodation provided by public hospitals to which the foregoing particulars relate, there were 2,207 beds in the State hospitals, at the asylums for the infirm (see page 197), the Waterfall Sanatorium and auxiliary hospital at Randwick, and the David Berry Hospital. The average number of beds occupied per day was 2,082, and 7,657 patients were treated during the year 1937.

*Receipts and Expenditure of Public Hospitals.*

The receipts of the public hospitals (excluding State institutions) in 1936-37 amounted to £2,351,258 and the expenditure to £2,333,712. These figures include loan receipts £240,835 expended on buildings and equipment.

Particulars relating to the receipts and expenditure during the five years ended 1936-37 are shown below:—

TABLE 141.—Public Hospitals—Receipts and Expenditure, 1933 to 1937.

Year ended June—	Receipts.						
	State Aid.		Subscrip- tions and Donations.	Systematic Contribu- tions.	Patients' Fees	Other.	Total Receipts. (inc. loans)
	Buildings and Equipment.	Subsidy.					
	£	£	£	£	£	£	£
1933 ...	104,274	688,232	192,947	117,864	294,989	71,032	1,469,338
1934 ...	184,550	634,637	212,587	162,132	334,687	76,546	1,605,139
1935 ...	204,556	622,740	223,924	198,167	368,401	55,520	1,673,308
1936 ...	216,094	664,090	247,665	233,640	414,979	143,086	1,919,554
1937 ...	225,566	855,958	232,530	302,823	432,598	301,783	2,351,258

Year ended June—	Expenditure.						
	Maintenance and Expenses.					New Building Additions and Equipment	Total Expen- diture (inc. loans)
	Salaries and Wages.	Provisions Drugs, Fuel etc.	Expenses and Interest	Renewals and Renova- tions	Total.		
	£	£	£	£	£	£	£
1933 ...	591,484	413,913	141,698	31,026	1,178,121	159,685	1,337,806
1934 ...	621,377	427,283	132,499	51,400	1,232,559	305,471	1,533,030
1935 ...	679,087	461,636	137,321	69,855	1,347,879	285,764	1,633,643
1936 ...	740,093	506,485	161,343	74,034	1,481,955	414,810	1,896,765
1937 ...	926,973	586,030	199,891	78,371	1,791,263	542,447	2,333,712

The increases in receipts and expenditure in 1936-37, as shown above, were due mainly to the inclusion of a greater number of hospitals than in earlier years. The increase in the amount of State aid, in particular, was due for the most part to the inclusion of the Prince Henry Hospital, formerly a State institution.

State aid amounted to £1,081,524 in 1936-37, and represented 46 per cent. of the total receipts; it consisted of subsidies £855,958, grants £214,941, and loans £10,625. Patients' fees £432,598, or 18 per cent., have increased considerably during the five years. Fees paid while in hospital do not constitute the total payments by patients, as many of them pay also in the form of systematic and other contributions. The amount of systematic contributions represented 13 per cent. of the receipts in 1937-38; there has been a steady growth in these receipts. Receipts from loans, other than Government loans, are included as "other" receipts. The expenditure on salaries and wages was augmented by reason of a general increase in rates in 1937-38 and by payments to the staffs of additional hospitals included in this year for the first time. The expenditure on buildings and equipment was £542,447 in 1936-37, as compared with £159,685 in 1932-33.

#### HOSPITAL CONTRIBUTION FUNDS.

Systematic contribution schemes have been organised in respect of a number of public hospitals.

For the hospitals in the metropolitan area a joint scheme, the Metropolitan Hospitals Contribution Fund, was established in July, 1932, and incorporated on 15th August, 1933. It absorbed an industrial contributions scheme already operating in connection with the Hospital Saturday Fund, a charitable organisation, which for many years had been collecting subscriptions and donations for the hospitals. Contributors to the Metropolitan Fund pay at the rate of 6d. per week (minors 3d.), and this entitles them to certain hospital benefits in respect of treatment in private as well as public hospitals. During 1937 the scheme was extended to enable members to contribute at higher rates for increased benefit. From its inception to 30th June, 1938, an amount of £785,347 had been disbursed for hospital benefits, viz., £515,657 to metropolitan hospitals affiliated with the funds and £269,690 to other hospitals, public and private.

Details regarding the operations of the Fund are shown in the following statement:—

TABLE 142.—Metropolitan Hospitals Contribution Fund, 1933 to 1938.

Year ended 30th June.	Benefits Granted to Contributors.	Income.	Expenditure.	
			Payments to Hospitals.	Administration.
	No.	£	£	£
1933	6,400	31,757	25,585	5,985
1934	16,200	75,301	64,496	9,726
1935	23,900	125,201	109,463	12,894
1936	31,000	175,426	149,624	16,421
1937	*	226,483	210,152	21,704
1938	48,260	270,056	226,027	26,608

\*Not available.

In the country many individual hospitals have organised a systematic contribution fund, and benefit is provided by each fund for treatment of contributors and dependants in other hospitals as well as the institution

to which the fund belongs. Information relating to these funds, as compiled by the Hospitals Commission, is shown below:—

TABLE 143.—Country Hospitals—Systematic Contributions Funds, 1935 to 1937.

Year ended 30th June.	Contributors.	Contributions Received.	Payments to Hospitals.	Administration.
	No.	£	£	£
1935	128,521	162,285	140,708	18,478
1936	149,145	187,448	177,283	21,518
1937	169,064	222,113	199,847	25,004

#### TREATMENT OF COMMUNICABLE DISEASES.

Within the State, the Board of Health is vested with authority to make provision for the treatment and prevention of infectious diseases. The Federal Government is responsible for the administration of the quarantine laws in respect of vessels, persons, and goods arriving from oversea ports.

Cases of such diseases as leprosy, bubonic plague, smallpox, scarlet fever, typhoid fever, diphtheria, infantile paralysis, cerebro-spinal meningitis, puerperal infection, typhus, yellow fever, cholera, pulmonary tuberculosis, encephalitis lethargica, and undulant fever, must be notified to the Board of Health. Cases of bubonic plague are rare; no case has occurred since 1923.

Where necessary, provision is made for the isolation of infectious cases. In the metropolis the majority are treated at the Prince Henry Hospital, or at an infectious diseases hospital at Lidcombe, which is a State institution. Country cases are accommodated in special wards of the local hospitals.

The following table shows the notifications of the various diseases in 1921 and later years. Particulars relating to the deaths and death rates are shown in the chapter relating to Vital Statistics:—

TABLE 144.—Infectious Diseases—Cases Notified, 1921 to 1938.

Disease.	1921.	1931.	1937.	1938.				Total.
				Metro- politan District.	Hunter River District.	Broken Hill District.	Other Districts.	
Typhoid Fever ... ..	949	340	118	37	11	5	36	89
Scarlet Fever ... ..	1,060	4,447	2,493	1,612	111	27	859	2,609
Diphtheria... ..	6,854	4,432	4,244	2,061	435	77	1,373	3,946
Infantile Paralysis ... ..	184	103	70	279	103	...	272	654
Cerebro-Spinal Meningitis	30	30	17	15	1	...	6	22
Encephalitis Lethargica ...	†	20	8	7	1	...	3	11
Pulmonary Tuberculosis ...	1,240	1,588	1,779	1,404	87	24	282	1,797
Leprosy ... ..	2	2	3	...	...	...	...	...
Bubonic Plague ... ..	2	...	...	...	...	...	...	...
Puerperal Infection ... ..	*	319	241	195	9	3	51	258
Typhus Fever ... ..	...	1	4	5	...	...	2	7
Undulant fever ... ..	‡	‡	2	...	...	...	...	...

\*Notifiable since 16th August, 1920. †Notifiable since 1st April, 1926.

‡ Notifiable since 13th August, 1937.

*Leprosy.*

Persons suffering from leprosy are segregated in the Leper Lazaret, which was opened for the admission of patients in 1883, though statutory provision for the compulsory notification of the disease and detention of lepers was not made until 1890. No persons were admitted during the year 1938, and two inmates died. There were 11 inmates in the lazaret on 31st December, 1938, viz., 8 males and 3 females. Their birth-places were—New South Wales 6, Western Australia, Malta, Pacific Islands, Straits Settlements and China 1 each. The cost of the lazaret during 1938 was £4,164, or £328 2s. 7d. per inmate.

*Tuberculosis.*

Pulmonary tuberculosis has been notifiable throughout the State since 1st March, 1929. During the year 1938 the notifications numbered 1,797, viz., 1,404 in the metropolitan sanitary district, 87 in the Hunter River district, 24 in the district of Broken Hill, and 282 in the remainder of the State.

A remarkable reduction in the mortality from tuberculosis has been effected as a result of measures for the protection of the milk and food supply, the supervision of immigration, a stricter regulation of conditions of employment, and improved methods of medical treatment. Nevertheless, tuberculosis causes about 4 per cent. of the deaths in New South Wales, and there is pressing necessity for organised efforts to control the disease.

A special division of the Department of Public Health has been formed to co-ordinate measures for the cure and prevention of the disease, to regulate the admission of patients to institutions, to arrange for the after-care of those discharged, etc.

Institutions for the care of tubercular cases have been established by the Governments of the State and the Commonwealth, and others are assisted by State subsidy. As far as practicable the cases are graded for admission to the sanatoria. The Waterfall Sanatorium contains 400 beds for patients in the intermediate stages of the disease, and an auxiliary hospital with 120 beds for advanced patients is located at the Prince of Wales (Repatriation) Hospital. Both these are State Government institutions. The Commonwealth controls two institutions for returned soldiers with accommodation for 142 patients. The Queen Victoria Homes at Thirlmere and Wentworth Falls, with 108 beds for patients in the early stages, and three sanatoria administered by the Red Cross Society with 139 beds, are subsidised by the State Government. There are 8 beds in the R. T. Hall Sanatorium at Hazelbrook and about 40 beds in private hospitals.

The Waterfall Hospital is the largest of the sanatoria. The number of patients under treatment during 1938 was 868, and there were 399 in the hospital at the end of the year. The cost of maintenance in 1938 was £36,247, equal to £93 per occupied bed.

A village settlement for tubercular cases was opened at Picton Lakes in May, 1929. It was founded and is maintained by public subscription and admission is arranged by the Department of Public Health. There are 19 cottages for married patients and two hostels for single patients. The number of residents at the end of 1938 was 76, viz., 23 patients and 53 dependants.

With the object of checking the spread of tuberculosis, dispensaries have been opened for diagnosis and the examination of patients and the supervision of those who are not under treatment in an institution. There are

six dispensaries in Sydney. One was opened in 1912 by the National Association for the Prevention and Cure of Consumption (now known as the Anti-Tuberculosis Association of New South Wales). The others are attached to public hospitals, viz., Royal Prince Alfred, Royal North Shore, Sydney, Canterbury District, and Manly District. There is a dispensary also at the Newcastle Hospital. Medical advice is given to patients at these clinics, and nurses visit their homes and instruct the inmates in precautionary measures to prevent the spread of the disease.

#### *Veneral Diseases.*

The treatment of venereal diseases is regulated under the Venereal Diseases Act, 1918, which came into operation on 1st December, 1920. It prescribes that all persons suffering from such diseases must place themselves under treatment by a qualified medical practitioner, and must remain under treatment until cured. Medical practitioners are required to notify all cases to the commissioner appointed under the Act. It is not considered, however, that notification is fully effective. Treatment by unqualified persons is prohibited, also the sale of certain drugs used in connection with these diseases, except when prescribed by a qualified medical practitioner.

There are ten clinics in operation in the metropolitan district, of which nine are established at public hospitals. Free treatment is provided at other subsidised hospitals, drugs and instruments being provided by the Government. Special wards for these cases have been opened at the Prince Henry (formerly Coast) Hospital, and at the Newington State Hospital, and there is an isolation block at the Royal Prince Alfred Hospital.

The notifications during the year 1938 numbered 6,196, of which 5,491 cases were notified in the metropolitan area and 439 in the Newcastle district. About 72 per cent. of the cases were notified by public hospitals and clinics.

Prisoners suffering from venereal diseases are detained for treatment in lock hospitals attached to the gaols, in terms of the Prisoners Detention Acts, 1908 and 1918. Such prisoners may be detained even after the definite sentence is served, until certified by the medical officer as free from disease. During the year ended 30th June, 1938, the cases of venereal diseases treated in the gaols numbered 58, and orders for detention in the lock hospitals were obtained in the cases of 42 men and 2 women.

#### TREATMENT OF MENTAL DISEASES.

The law relating to persons suffering from mental diseases is contained in the Lunacy Act of 1898 as amended in 1934. Its provisions apply mainly to those who may be certified as insane and incapable of managing their affairs, but voluntary patients may be received. Insane persons may be admitted to an institution, if certified by two qualified medical practitioners, either at the request of relatives or friends, or upon the order of two Justices of the Peace, but relatives have the right of custody of insane persons brought before the Justices if they can give a satisfactory assurance that proper care will be taken of them. Persons found to be insane by proceedings before the Supreme Court in its lunacy jurisdiction may be admitted to mental hospitals upon the order of the Judge. Voluntary patients may be received with the consent of the Inspector-General into hospitals for the insane and licensed houses, but may not be detained for more than seven days after written notice is given by the patient of his intention or desire to leave.

The influx of insane persons to New South Wales is restricted under the Lunacy Act, which renders the owner, charterer, agent, or master of a vessel liable for the maintenance of any such person landed in the State.

The estates of persons proved to be incapable, through mental infirmity, of managing their affairs, are placed under the management and care of the Master in Lunacy. Estates of voluntary patients are placed under his care only at the written request of the patient.

Special courses of training in the treatment of mental and nervous diseases are provided for medical students at the Sydney University, where a chair of psychiatry has been established.

#### *Mental Hospitals.*

The Government has set apart a number of institutions for the reception and treatment of insane persons, and private institutions may be licensed for the purpose. Licenses may be granted also for the reception of a single patient, but unauthorised persons are not permitted to take charge for profit of a person of unsound mind. All institutions for mental cases, including reception houses, etc., for their temporary accommodation, are subject to inspection by the Inspector-General of Mental Hospitals. With his consent, harmless patients may be boarded out or released on leave, or they may be discharged to relatives or friends who undertake to care for them. Official visitors may be appointed for every hospital and reception house, one being a medical practitioner and one a police magistrate or barrister-at-law. Two or more of these visitors, one being a medical practitioner, visit these institutions at least once a month, and they are empowered to hold inquiry at the request of a patient or his relatives or friends, and, if satisfied by the certificate of two psychiatrists, may discharge the patient.

There are ten Government mental hospitals and two private institutions licensed to receive mental patients. At two of the Government institutions there is also a hospital for criminal insane. Under an arrangement with the Government of South Australia, patients from Broken Hill are accommodated in a hospital in that State, the cost of their maintenance being paid by the Government of New South Wales.

The number of mental patients under cognisance as being of unsound mind on 30th June, 1938, consisted of 5,546 males and 5,055 females in mental hospitals and licensed houses in New South Wales; 4 men and 4 women from this State in South Australian hospitals; and 428 men and 444 women on leave from the institutions. The total number of persons under cognisance, exclusive of voluntary patients, at intervals since 1901 is shown below:—

TABLE 145.—Mental Patients, 1901 to 1938.

At 30th June.	Number of Mental Patients.			Proportion per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901*	2,684	1,804	4,488	3·72	2·75	3·26
1911*	3,810	2,573	6,383	4·27	3·18	3·75
1921	4,510	3,432	7,942	4·21	3·33	3·78
1931	5,346	4,357	9,703	4·12	3·47	3·80
1936	5,846	5,172	11,018	4·34	3·92	4·13
1937	5,873	5,280	11,153	4·32	3·96	4·14
1938	5,973	5,503	11,481	4·36	4·08	4·22

\* At 31st December.



In order to ascertain the general rate of insanity amongst the population, it would be necessary to take into consideration the patients treated in their homes and those suffering from mental disorders in a form which does not warrant certification, as insane or compulsory detention in a mental hospital.

The proportion of the population under official cognisance as mental patients is increasing. The number of males admitted to supervision in each year usually exceeds the number of females, but the death rate amongst the females has been much lower and the number of female patients under cognisance has increased at a faster rate than the number of male patients.

The number of admissions and re-admissions to mental hospitals in various years since 1901 are shown below:—

TABLE 146.—Mental Hospitals—Admissions and Deaths, 1901 to 1938.

Year ended 30th June.	Admissions.			Re-admissions.			Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1901*	387	300	696	77	75	152	194	98	292
1911*	674	387	1,061	113	73	186	338	147	485
1921	711	622	1,333	115	106	221	354	235	589
1931	724	600	1,324	124	120	244	312	213	525
1932	684	575	1,259	129	99	228	362	224	586
1933	674	609	1,283	96	113	209	356	234	590
1934	645	616	1,261	129	132	261	345	239	584
1935	731	666	1,397	131	117	248	349	230	579
1936	754	689	1,443	139	155	294	392	267	659
1937	629	566	1,195	130	147	277	348	285	633
1938	671	661	1,332	137	158	295	333	259	592

\* Calendar Year.

Of the admissions and re-admissions in 1937-38, natives of New South Wales numbered 1,099, England 175, Ireland 32, Scotland 47, other British countries 209, foreign countries 58, and in 7 cases the nationality was unknown.

During 1937-38 the deaths numbered 592, or 5.6 per cent. of the average number resident, and the discharges included 442 persons, or 4.2 per cent., who had recovered, and 217, or 2.1 per cent., who had been relieved.

Voluntary patients may be admitted to mental hospitals and a psychiatric clinic has been established for those suffering from the milder forms of mental and nervous disorders. During the year 1937-38 the number of resident patients under treatment at the clinic was 960, and there were 246 in the institution at 30th June, 1938. Outdoor treatment is provided also. Voluntary patients are treated at the other mental hospitals, and the total number resident at 30th June, 1938, including those at the psychiatric clinic, was 466, viz., 227 males and 239 females. Psychiatric clinics have been established at a number of general hospitals.

Reception houses have been established in Sydney, Newcastle, Kenmore (Goulburn), and Orange, where persons showing symptoms of mental diseases are placed under observation and cases of short duration are treated. Provision to facilitate admission to reception houses, voluntarily and otherwise, is contained in the Lunacy (Amendment) Act, 1934. The number of cases under observation and care at the reception houses in 1937-38 was 2,502, and 1,575 were transferred to mental hospitals. At the State Penitentiary at Long Bay, 70 persons were under observation during 1937-38, and 19 were sent to mental hospitals.

A charitable organisation, the After Care Association, assists in the rehabilitation of discharged patients, and has established a small hostel for women discharged from the mental hospitals.

The average weekly cost of maintaining mental patients in Government institutions during the year 1937-38 was 26s. 2d. per patient, of which the State paid 22s. 1d., and the balance was derived from private contributions. The following table shows the average weekly cost per patient during the years cited:—

TABLE 147.—Mental Patients—Cost of Maintenance, 1921 to 1938.

Year ended 30th June.	Annual Cost of Maintenance of Patients.	Cost of Maintenance per Patient per week.		
		To State.	Private Contributions.	Total.
	£	s. d.	s. d.	s. d.
1921	512,797	23 10	3 3	27 1
1929	658,755	24 1	4 11	29 0
1931	613,665	21 0	4 6	25 6
1932	541,957	18 2	3 10	22 0
1933	532,277	16 7	4 3	20 10
1934	522,682	16 5	3 11	20 4
1935	583,159	18 3	3 10	22 1
1936	638,308	19 7	3 11	23 6
1937	639,646	20 3	4 1	24 4
1938	736,413	22 1	4 1	26 2

Variations in the cost of maintenance are due mainly to changes in rates of wages and in the prices of provisions. The cost of voluntary patients is included. During the year ended June, 1938, salaries and fees amounted to £494,029, the cost of provisions, stores, etc., was £161,467, fuel light and water, £24,911; and miscellaneous items, £56,006. In addition, farm products to the value of £15,740 were grown and consumed at the institutions, and a sum of £77,118 (not chargeable to maintenance of patients) was expended on new works.

#### DEAF-MUTISM AND BLINDNESS.

The number of persons who were deaf and dumb, as ascertained at the census of 1933, was 982, equivalent to one person to every 2,649 of the population, and the number of persons afflicted with blindness was 1,413 or one person in every 1,840. A classification according to ages is shown below:—

TABLE 148.—Deaf Mutes and Blind Persons—Census, 1933.

Age Group.	Deaf Mutes.			Blind Persons.			Per 1,000 of Population.	
	Males.	Females.	Total.	Males.	Females.	Total.	Deaf Mutes.	Blind.
14 years and under ...	120	75	195	41	32	73	·26	·10
15-39 years ...	283	236	519	135	81	216	·50	·21
40-64 „ ...	121	106	227	289	151	440	·34	·66
65 years and over ...	14	25	39	359	321	680	·25	4·37
Not stated ...	1	1	2	3	1	4	...	...
Total ...	539	443	982*	827	586	1,413*	·38	·54

\* Including 5 males and 6 females who were blind deaf mutes.

The care and education of the deaf and dumb and the blind are undertaken at several institutions. The New South Wales Institution for the Deaf and Dumb and the Blind is maintained partly by Government subsidy and partly by public subscriptions. Special educational courses are provided, the fees being remitted in cases of financial inability. The Sydney Industrial Blind Institute undertakes the care of the adult blind, and provides industrial training to enable them to earn a livelihood. Homes for the blind are conducted in connection with this institution, and a free circulating library of embossed books is provided. Institutions for deaf mutes are conducted by Roman Catholic religious societies, at Waratah for girls and at Castle Hill for boys; also a school for blind children at Strathfield.

Under the Commonwealth invalid pension system provision is made for the payment of pensions to permanently blind persons above the age of 16 years.

#### WELFARE OF CHILDREN.

The Child Welfare Act of 1923 and its amendments make provision for the care and maintenance of State wards and for the supervision of children in foster homes and in institutions, for protecting children from ill-treatment and neglect, for preventing their employment in dangerous occupations, and for regulating the adoption of children and their employment in public performances and in street trading. Special courts, called Children's Courts, are maintained to deal with offences committed by or against children, and to adjudicate in regard to affiliation proceedings.

Orders of a magistrate to compel parents to meet the obligation of maintaining their legitimate children are made in terms of the Deserted Wives and Children's Acts of 1901 and amendments.

The State pays allowances under the Widows Pensions Act to assist widows to maintain their children during the years of dependency, and family allowances are paid under the Family Endowment Act for the upkeep of children in families with limited means.

In legal disputes regarding the guardianship of infants, the Supreme Court, or in certain cases the lower courts, may make orders as to the custody and as to access by either parent, having regard to the welfare of the child. In such cases the mother has equal rights with the father as to guardianship, in terms of the Guardianship of Infants Act, 1934.

The Notification of Births Act of 1915 requires that in proclaimed districts the health authorities must be notified within thirty-six hours of the birth of a child. In this manner cases in which advice or assistance is needed are brought under cognisance. A Federal law authorises the payment of an allowance to mothers, to assist in defraying the expenses incidental to childbirth where the family income is within a certain limit.

The Juvenile Smoking Suppression Act and the Liquor Act prohibit the use of tobacco by juveniles and the supply of intoxicating liquor to them, and the Public Instruction Act requires children between the ages of 7 and 14 years to attend school regularly. The employment of children in factories and in industrial apprenticeship is subject to laws which are discussed in the chapters relating to Factories and to Employment.

#### *Maternity Allowances.*

The Maternity Allowances Act of the Commonwealth, came into operation on 10th October, 1912, to provide for the payment to mothers of a sum of £5 in respect of each birth occurring in Australia. The allowance was reduced to £4 in July, 1931, and payment was restricted to cases where the income of the claimant and her husband (or in the case of a posthumous

or ex-nuptial child, the income of the claimant) did not exceed £260 during the preceding twelve months. In October, 1932, the income limit was fixed at £208. Since August, 1934, the limit has been graded, within a range of £91, according to the number of the claimants' children, £13 being added to the minimum for each surviving child under fourteen years of age born prior to the birth in respect of which the allowance is claimed. The income limits were raised by £13 in September, 1936, and by £26 in January, 1938.

Between August, 1934, and September, 1936, the sum of 5s. for each other child under fourteen years was added to the allowance—the maximum payment being £5. In September, 1936, the allowance was fixed at £4 10s. where there was no other child under fourteen years and £5 in other cases. Since January, 1938, an amount of £7 10s. has been paid where there were three or more other children, and children of the claimant's husband by a former marriage have been taken into account in assessing income limits and allowances.

Payments are made in respect of still-born children if viable, but one allowance only is payable in the case of plural births. The allowances may be paid only to women who are inhabitants of, or who intend to settle in the Commonwealth, and they are not payable to Asiatics or to aboriginal natives of Australia or of the Pacific Islands.

The following statement shows the number of claims passed for payment in New South Wales in the years stated, in comparison with the number of confinements:—

TABLE 149.—Maternity Allowances Paid in New South Wales, 1921 to 1938.

Year ended June.	Amount of Allowance.	Income Limit.	Confinements (excluding Still-births) (approximate).	Claims passed for Payment.	
				No.	Amount.
	£	£	No.		£
1921 ... ..	5	No limit.	54,620	56,378	281,890
1929 ... ..	5	„	53,310	54,275	271,375
1930 ... ..	5	„	51,230	52,335	261,675
1931 ... ..	5	„	50,530	51,660	258,300
1932 ... ..	4	260	45,230	36,569	149,870
1933 ... ..	4	{ 260 208 }	44,400	31,699	126,740
1934 ... ..	4	208	42,740	29,960	119,750
1935 ... ..	4 to 5	208 to 299	43,150	30,354	130,886
1936 ... ..	4 to 5	208 to 299	44,650	30,463	133,055
1937 ... ..	4½ to 5	221 to 312	47,195	31,086	145,495
1938 ... ..	{ 4½ to 5 4½ to 7½ }	{ 221 to 312 247 to 338 }	46,755	30,440	154,613

While the allowances were payable without regard to parents' income, the number of claims passed for payment usually exceeded the number of confinements. This was due mainly to the fact that still-births were not included in the number of confinements, though maternity allowances were payable in respect of the births of viable children. After the income limit was imposed the proportion of claims dropped below 81 per cent. in 1931-32, and with further restriction in respect of income it was 70 per cent. in the next three years. Notwithstanding a mitigation in the income limit where there were elder children in the family, the proportion declined to 68 per cent. in 1935-36. This may be attributed in part to a higher proportion of first births amongst those which occurred in that year and for

such families the income limit remained at £208, and it was due in part to an improvement in the financial circumstances of the families so that a greater proportion were excluded by reason of the income limit.

The maternity allowances paid in New South Wales up to 30th June, 1938, numbered 1,203,336 and amounted, in the aggregate, to £6,905,000 approximately.

#### *Baby Health Centres and Day Nurseries.*

With the object of reducing the wastage of child life due to preventable causes the Government has established baby health centres in various parts of the city and suburbs, and in country towns.

A staff of nurses and an honorary medical officer are attached to each centre. The nurses instruct the mothers in hygiene at the centres and in their homes, and make arrangements for medical or dental treatment of mothers and children when necessary.

In December, 1938, there were 200 centres, viz., 53 in the metropolitan area, 18 in the districts of Newcastle and Maitland, 4 in Broken Hill, and 125 in other country districts. During the year 1938 the attendances at the centres numbered 790,450, and the nurses made 68,906 visits to cases within the area served by the centres.

The Royal Society for the Welfare of Mothers and Children, incorporated in 1919, was established with the object of co-ordinating measures for the welfare of mothers and children. The society provides premises in two localities in the city for use as baby health centres, day nurseries and free kindergartens, and conducts three training schools, where nurses may receive post-graduate training in infant hygiene and mothercraft. Associations of medical practitioners and of nurses, charitable organisations and institutions for children are affiliated with the Society.

Eight day nurseries have been established in the metropolis by the Sydney Day Nursery Association. Mothers who work outside their homes may leave their children at the nurseries during the daytime. Food, clothing and medical care are provided, and at three of the nurseries there are nursery schools. The charge is 6d. per day.

In the outlying country districts nurses engaged by the Bush Nursing Association at 52 centres give assistance to mothers and advise them as to the feeding and treatment of children, and the Far West Children's Health Scheme conducts three travelling baby health clinics. The Society for Crippled Children assists such children in the matter of surgical treatment and in vocational training.

#### *Adoption of Children.*

Legal provision is contained in the Child Welfare Act for the permanent adoption of children upon order of the Supreme Court in its equitable jurisdiction. Application to the court may be made by adopting parents or by the Minister of Public Instruction on their behalf. If over 12 years of age, the child's consent to adoption is necessary, unless the court dispenses with it owing to special circumstances.

An order of adoption terminates all rights and liabilities between the child and his natural parents, except the right to inherit property by reason of kinship. An adopted child takes the surname of his adopting parent in substitution for his own surname, and orders of adoption are registered by the Registrar-General. Application for orders of adoption may be heard in open court, or in public or in private chambers.

The number of children adopted in accordance with the provisions of the Act during 1938 was 1080.

*Deserted Children.*

In cases of desertion of wife or of legitimate children, the husband or father may be ordered, in terms of the Deserted Wives and Children Acts, to pay periodical contributions for their support. In cases relating to ex-nuptial children the father may be ordered, under the Child Welfare Act, to pay the expenses incidental to birth and periodical contributions for maintenance. In certain cases mothers may be required to contribute towards the support of their children.

For disobedience of or non-compliance with orders under these Acts offenders may be fined, or they may be committed to prison, and from the value of their work while in prison the cost of their upkeep may be deducted and the balance applied to the satisfaction of the orders. The period of imprisonment is limited to one day for every 4s. due and an offender may not be detained for a longer period than twelve months.

Legislation has been enacted to provide for reciprocity in respect of orders for maintenance between New South Wales and other parts of the British Empire.

The following statement shows the number of cases in respect of wife and child desertion dealt with in the Courts of Petty Sessions and the Children's Courts during the year 1938:—

TABLE 150.—Wife and Child Desertion—Court Cases.

Cases.	Applications for Orders.			Non-compliance with Orders.		
	Order made.	Order refused.	Case withdrawn.	Order obeyed subsequently.	Defendant imprisoned.	Case withdrawn or dismissed.
For maintenance—Wife ...	2,256	347	592	1,457	211	861
Child ...	442	64	74	612	71	388
For expenses incidental to birth of illegitimate child ...	131	23	18	25	10	6
Total ... ..	2,829	434	684	2,094	292	1,255

*Children under State Supervision.*

The function of supervising the children under the care of the State is exercised by the Child Welfare Department. The cost of the departmental services, which do not include widows' pensions nor family allowances, amounted to £424,539 in the year ended 30th June, 1938. The annual expenditure during 1932 to 1937, and in the year ended 30th June, 1938, is shown below:—

TABLE 151.—Child Welfare Department—Expenditure.

Year.	Boarding out.	Payments for Children in their own homes.	Institutions, Homes, Hostels, etc.	Salaries.	Miscellaneous.	Total Expenditure.	Contributions by Parents and other Revenue.	Net Expenditure.
	£	£	£	£	£	£	£	£
1932 ...	107,059	273,278	33,136	81,377	30,754	525,604	17,227	508,377
1933 ...	98,846	231,824	36,920	69,315	17,436	454,341	19,560	434,781
1934 ...	93,626	223,298	47,204	69,286	16,380	449,794	17,014	432,780
1935 ...	90,145	219,910	46,902	69,263	13,553	439,773	19,742	420,031
1936 ...	88,913	218,198	35,946	73,382	15,596	432,035	20,651	411,384
1937 ...	88,800	205,779	37,080	79,153	14,266	425,078	20,511	404,567
1938* ...	83,928	219,605	39,465	87,252	15,302	445,552	21,013	424,539

\* Year ended 30th June,

The decline since 1932 has been due partly to a decrease in the number of children under supervision and partly to a reduction in the cost of maintaining those who are boarded out. Only a relatively small amount is contributed by parents and relatives.

In the following statement is shown a classification of the children under the supervision of the Child Welfare Department in various years since 1911:—

TABLE 152.—Children under State Supervision.

Classification.	1911.	1921.	1931.	1935.	1936.	1937.	1938 (June.)
State wards {	4,677	5,439	5,054	4,056	4,057	3,934	3,876
Boarded out, adopted or apprenticed ...			230	236	243	237	275
Juvenile offenders in State institutions or shelters ...			1,000	563	607	543	597
Children boarded-out with own mothers ...	4,453	11,462	11,184	10,030	10,032	9,681	9,690
In licensed foster homes ...	559	290	382	309	295	320	295
In licensed institutions ...	263	689	899	910	1,187	1,162	1,058
Total ...	9,952	17,880	18,668	16,104	16,421	15,877	15,791

These figures do not include the children on probation from the Children's Courts or institutions (who numbered 1,548 at 30th June, 1938), nor children licensed for employment in theatres or street trading under conditions which are described later.

#### State Wards.

The State wards are orphans or children who by reason of parental neglect or unfitness for guardianship or other cause have to be removed from the control of natural guardians. Where practicable, these children are boarded out with approved foster parents until they are 14 years of age. The maximum number of children under the care of one guardian is three, except in cases of families comprising a greater number, brothers and sisters being placed usually in the same home. The children are supervised by salaried inspectors, whose efforts are supplemented by honorary officers. Women inspectors visit infants placed apart from their mothers, and all such infants in the metropolitan area must be submitted to medical examination every fortnight during the first twelve months of life.

The children may be apprenticed with suitable employers under terms of indenture which prescribe a wage payment and pocket-money on a specified scale. The wages are banked to the credit of the apprentices and one-third of the accumulated amount is paid to them on completion of apprenticeship, the balance remaining at interest till age 21 is attained. The majority of the girls are apprenticed in domestic service, and the boys to farmers, orchardists, and artisans in country districts.

The children boarded out as State wards in June, 1938, consisted of 2,283 boys and 1,868 girls, of whom 182 boys and 149 girls had been adopted or boarded without subsidy, 38 boys and 71 girls were apprenticed, and 43 boys and 19 girls were in occupations and their earnings were being supplemented by subsidy.

State wards awaiting placement with suitable guardians and those who for various reasons may not be boarded out or apprenticed are accommodated in homes maintained by the State. The number in these homes in

June, 1938, was 275, of whom 120 were girls. There is a training farm at Berry where the older boys may be trained for rural work and arrangements are being made for a domestic science school for girls.

The foregoing figures regarding State wards do not include children in State institutions for delinquents, or children in shelters where they are accommodated temporarily pending transfer to an institution or release on probation.

#### *Delinquent Children.*

Cases of juvenile offenders under the age of 18 years are dealt with in the Children's Courts, by magistrates with special qualifications for the treatment of delinquent children.

Leniency is an outstanding feature in the treatment of the young offenders, and a large number are released after admonition, or on probation, committal to an institution being a final resort. The children brought before the courts are classified into distinct groups, according to the special treatment they require, consideration being given to the character of the child and the circumstances surrounding the committal of the offence, the home environment, the character of the parents, and the nature of their control. In the metropolis there are shelters for the temporary detention of boys and girls.

Children committed to institutions may be detained in custody until the expiration of the period specified by the Court, or until reaching the age of 18 years. They may be indentured as apprentices with suitable employers or restored to the custody of parents or guardians. The Child Welfare Department exercises control of delinquent children committed to State institutions and undertakes supervision of those released on probation by the Children's Courts.

The State institutions for delinquent boys are located at Mittagong, Gosford, and Yanco, and industrial schools for delinquent girls at Parramatta and La Perouse. The Riverina Welfare Farm at Yanco is the principal institution for training the boys in rural pursuits. Under certain conditions children may be committed to approved institutions established by the religious organisations.

In June, 1938, there were 518 boys in the three institutions and 40 in shelters, and there were 72 girls at Parramatta and La Perouse, and 8 in the metropolitan shelter for girls. A hostel has been opened for former inmates of the girls' industrial schools to provide accommodation for them when out of employment.

#### *Relief of Children of Necessitous Mothers.*

An important activity of the Child Welfare Department relates to the maintenance in their own homes of children whose mothers have been deprived of their husbands' support through desertion, illness, infirmity or imprisonment. Relief in this form is granted also in respect of ex-nuptial children. The rate of contribution since January, 1938, has been 10s. per child up to a maximum of £3 10s. per week per family. Where old-age or invalid pension is received the limit is £4, including pension. Relief is not payable by the Child Welfare Department for children whose mothers are qualified for widows' pensions, but assistance is given in respect of the children of widows who are not eligible for such pensions, such as those qualified to receive invalid pensions provided by the Commonwealth Government.

In the year ended June, 1938, contributions were paid by the Department to 5,027 mothers for the support of 9,690 children.



*Children in Foster Homes.*

The law regarding the reception of children in foster homes (other than State wards boarded out by the State) prescribes that such places must be licensed if one or more children under 7 years are received. No person, without a written order of a court, may receive a child under 7 years of age to be maintained apart from its mother in consideration of the payment of money. The payments must be by periodical instalments, and the instalments may not be paid for more than four weeks in advance, nor exceed the sum of 30s. per week.

The number of foster homes licensed in 1937-38 was 176, and the number of children 626. During the year 222 were discharged to their parents, 19 were transferred to the control of the Child Welfare Department, 2 died, 88 were removed from State supervision for other reasons, and 295 remained in the foster homes at the end of the year.

*Children in Charitable Institutions.*

In addition to the State homes and other institutions for children administered by the Child Welfare Department, there are institutions conducted by religious bodies and other organisations where children are placed by their guardians in preference to being boarded out under the State system. Some of these receive children from the Children's Courts. Those in which children under the age of 7 years are received must be licensed as foster homes under the Child Welfare Act, as shown above. In a few cases the parents contribute towards the support of the children, but usually they are maintained by the organisations which conduct the establishments.

Some of the institutions provide temporary accommodation for children in need of medical care or holiday. Amongst these is the Stewart House Preventorium, at Curl Curl, for weak, ill-nourished children of the public schools. The Far West Children's Health Scheme maintains a seaside home at Manly, and provides medical services for children of the western districts.

At the end of the year 1937, there were 4,446 children in these charitable institutions, and there were 830 in the State institutions, such as homes for delicate children, industrial schools, and shelters. Particulars of the children in the various kinds of institutions are shown below:—

TABLE 153.—Children in Charitable Institutions, 1937.

Institutions.	Metropolitan.		Country.		Total.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Lying-in Homes ... ..	16	14	9	8	25	22	47
Benevolent Asylums ... ..	6	8	3	1	9	9	18
Orphan Asylums ... ..	377	469	880	772	1,257	1,241	2,498
Neglected and Delinquent Children's Homes—State ... ..	77	206	513	17	590	223	813
Other ... ..	391	534	149	56	540	590	1,130
Institutes for Deaf, Dumb, and Blind	94	103	53	35	147	138	285
Infants' Homes ... ..	153	104	56	51	209	155	364
Other Charitable Institutions ...	68	33	11	9	79	42	121
Total ... ..	1,182	1,471	1,674	949	2,856	2,420	5,276

*Mentally-deficient Children.*

Experience obtained by the medical inspection of school children indicates that about 1 per cent. require special tuition on account of sub-normal intelligence. For this purpose special classes have been established in the public schools, and a residential school at Glenfield. This consists of four cottages and administrative buildings, and there is provision to increase the number of cottages to eight, if required. In each cottage accommodation is provided for 32 children. The site occupies 110 acres in a healthy locality, near Liverpool, and the buildings are connected with the metropolitan water supply and electricity systems.

State wards who are mentally deficient are accommodated in two homes under the control of the Child Welfare Department. At each home there is a school with a special staff.

*Medical Inspection of School Children.*

A system of medical inspection of school children, under the control of the Principal Medical Officer of the Department of Education, is conducted by a staff consisting of 18 medical officers, 18 dental officers, 12 nurses and 8 dental assistants.

It is the aim of the School Medical Service that every child be examined at least twice during the period of compulsory school attendance, *i.e.*, between the ages of 7 and 14 years. An annual visit of inspection is made to all schools, with the exception of the smaller schools in rural districts which are visited triennially. Oculists visit schools in outlying districts, and carry out eye refractions, and prescribe glasses where necessary. A physical survey of the pupils has been carried out as part of the school inspection.

The following summary gives particulars of children medically examined during the years 1935 to 1937:—

	1935.	1936.	1937.
Number examined .. .. .	47,430	51,083	48,973
Number reviewed .. .. .	24,677	24,529	20,845
Percentage of those examined notified for defects (medical and dental) .. ..	35.6	37.6	40.0

School dental service is provided by 18 dental clinics. In addition to general examinations dental treatment is provided for children aged 7 and 8 years in the metropolitan district and from 6 to 9 years in country schools, and emergency work is undertaken for children of all ages. The number of children treated during 1937 was 15,331, treatment being completed in 91 per cent. of the cases.

The work of the medical officers of the Department of Education includes the investigation of epidemics of infectious diseases affecting school children; the inspection of school buildings; courses of lectures at the Teachers' Colleges; lectures to pupils of high schools and to parents; and the medical examination of children brought before the Children's Courts and those under the care of the Child Welfare Department. A child guidance clinic has been established in connection with the school medical service. Special investigations are carried out into problems affecting the welfare of children, such as goitre, crippling, mental deficiency, and stammering.

The expenditure on the school medical and dental services in 1937-38, exclusive of administration, was £25,173.

*Employment of Children.*

In other chapters of this volume particulars are shown regarding the employment of children in factories and as apprentices. There are two classes of employment in which children may not be employed unless licensed under the Child Welfare Act, viz., in public theatrical performances and in street trading.

Theatre licenses may be issued in respect of children over 7 years, subject to such restrictions and conditions as the Minister may think fit. The licenses may be rescinded at any time upon sufficient cause being shown.

Street trading is defined as hawking, singing or performing for profit, or any like occupation conducted in a public place. Boys under 12 years and girls are not allowed to engage in street trading, and the boys under 16 years must be licensed, and are required to wear a metal arm-badge whilst trading.

Precautions are taken by supervisors to ensure the regular school attendance of licensees under 14 years of age. Boys between the ages of 12 and 14 may trade between the hours of 7 a.m. and 7 p.m.; and boys over 14 years of age, between 6 a.m. and 10 p.m.

Particulars relating to the licenses issued since 1932 are shown below:

TABLE 154.—Children's Licenses for Street Trading and Theatres.

Year.	Theatre Licenses issued.	Street Trading Licenses Granted to Boys.		
		Under 14 years of age.	14 to 16 years of age.	Total.
1932	770	629	704	1,333
1933	777	508	533	1,041
1934	673	402	449	851
1935	440	573	390	963
1936	710	1,103	551	1,654
1937	650	1,432	461	1,893
*1938	663	1,267	332	1,599

\* Year ended 30th June.

With few exceptions the street trading licenses were issued to newspaper vendors. The licenses are issued half-yearly, therefore the number issued each year is approximately double the number of boys licensed. The number of licenses current at 30th June, 1938, was 666.

#### CHARITABLE INSTITUTIONS AND SOCIETIES.

In addition to hospitals for the treatment of sickness or disease, there exist both in the metropolis and in the country other institutions, such as homes for the aged and for children. The State maintains four asylums, others are maintained partly by State aid and partly by private contributions, and a few are wholly dependent on private aid.

Three of the State asylums are for men and one is for women. After the introduction of the old-age pension system the character of the work of three of the institutions was changed considerably, so that they are used to a large extent for the treatment of chronic ailments. They contain special wards for persons suffering from cancer, tuberculosis, and venereal diseases, and a hospital for the treatment of infectious diseases has been erected in the grounds of the institution at Lidcombe.

The average number resident in the State asylums during the year 1938 was 3,040. The average cost per inmate was £55 11s.; receipts from various sources represented £15 6s. per inmate, so that the net cost to the State

was £40 5s. In the hospitals attached to the three institutions 5,937 cases of illness were treated during 1938—males 4,658 and females 1,279—and at the end of the year 1,560 patients remained under treatment.

In 1937 there were 137 charitable institutions in New South Wales, and the total number of inmates under care during the year was 31,132, including 16,313 children. The discharges numbered 19,870, and the deaths 1,433. The number remaining at the end of the year was 9,829, viz., 3,083 men, 1,470 women, and 5,276 children. A classification of the institutions in which the children were resident is shown on page 195. The receipts of the institutions amounted to £983,861, including the cost of State institutions and State aid to other establishments, £569,844, and the expenditure amounted to £925,644.

A number of societies are active in the matter of charitable relief, e.g., casual aid for indigent persons, help for discharged prisoners, shipwreck relief, etc.; and in many suburbs and country towns benevolent societies have been formed for the relief of local distress. Collections for charitable purposes are subject to regulations in terms of the Charitable Collections Act of 1934, and charitable organisations are required to be registered.

In 1937 statistical returns were supplied by 206 societies, and their receipts amounted to £409,037 and expenditure £383,425.

The aggregate receipts of the charitable institutions and societies amounted to £1,392,898 in 1937, and the expenditure to £1,319,069. These include particulars of the State charitable institutions (except hospitals), the Child Welfare Department, the baby health centres, and the Aborigines Protection Board.

The following is a statement of the receipts and expenditure of the charitable institutions and societies for which returns were supplied in various years since 1911. The particulars do not embrace all "registered charities," but only those permanently engaged in charitable or benevolent work:—

TABLE 155.—Charitable Institutions and Societies—Finances, 1911 to 1937.

Particulars.	1911.	1921.	1931.	1935.	1936.	1937.
<b>Receipts—</b>	£	£	£	£	£	£
State Aid ... ..	192,941	668,044	839,016	703,197	698,861	721,697
Subscriptions, Fees, etc.	78,786	229,547	319,731	386,190	423,740	425,369
Other ... ..	67,519	68,363	137,049	140,893	169,716	245,832
<b>Total ...</b>	<b>339,246</b>	<b>965,954</b>	<b>1,295,796</b>	<b>1,230,280</b>	<b>1,292,317</b>	<b>1,392,898</b>
<b>Expenditure—</b>						
Buildings and Repairs	21,063	41,771	41,611	70,358	72,592	46,988
Maintenance, Outdoor Relief, Salaries, Wages	293,460	871,475	1,202,709	1,095,141	1,105,267	1,178,658
Other ... ..	11,142	39,371	65,780	64,673	91,151	93,423
<b>Total ...</b>	<b>325,665</b>	<b>952,617</b>	<b>1,310,100</b>	<b>1,230,172</b>	<b>1,269,010</b>	<b>1,319,069</b>

Financial aid from the State represented 52 per cent. of the total receipts in 1937. It included moneys provided by the State in respect of the governmental activities mentioned in the paragraph above the table.

#### PROTECTION OF THE ABORIGINALS.

The protection of the aboriginal natives of New South Wales is the function of a Board consisting of the Commissioner of Police and other members, up to ten in number, appointed by the Governor.

A number of reserves has been set apart for aboriginals in various localities, where dwellings have been erected, and assistance in the form of food and clothing is supplied when necessary.

Aboriginal children are required to attend school until the age of 14 years, and schools have been established for their exclusive use. The Board may assume control of the children and apprentice them, or place them in a training home. The Board controls a training home for girls at Cootamundra, and a home for boys at Kinchela, on the Macleay River. A home for young children is maintained at Bomaderry by the United Aborigines' Mission with assistance from the State.

Particulars as to the number of aboriginals in New South Wales are shown in the chapter "Population" of this Year Book.

The expenditure by the Aborigines Protection Board during the year 1937-38 amounted to £63,762, including £48,126 for general maintenance, £4,707 for purchase of stores, £9,904 for educational purposes, and £1,025 for medical attention and other services.

#### DISPOSAL OF THE DEAD BY CREMATION.

Until 1925 the only method of disposal of the dead was by burial, but a crematorium was established at Rookwood in May of that year. In 1938 there were five crematoria—four in the metropolitan district and one in Newcastle.

The provisions of the law dealing with cremation are contained in the Public Health Act.

The number of cremations during the last ten years is shown by the following table. The number in 1938 represented 14.7 per cent. of the total deaths in the State, as compared with 2.2 per cent. in 1929:—

TABLE 156.—Cremations, 1929 to 1938.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1929	341	212	553	1934	1,087	846	1,933
1930	408	294	702	1935	1,363	1,049	2,417
1931	507	366	873	1936	1,579	1,192	2,771
1932	623	467	1,090	1937	1,897	1,450	3,347
1933	858	599	1,457	1938	2,199	1,646	3,845

#### PENSIONS.

In New South Wales pensions are provided for the aged, for the permanently invalided, for persons incapacitated during war service, and their dependants, for the dependants of deceased soldiers and sailors, and for widows with dependent children. Provision is made also for superannuation in most sections of the Government services, and for certain employees of local governing bodies. Several of the banking companies and other firms have made arrangements for the superannuation of employees.

##### *Old Age and Invalid Pensions.*

Old-age pensions are payable to women aged 60 years or over, and to men aged 65 years or over (or 60 years in the case of men permanently incapacitated). In order to qualify for a pension the claimant must have resided in Australia for a continuous period of twenty years, though absences amounting in the aggregate to one-tenth of the total period of residence do not involve disqualification.

Invalid pensions are payable to persons over the age of 16 years who have resided continuously for at least five years, and have become incapacitated or blind, in Australia, also to persons permanently incapacitated or blind by reason of congenital defect if they were brought to Australia before the age of 3 years or have resided in Australia continuously for twenty years.

Naturalised persons are eligible for pensions, but aliens, Asiatics (except those born in Australia and Indians born in British India), and aboriginal natives of Australia, Africa, the islands of the Pacific, and of New Zealand, are disqualified.

A pension is not payable to any person who is adequately maintained by relatives, *i.e.*, father, mother, husband, wife, or children, either severally or collectively, nor if the net value of his property, exclusive of his home, exceeds £400, nor if his income exceeds a prescribed limit, *viz.*, £84 10s. per annum since September, 1937.

The amount of pension at maximum rate is subject to reduction so that the pensioner's income, together with pension, will not exceed the limit stated in the following table. It is reduced also by £1 for every complete £10 of the pensioner's property (exclusive of his home) in excess of £50, or £25 where both husband and wife are pensioners. In assessing the pensioner's income certain items are not included, *viz.*:—the value of sustenance or food relief granted under laws relating to unemployment relief; wages received under emergency or intermittent relief work in lieu of sustenance or food relief; benefits from friendly societies, trade unions or provident societies; allowances under Miners' Accident Relief Act (N.S.W.); and gifts or allowances from husband, wife, father, mother or children.

TABLE 157.—Old Age and Invalid Pensions—Rates.

Date.	Maximum Rate of Pension Per annum.		Limit of Income (including pension) Per annum.	
	£	s.	£	s.
1901, August... ..	26	0	52	0
1916, October ... ..	32	10	58	10
1920, January ... ..	39	0	65	0
1923, September ... ..	45	10	78	0
1925, October ... ..	52	0	84	10
1931, July ... ..	45	10	78	0
1932, October ... ..	30	0	71	10
	45	10		
1933, October ... ..	45	10	78	0
1935, July ... ..	46	16	79	6
1936, September ... ..	49	8	81	18
1937, September ... ..	52	0	84	10

In October, 1933, the maximum rate of pension was fixed at 17s. 6d. per week, and became subject to review in each year in accordance with the rise and fall in the cost of food and groceries as indicated by the retail price index numbers compiled by the Commonwealth Statistician for the six capital cities of Australia for the twelve months ending 31st March, the maximum to be not less than 17s. 6d. nor more than £1 per week. Under this arrangement the maximum rate of pension was raised to 18s. as from 4th July, 1935. By another amendment of the law in September, 1936, current pensions were increased by 1s. a week, and the scale for adjusting the rates was liberalised so that the rate for a full pension might

not fall below 18s. a week, and pensions generally would have greater purchasing power according to the index numbers. Twelve months later the maximum rate was restored to £1 a week and the provisions of the law relating to the variation of the rate according to price index numbers were repealed.

In the case of a permanently blind person, pension may be paid at such a rate (not exceeding the maximum rate) as will make his income, plus that of his wife, together with the pension, equal to an amount not exceeding £227 10s. per annum.

If a pensioner is an inmate of a public benevolent asylum, or remains in a public hospital for over twenty-eight days, he receives an allowance of 6s. per week instead of a full pension. If the pensioner had applied for a pension before entering the institution, the Federal Government also pays to the institution an allowance up to 14s. per week for his maintenance, but such allowance is not made in respect of a pensioner who was an inmate when he applied for a pension.

The following statement shows, in respect of old-age and invalid pensions, the applications received in New South Wales, the number of pensions current, and the average rate and total liability in recent years in comparison with similar information for 1911-12, the first year of Commonwealth control:—

TABLE 158.—Old Age and Invalid Pensions in New South Wales—1912 to 1938.

Year ended 30th June.	New Claims.	Pensions current in New South Wales at 30th June.			Weekly Rate of Pension, as at 30th June.		Estimated Annual Liability, as at 30th June.	Estimated Annual Liability per head of Population as at 30th June.
		Males.	Females.	Total.	Max.	Average.		
Old-age Pensions.								
					s. d.	s. d.	£	s. d.
1912	4,763	13,639	16,029	29,668	10 0	9 7	734,526	8 7
1921	5,727	16,033	23,004	39,037	15 0	14 1	1,428,258	13 7
1929	7,702	23,401	31,183	54,584	20 0	19 1	2,710,734	21 10
1931	12,814	28,003	37,029	65,032	20 0	19 1	3,225,872	25 3
1932	11,625	30,098	39,769	69,867	17 6	16 6	2,996,266	23 3
1933	7,884	30,551	38,256	68,807	17 6	15 8	2,804,958	21 7
1934	9,898	31,548	39,584	71,132	17 6	16 10	3,116,672	22 5
1935	10,615	32,890	41,762	74,652	17 6	16 10	3,260,712	24 8
1936	11,611	34,345	43,907	78,252	18 0	17 4	3,529,214	26 6
1937	11,238	35,806	45,965	81,771	19 0	18 4	3,895,086	28 11
1938	11,001	36,801	47,861	84,662	20 0	19 3	4,242,290	31 2
Invalid Pensions.								
					s. d.	s. d.	£	s. d.
1912	1,784	2,549	2,278	4,827	10 0	9 9	121,836	1 5
1921	3,278	7,016	8,371	15,387	15 0	14 9	588,588	5 7
1929	4,652	10,486	13,480	23,966	20 0	19 7	1,220,908	9 10
1931	6,383	12,148	15,948	28,096	20 0	19 6	1,425,996	11 2
1932	6,025	13,025	16,930	29,955	17 6	17 0	1,326,988	10 3
1933	5,066	13,474	17,255	30,729	17 6	16 6	1,315,236	10 1
1934	6,322	14,616	18,735	33,351	17 6	17 0	1,473,940	11 3
1935	7,138	15,362	20,160	35,522	17 6	16 11	1,562,704	11 5
1936	7,317	16,074	21,523	37,597	18 0	17 5	1,702,402	12 9
1937	7,379	16,637	22,533	39,170	19 0	18 5	1,875,588	13 11
1938	7,139	17,184	23,384	40,568	20 0	19 5	2,045,082	15 1

At 30th June, 1938, the number of pensioners in public benevolent asylums in New South Wales was 1,329, and the annual liability for their pensions at the rate of 6s. or less per week was £20,732.

The old-age and the invalid pensioners in New South Wales as at 30th June, 1938, represented respectively 31.0 and 14.8 per 1,000 of population, as compared with 32.5 per 1,000 and 12.5 per 1,000 in the Commonwealth.

The number and proportion of pensioners have varied appreciably with each increase or decrease in the maximum rate and in the value of property which a pensioner may hold without disqualification.

The total expenditure by the Commonwealth on invalid and old-age pensions during the year ended 30th June, 1938, was £15,798,687, of which £15,615,428 were paid as pensions, including payments to pensioners in benevolent asylums and hospitals, and £183,259 to public benevolent asylums and hospitals for the maintenance of pensioners. In addition the cost of administration was approximately £124,000.

The amount of pensions, etc., paid in New South Wales during 1937-38 was £6,315,550, including £52,547 to asylums and hospitals.

#### *Widows' Pensions.*

Pensions are payable to widows in terms of the Widows' Pensions Act, 1925-1937. A widow is not qualified to receive a pension unless she was domiciled in New South Wales at the date of her husband's death, is residing in the State at the date of her application for a pension, and has been so residing continuously for a period of three years, and (except in cases noted below) has wholly or mainly dependent upon her for support a child, stepchild, or child legally adopted before her widowhood, who is under the age of 14 years. If a child is suffering from mental or physical disability or possesses special scholastic ability the age limit is 16 years.

A widow without dependent child may be granted a pension if she is at least 50 years of age and in destitute circumstances, or if on the death of her husband she is left unprovided for—the pension in the latter case being limited to the period of six months after the death of her husband.

A pension may not be paid to any widow if she is receiving any other pension or allowance exceeding the amount of pension which, if otherwise qualified, she would receive under this Act; nor if she or her children, individually or collectively, own property exceeding £1,000 in value—apart from their dwelling, furniture and other personal effects.

The maximum rates of pension were £1 per week for the widow and 10s. for each eligible child until February, 1933, when they were reduced to 17s. 6d. and 8s. 9d. respectively. They were restored to £1 and 10s. in October, 1937. Pension at maximum rates is reduced by £1 per annum for each £1 of the widow's income in excess of £39 per annum.

In assessing the widow's income it is deemed to include any pension or allowance under any other Act; the earnings of the widow or her children under 14 years of age from personal effort; 5 per cent. of any real or personal property of the widow or her children which produces less than 5 per cent. per annum, except the house in which they reside and the furniture and personal effects therein; and any payment for the children's maintenance or education from any estate, etc.

The widow's income is deemed to include also 50 per cent. of the earnings of unmarried children over 14 years of age residing with her, and 25 per cent. of the earnings of unmarried children not residing with her. In special circumstances, however, the whole or part of such earnings may be disregarded. Items excluded are sick allowance or funeral benefit from any society, and money received under an insurance policy on the destruction or damage of property.

Pensions are not payable for any period while the pensioner resides out of New South Wales, except during occasional absences during which her family or home is in the State. Pensions are terminated on the marriage of a pensioner or on the date she becomes qualified to receive an



old-age or invalid pension under federal legislation. On the death of a widow the guardian of her children is entitled, with the Minister's approval, to receive the pension payable in respect of them.

The number of pensions granted and the amount of pensions paid during each of the last eight years are shown below:—

TABLE 159.—Widows' Pensions—1931 to 1938.

Year.	Pensions Granted.	Pensions Paid.	
		Amount.	Per Head of Population.
	No.	£	s. d.
1930-31 ... ..	6,661	620,258	4 9
1931-32 ... ..	7,218	638,970	5 0
1932-33 ... ..	7,180*	618,685	4 9
1933-34 ... ..	8,433	529,764	4 1
1934-35 ... ..	8,268	532,416	4 1
1935-36 ... ..	8,168	558,431	4 2
1936-37 ... ..	8,108	539,623	4 0
1937-38 ... ..	8,454	601,511	4 5

\* Estimated.

The number of original claims granted during 1937-38 was 1,556, the total number of pensions, including renewals, granted was 8,454, and the average amount authorised was £68 13s. 9d. per annum. The pensions are subject to review from time to time throughout each year, and may be varied in amount or suspended or cancelled in cases where the widow's circumstances have changed since issue or previous review.

A reduction in the rates in February, 1933, caused the annual payments to decline. In October, 1937, the rates were restored to their former level. The annual payments are affected by variations in the number of fortnightly pay-days, viz., 27 in the years ended June, 1933 and 1936, 25 in 1933-34 and 26 in the other years.

#### War Pensions.

War pensions are granted by the Commonwealth Government upon the death or incapacity, as the result of war service, of members of the naval or military forces.

The number of war pensioners as at 30th June, 1938, was as follows:—

TABLE 160.—War Pensioners in New South Wales.

War Pensioners.	New South Wales.		Commonwealth.	
	Number of Pensioners.	Average Fortnightly Rate.	Number of Pensioners.	Average Fortnightly Rate.
		£ s. d.		£ s. d.
Incapacitated Soldiers ... ..	26,013	2 1 4	77,315	1 19 6
Dependants of Deceased Soldiers ... ..	9,014	2 9 5	28,562	2 8 7
Dependants of Incapacitated Soldiers ... ..	48,809	0 10 7	151,337	0 9 9
Total .. ..	83,836	1 4 3	257,214	1 3 1

At 30th June, 1938, there were 83,836 war pensions current in New South Wales, and the annual liability was estimated to be £2,646,025.

In addition to war pensions, a system of service pensions was introduced in January, 1936, for ex-service men aged 60 years or over, nurses aged 55 years or over, and for those permanently unemployable by reason of

physical or mental incapacity, or suffering from pulmonary tuberculosis. Claimants for these pensions are not required, as in the case of war pensions, to establish the fact that their disability arises from war service. The service pensions current in New South Wales at 30th June, 1938, consisted of 1,842 to members of the forces at an average rate of £1 13s. 6d. per fortnight, and 1,272 to dependants or wives, average rate 16s. 11d. per fortnight. The annual liability was £108,000 approximately. The total number of service pensions in the Commonwealth was 10,851, and the annual liability £360,815. A service pension is not granted where income or property exceeds a certain limit.

The amounts paid in New South Wales during 1937-38 were war pensions £2,661,271 and service pensions £96,327, the corresponding amounts paid in the Commonwealth being £7,761,207 and £329,871 respectively.

#### *Government Service Pensions.*

The existing pension funds for employees of the State Government of New South Wales are the State Superannuation Fund, the Police Superannuation and Reward Fund, and the Government Railways Superannuation Fund. There is also a fund for the superannuation of employees of the Commonwealth Government. These funds are maintained partly by deductions from officers' salaries and partly by grants from the public revenue.

Special provision is made by the State Government for pensions to judges and certain officers, the amount paid from Consolidated Revenue during the year ended 30th June, 1938, being about £16,700.

The first Public Service Superannuation Fund in New South Wales was established by the Civil Service Act, 1884. In 1895 the admission of new contributors was discontinued, and current pensions under the scheme are paid from Consolidated Revenue, as shown later.

The existing Superannuation Fund was constituted by provisions of the Superannuation Act, 1916, and amendments to provide pensions for employees of the State Government and statutory bodies—other than the police and the railway employees.

Originally the scheme was based upon the principle of a fund formed by regular compulsory contributions, in equal proportions by the State Government and statutory bodies, as employers, and the officers of the services, so that the moneys accumulated during service would be available to pay the pensions on maturity. Concessions were allowed to officers who were over 30 years of age when the scheme was brought into operation, and the State Treasury made an agreement with the Superannuation Board that the cost of these concessions would be paid from Consolidated Revenue in instalments spread over a number of years. Subsequently the scheme was amended so that the Crown contributions to the Superannuation Fund are made as the pensions become due and not during the service of the employee concerned, and contributions already paid by the Crown in respect of unmaturing pensions are being repaid to the Treasury by the Superannuation Fund. The amount, £3,832,000, with interest, is being repaid in monthly instalments of £27,394 spread over fifteen years.

The alteration in the method of payment by employers does not apply to contributions by some of the statutory bodies which continue to be paid as under the original Act, *e.g.*, the Rural Bank, the Metropolitan and Hunter District Water Supply and Sewerage Boards, the Fire Commissioners, and the Commonwealth Savings Bank (in respect of former employees of the Government Savings Bank of New South Wales).

Contributions by employees are compulsory at rates which vary with the age and sex of the contributor. Pension is payable and contributions cease at age 60 years, unless the officer's service is terminated sooner, and women may elect to contribute for retirement at age 55 years. The average annual contributions at 30th June, 1938, were men £19 10s., and women for retirement at age 55 years £12 4s., or retirement at age 60 years £8 2s.

The amount of pension ranges from £52 to £312 per annum, according to salary. Upon the death of a contributor or a pensioner his widow receives one-half of the amount of his pension and £13 per annum for each child under 16 years of age. Refunds are made to personal representatives in respect of contributions paid by women and by unmarried men or widowers who died before retirement.

The income and expenditure of the Superannuation Fund in the year 1928-29 and the last four years, also the funds at the end of these years are shown below:—

TABLE 161.—State Superannuation Fund—Income and Expenditure, 1929 to 1938.

Particulars.	1928-29.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Contributions—Employees ... ..	301,838	311,745	318,802	327,603	354,404
Employers ... ..	464,251*	303,295	322,464	342,259	359,790
Interest on Investments ... ..	393,229	466,859	472,730	484,379	499,848
Miscellaneous ... ..	...	32	6,822	5,203	5,208
<b>Total Income ... ..</b>	<b>1,159,318</b>	<b>1,081,931</b>	<b>1,120,818</b>	<b>1,159,444</b>	<b>1,219,250</b>
Pensions ... ..	158,965	327,559	353,878	387,366	412,321
Refunds of Contributions ... ..	30,970	67,415	51,377	50,240	48,137
Refunds on Retrenchment ... ..	370	10,264	12,821	3,596	...
Administrative Expenses ... ..	11,388	9,618	10,220	11,335	11,349
Interest paid to State Treasury ... ..	...	124,822	116,645	109,102	101,290
Miscellaneous ... ..	...	92	204	687	860
<b>Total Expenditure ... ..</b>	<b>201,693</b>	<b>539,770</b>	<b>545,145</b>	<b>562,326</b>	<b>573,957</b>
<b>Accumulated Funds at end of year</b>	<b>10,805,028</b>	<b>7,429,969</b>	<b>8,005,612</b>	<b>8,602,761</b>	<b>9,243,055</b>

\* Exclusive of £102,332 not received.

The amount of accumulated funds was reduced between 1928-29 and 1934-35 as a result of amendments in the law respecting employers' contributions, as noted above. The liabilities at 30th June, 1938, amounted to £12,106,807, including accumulated funds and a sum of £2,770,294 in respect of employers' contributions which are being repaid to the State Treasury. The investments at the date amounted to £11,659,556, which included Commonwealth Government securities £5,822,764; securities guaranteed by the Government of New South Wales, £1,122,784; and securities of local governing bodies, £4,596,777.

The number of contributors to the Superannuation Fund at 30th June, 1938 was 22,363, consisting of 15,427 men and 4,349 women contributing for retirement at age 60 and 2,587 women contributing for retirement at age 55 years. The number of contributory pensions in force was 4,831, viz., 2,194 to men, average rate £117 13s. per annum; 891 to women, average £90 9s.; 1,383 to widows, average £62 4s.; and 363 to children at the rate of £13 per annum. The annual amount was £429,504. There were in addition 978 non-contributory pensions for an amount of £61,297 payable from Consolidated Revenue or the funds of corporate bodies, being pensions in respect of officers who were over the age of 60 years when the provisions of the Superannuation Act were brought into operation. These consisted of 358 pensions payable to men at an average rate of £86 12s. per annum; 68 to women, average £82 10s.; 551 to widows, average £44 15s.; and one child's pension at £13 per annum.

Particulars of pensions payable under the Civil Service Act and the Superannuation Act as at 30th June, 1938, are shown below. Some of those payable under the latter Act were in abeyance as the officers had not retired:—

TABLE 162.—Public Servants—Pensions Payable June, 1938.

Particulars.	Pensioners.					Amount of Pensions per Annum.
	Men.	Women.	Widows.	Children.	Total.	
Superannuation Act—						£
Contributory pensions from Superannuation Fund ... ..	2,194	891	1,383	363	4,831	429,504
Non-contributory pensions—Consolidated Revenue and funds of corporate bodies ... ..	358	68	551	1	978	61,297
Civil Service Act—From Consolidated Revenue ... ..	472*		13	...	485	135,495*
Total ... ..	3,983		1,947	364	6,294	626,296

\* Includes pensions to 107 officers transferred to the Commonwealth Service, for which the Commonwealth pays proportion amounting to £20,971.

Pensions for the police are paid from the Police Superannuation and Reward Fund to which the police contribute at the rate of 4 per cent. of salary while in the service and 3 per cent. of pension when superannuated. Other sources of revenue are penalties imposed on members of the police force, penalties and damages awarded to the police as prosecutors, and the proceeds of the sale of unclaimed goods, but approximately 75 per cent. of the annual receipts are appropriated from Consolidated Revenue.

The amount of pension payable to members of the police force is graduated in accordance with length of service and the rate of salary at date of retirement. Where the officer entered the police service after 1906 and has served for 20 years or longer the pension is one-fortieth of his salary at retirement for every year of service up to a maximum of three-quarters of such salary. The retiring age is 60 years, except in cases of incapacitation, but the services of any member of the force may be retained until he reaches the age of 65 years. If members of the force die whilst in the service gratuities may be paid to or on behalf of dependants.

During the year ended 30th June, 1938, the receipts of the Police Superannuation and Reward Fund amounted to £338,832, including deductions from salaries, £51,098, and appropriation from Consolidated Revenue, £219,800. The disbursements, £332,181, included pensions, £307,840 and gratuities, £24,085. The number of pensions current at 30th June, 1938, was 893, viz., ex-officers 866, widows of deceased officers 25 and children 2.

The Government Railways Superannuation Fund was established in October, 1910, for employees in the State railway and tramway services. The contributions from employees are at the rate of 1½ per cent. of wages or salary, and the railway and tramway funds provide all that is necessary beyond such contributions. The amount of pension payable is one-sixtieth of the average annual salary during term of service, multiplied by the number of years of service, the maximum pension being two-thirds of the average salary.

The number of contributors at 30th June, 1938, was 45,368. Superannuation allowances in force numbered 5,690, and the aggregate annual amount was £538,943, representing an average of £94 14s. per annum. Disbursements during the year 1937-38 amounted to £571,076, and the total receipts to £571,728. Deductions from salaries amounted to £175,147 and contributions from the railways fund to £307,000 and from the Transport (Tramways) Fund to £81,701. Up to 30th June, 1938, the total subsidy from the public revenues was £3,176,513, of which £402,650 had been provided from Consolidated Revenue, £2,326,189 from the Government Railways Fund, and £447,674 from the Transport (Tramways) Fund. Since the inception of the fund 10,374 superannuation allowances have been granted, 4,383 retired officers have died, 275 have been reinstated, and 26 allowances have been written off the books.

In the Superannuation Fund for the Commonwealth Public Service as at 30th June, 1937, there were 33,589 contributors, of whom approximately one-third were in the State of New South Wales.

#### *Superannuation—Local Government Services.*

A superannuation scheme for permanent employees of municipalities and shires was brought into operation in April, 1928, in terms of the Local Government (Superannuation) Act, 1927. It provides for compulsory endowment insurance with approved societies. The policies mature at age 65 or previous death and the premiums are payable by the councils and the employees at prescribed rates. There is also a provident fund formed by contributions by councils and employees for those who are debarred from insurance on account of age or other circumstances. The scale of compulsory cover ranges from £200 to £1,000 according to age and salary.

The insurance cover intact at 31st March, 1938, in respect of 3,237 employees, including bonuses £327,227, was £2,207,227 or £744 per employee, and 494 employees were contributors to the Provident Fund, which amounted to £88,522 at 31st March, 1938.

#### FAMILY ALLOWANCES.

The introduction of family allowances in New South Wales in July, 1927, was an outcome of the system of wage regulation which is described in the chapter relating to wages. Nevertheless, endowment is not restricted to the children of wage and salary earners, but is payable under like conditions for the children of other families whose income does not exceed a prescribed limit. This limit is based on the living wage determined from time to time for the purposes of industrial awards under the Industrial Arbitration Act. Since December, 1929, when the living wage was based on the requirements of a man, wife and one child under 14 years of age, one child in each family has been excluded from the endowment system.

The allowances are payable until the children reach the age of 14 years, and may be continued to 16 years if the child is incapacitated. Children in charitable institutions are included within the scope of the system. Illegitimate children are excluded generally, but the Commissioner of Family Endowment has discretionary power to pay endowment in respect of such children under special circumstances. Others excluded are children of fathers who are aliens, Asiatics, or aboriginal natives of Africa, the Pacific Islands, or New Zealand, unless born in Australia; children for whom pension is payable under the Widows' Pensions Act or any other State or Federal Act except war pensions; children for whom family allowance is paid in the Commonwealth Public Service.

Where practicable, the endowment is paid to the mothers, and for mothers and children, except those under 2 years of age who were born in the State, there is a residence qualification of two years in New South Wales immediately preceding the date of claim.

The maximum rate of endowment is 5s. per week per endowable child, but the amount at this rate is reduced where necessary to comply with a condition that endowment may not raise the family income above the living wage, plus £13 for each dependent child except one.

The family income is defined as the combined income of the claimant, her spouse, and children under 14 years, including weekly payments of workers' compensation, and 5 per cent. per annum of the value of real or personal property (except their residence, and the furniture and personal effects therein), which produces less than 5 per cent. per annum. In assessing the income the following amounts are excluded, viz., sick pay and funeral benefits from any society; money received under fire insurance policy; lump sum payments as workers' compensation or superannuation or gratuity; earnings of children under 14 years; earnings of mother from casual employment; war pensions; earnings from overtime up to £26; payments by the State in respect of a child's attendance at school; and where income is derived otherwise than from wages, the amount expended in the production of that income.

Though it is a general rule to grant endowment for a period of twelve months, a large number of claims in 1930-31 were granted for shorter terms under the provisions of an amending Act passed in December, 1929. This Act prescribes that claims for endowment of wage-earners' families, except those following occupations of a seasonal character, may be granted for one, two, three or four quarters on the basis of the average income for a similar period before the date of claim. The practice of granting endowment for short terms was abandoned later, on account of the expense entailed by the frequent review of the claims.

Until 31st December, 1933, moneys for endowment were obtained from proceeds of taxation levied upon employers on the basis of amounts paid in salaries, wages, etc. The tax was abolished as from 1st January, 1934, and endowment has since been paid from the general revenue of the State.

Particulars relating to claims for endowment granted and the amount of endowment paid during the last eight years are shown below. The number of claims as stated is exclusive of claims by charitable institutions and of claims for additional endowment on account of children born in families already receiving allowances.

TABLE 163.—Family Endowment—Claims and Endowment Paid  
1931 to 1938.

Year.	Number of Claims granted.				Amount of Endowment Paid.		
	For period of one year.			Other Claims.	Average per Fortnight.	During the year.	
	Original.	Renewals.	Total.			Amount.	Per head of Population.
1930-31 ...	14,955	39,045	54,000	12,320*	£ 46,019	£ 1,196,484	s. d. 10 5
1931-32 ...	16,014	53,957	69,971	4,114*	69,449	1,805,685	14 1
1932-33 ...	9,229	60,342	69,571	914	77,987	2,105,659	16 3
1933-34 ...	7,038	64,687	71,725	324	78,439	1,960,972	15 0
1934-35 ...	5,747	62,111	67,858	204	73,012	1,898,315	14 5
1935-36 ...	5,387	55,949	61,336	274	66,836	1,804,392	13 7
1936-37 ...	4,541	48,552	53,093	277	61,353	1,595,183	11 11
1937-38 ...	4,816	43,157	47,973	185	56,536	1,469,932	10 10

\* Quarterly periods in most cases.

The living wage, which is the basis of the income limit, remained at predepression level until it was reduced from 82s. 6d. to 70s. per week in August, 1932, and the cost of endowment rose rapidly under the influence of depression during 1930-31 and 1931-32. The reduced wage came gradually into effect as a measure of family income during the twelve months after it was determined. Moreover, a decline in births tended to restrict the scope of endowment, but increased unemployment offset these factors, and in 1933-34 endowment reached the maximum.

In later years the number of claims fell steadily as the effect of improved economic conditions became apparent. A slow rise in the living wage which commenced in 1934 was accelerated in October, 1937, and the number of births increased. Consequently the number of original claims in 1937-38 was somewhat higher than in the previous year, though the number of renewals was much lower.

The allowances are paid fortnightly, so that there are usually 26 pay days per annum, but there were 27 in 1932-33 and 1935-36 and 25 in 1933-34. Therefore the fortnightly averages in each year, rather than the annual payments, reflect the rise and fall in the cost of endowment. The average amount paid per fortnight in 1937-38 was the lowest since 1930-31.

The following summary relates to particulars furnished by claimants for endowment in regard to average endowment and to family income and unemployment during the twelve months preceding the date of claim. Unemployment from such causes as illness, industrial strife, etc., has well as scarcity of work, has been taken into account, and heads of families whose employment during the twelve months preceding claim consisted of less than six weeks' relief work have been counted as unemployed throughout the whole year.

TABLE 164.—Family Endowment—Children, Income and Unemployment of Claimants.

Year ended June.	Average per claim granted during the year.				
	Number of Endowable Children.*	Endowment Authorised per annum.	Family Income per annum.	Period of Unemployment (Principal Breadwinner).	
				Average over all Claims.	Average excluding claims which showed no unemployment.
		£ s.	£ s.	Weeks.	Weeks.
1931 ... ..	2.40	27 10	122 0	19.8	26.9
1932 ... ..	2.30	28 11	87 2	28.5	34.8
1933 ... ..	2.23	27 13	84 13	28.1	35.5
1934 ... ..	2.23	27 0	91 19	23.4	32.2
1935 ... ..	2.25	26 13	105 12	19.8	28.1
1936 ... ..	2.26	26 9	114 15	16.6	24.9
1937 ... ..	2.28	26 14	117 18	16.5	24.0
1938 ... ..	2.32	27 1	123 14	16.2	24.4

\* Dependent children, except one, in each family.

The living wage was constant at 82s. 6d. per week from December, 1929, to August, 1932, yet the average income of the families to whom endowment was granted during 1930-31, and 1931-32, declined from £122 to £87. The rise from £84 in 1932-33 to £105 in 1934-35, when the higher income groups eligible in earlier years would have been excluded, indicates an appreciable improvement in family circumstances. Further evidence of this is supplied inversely by the trend of unemployment amongst the principal breadwinners. The average number of endowable children which declined

between 1931 and 1934 has risen slowly in recent years as well as the average family income, though the employment experience of the principal breadwinners has not greatly improved since 1935-36. Apparently endowment has been restricted amongst those in fairly constant employment and in the smaller families where the permissible margin of income over the living wage is low.

Officers of the Public Service of the Commonwealth, of whom a large number are employed in New South Wales, have received child endowment, in terms of their employment, since November, 1920. The payments are at the rate of 5s. per week for each dependent child under the age of 14 years, provided that it does not bring the remuneration of the officer above £500 per annum. In effect the cost is borne by the employees in the service, because in assessing the basic wage upon which he determines their salaries and wages, the Public Service Arbitrator deducts from the rate, which otherwise would be awarded, a sum to cover the cost of endowment.

Employees of banks in New South Wales also received child endowment in terms of an award for bank officers made originally by the Industrial Commission of New South Wales in June, 1927. The banks were required to pay allowances to officers covered by the award, at the rate of £33 per annum for each child under the age of 14 years, or, if at school, under the age of 16 years, provided that the amount of these allowances, together with salary, apart from other allowances, did not exceed £750 per annum. This provision of the award was modified to some extent by agreement between the parties, and early in 1939 it was deleted in consequence of a decision by the Industrial Commission that family allowances was a subject not proper to be dealt with by award. An agreement was made between the parties that allowances being paid at date of the order for deletion be reduced gradually to £20 per annum during first three months after deletion, then £15 and £10 per annum for the second and third periods respectively.

#### FRIENDLY SOCIETIES.

Friendly societies exercise a strong influence for good in the community by inculcating habits of thrift, and by preventing and relieving distress.

The benefits assured by the societies consist usually of medical attendance and medicine for a member and his family, with sick pay for the member, and funeral allowances for the member and his wife. The sickness benefit in the largest societies is 21s. per week during the first six months of illness. Then the rate of benefit is reduced at six-monthly intervals, so that it is 15s. for the second period of six months, 5s. or 10s. for the third period, 5s. for the fourth period, and a rate of 2s. 6d. per week is paid during the remainder of illness, that is, after the first two years.

The funeral benefits range usually from £10 to £40 at death of the member, according to the period of membership, and a contingent benefit of £10 or £15 is payable on death of his wife. In several societies members may assure for sums up to £100, and in two of them it is possible to assure for £200, the maximum allowed by law. A separate benefit for widows of members—usually £10—may be assured in most of the societies for a stated contribution.

The rates of contribution for sick pay and funeral donations vary according to the rates of benefit, the average contribution being about 5d. per week for sick pay and 2½d. per week for funeral benefits. The usual contribution for medical benefit is 9s. 6d. per quarter in the metropolitan district and 11s. in the country.



The societies may be divided into two classes, viz., friendly societies proper, and miscellaneous societies, which are within the scope of friendly societies legislation, though their benefits differ somewhat from those of ordinary friendly societies.

At 30th June, 1937, there were 51 societies, including 21 miscellaneous; 17 possessed branches and 13, including one with a juvenile branch, were classed as single societies.

The following summary shows the branches, membership, and funds of the societies as at 30th June, 1937. The miscellaneous societies had 69,166 members, but these are included in the membership of the friendly societies proper and they are not shown in the table.

TABLE 165.—Friendly Societies on Register, 1937.

Classification:	Societies.	Branches.	Members.	Funds.
Friendly Societies Proper—	No.	No.	No.	£
Affiliated ... ..	17	2,429	206,840	4,585,006
Single ... ..	13	.....	2,139	46,495
	30	2,429	208,979	4,631,501
Miscellaneous Societies ... ..	21	.....	*	101,746
Total ... ..	51	2,429	208,979	4,733,247

\* Included in membership of the friendly societies.

In 1899, when the societies were first subjected to supervision by the Registrar, there were 78,245 members, equal to 5.9 per cent. of the population. Thereafter there was continuous progress until the outbreak of war, when the number declined owing to enlistments, and, subsequently, through deaths on active service. After the termination of the war there was an increase in each year until 1930-31, then followed a decline which persisted up to 1935, but some recovery was shown in 1936 and 1937.

The membership at intervals since 1899 is shown in the following table:—

TABLE 166.—Friendly Societies, Membership, 1899 to 1937.

At 30th June.	Aggregate Membership.		At 30th June.	Aggregate Membership.	
	Members.	Percentage of Population.		Members.	Percentage of Population.
1899*	78,245	5.9	1931	242,344	9.5
1901*	89,684	6.5	1932	225,331	8.7
1911*	164,910	9.7	1935	204,626	7.7
1921	199,688	9.5	1936	206,857	7.8
1929	247,730	9.9	1937	203,979	7.8

\* At 31st December:

The number of members entitled to benefits was 195,995 in June, 1937. The benefits of medical attendance and medicine accrue also to the member's family, but such persons are not included in the membership.

The membership at 30th June, 1937, consisted of 170,731 men, 16,894 women, and 21,354 juveniles, the total 208,979 being 4,353 above the number in June, 1935. As compared with the membership at 30th June, 1929, there were decreases of 33,027 men, 4,049 women, and 1,675 juveniles; the total decrease being 38,751.

Particulars of the membership in June of each year since 1929 are shown below.

TABLE 167.—Friendly Societies, Men, Women and Juvenile Members, 1929 to 1937.

At 30th June.	Membership.				Members eligible for Benefits.	
	Men.	Women.	Juveniles.	Total.	Number.	Proportion of Total.
1929 ... ..	203,758	20,943	23,029	247,730	228,125	per cent. 92.1
1930 ... ..	205,063	22,443	24,580	252,086	226,133	89.7
1931 ... ..	196,228	21,686	24,430	242,344	209,467	86.4
1932 ... ..	183,288	20,057	21,986	225,331	195,582	86.8
1933 ... ..	172,880	18,365	20,322	211,567	188,865	89.3
1934 ... ..	168,033	17,326	19,694	205,053	186,735	91.1
1935 ... ..	167,685	16,897	20,044	204,626	189,600	92.7
1936 ... ..	169,088	16,831	20,938	206,857	193,188	93.4
1937 ... ..	170,731	16,894	21,354	208,979	195,995	93.8

Information regarding receipts and expenditure of Friendly Societies, and the accumulated assets, is shown in the chapter of this Year Book entitled Private Finance.

#### *Miscellaneous Friendly Societies.*

In addition to the friendly societies proper there were at 30th June, 1937 twenty-one miscellaneous societies registered under the Friendly Societies Act. These organisations are medical institutions or dispensaries for the supply of medicine to those members of contributing branches of the ordinary friendly societies whose names have been placed on their lists. In some cases the miscellaneous societies arrange for medical attendance for such members.

The receipts of the miscellaneous societies during the twelve months ended 30th June, 1937, were £58,760, and the expenditure £51,896, so that there was an excess of receipts amounting to £6,864. Many of these bodies have received liberal grants from the Government, and with this assistance have purchased land and erected buildings, the shares of the branches which subscribed being covered by the issue of interest-bearing debentures. In addition to paying interest, most of the dispensaries or medical institutes have made substantial reductions in the principal. The funds amounted to £101,746 at 30th June, 1937.

#### *State Subvention to Friendly Societies.*

In terms of an Act passed in 1908 the State commenced to pay an annual subvention to the friendly societies for the purpose of enabling them to pay sickness benefits for extended periods, and to relieve aged members of the necessity of paying contributions.

The annual amount of subvention under arrangements described in earlier issues of this Year Book increased steadily until the payments in respect of the year 1929-30 reached the sum of £77,433. Then the Government decided, in view of adverse financial conditions, to limit the subvention to a fixed sum—£50,000—per annum, and the law was amended to provide for its distribution amongst the societies on the basis of aged membership. Subsequently this arrangement was altered and in terms of the Friendly Societies (Amendment) Act, 1932, provision was made for the payment of subvention in respect of the years ended June, 1931, and 1932, on the same basis as for earlier years, less a deduction of 20 per cent. Then a new scheme was brought into operation.

Subvention on the new basis is payable only in respect of persons who were members at 30th June, 1932. The amount which may be claimed in each year is a sum equal to the amount of contributions for sickness, funeral and medical benefits in respect of men over 65 years of age and women over 60 years as follows:—(a) those who were members at 30th June, 1932, and at the date of application for subvention had been members for a continuous period of 15 years; and (b) widows or widowed mothers of deceased members who were members at 30th June, 1932, and who had been members for 15 years continuously; (c) widows and widowed mothers in respect of whom subvention was being paid at 30th June, 1932. A proportion of each year's subvention in respect of medical benefits is advanced to the societies at quarterly intervals pending determination of the annual claims.

Payments to the societies in respect of subvention claims for the year 1936-37 amounted to £68,857. The total amount paid by the State in respect of claims to 30th June, 1937, was £1,284,324.

#### NATIONAL INSURANCE.

Legislation was passed by the Commonwealth Parliament in 1933 for the establishment of a national health and pensions insurance scheme in Australia. It was intended to bring the scheme into operation in January, 1939, but commencement has been postponed, pending the investigation of proposed amendments.

The scheme is based on compulsory insurance and contributions payable by employers and employees, supplemented by grants from the Commonwealth Treasury. It is designed for the insurance of manual workers (without limitation as to earnings) and non-manual workers whose earnings do not exceed £365 per annum, from age 14 to 65 years, in the case of men, and 60 years in the case of women.

The health benefits under the scheme are (1) medical, (2) sickness and (3) disablement, but for juveniles under age, 16 years' medical and sickness benefit only.

Medical benefit consists of treatment by general medical practitioners, and the provision of medicines and surgical appliances, and the supply of the medical certificates required for the purposes of the scheme. The scheme provides medical benefit for the insured persons only and in this respect differs from the medical benefit of the friendly societies throughout Australia which extends to members and their wives and families.

Sickness benefit consists of periodical payments to insured persons during sickness for a maximum period of six months from the fifth day of incapacity for work. Where sickness continues beyond this period the insured person becomes entitled to disablement benefit consisting of periodical payments (at a lower rate) during incapacity.

The right to sickness and disablement benefit will cease when the insured person becomes entitled to receive an old age pension; but medical benefit will continue during his life.

The pension benefits are (1) old age pension payable to men at age 65 years and to women at 60 years, (2) widows' pension payable to widows of insured persons and (3) orphans' pension payable to age 15 years to children whose parents are dead and whose last surviving parent was insured or in receipt of a pension at death.

Dependent children's allowances payable to age 15 years are attached to sickness and disablement benefit and to old age and widow's pensions. A widow's pension will cease, but allowances for her children will continue, if she remarries. A widow entitled to old-age pension as a special

voluntary contributor may receive both widow's and old age pension. If a child is permanently incapacitated, dependent child's allowance or orphan's pension will be payable until age 16 years, when those eligible in terms of the Invalid and Old-age Pensions Act may receive a non-contributory invalid pension as described on page 200.

The normal weekly rate of contribution to be paid is 1s. 6d. by male employees between the ages 16 and 65 years, and 1s. by females at ages 16 to 60 years. These rates are to be increased by 3d. per week when the scheme has been in operation for five years, and the rate payable by males by a further 3d. five years later. Juveniles from 14 to 16 years of age are to pay 4d. per week. In each case, the employers must contribute at similar rates and they must pay in respect of their employees who are men over 65 years or women over 60 years of age.

Insured women may contribute an additional 6d. per week to qualify for old age pension at a rate of 5s. a week above the normal pension (15s.). Under certain conditions insured persons who cease to be employed or non-manual workers whose earnings rise above £365 per annum may continue as voluntary contributors by paying both "employee" and "employer" contributions. It is prescribed, however, that voluntary contributors with total income exceeding £365 per annum will not be entitled to medical benefit. Special voluntary contributions at the rate of 1s. per week may be paid for old-age pension by married women who, having been insured for at least 4 years, cease to be employed.

Transitional provision has been made to enable men over 60 years and women over 55 years at the commencement of the scheme to qualify for old-age pension at the expiration of 5 years from entry into insurance. Such persons who have contributed for 52 weeks but less than 104 weeks before attaining pension age are to be entitled to medical benefit only. Where a person who has been insured for at least six months, dies within two years of the commencement of the scheme, his widow and dependent children, or orphans will be entitled to a lump sum payment varying according to the number of contributions paid.

Certain free insurance periods are provided during unemployment.

Details regarding the various benefits are shown below, viz., the rate and period of benefit and the minimum number of contributions which must be paid before the insured person is entitled to the benefit.

TABLE 168.—National Insurance Benefits.

Benefit.	Weekly Payment.		Period of Benefit.	Working Period.	Minimum Number of Contributions.
	Males.	Females.			
Medical Benefit ...	s. d.	s. d.	During insurance and old age.	None ..	None.
Sickness benefit— Adults and married minors.	20 0	15 0	26 weeks ...	26 weeks ...	26
Unmarried minors insured 2 years.	15 0	12 6	26 „ ...	104 „ ...	104
Other unmarried minors	12 0	10 0	26 „ ...	26 „ ...	26
Juveniles, 14-16 years	5 0	5 0	To age 16 at least ...	.....	.....
Disablement benefit— Adults and married minors.	15 0	12 6	To pension age ...	104 weeks ..	104
Unmarried minors	12 0	10 0	„ „ „ „ „ „ „ „	104 „ ..	104
Old-age pension ...	20 0	*15 0	Men from age 65 yrs... Women from age 60 years.	} 5 years ...	208, and 117 in last 3 years. †
Widows' pension...	...	†12 6	Until remarriage or death.	104 weeks ..	104, and 78 in last 3 years. †
Orphans' pension	7 6	7 6	To age 15 years ...	104 „ ...	„ „ „ „ „ „
Dependent child's allowance.	3 6	3 6	„ „ „ „ „ „ „ „	„ „ „ „ „ „	Same as for relevant benefits.

\* 20s. if additional contribution (6d. per week) is paid.

† 15s. as from 1st January, 1944.

‡ Weeks of sickness count as weeks of contribution.

The National Insurance Commission charged with the general administration of the scheme consists of a chairman and two other members appointed by the Governor-General for a term not exceeding seven years with eligibility for re-appointment. Societies constituted in terms of the Act and approved by the Commission will administer the sickness and disablement benefits and additional benefits which a society may provide for its members, and the accompanying allowances for children.

Every insured person must join an approved society, and on behalf of its members the society will distribute and collect the insurance cards to which the employer will affix stamps to the full amount of the joint weekly contribution payable by the employer and employee.

An approved society may not be carried on for profit and it must have at least 2,000 members.

## HOUSING.

*Census Records.*

The number of occupied dwellings in New South Wales, as disclosed by the census, was 432,976 in 1921 and 599,750 in 1933, a room or a suite of rooms occupied as a flat or tenement being classified as a separate dwelling. These figures are exclusive of waggons, vans and camps in which people were living, viz., 1,886 in 1921 and 3,717 in 1933.

The number of unoccupied dwellings was 18,619 in 1921, and 28,737 in 1933, and those recorded as being built 2,724 and 746 at the respective dates.

A classification of the occupied dwellings is shown below:—

TABLE 169.—Dwellings—Census, 1921 and 1933.

Nature of Dwelling.	Number of Occupied Dwellings.					Per cent. of Total.	
	Census, 1921.	Census, 1933.				1921.	1933.
		Municipalities.		Shires.	Total, New South Wales.		
		Metropolis.	Country.				
Private House ... ..	396,619	244,167	119,314	180,369	543,850	91·60	90·70
Flat or Tenement in Private House	17,849	35,896	4,372	1,332	41,600	4·12	6·94
Caretaker's Quarters in Store, Office, etc. ... ..	627	552	167	149	868	·14	·14
Hotel ... ..	2,640	598	814	692	2,104	·61	·35
Boarding House, Lodging House, Coffee Palace ... ..	12,538	6,177	1,648	816	8,641	2·90	1·44
Educational Institution ... ..	493	211	168	167	546	·11	·09
Religious Institution (non educational) ... ..	89	23	7	12	42	·02	·01
Hospital ... ..	735	293	327	206	826	·17	·14
Charitable Institution (other than Hospital) ... ..	99	86	29	39	154	·02	·02
Penal Establishment ... ..	39	2	11	6	19	·01	·00
Military or Naval Establishment	31	11	10	3	24	·01	·01
Police Station or Barracks ... ..	560	42	154	334	530	·13	·09
Fire Station ... ..	109	49	56	12	117	·03	·02
Other (includes Club) ... ..	578	100	92	120	312	·13	·05
Not Stated ... ..		33	21	63	117		·05
Total, Occupied Dwellings, No.	432,976	288,240	127,190	184,320	599,750	100·00	100·00
„ Per square mile ... ..	1·40	1,181·41	53·33	0·60	1·94	...	...
Wagon, Van, etc. (includes campers out) ... ..	1,886	67	957	2,693	3,717	...	...

Private houses preponderate, representing nearly 91 per cent. of the occupied dwellings, but the outstanding feature revealed by the table is the marked increase in flats and tenements, particularly in the metropolitan area. Flats, as such, were hardly known in 1911, but in that year there were 1,794 dwellings classified as tenements in private houses in Sydney and suburbs. Flats and tenements in the metropolitan area numbered 12,760, or

7.4 per cent. of the private dwellings in the metropolis in 1921, and increased to 35,896, or 12.5 per cent., in 1933. Though dear rents and building costs were in part the original stimulus to flat building, the movement is attributable also to an increased popularity of this type of dwelling.

In contrast with the expansion in the number of flats is the decrease in boarding-houses from 12,538, or 2.9 per cent., in 1921 to 8,641, or 1.4 per cent., in 1933. Hotels also show a large decline, due mainly to the operations of the Licenses Reduction Board, described later in this chapter.

Inmates of private houses, flats and tenements numbered 2,426,295 in 1933, or 93.3 per cent. of the total population. Of these 118,209 were housed in flats and tenements, and there were 117,877 persons sleeping on verandahs or in sleep-outs which were not permanently enclosed. Inmates of private dwellings numbered 1,494,504 in 1911 and 1,872,456 in 1921, or 91.2 per cent., and 89.6 per cent. of the population in the respective years. The average number of inmates per private dwelling was 4.52 in 1921 and 4.14 in 1933, and the average number of inmates per room declined from 0.91 to 0.84 between 1921 and 1933.

There was an average of 4.56 inmates per private house in 1921 and 4.24 in 1933, and the average number in flats and tenements was 3.69 in 1921 and 2.84 in 1933. The decline in the birthrate is an important factor affecting changes in the ratio of inmates to dwellings.

A classification according to the number of rooms shows that there was, on the average, 5.01 rooms in private houses in 1921 and 5.04 rooms in 1933, but there was a substantial decline (from 4.04 to 3.51) in the average number of rooms in flats and tenements, so that the average number of rooms in all private dwellings declined from 4.97 in 1921 to 4.94 in 1933. A distribution of private dwellings according to size is shown below:—

TABLE 170.—Size of Private Dwellings—Census Records.

Number of Rooms per Dwelling.*	Occupied Private Dwellings in New South Wales.									
	1911.	1921.	1933.					Proportion of Total.		
			Metropolis.		Remainder of State.		Total.	1911.	1921.	1933.
			Houses.	Flats, etc.	Houses.	Flats, etc.				
1	20,921	12,787	1,062	2,336	20,563	777	24,738	6.38	3.11	4.28
2	14,596	14,072	1,670	6,049	14,532	1,418	23,660	4.58	3.43	4.10
3	24,288	30,132	9,803	7,709	19,154	1,148	37,814	7.63	7.34	6.55
4	70,241	102,175	52,230	9,395	68,777	792	131,191	22.06	24.89	22.72
5	75,063	124,131	79,210	5,472	83,961	390	169,033	23.58	30.23	29.27
6	54,369	71,158	60,636	2,057	50,886	155	113,734	17.07	17.33	19.69
7	26,933	29,292	22,989	634	20,728	55	44,406	8.48	7.13	7.69
8	14,760	13,027	8,579	220	8,777	11	17,587	4.64	3.32	3.04
9	7,016	5,783	3,314	82	3,643	9	7,048	2.20	1.41	1.22
10	4,487	3,245	1,550	30	2,062	1	3,643	1.41	.70	.63
11-15	5,204	3,575	1,055	33	2,334	4	4,026	1.65	.87	.70
Over 15 ...	1,022	608	147	3	496	2	648	.32	.15	.11
Not Stated ...	1,340	3,885	1,322	1,876	3,770	942	7,910	...	...	...
Total	319,760	414,468	244,107	35,896	299,683	5,704	585,450	100	100	100

\* Kitchen is included as a room.

More than half the private dwellings in 1933 contained four or five rooms, though the proportion decreased from 55.1 per cent. to 52 per cent. between 1921 and 1933. Among the smaller houses there was a remarkable decline between 1911 and 1921 in the proportion containing one or two rooms and a substantial increase between 1921 and 1933. Most of these

very small dwellings are houses in the rural districts or flats. The proportion of homes with eight rooms or more is decreasing; they represented 10.2 per cent. of the private dwellings in 1911 and declined to 6.5 per cent. in 1921 and 5.7 per cent. in 1933.

The following statement is a brief summary relating to the number, size and inmates of private dwellings—individual houses and flats, tenements, etc.—in the metropolitan, other urban and rural districts at census dates in 1921 and 1933:—

TABLE 171.—Private Dwellings—Number, Size and Inmates.

Districts.	1921.			1933.		
	Private Houses.	Flats or Tenements.	Total Private Dwellings.	Private Houses.	Flats or Tenements.	Total Private Dwellings.
<i>Number of Private Dwellings.</i>						
Metropolis ...	160,562	12,760	173,322	244,167	35,896	280,063
Country Towns ...	100,251	3,178	103,429	119,314	4,372	123,686
Rural Districts ...	135,806	1,911	137,717	180,369	1,332	181,701
Total ...	396,619	17,849	414,468	543,850	41,600	585,450
<i>Inmates of Private Dwellings.</i>						
Metropolis ...	738,023	45,116	783,139	1,041,381	101,244	1,142,625
Country Towns ...	451,010	12,515	463,525	509,456	12,832	522,288
Rural Districts ...	617,647	8,145	625,792	757,249	4,133	761,382
Total ...	1,806,680	65,776	1,872,456	2,308,086	118,209	2,426,295
<i>Inmates per cent. of Population.</i>						
Metropolis ...	82.1	5.0	87.1	84.3	8.2	92.5
Country Towns ...	85.9	2.4	88.3	90.1	2.3	92.4
Rural Districts ...	93.0	1.2	94.2	95.3	0.5	95.8
Total ...	86.5	3.1	89.6	88.9	4.6	93.5
<i>Rooms per Private Dwelling.</i>						
Metropolis ...	5.23	4.06	5.14	5.35	3.60	5.14
Country Towns ...	4.99	3.94	4.96	5.00	2.89	4.94
Rural Districts ...	4.77	4.11	4.76	4.63	2.87	4.62
Total ...	5.01	4.04	4.97	5.04	3.51	4.94
<i>Inmates per Private Dwelling.</i>						
Metropolis ...	4.60	3.54	4.52	4.27	2.82	4.08
Country Towns ...	4.50	3.94	4.48	4.27	2.94	4.22
Rural Districts ...	4.55	4.26	4.54	4.20	3.10	4.19
Total ...	4.56	3.69	4.52	4.24	2.84	4.14
<i>Inmates per Room.</i>						
Metropolis ...	0.88	0.87	0.88	0.80	0.78	0.79
Country Towns ...	0.90	1.00	0.91	0.85	1.01	0.85
Rural Districts ...	0.95	1.04	0.96	0.91	1.08	0.91
Total ...	0.91	0.91	0.91	0.84	0.81	0.84

A classification of the private dwellings according to the materials used in construction shows a trend towards the use of the more enduring materials, the proportion of dwellings built of stone, brick, or concrete having increased from 39.1 per cent. in 1911 to 47.4 per cent. in 1933.

TABLE 172.—Private Dwellings—Materials of Outer Walls.

Materials used in Outer Walls.	Number of Occupied Private Dwellings.					Proportion per cent. of Total.		
	1911.	1921.	1933.			1911.	1921.	1933.
			Metropolis.	Remainder of State.	Total.			
Wood ... ..	162,403	202,782	51,890	194,316	246,206	51.1	49.2	42.2
Brick ... ..	114,670	166,558	215,505	45,181	260,686	36.0	40.4	44.7
Stone, Concrete ... ..	9,885	12,290	6,231	9,760	15,991	3.1	3.0	2.7
Iron ... ..	8,851	11,639	1,018	21,117	22,135	2.8	2.8	3.8
Fibro-Cement ... ..	...	3,063	4,302	12,002	16,304	...	0.7	2.8
Other ... ..	22,292	15,911	611	21,778	22,389	7.0	3.9	3.8
Unspecified ... ..	1,566	2,225	506	1,233	1,739	...	...	...
Total ... ..	319,766	414,468	280,063	305,387	585,450	100	100	100

There is a preponderance of brick dwellings in the metropolitan area, where they represent 77.1 per cent. of the total. Outside the metropolis, dwellings of wood are most numerous, the proportion being 63.9 per cent.

Although the majority of private dwellings in the metropolis are occupied by tenants, the proportion declined from 66.3 per cent. in 1911 to 57.8 per cent. in 1933. Meanwhile the proportion occupied by owners increased from 26.3 per cent. to 27.6 per cent. and purchasers by instalments from 4.8 per cent. to 13.3 per cent.

In the extra-metropolitan district the proportion occupied by owners in 1933 was 46.4 per cent., and those being purchased by instalments 8.8 per cent. The proportion of tenant occupiers was 37.4 per cent.

TABLE 173.—Private Dwellings—Nature of Occupancy.

Nature of Occupancy.	Number of Occupied Private Dwellings.					Proportion per cent. of Total.		
	1911.	1921.	1933.			1911.	1921.	1933.
			Metropolis.	Remainder of State.	Total.			
Owner ... ..	120,423	147,483	76,536	136,002	213,438	40.47	36.48	37.30
Purchaser by Instalments	11,322	46,953	36,008	25,965	62,873	3.54	11.61	10.99
Tenant ... ..	160,314	192,474	160,260	110,480	270,740	50.14	47.14	47.80
Other methods ... ..	18,707	17,378	3,587	21,657	25,244	5.85	4.77	4.41
Not stated ... ..		10,180	2,772	10,383	13,155		...	...
Total ... ..	319,766	414,468	280,063	305,387	585,450	100	100	100

The increase in the number of dwellings occupied by persons who are purchasing them by instalments is to some extent due to the facilities provided by the Government for the financing of home purchase. Between 1921 and 1933 there was a slight decline in the proportion of such dwellings though legislative relief granted to home-purchasers had obviated many forfeitures which otherwise might have taken place during the depression.



## BUILDINGS.

Brick buildings predominate in the city and suburbs, and local sandstone and concrete are used to a great extent in the construction of the larger buildings. For suburban dwellings the cottage plan is favoured, but popularity of the flat has greatly increased, especially in seaside suburbs. The maximum height of buildings in the metropolitan district is limited by law to 150 feet, except in the case of those erected for the purposes of public worship. Outside the city proper, permission must be obtained from the Chief Secretary for the erection of buildings over 100 feet high. The skyline must be approved by him and adequate provision must be made for protection against fire.

The Local Government Act confers extensive powers on municipal and shire councils for supervising and regulating the construction of buildings, and for promoting schemes of town-planning on modern lines. To assist the councils there is a Town Planning Advisory Board.

The practice of architecture is regulated by a Board of Architects. Persons using the name "architect" are required to be registered, registration being granted to persons over 21 years of age who possess the requisite qualifications. The Act does not apply to naval architects. In January, 1939, there were 747 registered architects.

*Housing Improvement.*

As part of the housing plans of the State Government a Housing Improvement Board was appointed in February, 1937, in terms of the Housing Improvement Act, 1936, to select areas in which action should be taken to improve housing conditions and to formulate schemes for the purpose. The Act provided for the co-operation of the Board and municipal councils for carrying out such projects. Upon approval of a scheme by the Governor, the State Treasurer was authorised to advance to the council concerned the necessary moneys to give effect thereto. The aggregate amount of current advances of this nature was limited to the sum of £500,000.

Although the Board surveyed a number of congested areas in the inner industrial suburbs of Sydney, where housing conditions were unsatisfactory, and prepared tentative schemes for rehabilitation, no agreement could be reached with any of the councils concerned. Consequently no scheme was put into operation. To overcome this difficulty the law was amended in December, 1937, to authorise the Housing Improvement Board to undertake as a demonstration project the improvement of Erskineville Park by the erection of 56 dwellings and ancillary buildings and works on an area of about 4 acres and the rehabilitation of the balance of the park as a modern sportsground and recreation ground. The work, except the sportsground, was completed in December, 1938, and the dwellings were let to families in the lower-income groups who had been living in substandard houses in Erskineville or adjoining suburbs. The rental is 19s. per week.

The dwellings consist of seven blocks, each containing eight flats. They are not more than two rooms deep and are arranged in parallel rows 66 feet apart. Each dwelling contains three rooms, sleep-out verandah, kitchen, bathroom, etc. Laundries and drying grounds are provided between the blocks, and the land is laid out with lawns, a tennis court and a children's playground.

## NEW BUILDINGS.

Statistics relating to building enterprises in urban areas are obtained from the records of permits issued by municipal and shire councils. Permits must be obtained before work is commenced for the erection of new buildings and for alterations or additions to existing buildings and the applications for permits indicate the estimated cost of the undertakings.

Another aspect of building operations in the metropolitan district may be obtained from records of assessments made by the Metropolitan Water, Sewerage and Drainage Board relating to new buildings and additions and alterations, the assessments being made when a building or section of it is practically completed.

*Buildings Assessed by the Metropolitan Water, Sewerage and Drainage Board.*

The following statement shows the cost of new buildings and of additions and alterations to existing buildings in Sydney and suburbs, as assessed by the Board in each year since 1910. Particulars of buildings in all the municipalities added to the metropolitan area in 1929 and 1933 are included in the suburban and total figures for 1929 and later years. The cost of Government buildings is included:—

TABLE 174.—Buildings Completed in Sydney and Suburbs, 1910 to 1938.

Year.	City of Sydney.	Suburbs. (a)	Metropolis. (a)	Year.	City of Sydney.	Suburbs. (a)	Metropolis. (a)
	£000.	£000.	£000.		£000.	£000.	£000.
1910 ...	*	*	2,439	1925 ...	2,593	7,564	10,157
1911 ...	*	*	3,604	1926 ...	2,622	8,787	11,409
1912 ...	1,339	3,730	5,069	1927 ...	2,795	9,551	12,346
1913 ...	1,658	4,259	5,917	1928 ...	3,630	10,586	14,216
1914 ...	1,358	4,804	6,162	1929 ...	4,945	10,617	15,562
1915 ...	1,166	3,498	4,664	1930 ...	2,865	5,745	8,610
1916 ...	1,143	2,894	4,037	1931 ...	543	1,090	1,633
1917 ...	385	2,799	3,184	1932 ...	1,074	701	1,775
1918 ...	405	2,851	3,256	1933 ...	717	1,319	2,036
1919 ...	788	3,526	4,314	1934 ...	538	2,671	3,209
1920 ...	874	7,524	8,398	1935 ...	1,158	5,358	6,516
1921 ...	1,400	7,226	8,626	1936 ...	2,080	6,648	8,728
1922 ...	1,594	7,161	8,755	1937 ...	1,558	6,276	7,834
1923 ...	1,634	7,342	8,976	1938 ...	2,808	8,210	11,018
1924 ...	3,502	9,084	12,586				

\* Not available. (a) Figures for 1929 and later years include municipalities added to metropolis in 1929 and 1933.

Building activities in Sydney and suburbs were growing steadily when the outbreak of war in 1914 caused a temporary restriction. Extraordinary expansion occurred during the post war period, and the cost of the buildings completed in 1924 was £12,586,000, or nearly three times the amount in 1919, part of the increase being due to higher prices of materials and higher wages. Building activities expanded rapidly during the post-war period, reaching the maximum in 1929, when the cost exceeded £15,500,000. Recession from this peak was so rapid that the amount in 1931 was only

£1,630,000, and there was little improvement during the next two years. The cost reached £3,200,000 in 1934 and was doubled in the following year. A further increase to £8,728,000 in 1936 was followed by a decline of 10 per cent. then a steep rise to £11,018,000 in 1938.

*Building Permits Issued by Councils.*

Particulars of permits issued by councils for new buildings and for additions and alterations of existing buildings are available for the City of Sydney, the suburbs, and 129 country towns and seven shires adjacent to the metropolis. A comparative statement is shown below. Particulars of Government buildings are not included as the councils do not issue permits in respect of them.

TABLE 175.—Building Permits, 1912 to 1938.

Year.	City of Sydney.		Suburbs. ‡		Country Towns. ‡		Seven Shires adjacent to Metropolis.		Total of Foregoing.	
	Permits, New Build- ings.	Esti- mated Cost, New and Ad- ditions.	Permits, New Build- ings.	Esti- mated Cost, New and Ad- ditions.	Permits, New Build- ings.	Esti- mated Cost, New and Ad- ditions. †	Permits, New Build- ings.	Esti- mated Cost, New and Ad- ditions.	Permits, New Build- ings.	Esti- mated Cost, New and Ad- ditions.
		£000		£000		£000		£000		£000
1912	290	*	8,049	*	*	*	*	*	*	*
1913	281	*	9,061	4,716	*	*	*	*	*	*
1914	206	*	8,352	4,667	*	*	*	*	*	*
1915	123	*	5,943	3,444	*	*	*	*	*	*
1916	90	*	4,961	2,985	*	*	*	*	*	*
1917	88	*	4,723	3,155	*	*	*	*	*	*
1918	76	*	4,878	3,668	*	*	*	*	*	*
1919	147	*	6,969	5,794	*	*	*	*	*	*
1920	143	*	8,524	8,563	3,859	2,822	*	*	*	*
1921	92	*	5,475	5,701	3,131	1,979	*	*	*	*
1922	139	*	8,445	7,952	4,629	2,678	*	*	*	*
1923	186	*	10,825	9,854	5,926	3,793	*	*	*	*
1924	146	*	9,873	8,620	5,902	3,748	*	*	*	*
1925	129	*	10,673	8,974	7,338	4,313	*	*	*	*
1926	169	*	10,504	9,625	7,818	4,439	*	*	*	*
1927	147	3,342	8,891	11,272	6,463	5,445	989	740	16,490	20,799
1928	123	4,350	8,705	11,289	5,801	5,300	1,198	946	15,827	21,885
1929	78	3,547	8,494	11,072	4,015	4,252	1,120	851	13,707	19,722
1930	46	2,031	2,260	3,152	1,814	1,846	643	420	4,763	7,479
1931	20	497	508	826	868	635	401	188	1,797	2,146
1932	12	468	721	1,124	1,081	845	450	222	2,264	2,659
1933	34	825	1,343	2,113	1,546	1,134	533	298	3,456	4,370
1934	46	1,145	3,058	4,521	2,931	2,246	763	458	6,798	8,370
1935	63	2,148	4,331	6,803	4,063	3,297	1,028	598	9,485	12,846
1936	106	2,309	5,416	7,821	4,486	4,016	1,078	652	11,036	14,798
1937	86	2,544	5,762	8,717	4,633	4,594	1,138	801	11,619	16,656
1938	109	3,409	7,456	10,633	5,107	5,279	1,297	1,051	13,969	20,372

\* Not available. † New buildings only in years 1920 to 1926, inclusive. ‡ Municipalities transferred from country to suburbs in 1929 and 1933 are classified as suburbs in 1929 and later years.

The permits for new buildings in 1926 and earlier years include a number for the erection of private garages as annexes to existing premises, which have been classified as additions in later years.

Information as to the estimated cost of projects in the City of Sydney are not available for the earlier years up to 1927, and the returns of country towns relate to new buildings only from 1920 (when they were first collected) until 1927. Nevertheless, the data relating to suburban permits supply a fairly satisfactory indication of the growth of building enterprise since 1912. The suburban area was extended in 1929 and in 1933 to embrace additional municipalities, formerly grouped with country towns; in the statement all these municipalities are included as suburban as from 1st January, 1929.

The trends in suburban building as indicated by the foregoing figures are similar to the movement already illustrated by the assessments of the Metropolitan Water, Sewerage and Drainage Board, viz., the pre-war expansion, then a temporary decline, followed by post-war activity, reaching the peak in 1928, a rapid deflation of building enterprise in 1930 and 1931, then gradual progress towards restoration. The decline in the cost in 1937 according to the Board's assessments is not apparent in the figures relating to permits which rose by £900,000 in the suburbs and by £1,860,000 in the total of all the districts covered by the table, foreshadowing the increase in building which occurred in 1938. In this year the number and estimated cost were somewhat greater than in 1929.

The classes of buildings for which permits were issued in the metropolis and country towns during 1938 are shown below:—

TABLE 176.—Building Permits, 1938—Class of Buildings.

Class of Building.	Metropolis.				Country Towns.			
	New Buildings.		Alterations and Additions.		New Buildings.		Alterations and Additions.	
	Permits.	Estimated Cost.	Permits.	Estimated Cost.	Permits.	Estimated Cost.	Permits.	Estimated Cost.
		£		£		£		£
Houses—								
Brick, concrete and stone	4,658	4,476,981	2,264	424,635	798	780,211	527	94,293
Fibro-cement and weatherboard	1,679	854,431	718	43,585	3,648	1,879,713	2,050	152,858
Hotels, guest houses, etc.	21	724,650	84	120,903	25	345,261	129	209,770
Flats*	661	3,256,935	76	24,733	44	126,954	10	1,498
	(5184)				(168)			
Conversions to flats*	...	...	151	118,022	...	...	34	26,435
			(419)				(81)	
Shops with dwellings	163	236,352	209	67,287	84	135,344	112	33,756
Total dwellings	7,182	9,549,349	3,502	709,165	4,599	3,267,483	2,862	518,610
Shops only	84	96,665	268	180,897	142	185,560	333	144,558
Factories	89	326,688	398	472,028	47	294,476	79	68,749
Garages—Public	41	161,341	62	24,968	55	53,359	50	13,868
Private	...	...	2,177	98,634	...	...	1,473	44,521
Other buildings	169	1,563,989	1,207	768,495	264	498,020	1,045	180,958
Total, other buildings	383	2,148,683	4,112	1,545,022	508	1,031,415	2,980	461,654
Total, all permits	7,565	11,698,032	7,614	2,344,187	5,107	4,298,898	5,842	980,264

\* Numbers in brackets indicate the number of dwellings contained in the flats.

The majority of the permits for new buildings in the metropolis relate to houses of brick, concrete or stone, and in the country towns to houses of fibro-cement or weatherboard.

Large sums are expended on flats in the metropolitan district, where £3,399,690, or 24 per cent. of the total estimated cost of all buildings in 1938 and 33 per cent. of the estimates for dwellings related to flats. The corresponding figures for country towns were £154,887, or 3 per cent. and 4 per cent. respectively.

In addition to the particulars shown above in respect of the metropolitan district and country towns, information is available for seven shires adjacent to the metropolis—viz., Horusby, Warringah, Sutherland, Bulli, Baulkham Hills, Blacktown and Blue Mountains. In these shires 1,297 permits were issued in 1938 for new buildings, estimated to cost £803,465, and for additions and alterations £247,143. The permits related for the most part to dwellings—viz., 1,253 new dwellings, £755,774, and additions and alterations to existing dwellings £106,536.

*New Dwellings—Metropolis.*

The number of dwellings, including those added by the conversion of existing dwellings into flats, for which permits were issued in the metropolitan district in each year since 1929 is shown below:—

TABLE 177.—Permits for New Dwellings, Metropolis, 1929 to 1938.

Year.	New Dwellings—Metropolis.					Dwellings Attached to Shops.	Total New Dwellings.	Dwellings Demolished or Converted into Flats.	Net Number of Additional Dwellings—Metropolis.
	Individual Houses (inc. Hotels, etc.)		Blocks of Flats (new).		Dwellings in Converted Flats.				
	Brick, Concrete and Stone	Fibro-cement and Weather-board.	No.	Dwellings there in.					
1929	5,704	1,391	372	2,040	507	550	10,192	338	9,854
1930	1,418	374	57	283	181	112	2,368	138	2,230
1931	237	133	5	13	37	33	453	57	396
1932	332	153	15	66	65	46	662	95	567
1933.	745	181	115	735	167	133	1,961	172	1,789
1934	2,020	330	335	1,732	266	112	4,460	248	4,212
1935	2,793	529	562	3,535	550	173	7,580	322	7,258
1936	3,515	877	520	3,340	449	193	8,374	321	8,053
1937	3,718	1,150	505	3,436	494	128	8,926	436	8,490
1938	4,679	1,679	661	5,184	419	218	12,179	326	11,853

Permits were issued in the metropolitan area during 1929 for 10,192 new dwellings, including 7,095 or 70 per cent. individual houses, 2,547 or 25 per cent. dwellings in flats and 550 attached to shops—the net increase after making allowance for dwellings demolished or converted into flats was 9,854. Comparative figures for the year 1938 are as follows:—Individual houses 6,353 or 52 per cent., dwellings in flats 5,603 or 46 per cent. and attached to shops 218, the total, 12,179, being reduced to 11,853 by demolitions and conversions.

The following statement indicates the estimated cost of new dwellings for which permits were issued in the metropolis in the years 1929 to 1938—as shown in the preceding table—also the cost of proposed alterations and additions to dwellings:—

TABLE 178.—Building Permits, Metropolis, 1929 to 1938—Cost of Dwellings.

Year.	Individual Houses (inc. Hotels, etc.)		Dwellings in Flats.		Dwellings attached to Shops.	Total New Dwellings. †	Ad-ditions and Alter-ations. †	Total Estimated Cost Dwell-ings (Metro-polis).
	Brick, Concrete and Stone.	Fibro-cement and Weather-board.	New.	Con-versions.				
	£000	£000	£000	£000	£000	£000	£000	£000
1929	5,221	702	1,710	173	566	8,372	*	*
1930	1,421	175	242	45	142	2,025	*	*
1931	252	47	8	4	26	337	*	*
1932	336	50	40	15	44	485	*	*
1933	771	51	471	29	111	1,433	349	1,782
1934	2,051	113	1,224	81	95	3,564	487	4,051
1935	2,696	180	2,174	127	139	5,316	567	5,883
1936	3,247	313	1,985	126	181	5,852	654	6,506
1937	3,563	514	2,064	153	129	6,423	646	7,069
1938	5,202	854	3,257	118	236	9,667	681	10,348

\* Not available. † Conversions of dwellings into flats included with new dwellings.

*Permits for Buildings in Sydney and Groups of Suburbs.*

Particulars regarding permits issued in the City of Sydney and in the various groups of suburbs are shown below, with separate details for dwellings and for other classes of buildings. In this table conversions of houses into flats are included with additions and alterations. The suburbs comprising each group are listed in the chapter Population of this Year Book:—

TABLE 179.—Building Permits in Sydney and Groups of Suburbs, 1929 to 1938.

Year.	New Buildings.							Total Metropolitan.	Alterations and Additions.	Total All Permits.
	City of Sydney.	Suburbs.								
		Inner Industrial.	Illawarra-Bankstown.	Inner Western.	Outer Western.	Northern.	Eastern.			
	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.	
1929	300	452	2,239	859	550	2,080	1,719	8,199	*	*
1930	120	92	501	156	139	603	364	1,980	*	*
1931	6	10	101	26	24	98	68	333	*	*
1932	1	29	104	28	23	164	121	470	*	*
1933	181	44	170	99	31	453	426	1,404	378	1,782
1934	264	105	439	296	105	1,062	1,212	3,483	568	4,051
1935	468	188	708	478	125	1,681	1,541	5,189	694	5,883
1936	250	252	950	542	210	1,826	1,696	5,726	780	6,506
1937	469	229	1,303	656	241	1,856	1,516	6,270	799	7,069
1938	1,465	288	2,096	905	326	2,393	2,076	9,549	799	10,348
	<i>Dwellings—Estimated Cost.</i>									
1929	1,827	421	263	165	102	227	242	3,247	*	*
1930	1,117	125	119	115	39	97	88	1,700	*	*
1931	325	32	12	18	17	62	6	472	*	*
1932	118	37	34	8	12	82	36	327	*	*
1933	216	56	46	17	11	77	29	452	704	1,156
1934	326	113	74	97	53	97	23	783	832	1,615
1935	807	171	119	58	128	281	38	1,602	1,466	3,068
1936	1,307	376	145	121	89	149	27	2,214	1,410	3,624
1937	1,496	395	83	193	87	194	350	2,798	1,393	4,191
1938	1,256	314	92	39	42	312	94	2,149	1,545	3,694
	<i>Other Buildings—Estimated Cost.</i>									
1929	1,827	421	263	165	102	227	242	3,247	*	*
1930	1,117	125	119	115	39	97	88	1,700	*	*
1931	325	32	12	18	17	62	6	472	*	*
1932	118	37	34	8	12	82	36	327	*	*
1933	216	56	46	17	11	77	29	452	704	1,156
1934	326	113	74	97	53	97	23	783	832	1,615
1935	807	171	119	58	128	281	38	1,602	1,466	3,068
1936	1,307	376	145	121	89	149	27	2,214	1,410	3,624
1937	1,496	395	83	193	87	194	350	2,798	1,393	4,191
1938	1,256	314	92	39	42	312	94	2,149	1,545	3,694
	<i>All Buildings—Estimated Cost.</i>									
1929	2,127	873	2,502	1,024	652	2,307	1,061	11,446	3,173	14,619
1930	1,237	217	620	271	178	705	452	3,680	1,533	5,213
1931	331	42	113	44	41	160	74	805	518	1,323
1932	119	66	138	36	35	246	157	797	795	1,592
1933	397	100	216	116	42	530	455	1,856	1,082	2,938
1934	590	218	513	393	158	1,159	1,235	4,266	1,400	5,666
1935	1,275	359	827	536	253	1,962	1,579	6,791	2,160	8,951
1936	1,557	628	1,095	663	299	1,975	1,723	7,940	2,190	10,130
1937	1,965	624	1,386	849	328	2,050	1,866	9,068	2,192	11,260
1938	2,721	602	2,188	944	368	2,705	2,170	11,698	2,344	14,042

\* Not available.

The new dwellings for which permits were issued in the City of Sydney during 1938 represented estimates amounting to £1,465,000—an unusually high figure for dwellings in the City. The permits included six for hotels, guesthouses, etc., £514,700, and 53 for blocks of flats to contain 1840 dwellings, £949,880.

The greater proportion of the suburban residential building takes place in the northern, eastern, and Illawarra-Bankstown suburbs, and the building of flats has been most extensive in the city and eastern suburbs, viz., Woolahra, Waverley and Randwick where the estimated cost in recent years

has represented about two-thirds of the total proposed expenditure on flats. Permits for large blocks of flats have been issued also in the northern districts of North Sydney, Mosman and Manly and in Ashfield in the inner western group.

In the city and inner industrial suburbs a large proportion of the proposed expenditure is covered by permits for factories, shops and other non-residential buildings. Permits for new factories and additions and alterations to existing factories in Alexandria, Botany, Mascot, Redfern and Waterloo represented an expenditure of £415,000 in 1936 and £478,000 in 1937, and £338,000 in 1938.

*Permits for New Dwellings—Country Towns.*

The number of new dwellings of various kinds for which permits were issued in country towns during the past ten years is shown below:—

TABLE 180.—Permits for New Buildings—Country Towns, 1929 to 1938.

Year.	Individual Houses (inc., Hotels, etc.)		Blocks of Flats (ncw.)		Dwell- ings in Con- verted Flats.	Dwellings Attached to Shops.	Total New Dwellings.	Dwellings Demolished or Converted into Flats.	Net Number of Additional Dwellings. (Country Towns).
	Brick, Concrete and Stone.	Fibro- Cement and Weather- board.	No.	Dwell- ings therein.					
1929	858	2,506	3	14	21	70	3,469	172	3,297
1930	299	1,212	1	2	13	45	1,571	127	1,444
1931	114	553	...	...	10	25	702	88	614
1932	160	682	4	8	12	32	894	89	805
1933	247	944	4	10	16	42	1,259	67	1,192
1934	524	1,907	16	52	40	86	2,609	140	2,469
1935	689	2,755	41	196	42	84	3,766	118	3,648
1936	747	3,067	33	102	51	104	4,071	165	3,906
1937	880	3,111	38	157	78	105	4,331	150	4,181
1938	823	3,648	44	168	81	105	4,825	204	4,621

The number of new dwellings in country towns in each of the last four years has exceeded the pre-depression total. These dwellings are for the most part individual houses of fibro-cement or wood and the proportion of flats is small.

The proposed expenditure on the dwellings for which permits were issued in country towns in the various years was as follows:—

TABLE 181.—Building Permits, Country Towns—Cost of Dwellings, 1929 to 1938.

Year.	Individual Houses (Inc. Hotels, etc.)		Dwellings in Flats.		Dwellings Attached to Shops.	Total New Dwellings. †	Additions and Alterations. †	Total Estimated Cost Dwellings (Country Towns).
	Brick, Concrete and Stone.	Fibro- Cement and Weather- board.	New.	Conversions.				
1929	£000. 874	£000. 1,461	£000. 18	£000. 5	£000. 118	£000. 2,476	£000. *	£000. *
1930	289	622	1	2	46	960	*	*
1931	85	213	...	1	22	321	*	*
1932	134	249	3	1	28	415	108	523
1933	197	349	6	2	32	586	151	737
1934	476	855	29	9	105	1,474	220	1,694
1935	700	1,196	140	5	90	2,131	314	2,445
1936	841	1,381	62	8	127	2,419	408	2,827
1937	1,130	1,553	81	14	170	2,948	492	3,440
1938	1,126	1,880	127	26	135	3,204	492	3,786

\* Not available.

† Conversions of houses into flats included with new dwellings.

A large proportion of the country permits have been issued for buildings in the industrial centres Newcastle and Wollongong-Port Kembla. Permits were issued in Newcastle and suburbs for buildings to cost £567,000 in 1929, £95,000 in 1932, £774,000 in 1937 and £830,000 in 1938. In the area comprised by Wollongong, North and Central Illawarra the figures in these years were £392,000 in 1929 when the Port Kembla iron and steel works were under construction, £33,000 in 1932, £803,000 in 1937 and £1,116,000 in 1938.

The estimated cost of the buildings for which permits were issued in various towns during the years 1929 to 1938 are shown below. This list is small, but the Statistical Register issued annually contains details for every town for which the returns are collected:—

TABLE 182.—Building Permits—Various Towns—1929 to 1938.

Year.	Newcastle and Suburbs.		Wollongong, and North and Central Illawarra.		Broken Hill.	Albury.	Goulburn.	Lismore.	Orange.	Tamworth.	Wagga Wagga.
	New Dwellings.	Other.	New Dwellings.	Other.							
	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.
1929 ...	373	194	261	131	28	153	149	112	152	133	131
1930 ...	130	93	80	59	121	54	26	121	43	67	38
1931 ...	46	45	7	19	16	8	15	48	10	13	7
1932 ...	27	68	18	15	15	17	24	89	11	11	12
1933 ...	70	73	38	15	12	62	38	51	13	25	35
1934 ...	204	116	201	41	17	47	65	108	30	65	86
1935 ...	439	263	215	56	46	64	87	137	50	80	113
1936 ...	552	401	301	128	42	145	102	143	86	88	121
1937 ...	533	241	532	271	96	155	56	136	136	85	138
1938 ...	582	248	648	468	305	192	77	148	82	110	148

The estimated cost of proposed buildings in Broken Hill in 1938 included £145,000 for a public hospital, and the estimates for buildings in the Municipality of Holroyd (including the wards within the metropolitan district) amounted to £153,000. Other towns in which the estimated cost exceeded £60,000 in 1938 were Katoomba £71,000, Armidale £64,000, Fairfield £63,000, Young £62,000, Bathurst £61,000.

#### *The Cost of Building a Cottage.*

A comparative statement is shown below as to the estimated cost of the materials and labour required for the erection in Sydney of a brick cottage with tiled roof, containing four rooms and kitchen, bathroom, pantry and front and back verandahs, including fencing and fittings such as bath, wash-tubs, copper and gas stove. The cost of the land and builder's overhead costs and profit are not included. A cottage of the type to which the estimates relate and the land might have been sold at £800 to £1,000 in various years since 1920.

The estimates are based on prices quoted in traders' lists, with allowance for trade discounts and wages at industrial award rates. It is known that in years of great activity in building, e.g., 1927 to 1929, listed prices of materials were closely adhered to and employees were paid at rates in excess of those prescribed by awards. In depression years,



on the other hand, materials could be purchased at concession prices and the practice of sub-contracting generally replaced the wage system in house building.

TABLE 183.—Estimated Cost of Building a Cottage.

Date.	Estimated Cost.			Date.	Estimated Cost.		
	Materials (At Traders' List Prices.)	Labour (At Award Rates.)	Total.		Materials (At Traders' List Prices.)	Labour (At Award Rates.)	Total.
	£	£	£		£	£	£
1914, July	286	113	399	1928, June	469	217	686
1920, „	532	189	721	1929, „	466	219	685
1921, „	535	193	728	1930, „	438	215	653
1922, „	501	188	689	1931, „	430	210	640
1923, June	492	176	668	1935, December	384	174	558
1924, „	500	181	681	1936, „	416	176	592
1925, „	436	187	623	1937, June	441	196	637
1926, „	486	208	694	1938, „	459	214	673
1927, „	479	215	694				

The average cost during the years 1925 to 1929 was £686, viz., materials £477 and labour £209. In December, 1935, the cost, estimated at £558, was 19 per cent. cheaper. There has been a marked rise in both materials and wages during the last three years, and the estimate for June, 1938, was 98 per cent. of the cost in 1929.

#### ASSISTANCE TO HOME BUILDERS.

Provision has been made whereby persons who wish to acquire a home may obtain advances to defray the cost of erection, etc., repayments being extended over a period of years. A scheme of this nature dating from 1913 is administered by the Rural Bank of New South Wales and another by the Homes for Unemployed Trust constituted in 1934.

To augment the assistance provided by these, measures were introduced in 1936 as part of an organised plan for the improvement of housing to promote the growth of co-operative effort in financing the building of homes through the agency of co-operative building societies. In formulating the plan consideration was given to the necessity for the prompt revival of building and kindred activities as an essential element of economic welfare.

#### Government Advances for Homes.

Operations in connection with advances for housing, administered by the Rural Bank of New South Wales, consist of the principal scheme in the Advances for Homes department, and other schemes in its Government agency department, viz., the Home Building Agency, the Government Housing Agency and the Building Relief Agency, which are described below. The Advances for Homes Department and Government Housing Agency were formerly administered as departments of the Government Savings Bank of New South Wales.

The Advances for Homes Department was organised in 1913 to make advances to home builders from the Government Savings Bank funds. The limit of advances was fixed at 75 per cent. of the value of the borrower's interest in the property, the maximum advance being £750, and the term of the loans ranged up to thirty years. During the year 1928-29 the maximum advance was raised to £1,000 where this sum did not exceed 75 per cent. of the valuation of the property, and building loans were advanced up

to 90 per cent. of valuation where the building contract was controlled by the Department. Subsequently the maximum advance was raised from £1,000 to £1,200 if such sum does not exceed 75 per cent. of valuation. Funds from the Commonwealth Savings Bank were made available to the Advances for Homes Department in terms of the Commonwealth Housing Act, 1927. The limit of advances from these moneys was 90 per cent. of valuation up to £1,800.

In February, 1934, the State Government made arrangements to supplement the advances made by the Advances for Homes Department, which did not exceed 75 per cent. of valuation. In such cases the Government provided funds for a further loan up to 10 per cent. of valuation (but not more than £200 in any case). Administration is the work of the Home Building Agency, and at 30th June, 1938, there were 3,309 loans outstanding for a total sum of £228,223. The issue of new supplementary advances was discontinued in 1937.

The number of amounts of advances for homes made by the Advances for Homes Department during the last ten years are shown below.

TABLE 184.—Government Advances for Homes (Rural Bank).

Year ended 30th June.	Advances made.		Year ended 30th June.	Advances made.	
	New Advances.	Amount including supplementary advances.		New Advances.	Amount including supplementary advances.
1929	2,628	1,690,803	1934	235	97,495
1930	2,889	2,177,759	1935	1,636	993,510
1931	216	220,928	1936	1,665	1,131,889
1932	8	8,495	1937	1,100	854,214
1933	2	5,194	1938	928	818,579

The number of these loans outstanding at 30th June, 1938, was 25,246 for an aggregate amount of £12,542,180.

The Building Relief scheme was initiated in 1932 by the Unemployment Relief Council to relieve unemployment in the building and allied trades. Loans are made for repairs or additions to dwellings. Since 1st July, 1935, the scheme has been administered by the Building Relief Agency of the Rural Bank. The number of advances made to 30th June, 1938, was 11,605, and the amount £1,082,850. At that date 5,117 loans, amounting to £322,301, were outstanding.

The Government Housing Agency within the Government Agency Department of the Rural Bank administers accounts representing advances made by the Housing Board which was appointed under the Housing Act of 1912 and dissolved in 1924. The outstanding loans numbered 775 at 30th June, 1938, and the amount of principal outstanding was £427,122.

#### *Housing of the Unemployed.*

A trust was constituted in terms of the Housing of the Unemployed Act, 1934, to deal with the problem of providing housing for the unemployed and others in necessitous circumstances. The Trust consists of the Minister for Social Services, and eight honorary members appointed by the Governor. It may purchase or lease land, erect buildings and let or sell them, supply building material (or advance money for its purchase) for erection, repair, or improvement of buildings intended for use as a home, either to unemployed or necessitous persons themselves, or to organisations which assist in the housing of indigent persons. Moneys for the purposes of the Trust are advanced by the Treasury.

The number of homes provided by the Trust as at 31st December, 1938, was 1,856. Of these, 517 cottages were built by the Trust on its own land, and the purchasers are paying for the homes by instalments of 6s. or 7s. a week, no deposit being required. The Trust supplied the building materials for the remaining 1,339 homes, and they were erected by individual applicants, assisted by friends or local organisations. In addition, 1,308 persons were given small free grants for building temporary homes or for repairs.

The persons who build without cost to the Trust for labour pay for the materials supplied by instalments ranging from 2s. 6d. to 6s. per week. Interest is charged at the rate of 2 per cent.

The expenditure to 31st December, 1938, amounted to £216,560 and total commitments to £246,119.

#### *Co-operative Building Societies.*

The co-operative building societies, as described in the chapter "Private Finance" of this Year Book, have for many years served a useful purpose in enabling persons with moderate means to acquire homes. When the policy of active encouragement of co-operative building was adopted, the Co-operation Act was amended by the Housing Improvement Act, 1936, and later by the Housing (Further Provisions) Act, 1937. An advisory committee, consisting of the Registrar of Co-operative Societies, the Under-Secretary of the Treasury, or an officer nominated by him and three other members, was appointed by the Government to foster the growth of the system amongst home builders. The committee selected as most suitable for the purpose in view a type of terminating building society which had already proved successful in a number of country towns and recommended certain adjustments so that the system would operate more equitably in respect of all classes of members.

Building societies of this type secure financial accommodation from outside sources in order to make advances to members as soon as they require them. On joining a society the member takes up a number of shares according to the amount he intends to borrow and he pays subscriptions at a certain rate until he takes up his loan. Then the rate of his contributions is increased. When all shares have been advanced and external obligations met the society is wound up.

The Government assists the societies to obtain requisite funds by guaranteeing the repayment of loans made to them by banks, insurance societies, and other approved bodies. The guarantees are given in terms of the Government Guarantees Act 1934-1937 on the recommendation of the advisory committee.

The Government also affords assistance to the societies in making advances to members. It had been the practice of co-operative building societies to limit advances to 80 per cent. of the valuation of the security offered. Now the societies under certain conditions may increase up to 90 per cent. advances to members who do not already own a home, and the Government undertakes to indemnify them for loss attributable to the fact that such advances have exceeded 80 per cent. The arrangement applies to advances up to £900 (plus the value of the member's shares up to £100). The indemnity expires when the amount owed by the member, reduced by the value of his share capital, is not more than 66 $\frac{2}{3}$  per cent. of the value of his security. The value of the relevant shares of a member in a society may be used wholly or partly to make up the 10 per cent. he is required to find.

The rates of subscriptions on shares in these co-operative building societies depend upon the term of the society. The Advisory Committee having regard to the varying needs and resources of different classes of home builders has drawn up "model" rules in respect of three periods, viz., 14 years, 21 years and 28 years—with "notional" interest at approximately 5 per cent. The rates of payments are as follows:—

TABLE 185.—Co-operative Building Societies—Subscriptions per Share.

Term of Society.	Loan per Share.	Subscriptions per Share.	
		Before Advance.	After Advance.
14 years ...	£ 52	2s. per fortnight ...	4s. per fortnight.
21 years ...	55	2s. 6d. per calendar month ...	7s. per calendar month.
28 years ...	54	1s. 6d. per calendar month ...	6s. per calendar month.

According to the foregoing table, a member may obtain, for example, 10 shares equivalent to £520 by subscribing at the rate of 10s. per week before obtaining the advance and 20s. a week afterwards, where the theoretical term is 14 years; 10 shares equivalent to £550 by subscribing 5s. 9d. a week before and 16s. 2d. a week after the advance if the term is 21 years; or 10 shares equivalent to £540 by subscriptions at 3s. 6d. a week and 13s. 10d. a week respectively if the term is 28 years. In addition to subscriptions, the member pays a small management charge.

The building societies are under the supervision of the Registrar of Co-operative Societies, who is also chairman of the Co-operative Building Advisory Committee. Further details relating to all classes of co-operative building societies are published in the chapter "Private Finance" of this Year Book.

Building societies of the type recommended by the committee have made remarkable progress since active steps have been taken to facilitate their formation. At 30th June, 1936, there were only ten of these societies on the register. The number was 75 twelve months later and 175 at 30th June, 1938. At 31st December, 1938, there were in active operation 169 societies with 17,801 members, and 217,233 shares had been allotted, viz., 106 metropolitan societies, 12,093 members, and 156,608 shares; and 63 country societies, 5,708 members and 60,625 shares. Particulars of the loans approved and advances made are as follows:—

TABLE 186.—Terminating Building Societies—Advances, 31st December, 1938.

Purpose of Loan.	Metropolitan Societies.				Country Societies.				Total.			
	Loans Approved.		Advances Made.		Loans Approved.		Advances Made.		Loans Approved.		Advances Made.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Erection ...	1,306	£000 2,515	2,589	£000 1,812	1,768	£000 1,091	1,368	£000 778	5,074	£000 3,606	3,957	£000 2,590
Purchase ...	2,891	2,193	2,407	1,878	706	384	618	330	3,507	2,577	3,085	2,208
Discharge of mortgage ...	831	562	770	507	335	193	299	174	1,166	755	1,069	681
Alterations and Additions ...	79	26	69	20	145	26	119	21	224	52	188	41
Other ...	3	1	3	1	6	5	6	5	9	6	9	6
Total ...	7,110	5,297	5,898	4,218	2,960	1,699	2,410	1,308	10,070	6,996	8,308	5,526

*Governmental and Municipal Housing.*

Daceyville, a model suburb built by the State Government, is about 5 miles from the City of Sydney. It is managed by the Public Trustee under power of attorney from the Minister for Local Government. The cost as at 30th June, 1938, was £181,277. The income of the year 1937-38 was £18,898, including rents £18,243. Interest, administration and maintenance amounted to £14,025.

The Municipal Council of the City of Sydney controls four blocks of workmen's dwellings. The Strickland buildings were opened in April, 1914. They consist of 8 shops and 71 self-contained flats of two, three or six rooms. The rents range from 11s. 7d. to 26s. per week. The Dowling-street dwellings, opened on 29th June, 1925, consist of 30 flats of four or five rooms, for which the rentals are 20s. 2d. to 22s. 6d. per week. The Pymont dwellings were opened on 2nd November, 1925. They contain 41 flats of four or five rooms, and the weekly rentals range from 13s. 7d. to 17s. 6d. The Alexandria dwellings, opened on 17th October, 1927, consist of 23 dwellings and a shop. The rental is 20s. per week for the dwellings and 46s. 6d. for the shop and dwelling. The total cost, including the land, was—Strickland Buildings, £49,667; Dowling-street Dwellings, £24,070; Pymont Dwellings, £34,549; and Alexandria Dwellings, £30,442.

*War Service Homes.*

The Commonwealth Government assists Australian sailors and soldiers and their female dependants to acquire homes, the operations being conducted under the Commonwealth War Service Homes Act, 1918-1937.

A summary of the activities in New South Wales of the Commission charged with the administration of the Act shows that 14,147 applications had been approved up to 30th June, 1938, and 12,272 homes had been provided, viz., 6,600 houses by construction or assistance in construction, 4,258 by purchase and 1,414 by discharge of mortgages, etc. Loans in respect of 2,690 houses have been repaid.

The sums paid as instalments of principal and interest to 30th June, 1938, amounted to £7,061,418, and arrears of instalments at that date amounted to £351,138, or 4.73 per cent. of the total amount due.

## COMMUNITY ADVANCEMENT AND SETTLEMENT SOCIETIES.

The Co-operation Act, 1923-38, provides, *inter alia*, for the formation of community advancement societies and community settlement societies. Community advancement societies may be formed to provide any community service or benefit, *e.g.*, to transport and supply water, gas, and electricity, to establish factories and workshops, to undertake farming operations and the purchase of machinery for its members, to erect dwellings, to maintain buildings, etc., for education, recreation, or other community purpose, to promote charitable undertakings, and to do anything calculated to improve the conditions of urban or rural life in relation to the objects specified.

Community settlement societies may be formed for the purpose of acquiring land in order to settle or retain people thereon, and of providing any community service, and with these objects they may do anything calculated to promote the economic interests of their members.

Up to 30th June, 1938, thirty community advancement societies had been registered under the Act, and there were twenty societies on the register at that date. Most of these societies were formed for the object of erecting and maintaining public halls or for establishing recreation or social clubs. Seven community settlement societies have been registered, and there were three on the register at 30th June, 1938.

## PARKS, RECREATION RESERVES, AND COMMONS.

Under the Public Parks Act the Governor may appoint trustees of any lands proclaimed for the purposes of public recreation, convenience, health, or enjoyment. The trustees are empowered to frame by-laws regarding the use of the land by the public and for the protection of shrubs, trees, etc.

The public parks and recreation reserves which are not committed to special trustees are controlled by municipal and shire councils. All the towns of importance possess extensive parks and recreation reserves.

The city of Sydney contains within its boundaries 625 acres of parks, squares, and public gardens. The most important are Moore Park, where about 354 acres are available for public recreation, including the Sydney Cricket Ground and the Royal Agricultural Society's Ground; the Botanic Gardens and Garden Palace Grounds, 65 acres, with the adjoining Domain of 86 acres, ideally situated on the shores of the Harbour; and Hyde Park, 37 acres, in the centre of the city. In addition, the Centennial Park, 474 acres in extent, on the outskirts of the city, reserved formerly for the water supply, is used for recreation, the ground having been cleared, planted, and laid out with walks and drives.

It has been ascertained that there are over 12,200 acres of public parks and reserves in metropolitan municipalities. This figure, representing nearly 8 per cent. of their aggregate area, is exclusive of some parks and reserves which the municipalities have acquired by gift or by purchase from private owners.

The Zoological Gardens at Taronga Park, on the northern side of the Harbour, were opened in 1916. The area is about 50 acres. Their natural formation has been retained as far as practicable with the object of displaying the animals in natural surroundings. An aquarium has been built within the gardens.

The National Park, situated about 16 miles south of Sydney, was dedicated in December, 1879. The total area is 33,832 acres. The park surrounds the picturesque bay of Port Hacking, and extends in a southerly direction towards the mountainous district of Illawarra. It contains fine virgin forests with attractive scenery.

Another large tract of land, the Kuring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,373 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 15 miles north of Sydney, and is accessible by railway at various points, or by water, *via* the Hawkesbury River. Several creeks, notably Cowan Creek, intersect it.

In 1905 an area of 248 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook. Parramatta Park (252 acres) is of historic interest.

Surrounding many country towns there exist considerable areas of land reserved as commons, on which stock owned by the townfolk may be depastured. The use of these lands is regulated by local authorities. Nominal fees are usually charged to defray the cost of supervision and maintenance. Many of these commons are reserved permanently, but a large number are only temporary.

The area reserved for parks and recreation reserves, excluding alienated lands acquired by local councils or donated by private persons, was 233,466 acres at 30th June, 1938; the area of permanent commons was about 37,000 acres, and 296,123 acres were reserved temporarily as commons.

## PUBLIC ENTERTAINMENTS.

*Theatres and Public Halls, etc.*

Buildings in which public meetings (other than meetings for religious worship) or public entertainments are held must be licensed under the Theatres and Public Halls Act, 1908-1938. A license may be refused if proper provision is not made for public safety, health, and convenience, or if the site or building is unsuitable for the purpose of public meeting or entertainment. Plans of buildings intended to be used as theatres and public halls must be approved by the Chief Secretary before erection is begun. Licenses are granted for a period of one year, and premises are subjected to inspection before renewal. A license or renewal of a license may be withheld until such alterations or improvements as may be deemed necessary are effected.

The Theatres and Films Commission, constituted on 1st February, 1939, deals with all applications for the erection of new picture theatres or the alteration of existing picture theatres, and proposals for the conduct of cinematograph entertainments in existing buildings.

The theatres and public halls licensed during the year ended 30th June, 1938, numbered 2,771, and the amount of fees received was £5,126.

Cinematograph films are subject to censorship before exhibition in New South Wales. The Commonwealth Customs authorities review the films imported from oversea countries. State officials review the films made in Australia, and may take action in terms of the Theatres and Public Hall Act in respect of imported films.

With the object of encouraging the production of cinematograph films in Australia, distributors are required to make available, and exhibitors to show a certain proportion of Australian films, in terms of the Cinematograph Films (Australian Quota) Act, 1935-1937. The law refers generally to films over 5,000 feet in length, but it may be applied also to those between 3,000 feet and 5,000 feet. The distributors' quota, expressed as a proportion of the total number of films (other than British) is 3 per cent., and the exhibitors' quota is 2½ per cent. for the years 1938 and 1939. The quotas for subsequent years are to be fixed on the recommendation of the Films Advisory Committee constituted under the Act.

By the amending law of 1937 exhibitors have been given the authority to reject 12½ per cent. of the films (other than Australian and British) which they have purchased under contract.

*Horse and Greyhound Racing.*

Horse racing, which includes pony racing and trotting races, is a popular form of sport in New South Wales, and with it is associated a large amount of betting. Racecourses must be licensed. If a racecourse is used for more than one class of racing—horse racing, pony racing, or trotting—a separate license must be obtained for each class. At 31st December, 1938, the licensed racecourses numbered 242, and the licenses issued in respect thereof numbered 265.

The maximum number of days on which race meetings may be held on the various racecourses is regulated by law. In the metropolitan district the maximum number in terms of the Gaming and Betting Amendment Act, 1937, which commenced on 1st January, 1938, is 63 for horse racing, 48 for pony racing and 40 for the trotting contests—the licenses for trotting being restricted to two racecourses.

In the district of Newcastle the maximum number of days for horse racing is 90 per annum, of which 65 are for six racecourses, including 15 days for Newcastle racecourse. In recent years meetings have been held

on only two of these racecourses—although four were licensed during 1938. As long as the right to hold meetings on the other racecourses is not fully exercised, additional days up to 10 per annum may be granted to the Newcastle racecourse.

The Act of 1937 provides that no license for a racecourse may be issued after 31st December, 1942, unless the Colonial Secretary is satisfied that the application therefor is made by or on behalf of a non-proprietary association. A committee has been set up to investigate the conduct of race meetings with a view to determine a method by which the conduct and control of racing may be vested exclusively in non-proprietary associations without causing undue hardship to any person.

Greyhound racing is permitted on racecourses specially licensed therefor, under the Gaming and Betting Act. Not more than two racecourses may be licensed in the metropolitan area, and not more than one in any town outside the metropolitan area. On a metropolitan racecourse meetings may be held on 26 days per annum, or, if there is only one such racecourse, on 52 days. Outside the metropolitan district meetings may be held on a licensed racecourse on 40 days a year.

At 31st December, 1938, forty-six grounds were licensed for greyhound racing—one in the metropolitan district, three in the Newcastle district, and forty-two in country areas.

A license to conduct greyhound racing may be issued only to a non-proprietary association, unless the licensee was conducting greyhound racing on a proprietary basis in December, 1937, when the law was amended. Juveniles under the age of 18 years are not permitted to attend greyhound racing.

Betting or wagering is prohibited in connection with any sports except horse, pony, trotting and greyhound races on licensed racecourses, and coursing on grounds approved by the Chief Secretary. Betting or wagering is illegal after sunset on licensed racecourses or coursing grounds except at greyhound races. Racing clubs may be required to instal totalisators on their racecourses and to use them at every race meeting.

To facilitate the collection of stamp duty in respect of betting, bookmakers are required to use stamped tickets and to keep a record of credit bets. During the year ended 30th June, 1938, the number of betting tickets issued to bookmakers was 19,000,000, and approximately 450,000 credit bets were recorded. The investments on totalisators during 1937-38 amounted to £1,471,292, and the tax was £97,082.

Since 1st October, 1932, a tax has been levied on the bookmakers' turnover, i.e., the total amount of bets made by backers with bookmakers. The rate was 1 per cent. until 1st January, 1938, when it was reduced to  $\frac{1}{2}$  per cent. The amount collected during the year ended 30th June, 1938, was £91,453. A tax, 15 per cent. of gross revenue, has been levied since 1st January, 1938, on clubs which conduct greyhound racing in the metropolitan district.

Particulars relating to taxes in connection with racing are shown in the chapter relating to Public Finance.

#### *State Lotteries.*

State lotteries are conducted in New South Wales, in terms of the State Lotteries Act, 1930, which was brought into operation by proclamation on 22nd June, 1931. The administration of the Act is entrusted to a director,



and the lotteries are conducted on the cash-prize system. From the proceeds of the sale of tickets in each lottery a sum is apportioned for prizes and the balance is payable to Consolidated Revenue. The first lottery was drawn on 20th August, 1931.

Particulars regarding the lotteries filled in each year to 30th June, 1938, are shown below:—

TABLE 187.—State Lotteries, 1932 to 1938.

Year ended June.	Lotteries Filled during each Year.				Administrative Expenses.
	Number.	Subscriptions.	Prizes Allotted.	Excess of Subscriptions over Prizes.	
		£	£	£	£
1932 ... ..	67	2,047,497	1,280,394	767,103	69,064
1933 ... ..	78	2,100,000	1,315,710	784,290	62,126
1934 ... ..	70	1,837,500	1,141,025	696,475	55,341
1935 ... ..	68	1,785,000	1,108,400	676,600	50,497
1936 ... ..	73	1,916,250	1,189,900	726,350	51,162
1937 ... ..	78	2,047,500	1,271,510	775,990	53,329
1938 ... ..	85	2,231,250	1,385,500	845,750	53,592

Up to 30th June, 1938, the number of lotteries filled was 519. To these subscriptions amounted to £13,964,997, and the prizes to £8,692,439, the excess of subscriptions over prizes and expenses being £4,877,447. This sum, with minor receipts amounting to £192, was transferred to the Consolidated Revenue Fund, from which were paid administrative expenses and preliminary charges, such as salaries, office equipment and alterations to buildings £395,111.

## TAXATION OF PUBLIC ENTERTAINMENTS.

*Entertainments Tax.*

The State Government imposed a tax on entertainments as from 1st January, 1930. Admissions are taxable if payments exceed 1s. 6d., at the following rates:—Over 1s. 6d. and under 2s., tax  $\frac{1}{2}$ d.; 2s. and over, tax 1d. for the first 2s. and  $\frac{1}{2}$ d. for each additional 6d. Payments for admission to entertainments made in the form of a lump sum, as a subscription to a club or association, or for a season ticket, are taxed on the amount of the lump sum.

Certain entertainments are exempt from the tax where the proceeds are wholly devoted to philanthropic, religious, charitable or educational purposes, also entertainments which are entirely in the nature of an athletic sport or game and the proceeds are wholly applied to the furtherance of athletic sports or games, and not for the profit of the individual members of the organisation conducting the entertainment.

Admissions to race meetings were exempt from the entertainments tax where they were taxable under the Racecourses Admission Tax Act as described in the chapter Public Finance. This Act was repealed at the end of the year 1937, and admissions to racing, except greyhound racing in Sydney and Newcastle, became subject to the entertainments tax, but at a higher rate in respect of admissions to horse racing on metropolitan courses, the Newcastle racecourse, and admissions to other courses for which the charge is 9s. 4d. or over. The higher rate is 2d. for every shilling, or part of a shilling, in excess of 1s.; and charges which do not exceed 1s. are exempt.

By agreement between the State and Commonwealth Governments the Federal Taxation Commissioner collects the entertainments tax.

A classification of admissions taxable under the Entertainments Tax Act during the years 1930 to 1937 is shown below:—

TABLE 188.—Entertainments Tax—Admissions and Collections, 1930 to 1937.

Year.	Racing.	Theatres.	Picture Shows.	Dancing and Skating.	Other.	Total.
Taxable Admissions.						
	No.	No.	No.	No.	No.	No.
1930 ... ..	275,231	1,263,601	11,388,188	920,513	975,903	14,823,436
1931 ... ..	173,830	1,027,900	7,931,410	816,623	748,563	10,698,326
1932 ... ..	163,103	955,621	6,731,163	666,935	868,957	9,385,779
1933 ... ..	147,677	1,068,118	7,527,753	685,198	755,482	10,184,228
1934 ... ..	207,566	1,287,804	8,053,646	844,970	549,905	10,943,891
1935 ... ..	181,692	1,144,207	9,727,466	842,767	1,052,908	12,949,040
1936 ... ..	231,095	1,041,199	11,254,910	1,057,812	1,554,825	15,139,841
1937 ... ..	252,597	1,212,185	12,329,523	1,121,626	1,490,773	16,406,704
Tax Collections.						
	£	£	£	£	£	£
1930 ... ..	7,750	14,071	62,185	6,804	7,378	98,188
1931 ... ..	4,244	9,687	38,584	4,528	4,490	61,533
1932 ... ..	3,482	10,111	31,371	4,060	5,124	54,148
1933 ... ..	3,930	9,825	32,069	4,042	4,482	54,348
1934 ... ..	5,467	13,069	35,152	5,196	3,337	62,221
1935 ... ..	5,906	11,592	45,877	6,115	6,896	76,386
1936 ... ..	6,223	9,713	53,673	8,266	10,639	88,514
1937 ... ..	6,429	13,738	58,618	8,625	9,426	96,836

The entertainments tax on racing in the less populous parts of the State (excluding country greyhound racing) amounted to £6,429 in the calendar year 1937, and the collections under the Racecourses Admission Tax Act to £93,000 approximately, so that the taxation on admissions to racing exceeds the total tax on all other classes of entertainments. Admissions to picture shows, which yield the greater part of the entertainments tax rank next in order, then theatres. The collection of entertainments tax declined by 45 per cent. between 1930 and 1932, though the decline in taxable admissions was only 13 per cent. Since 1932 admissions have increased by 75 per cent. and the collections by 79 per cent. The number of taxable admissions in 1937 exceeded the number in 1930 by nearly 11 per cent.

An analysis of the collections in each year, according to the charges for admission, as shown below, indicates that in 1930 taxable admissions were most numerous at 2s., representing 44 per cent. of the total. In later

years the patronage of cheaper admissions increased to form the most numerous group, so that the proportion of charges between 1s. 6d. and 2s. increased from 12.7 per cent. in 1930 to 41.6 per cent. in 1937, and the proportion at 2s. dropped to 13 per cent. Admissions at charges exceeding 3s. represent 13.6 per cent. of the total.

TABLE 189.—Entertainments Tax—Admissions According to Charges, 1930 to 1937.

Year.	Charges for Taxable Admissions (Entertainments Tax).						Total.
	Over 1s. 6d. and under 2s.	2s.	Over 2s. to 2s. 6d.	Over 2s. 6d. to 3s.	Over 3s. to 5s.	Over 5s.	
	No.	No.	No.	No.	No.	No.	No.
1930 ...	1,880,393	6,503,612	2,824,802	1,859,098	1,216,115	539,416	14,823,436
1931 ...	2,624,891	3,843,334	2,216,238	1,036,982	717,160	259,721	10,698,326
1932 ...	3,016,625	2,711,670	1,775,402	818,743	756,241	307,098	9,385,779
1933 ...	3,891,493	2,668,818	2,000,953	762,434	548,820	311,710	10,184,228
1934 ...	4,224,871	2,725,332	1,937,914	915,832	729,345	410,597	10,943,891
1935 ...	4,960,888	2,461,375	2,641,418	1,243,473	1,241,767	400,119	12,949,040
1936 ...	6,228,405	2,073,560	3,326,504	1,449,715	1,614,047	447,610	15,139,841
1937 ...	6,831,264	2,123,161	3,743,123	1,477,399	1,656,393	575,364	16,406,704

#### REGULATION OF LIQUOR TRADE.

The sale of intoxicating liquor is subject to regulation by the State Government in terms of the Liquor Act of 1912 and subsequent amendments. The sale of intoxicating liquor except by persons holding a license is prohibited. Several kinds of licenses are granted, viz., publicans', packet, Australian wine, club, booth or stand, and railway refreshment room, all of which authorise the sale of liquor in small quantities; and spirit merchant's and brewer's for the sale in large quantities.

The authority given by each of these licenses and the conditions attached thereto are described in the 1928-29 issue of this Year Book.

The licenses are issued by the Licensing Court in each district, except the railway refreshment room licenses, which are issued by executive authority. Three magistrates constitute the licensing courts and discharge the functions of the Licenses Reduction Board, which was authorised by an Act of 1919 to reduce the number of publicans' and Australian wine licenses.

The Board may reduce the number of publicans' licenses in any electorate where the existing licenses exceed the "statutory number" prescribed by the Act, which is proportionate to the number of electors. The number of wine licenses in any electorate may be reduced by one-fourth of the number in existence on 1st January, 1923, and a greater reduction may be made where considered necessary in the public interest.

The number of publicans' licenses in existence on 1st January, 1920, was 2,539, of which 2,085 were in fourteen electorates with more than the statutory number, and the maximum reduction which the Act authorised the Board to make was 483. The Australian wine licenses on the 1st January, 1923, numbered 441 of which 220 were in the metropolitan electorates.

Subsequent changes in the number of licenses up to 31st December, 1938, are summarised below:—

TABLE 190.—Liquor Licenses—Operations of Reduction Board.

Licenses.	Publicans.	Australian Wine.
Number at 1st January, 1920 ... ..	2539	441*
Terminated by order of Board ... ..	291	65
surrender to Board ... ..	198	15
expiration of licenses, etc. ... ..	72	16
	561	96
New licenses granted ... ..	60	3
Number at 31st December, 1938 ... ..	2,638	348

\* At 1st January, 1923.

At 31st December, 1938, there were 533 publicans' licenses, 159 Australian wine licenses in the metropolitan licensing districts, also 113 spirit merchants, 4 brewers and 45 club licenses. In the Parramatta district there were 62 publicans' and 9 wine licenses, 10 spirit merchants and 5 club licenses. In Newcastle there were 114 publicans' and 11 wine licenses, 7 spirit merchants and 2 club licenses. In Maitland the licenses were 57 publicans' and 12 wine and 2 spirit merchants. In Broken Hill the numbers were publicans 48, wine 7, spirit merchants 5 and club 7.

When deprived of their hotel licenses the holders, owners, lessees, etc., of the premises are entitled to compensation, as assessed by the Board, from a fund obtained by levies on the licensees.

The licensee is paid as compensation for each year of the unexpired term of his tenancy (up to three years), the average annual net profit during the preceding period of three years. The compensation paid to owners, lessees, etc., of hotel premises is based on the amount by which the net return from the premises over a period of three years is diminished by being deprived of a license. Appeals against the determinations of the Board in respect of the compensation awarded may be made to the Land and Valuation Court.

In the case of wine licenses, only the licensees are entitled to compensation.

Compensation is paid from the Compensation Fund formed from levies paid by licensees up to 31st December, 1926. The levy was discontinued at that date because the credit balance of the fund was sufficient to meet claims for compensation and costs of administration for a number of years. The receipts of the fund to 30th June, 1938, amounted to £1,612,783, including interest earnings (to 31st December, 1927) £115,606. The payments were £1,288,616, including £881,800 as compensation, £156,816 for administration and £250,000 transferred to the Consolidated Revenue Fund of the State. The credit balance at 30th June, 1938, was £324,167.

Up to the end of the year 1938 compensation had been awarded in respect of 489 publicans' licenses terminated by order of the Board or by surrender thereto. The amount, £818,215, was distributed as follows:—Licensees, £280,956; owners of premises, £524,334; and lessees, £12,925. Compensation to 78 wine licensees amounted to £63,890, and in two cases compensation was not awarded.

The number of licenses for the sale of intoxicating liquor issued during various years since 1901 is shown below:—

TABLE 191.—Liquor Licenses Issued, 1901 to 1938.

Licenses.	1901.	1911.	1921.	1931.	1936.	1937.	1938.
Publicans' ... ..	3,151	2,775	2,488	2,134	2,050	2,041	2,030
Additional Bar ... ..	...	118	153	263	257	268	287
Permits to Supply Liquor with Meals—(6 p.m. to 9 p.m.)	...	...	...	118	208	234	229
Club ... ..	...	76	78	83	84	84	84
Railway Refreshment—							
General Liquor ... ..	22	24	29	59	45	43	43
Wine ... ..	*	*	*	14	11	11	11
Booth or Stand... ..	1,787	1,829	2,337	2,054	2,245	2,248	2,211
Packet ... ..	20	24	13	6	4	4	4
Australian Wine ... ..	675	532	450	360	351	350	348
Spirit Merchants' ... ..	225	198	244	241	229	234	230
Brewers'... ..	53	39	17	6	7	6	6

\* Not available.

The annual fees payable for new licenses in respect of hotels, packets, and Australian wine are assessed by the Licensing Court, the maximum fees being £500, £20, and £50 respectively. Clubs pay £5 per annum for the first 40 members and £1 for each additional forty. Spirit merchants pay £30 in the metropolitan district and £20 elsewhere. For renewals of publicans', packet, wine and club licenses the annual fees are assessed by the Licenses Reduction Board according to the amount spent by the licensees in the purchase of liquor during the preceding calendar year. The fee for renewal of a spirit merchant's license is assessed in a similar way, except that spirit merchants do not pay on the liquor sold by them to persons licensed to sell liquor, and they pay a minimum fee of £30 in the metropolitan district and £20 elsewhere. The owner of the premises is liable for two-fifths of the license fee, but if his share exceeds one-third of the rent he may obtain a refund of part or the whole of the excess as determined by the Board.

The fees for licenses in respect of railway refreshment rooms are assessed at the same rate as those for publicans' licenses, but the Railway Commissioners do not pay the fees assessed for those refreshment rooms for which Australian wine licenses only are issued.

Brewers pay £50 per annum in the metropolitan district and £25 in other districts. For booth and stand licenses, which are temporary permits granted to licensed publicans for the sale of liquor at places of public amusement, the fee is £2 per day.

The following statement shows the amount expended by licensees in the purchase of liquor in each year from 1922:—

TABLE 192.—Purchases of Liquor by Licensees, 1922 to 1937.

Year.	Purchases by Licensees.	Year.	Purchases by Licensees.	Year.	Purchases by Licensees.	Year.	Purchases by Licensees.
	£		£		£		£
1922	8,274,032	1926	9,736,678	1930	7,717,587	1934	6,701,668
1923	8,372,124	1927	10,111,795	1931	6,169,172	1935	7,311,350
1924	8,782,060	1928	10,260,317	1932	6,064,659	1936	7,802,495
1925	9,217,493	1929	10,410,456	1933	6,123,185	1937	8,531,795

The amount expended in each calendar year, as shown above, is the basis of the fees for the renewal of various classes of licenses as from 1st July of the following year. The amount of fees assessed in recent years is shown below:—

TABLE 193.—Liquor Licenses—Fees, 1930 to 1938.

License.	1929-30.	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
<b>Fees assessed on purchases—Publicans'</b>	462,858	268,635	297,947	326,213	347,491	381,710
Club ... ..	4,418	3,132	3,274	3,609	3,776	3,716
Rlwy. Refreshment	2,172	1,186	1,386	1,440	1,394	1,539
Packet ... ..	38	21	25	21	18	21
Australian Wine ...	6,460	4,656	4,765	4,694	4,929	4,968
Spirit Merchants'	11,032	7,749	8,390	8,722	9,640	10,200
<b>Other fees—</b>						
Brewers' ... ..	250	293	225	254	250	250
Booth or Stand ...	6,148	4,611	5,225	5,326	5,400	5,318

### Consumption of Intoxicants.

The information in the following table was obtained from the Licenses Reduction Board to show the quantity of spirits, wines and beers purchased by holders of liquor licenses for retailing to the public, together with the quantity sold direct to the public by wholesale wine and spirit merchants. The figures may be taken as the consumption of intoxicating liquor by the public. It is difficult to estimate the expenditure by the public on intoxicating liquor because liquor is sold at varying prices not only in different localities, but in hotels in the same district and even in the different parts of the same hotel. There is also the fact that the percentage of profit on bottle sales is less than that of bar sales. However, the figures shown in the table are published as a reasonably accurate estimate of the expenditure by the public on intoxicating liquor.

TABLE 194.—Intoxicants—Consumption and Expenditure by Public, 1928 to 1938.

Year.	Quantity Purchased by Licensees.			Estimated Expenditure by the Public or Intoxicants.	
	Beer.	Wine.	Spirits.	Total.	Per Head of Population.
	Gallons.	Gallons.	Gallons.	£	£ s. d.
1928 ... ..	28,993,000	1,496,107	1,260,854	17,440,000	7 1 9
1932 ... ..	18,042,000	1,271,318	610,484	10,380,000	4 0 6
1933 ... ..	18,925,000	1,473,094	617,468	10,500,300	4 0 9
1934 ... ..	21,573,000	1,559,573	716,816	11,490,000	4 7 7
1935 ... ..	23,764,000	1,619,248	761,406	12,530,000	4 14 9
1936 ... ..	26,218,000	1,641,827	785,912	13,320,000	4 19 10
1937 ... ..	28,881,030	1,663,971	824,110	14,520,000	5 7 9
1938 ... ..	34,249,000	1,622,560	848,099	15,870,000	5 16 8

In the foregoing table the quantities of spirits are shown in liquid gallons, not proof gallons. Proof spirit means spirit of a strength equal to that of pure ethyl alcohol compounded with distilled water so that the resultant mixture at a temperature of 60 degrees Fahrenheit has a specific gravity of 0.91976 as compared with that of distilled water at the same

temperature. The standard strength of whisky, brandy, gin and rum may not be less than 35 degrees under proof, and spirits of the best quality are retailed usually at about 30.5 degrees under proof. Prior to 24th December, 1930, the minimum strength of whisky and brandy was 25 degrees under proof, and in the retail trade it was sold usually at about 23.5 degrees under proof.

Practically the whole of the beer and the wine consumed in the State is of Australian origin, and large quantities of the spirits are imported, but the proportion of Australian spirits tends to increase. Information as to the operation of breweries in New South Wales appears in the chapter "Factories" of this Year Book.

#### *Drunkenness.*

Persons apprehended by the police for drunkenness in public places may be charged in the Courts of Petty Sessions. It is the practice to release such persons before trial if they deposit as bail an amount equal to the usual penalty imposed. If they do not appear for trial the deposits are forfeited, and further action is not taken.

During the year 1938 the number of persons charged with drunkenness was 29,610, of whom 2,137 were females. In the case of 2,073 males and 356 females the charges were withdrawn or dismissed, 16,160 males and 805 females were convicted after trial by the Courts, and 9,240 males and 976 females, who did not appear for trial, forfeited their bail.

The following statement shows the number of convictions for drunkenness, including the cases in which bail was forfeited, during 1921, 1929, and each of the last eight years:—

TABLE 195.—Drunkenness—Convictions, 1921 to 1938.

Year.	Convicted after trial.		Bail Forfeited.		Total Convictions.			Cases per 1,000 of mean population.
	Males.	Females.	Males.	Females.	Males.	Females.	Total.	
1921	18,525	1,172	8,233	772	26,758	1,944	28,702	13.61
1929	19,769	1,330	10,920	1,117	30,689	2,447	33,136	13.24
1931	13,285	1,472	5,068	734	18,353	2,206	20,559	8.04
1932	14,320	1,401	5,095	694	19,415	2,095	21,510	8.34
1933	17,081	1,363	6,123	854	23,204	2,217	25,421	9.77
1934	15,506	693	9,038	1,107	24,544	1,800	26,344	10.04
1935	15,786	846	10,173	1,018	25,959	1,864	27,823	10.52
1936	16,137	845	12,049	1,266	28,186	2,111	30,297	11.36
1937	16,572	846	9,196	1,037	25,768	1,883	27,651	10.26
1938	16,160	805	9,240	976	25,400	1,781	27,181	9.99

Relatively to the population, the number of convictions for drunkenness 14.29 per 1,000 in 1928 was the highest since 1923. A progressive decline brought the proportion to 8.04 in 1931. Then the trend was reversed, and the proportion rose slowly to 11.36 in 1936, then declined in the last two years to 9.99.

In addition to charges of drunkenness, to which the foregoing table relates, 603 persons, including 7 females, were charged with driving a motor vehicle while under the influence of intoxicating liquor or drug, and 494 males and 7 females were convicted.

*Treatment of Inebriates.*

The Inebriates Act was designed to provide treatment for two classes of inebriates—those who have been convicted of an offence, and those who have not come in this way under the cognisance of the law.

For the care and treatment of the latter class, the Act authorises the establishment of State institutions under the control of the Inspector-General of Insane. Judges, police magistrates, and the Master-in-Lunacy may order that an inebriate be bound over to abstain, or that he be placed in a State or licensed institution, or under the care of an attendant controlled by the Master-in-Lunacy, or of a guardian, for a period not exceeding twelve months. Provision is made also to enable an inebriate to enter voluntarily into recognisances to abstain.

An inebriate convicted of an offence of which drunkenness is a factor, or, in certain cases, a contributing cause, may be required to enter into recognisances for a period of not less than twelve months, during which he must report periodically to the police; or he may be placed in a State institution under the direction of the Comptroller-General of Prisons.

Some of the State Mental Hospitals have been gazetted under the Inebriates Act for the detention of inebriates, and the number under the supervision of the Inspector-General of Mental Hospitals at 30th June, 1938 was 93, viz., 67 men and 26 women. The number admitted for the first time during the year was 85, including 26 women.

## CONSUMPTION OF TOBACCO.

Persons who sell tobacco, cigars, or cigarettes in New South Wales must obtain a license, for which an annual fee of 5s. is charged. The number of licenses issued in 1938 was 22,563. The sale of tobacco to juveniles under the age of 16 years is prohibited.

The quantity of tobacco consumed in New South Wales, as estimated at intervals since 1901, is shown in the following statement:—

TABLE 196.—Consumption of Tobacco, 1901 to 1938.

Year.	Total Consumption (000 omitted).				Per Head of Population.			
	Tobacco.	Cigars.	Cigarettes.	Total.	Tobacco.	Cigars.	Cigarettes.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1901	2,977	215	368	3,560	2·18	·15	·27	2·60
1911	3,827	271	1,076	5,174	2·30	·16	·65	3·11
1920-21	4,370	273	1,958	6,601	2·09	·13	·94	3·16
1928-29	5,631	185	2,446	8,262	2·27	·07	·99	3·33
1930-31	5,215	124	1,833	7,172	2·05	·05	·72	2·82
1931-32	5,214	96	1,641	6,951	2·03	·04	·64	2·71
1932-33	4,521	102	1,648	6,271	1·75	·04	·64	2·43
1933-34	5,379	109	1,713	7,201	2·06	·04	·66	2·76
1934-35	5,454	91	1,838	7,383	2·07	·03	·70	2·80
1935-36	5,767	121	1,990	7,878	2·17	·05	·75	2·97
1936-37	5,689	103	2,193	7,985	2·12	·04	·82	2·98
1937-38	6,494	110	2,414	9,018	2·40	·04	·89	3·33

\* Factory made.

The quantity of tobacco (including cigars and cigarettes) consumed in 1937-38 was 9,018,000 lb., and the average 3½ lb. per head. The annual consumption per head declined by 27 per cent. during the four years ended 30th June, 1933, but in 1937-38 it regained the pre-depression level.

The tobacco consumed in 1937-38 consisted of 8,923,000 lb. manufactured in Australia, principally from imported leaf, and 95,000 lb. manufactured overseas. Almost all the ordinary tobacco was made in Australia, and 95



per cent. of the cigars and nearly 98 per cent. of the cigarettes, as compared with 95 per cent., 46 per cent., and 97 per cent. respectively, in 1911.

As regards the description of tobacco used, the figures relating to cigarettes do not include the tobacco made into cigarettes by the consumers themselves and recorded as ordinary tobacco. That this practice has been widely adopted by consumers in recent years is indicated by the records of the Trade and Customs Department, which show that duty was paid in Australia on more than 100 million packets of 60 papers in 1937-38, as compared with 55 million packets in 1932-33.

It is estimated that the expenditure on tobacco (including cigarette papers) in 1937-38 amounted to £8,600,000, or £3 4s. per head of population.

#### LICENSES FOR VARIOUS OCCUPATIONS.

Partly as a means of raising revenue and partly as a means of ensuring a certain amount of supervision over persons who follow callings which bring them into contact with the general public, or which are carried on under special conditions, licenses must be obtained by auctioneers, pawnbrokers, hawkers, pedlars, collectors, second-hand dealers, fishermen, and persons who sell tobacco, conduct billiard and bagatelle tables, or engage in Sunday trading. The Pistol License Act, 1927, prescribes the licensing of pistols; licenses may not be issued to persons under 18 years of age.

Auctioneers' licenses are divided into two classes, viz., general and district, the annual fee for a general license being £15, and for each district license £2. General licenses are available for all parts of the State. District licenses only cover the police district for which they are issued, and they are not issued for the Metropolitan district. Auctioneers' licenses may not be granted to licensed pawnbrokers. Sales by auction are illegal after sunset or before sunrise, except that permission may be given for wool to be put up to sale or sold after sunset. Where provision has been made for reciprocity with New South Wales, auctioneers resident and licensed in other Australian States may obtain general licenses in New South Wales.

For pawnbrokers' licenses an annual fee of £10 is payable. The hours for receiving pledges are limited, with certain exceptions, to those between 8 a.m. and 6 p.m., but a restriction is not placed on the rate of interest charged.

The following table shows the principal licenses issued in the five years 1934 to 1938:—

TABLE 197.—Licenses for Various Occupations.

Occupation.	1934.	1935.	1936.	1937.	1938.
Auctioneers—General ... ..	232	225	240	251	225
District ... ..	1,422	1,433	1,494	1,489	1,430
Billiard ... ..	507	405	375	352	261
Tobacco ... ..	20,511	21,458	21,466	22,255	22,563
Pawnbrokers ... ..	88	88	88	86	78
Hawkers and Pedlars ... ..	2,559	2,520	2,247	2,132	2,126
Collectors ... ..	2,428	2,342	2,255	2,130	2,250
Second-hand Dealers ... ..	1,388	1,386	1,338	1,299	1,295
Sunday Trading ... ..	11,341	11,875	11,750	12,347	12,319
Fishermen ... ..	2,843	3,172	3,171	2,541	2,762
Fishing Boats ... ..	1,681	1,803	1,943	1,641	1,807
Oyster Vendors ... ..	274	332	456	408	347
Pistol Licenses (ordinary) ... ..	15,215	14,566	14,531	12,475	11,704
„ (special) ... ..	286	282	270	433	448
Pistol Dealers ... ..	72	67	57	57	50

A law was enacted in 1927 with the object of preventing the improper use of such drugs as opium, morphine, and cocaine. Registered medical practitioners, pharmacists, dentists, etc., are authorised generally to use the drugs in the conduct of their profession or business, but other persons must obtain a license to manufacture, distribute, or have possession of them. Particulars of these licenses are shown on page 177.

#### STATUS OF WOMEN.

In New South Wales women have the right to exercise the franchise and sex does not disqualify any person from acting as member of the Legislative Assembly, as member of a council of any shire or municipality, as judge, magistrate, barrister, solicitor, or conveyancer, or as member of the Legislative Council. Many women have been appointed justices of the peace, and some have been admitted to the practice of the legal profession. They are eligible for all degrees at the University of Sydney, but are not usually ordained as ministers of religion. Women may not act on juries.

The employment of married women in the teaching service of the State has been restricted by law since 1932, but they may be appointed to the service where there are special circumstances.

About 16 per cent. of the members of registered trade unions are women, though there are few unions composed entirely of women. The employment of women in factories and shops is regulated specially by the Factories and Shops Act which limits to five hours the employment of women without an interval for a meal, restricts the time they may be employed in excess of forty-four hours per week and between 6 p.m. and 6 a.m., also the weight they may be allowed or required to lift, and prohibits the employment of girls under 18 years of age in certain dangerous occupations.

Rates of wages payable to women in terms of industrial awards and agreements are based on a separate living wage for women which as a general rule is about 54 per cent. of the living wage for men. Matters which may be determined by the industrial tribunals include claims that the same wage be paid to men and women performing the same work, or producing the same return of profit or value to their employer.

A legal age of marriage has not been defined, but the average age at which women marry is about 24½ years. The consent of a parent or guardian or in the absence of such consent, of a court or magistrate, is necessary to validate the marriage of minors. The wife of a British subject is deemed to be a British subject throughout Australia. Under the Married Women's Property Act, 1901, a married woman is capable of holding, acquiring, or disposing of any real or personal property as her separate property in the same manner as if she were a *femme sole*. Her property is not liable for her husband's debts, and her earnings in any occupation apart from her husband's are her own. A wife, however, has no legal share of her husband's income, nor in any property acquired by their joint efforts after marriage, but the husband is liable for all necessary expenses of his wife and children.

#### RELIGION.

In New South Wales there is no established church, and freedom of worship is accorded to all religious denominations.

The numbers of adherents of the principal religions, as disclosed by the census records, is shown in the following statement:—

TABLE 198.—Religions—Adherents—Census, June, 1911 to 1933.

Religion.	Number of Persons.			Proportion per cent.		
	1911.	1921.	1933.	1911.	1921.	1933.
Christian—						
Church of England ...	734,000	1,027,410	1,143,493	45·46	49·60	49·63
Roman Catholic† ...	412,013	502,815	556,106	25·54	24·27	24·14
Methodist ...	151,274	181,977	203,042	9·37	8·79	8·81
Presbyterian ...	182,911	219,932	257,522	11·33	10·62	11·18
Congregational ...	22,655	22,235	20,274	1·40	1·07	·88
Baptist ...	20,679	24,722	29,981	1·28	1·19	1·31
Lutheran ...	7,087	5,031	5,956	·44	·24	·20
Unitarian ...	844	622	345	·05	·03	·01
Salvation Army ...	7,413	9,490	9,610	·46	·46	·42
Other Christian ...	55,453	48,963	56,560	3·44	2·37	2·45
Total, Christians ...	1,594,329	2,043,197	2,282,889	98·77	98·64	99·09
Other—						
Jews, Hebrew ...	7,660	10,150	10,305	·47	·49	·45
Buddhist, Confucian, Mohammedan, Hindu, etc.	5,113	4,472	1,823	·32	·22	·08
Indefinite, No Religion ...	7,163	13,572	8,796	·44	·65	·38
Object to State ...	21,986	12,916	297,034	...	...	...
Unspecified ...	10,483	16,034				
Total, New South Wales	1,646,734	2,100,371	2,600,847	100	100	100

† Includes Catholic, undefined, 36,662 in 1911, 20,240 in 1921, and 66,943 in 1933.

The figures for 1933 are not satisfactory for comparative purposes owing to the large number of cases in which "no reply" was recorded. This may be attributed to the fact that the option of refraining from making a statement as to religion was very clearly indicated in the census schedule of particulars to be supplied by the householder, whereas in 1921 the householder was requested to complete the schedule in this respect.

## EDUCATION.

IN New South Wales there is a State system of national education which embraces primary, secondary, and technical education, and there are numerous private educational institutions, of which the majority are conducted under the auspices of the religious denominations. The University of Sydney is maintained partly by State endowment and partly by moneys derived from private sources.

The Public Instruction Act of 1880, with its amendments, is the statutory basis of the State system. This system aims at making education secular, free and compulsory, each of these principles being enjoined by statute. The Act of 1880 provides that "the teaching shall be strictly non-sectarian, but the words 'secular instruction' shall be held to include general religious teaching as distinguished from dogmatical or polemical theology." General religious instruction is given by teachers, and special religious instruction for limited periods with the consent of parents, by visiting religious teachers. Education in State primary and secondary schools is free.

Attendance at school is compulsory for children between the ages of 7 and 14 years.

Private schools are not endowed by the State, but with few exceptions are subject to State inspection. (See page 261.) They must be certified as efficient for the education of children of statutory school age, and the school examinations which mark the various stages of primary and secondary education are based on the curricula of the State system.

The course in the primary schools supplies education of a general character in such subjects as English, mathematics, nature knowledge, civics and morals, art and manual work. Beyond the primary stage, the courses diverge into super-primary and secondary education. The former is of a pre-vocational type combining general education with practical subjects suitable for pupils who intend to enter industrial occupations or, in the case of girls, to engage in domestic duties.

The full course of secondary education extends over five years and prepares pupils for admission to the professions and to the University or other institutions providing tertiary education. Shorter courses are provided for those likely to leave school at an earlier age.

Preparatory education for commercial pursuits is provided at commercial schools and at secondary schools where economics, shorthand and business principles and practice are included in the curriculum. At the University there are degree courses in economics, and diploma courses in commerce and public administration.

Industrial training, commenced in the form of manual training in the primary course, may be continued at super-primary or day continuation schools, and at the trades schools and technical colleges. Training in domestic subjects is a feature of the schools for girls, advanced courses being provided at the schools under the technical system. At the University there is a school of domestic science.

Special attention is directed towards education in subjects pertaining to rural industries. Courses in agricultural science and practice and allied subjects are given at district rural schools, agriculture high schools and certain other schools. Advanced training in agriculture, dairying, etc.,

is provided for farmers and students at the Hawkesbury Agricultural College and at experiment farms in various districts administered by the Department of Agriculture. The final stages of education for rural pursuits are reached at the University, where there are degree courses in agriculture and veterinary science.

Afforestation work is done by schools where areas are reserved for the purpose of enabling the pupils to study scientific forestry and silviculture.

A vocational guidance bureau, established in the first instance as part of the State system of education, is administered by the Department of Labour and Industry in the juvenile employment section of the State Labour Exchanges.

A school medical service is maintained by the State for the benefit of children attending both State and private schools, as described in the chapter "Social Condition" of this Year Book.

#### ADMINISTRATION OF THE STATE SCHOOL SYSTEM.

The State system of education is subject to central guidance and control. It is administered by a responsible Minister of the Crown, through a permanent Director of Education, who has the assistance of the Advisory Council on Education and other advisory bodies.

The State school teachers are for the most part full-time employees, and are classified in the Educational division of the Public Service of New South Wales. An inspector supervises the schools and teachers in each of the various school districts into which the State is divided.

#### *The Advisory Council on Education.*

The Advisory Council on Education was appointed by the Minister for Education in 1934, and given statutory authority in terms of the Public Instruction and University (Amendment) Act, 1936. The functions of the Council are to report on such matters connected with public education as may be referred by the Minister for Education and to advise him on matters connected with public education in the State. The Council consists of the following members:—The Vice-Chancellor of the University of Sydney, the members of the Board of Secondary School Studies, one representative of each Technical Education Advisory Council, the President of the New South Wales Public School Teachers' Federation, the Director of the State Conservatorium of Music, the Apprenticeship Commissioner, and ten members appointed by the Governor, of whom two are selected to represent trade unions of employees and one to represent Roman Catholic schools.

#### *Board of Secondary School Studies.*

The Board of Secondary School Studies has been constituted to advise the Minister for Education on matters concerning secondary education, such as the courses of study and the conduct of examinations in connection with the award of certificates upon the completion of secondary courses. The Board may appoint special committees to advise regarding the course of study in individual subjects, and may exercise such other powers, functions and duties as may be prescribed by regulations.

The Board is composed of five members nominated by the University of Sydney; the Director of Education, the Chief Inspector and Deputy Chief Inspector of Schools, the Superintendent of Technical Education; the Principal of the Sydney Teachers' College; one principal teacher of secondary schools (other than Roman Catholic Schools) registered under

the Bursary Endowment Act; one representative of Roman Catholic secondary schools similarly registered; and one headmaster and one headmistress of the State secondary schools. The Director of Education acts as chairman and the Chief Inspector of Schools as deputy-chairman.

*Parents and Citizens' Associations.*

Parents and citizens' associations and kindred bodies have been organised in connection with State schools with the object of promoting the interests of local schools and the welfare of the pupils and providing school equipment. They assist the teaching staff in public functions and in other matters associated with the school, and report when required upon matters such as additions to school buildings, and help in arranging for the conveyance of children attending school. The associations do not exercise any authority over the staff or the management of the school.

Districts councils, composed of two representatives of each parents' and citizens' association within the district, may be formed in proclaimed areas.

*Other Advisory Bodies.*

Other advisory bodies are the Central Advisory Committee and the School Broadcasts Advisory Council. The Central Advisory Committee co-operates with teachers in connection with the guidance of pupils into suitable branches of employment. It includes representatives of the Departments of Education and Labour and Industry, the Chamber of Commerce, the Chamber of Manufactures, and parents.

The School Broadcasts Advisory Council is composed of representatives of the Broadcasting Commission, the Department of Education, the University Extension Board, and of other educational bodies. Committees of the Council organise appropriate adult education and school broadcasts. Programmes relating to subjects within the school curricula are prepared for each school term. It is estimated that more than 300 public schools make use of the broadcasts.

CENSUS RECORDS—SCHOOLING.

The following statement shows the persons receiving instruction at school, university, or home at the date of each census, 1901 to 1933:—

TABLE 199.—Schooling—Census Records, 1901 to 1933.

Receiving Instruction at—	1901.	1911.	1921.	1933.		
				Males.	Females.	Total.
State School ... ..	198,019	205,769	291,365	188,200	169,914	358,114
Private School ... ..	69,847	59,203	77,553	47,023	52,107	99,130
University ... ..	310	933	2,934	2,307	783	3,090
Home ... ..	16,520	10,147	13,181	6,581	6,858	13,439
School not Stated ... ..	8,357	9,903	33,574	*	*	*
<b>Total ... ..</b>	<b>293,053</b>	<b>285,955</b>	<b>418,607</b>	<b>244,111</b>	<b>229,662</b>	<b>473,773</b>
<b>Proportion per cent. of Population receiving Instruction ...</b>	<b>21·6</b>	<b>17·4</b>	<b>19·8</b>	<b>18·5</b>	<b>17·9</b>	<b>18·2</b>

\* No figures are available under the heading "School not stated," any such persons having been included with those "Not at School."

In 1933 about 75 per cent. of the pupils were receiving instruction at State schools, 21 per cent. at private schools, and nearly 3 per cent. at home. Students at the University represented .7 per cent.

SCHOOLS AND TEACHING STAFFS.

The following table shows the total number of public and private schools in operation at the end of various years since 1901, and the aggregate teaching staff in each group of schools. The figures in this table, and in the subsequent tables relating to public and private schools, include secondary schools, but are exclusive of evening continuation schools, technical colleges and trade schools, free kindergarten and other schools maintained by charitable organisations, shorthand and business colleges, etc.

TABLE 200.—Schools and Teaching Staffs, 1901 to 1937.

Year.	Schools.			Teaching Staffs.						Grand Total.
	Public.*	Private.	Total.	In Public Schools.*			In Private Schools.			
				Men.	Women.	Total.	Men.	Women.	Total.	
1901	2,741	890	3,631	2,829	2,318	5,147	337	2,303	2,640	7,787
1911	3,107	757	3,864	3,165	3,034	6,199	366	2,262	2,628	8,827
1921	3,170	677	3,847	3,554	5,118	8,672	465	2,463	2,928	11,600
1929	3,104	726	3,830	4,624	6,368	10,992	639	2,780	3,419	14,411
1931	3,195	733	3,928	4,940	6,641	11,581	630	2,863	3,493	15,074
1932	3,307	746	4,053	5,004	6,497	11,501	644	2,850	3,494	14,995
1933	3,399	751	4,150	5,123	6,470	11,593	661	2,884	3,545	15,138
1934	3,423	755	4,178	5,253	6,293	11,546	674	2,928	3,602	15,143
1935	3,427	746	4,173	5,502	6,132	11,634	668	2,852	3,520	15,154
1936	3,416	745	4,161	5,596	6,068	11,664	694	2,846	3,540	15,204
1937	3,373	750	4,123	5,673	5,965	11,638	765	2,966	3,731	15,369

\* Including subsidised schools.

The number of teachers in public schools, as shown above, is exclusive of students in training, viz., 1059 in 1937, of whom 481 were men. In the case of private schools, visiting or part-time teachers, viz., 323 men and 941 women in 1937, are excluded, because some of them attended more than one school and were included in more than one return.

The men employed as teachers in the State schools outnumbered the women until 1912. Then the relative proportions were reversed, and in 1931 the women teachers numbered 1,701 more than the men. In subsequent years measures were taken which resulted in the employment of a greater proportion of men in the State teaching service, and in 1937 the excess in the number of women teachers, as compared with the number of men, was only 292. If teachers in subsidised schools (134 men and 586 women) be excluded the numbers in 1937 were 5539 men and 5379 women, the men outnumbering the women by 160.

In the private schools the proportion of men teachers has always been small, and in 1937 it was approximately 21 per cent. of the full-time teaching staff.

SCHOOL PUPILS.

A comparative review of the enrolment of children at public and private schools is restricted to the last term in each year, as the figures in regard to private schools in the earlier years are available for that term only.

The following statement shows the enrolment during the December term at all schools and colleges in the State, primary and secondary, other than evening continuation, charitable, and free kindergarten schools and technical, trade, and business schools and colleges. The numbers of pupils so excluded in 1937 were—evening continuation, about 4,000; schools for deaf mutes, etc., 276; private charitable, 1,368; free kindergarten, 1,119; technical colleges and trade schools, 26,188; business colleges and short-hand schools, about 14,000.

TABLE 201.—Pupils at Public and Private Schools, 1901 to 1937.

Year.	Public Schools.†			Private Schools.			Public and Private Schools.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
1901	110,971	99,617	210,588	27,163	33,674	60,837	138,134	133,291	271,425
1911	116,317	105,493	221,810	26,962	34,588	61,550	143,279	140,081	283,360
1921	163,698	151,529	315,228	35,903	42,557	78,460	199,602	194,086	393,688
1929	193,872	177,458	371,330	42,024	48,564	90,588	235,896	226,022	461,918
1931	202,873	185,008	387,881	42,982	49,303	92,285	245,855	234,311	480,166
1932	201,443	183,332	384,775	44,168	49,112	93,280	245,611	232,444	478,055
1933	199,773	182,431	382,404	44,818	49,628	94,446	244,591	232,259	476,850
1934	199,819	182,822	382,641	45,558	50,291	95,849	245,377	233,113	478,490
1935	198,247	182,363	380,610	46,332	50,634	96,966	244,579	232,997	477,576
1936	196,591	181,124	377,715	47,309	51,764	99,073	243,910	232,888	476,798
1937	193,080	177,142	370,222	47,741	51,724	99,465	240,821	228,866	469,687

† Including subsidised schools.

The total enrolment of pupils in public and private schools reached the maximum 480,166 in 1931. The number fluctuated between 478,000 and 476,800 during the five years 1932 to 1936, and then declined to 469,687 in 1937.

An analysis of the records of births and deaths in New South Wales reveals that the decline is due to a diminution in the number of births which has not been offset by the improvement in the death rate amongst children nor by immigration. The number of children born in the State who, if surviving, would be between the ages of 7 and 14, less deaths before attaining the latter age, was 300,400 in 1921. It increased to 336,800 during the next ten years and to 347,700 between 1931 and 1935. Then it began to decline by successive steps of 2,400, 1,000, and 4,500, so that the number in 1938 was 339,800. For some years from 1939 the annual reduction in the number of children in this age group will probably be even greater, unless the decline in births is offset by immigration, for which no allowance has been made in the foregoing figures.

In the public schools there are more boys than girls, the proportions being boys over 52 per cent. and girls nearly 48 per cent. In the private schools girls are in the majority, representing 52 per cent. of the enrolment.

The proportion of children enrolled in public schools increased from 78.3 per cent. of the total enrolment in 1911 to 80.1 per cent. in 1921 and to 80.8 per cent. in 1931. Subsequently the ratio declined slowly to 78.8 per cent. in 1937. Considering only the children for whom education is compulsory the proportion enrolled in State schools was higher, viz., 82.1 per cent. in 1921 and 80.8 per cent. in 1937.



The following table shows the relative enrolments at public and private schools for all ages, according to figures in the foregoing table, and at ages 7 to 14 (see table 204) :—

TABLE 202.—Public and Private Schools—Proportionate Enrolment, 1921 to 1937.

Year.	Total Enrolment, All Ages.		Enrolment of Pupils aged 7 and under 14 Years.	
	Public Schools.	Private Schools.	Public Schools.	Private Schools.
	per cent.	per cent.	per cent.	per cent.
1921 ... ..	80.1	19.9	82.1	17.9
1929 ... ..	80.4	19.6	82.4	17.6
1930 ... ..	80.7	19.3	82.6	17.4
1931 ... ..	80.8	19.2	82.5	17.5
1932 ... ..	80.5	19.5	82.5	17.5
1933 ... ..	80.2	19.8	82.2	17.8
1934 ... ..	80.0	20.0	81.7	17.3
1935 ... ..	79.7	20.3	81.4	18.6
1936 ... ..	79.2	20.8	81.2	18.8
1937 ... ..	78.8	21.2	80.8	19.2

CHILDREN RECEIVING EDUCATION.

It is probable that a considerable number of children between the ages of 7 and 14 years, when education is compulsory, are not enrolled in schools for the whole of those years, although they may attend school for most of the statutory period. The children not enrolled in schools include those receiving instruction at home (numbering 13,439 at the Census of 1933), those exempt from further attendance for special reasons on attaining the age of 13 years, and those who are inaccessible to schools or who are mentally or physically deficient. The institution of a system of teaching isolated pupils by correspondence, the provision of facilities for conveyance, and subsidies for teachers of small rural schools, tend to reduce the number of children not otherwise reached by the education system.

It has been estimated that the average weekly enrolment at State and private schools represents more than 90 per cent. of the children "requiring education," i.e. the children of statutory school age and those of other ages enrolled.

The following comparison indicates the degree of regularity of attendance among children enrolled at State and private schools:—

TABLE 203.—Public and Private Schools—Attendances of Scholars, 1911 to 1937.

Year.	Public Schools.			Private Schools.		
	Average Weekly Enrolment.	Average Daily Attendance.	Ratio of Attendance to Enrolment.	Average Weekly Enrolment.	Average Daily Attendance.	Ratio of Attendance to Enrolment.
			per cent.			per cent.
1911	203,385	160,776	79.0	*	52,122	*
1921	292,264	248,605	85.1	74,206	64,172	86.4
1929	346,644	298,743	86.1	84,827	76,178	89.8
1931	366,378	322,816	88.1	87,190	78,435	90.0
1932	363,968	322,890	88.7	88,557	79,948	90.3
1933	361,322	316,404	87.6	91,040	80,282	88.2
1934	360,188	309,953	86.1	91,124	80,407	88.2
1935	359,269	310,894	86.5	92,750	81,144	87.5
1936	353,870	310,450	87.7	94,409	83,210	88.1
1937	350,054	307,157	87.7	94,200	84,734	89.9

\* Not available.

The proportion of attendance to enrolment signifies that on the average children attend less than four and a half days in a school week of five days. The ratio of attendance in 1937 was slightly lower than in 1931.

The attendance of children at school is affected adversely by infectious and contagious diseases, and—particularly in country districts where transport facilities are lacking—by inclement weather. The attendance of boys is slightly more regular than that of girls.

#### AGE DISTRIBUTION OF PUPILS.

The following table shows the age distribution of pupils enrolled during 1921, 1929 and later years. The figures represent the gross enrolment during December term at primary and secondary schools, omitting those enumerated on page 250.

TABLE 204.—Age Distribution of Pupils, 1921 to 1937.

Year.	Public Schools.				Private Schools.			
	Under 7 years.	7 years and under 14.	14 years and over.	Total.	Under 7 years.	7 years and under 14.	14 years and over.	Total
1921	41,938	246,136	27,154	315,228	12,622	53,664	12,174	78,460
1929	52,913	282,517	35,870	371,330	15,483	60,441	14,664	90,588
1931	53,120	288,730	46,031	387,881	15,315	61,395	15,575	92,285
1932	49,593	291,559	43,618	384,775	16,187	61,918	15,175	93,280
1933	51,273	292,450	38,681	382,404	16,658	63,361	14,427	94,446
1934	54,397	290,724	37,520	382,641	16,554	65,281	14,014	95,849
1935	54,437	288,818	37,355	380,610	16,796	65,859	14,311	96,966
1936	54,098	286,525	37,092	377,715	16,889	66,387	15,797	99,073
1937	53,118	280,309	36,795	370,222	16,775	66,773	15,917	99,465

In 1937 there were enrolled 69,893 children below statutory school age, viz., 35,438 boys and 34,455 girls; and 52,712 were 14 years of age or over, of whom 27,937 were boys and 24,775 girls.

There was a marked increase in the enrolment of children over school age in public schools during the period 1929 to 1931, viz., from 35,870 to 46,031. This was probably due to lack of employment, youths remaining at school while awaiting placement. As economic conditions improved, the enrolment in this group declined to 37,520 in 1934, then slowly to 36,795 in 1937.

At private schools there was an increase in this group from 14,664 in 1929 to 15,575 in 1931, a decrease to 14,014 in 1934, then an upward movement to 15,917 in 1937, the highest yet recorded.

The number of children under 7 years of age enrolled in public schools was practically the same in 1937 as in 1929 and 1931, notwithstanding a marked decline in 1932. The number in private schools increased in 1932, and has been almost stationary at 16,800 in recent years.

Details as to the ages of children in the various classes at State schools are published annually in the report of the Minister for Education.

#### RELIGIONS OF PUPILS.

Particulars of the religion of each child attending a State school are obtained upon enrolment, but such information is not available regarding pupils of private schools. Any analysis of the religions of school pupils is restricted, therefore, to a comparison of the number of children of each denomination enrolled at public schools, and the number of children (irrespective of religion) attending schools conducted under the auspices of the various religious denominations.

Such a comparative review of the aggregate enrolment in primary and secondary schools (omitting those enumerated in the paragraph above table 201) during the December term of various years is given below. The figures, being on the same basis of comparison for each year, illustrate the progress of each main type of denominational school during the period:—

TABLE 205.—Religions of Scholars, 1901 to 1937.

Year.	Public Schools— Denomination of Children Enrolled.					Private Schools— Denomination of Schools.			
	Church of England.	Roman Catholic.	Presby- terian.	Methodist.	Other.	Church of England.	Roman Catholic.	Unenom- inational.	Other.
1901	109,876	31,054	23,511	24,971	21,176	3,966	41,486	13,546	1,839
1911	118,791	31,044	26,347	30,595	15,030	3,297	46,097	10,141	2,015
1921	176,998	35,532	37,497	44,210	20,991	5,265	63,060	8,131	2,004
1929	210,286	39,614	47,232	49,447	24,751	6,097	73,843	7,521	3,124
1931	218,333	42,590	49,200	51,244	26,514	5,335	78,267	6,104	2,579
1932	216,169	41,986	48,704	51,023	26,893	4,761	79,760	6,063	2,696
1933	215,387	40,749	48,440	50,613	27,215	4,753	80,742	6,221	2,730
1934	215,546	41,124	48,367	50,234	27,370	4,885	82,101	6,114	2,749
1935	214,672	41,039	47,700	49,764	27,435	4,861	82,979	6,164	2,962
1936	213,216	41,202	47,043	49,295	26,959	5,159	84,095	6,308	3,516
1937	200,237	40,367	46,178	48,619	25,821	5,532	83,929	6,209	3,795

*Proportion Per Cent. of Total Number of Pupils Enrolled in all Schools.*

1901	40.5	11.4	8.7	9.2	7.8	1.5	15.3	5.0	0.6
1911	41.9	10.9	9.3	10.8	5.3	1.2	16.3	3.6	0.7
1921	45.0	9.0	9.5	11.2	5.3	1.4	16.0	2.1	0.5
1929	45.5	8.6	10.2	10.7	5.1	1.3	16.0	1.6	0.7
1931	45.5	8.9	10.2	10.7	5.5	1.1	16.3	1.3	0.5
1932	45.2	8.8	10.2	10.7	5.6	1.0	16.7	1.3	0.5
1933	45.2	8.5	10.2	10.6	5.7	1.0	16.9	1.3	0.6
1934	45.0	8.6	10.1	10.5	5.7	1.0	17.2	1.3	0.6
1935	45.0	8.6	10.0	10.4	5.7	1.0	17.4	1.3	0.6
1936	44.7	8.6	9.9	10.3	5.7	1.1	17.7	1.3	0.7
1937	44.5	8.6	9.8	10.4	5.5	1.2	17.9	1.3	0.8

Of the total enrolment in State schools, children of the Church of England constituted 56.1 per cent. in 1921, 57.3 per cent. in 1929 and 56.5 per cent. in 1937. Children of the Roman Catholic faith attending State schools represented 11.3 per cent. in 1921 and 10.9 per cent. in more recent years. Of the total enrolment in private schools, children attending Roman Catholic schools constituted 80.4 per cent. in 1921, 81.5 per cent. in 1929, and 85.5 per cent. in 1932. The ratio was 84.4 per cent. in 1937. The enrolment in Church of England schools which declined during the depression period is increasing.

*Religious Instruction in State Schools.*

The Public Instruction Act, 1880, provides that religious instruction may be given in State schools by visiting ministers and teachers of religious bodies for a maximum period of one hour in each school day, and the

following table indicates the number of lessons in special religious instruction given in public schools during the past five years by representatives of the various denominations:—

TABLE 206.—Religious Instruction in Public Schools, 1933 to 1937.

Denomination.	Number of Lessons.				
	1933.	1934.	1935.	1936.	1937.
Church of England ... ..	55,599	56,268	54,977	62,731	62,103
Roman Catholic ... ..	6,041	6,636	8,617	17,514	17,949
Presbyterian ... ..	20,953	20,490	19,303	22,524	22,825
Methodist ... ..	25,961	25,143	24,120	28,551	27,494
Other Denominations ... ..	16,341	16,313	15,904	18,855	17,495
Total ... ..	124,895	124,850	122,926	150,205	147,866

#### SCHOOL SAVINGS BANKS.

A system of school savings banks in connection with State schools was commenced in the year 1837 with the object of inculcating principles of thrift amongst the children. The system was extended later to private schools. Deposits are received by the teachers, and an account for each depositor is opened at the local branch or agency of the savings bank.

At 30th June, 1937, there were 2,746 school savings banks with 181,187 depositors. The corresponding figures at 30th June, 1938, were 2,803 banks and 183,256 depositors.

Deposits during 1937-38 amounted to £177,953 and withdrawals to £148,767. £3,630 was added as interest, and the balance to credit of accounts at 30th June, 1938, was £291,946 as compared with £259,131 twelve months earlier.

#### STATE SCHOOLS.

The following table affords a comparison between the numbers of the various types of State schools in operation at the end of 1881, the first full year in which the Department of Education was under ministerial control and the numbers open at later periods:—

TABLE 207.—Classification of State Schools.

Type of School.	Schools at end of year.					
	1881.	1901.	1921.	1931.	1936.	1937.
<b>Primary Schools—</b>						
Public ... ..	1,007	1,874	2,020	2,029	1,978	1,966
Provisional ... ..	227	398	477	599	604	618
Half-time ... ..	83*	414	90	38	30	24
House-to-house and Travel- ling ... ..	...	17	3	1	1	1
Correspondence ... ..	...	...	4	1	1	1
Subsidised ... ..	...	...	546	486	759	720
Evening ... ..	33	34	...	...	...	...
Industrial and Reformatory... ..	2	4	3	3	1	1
Total—Primary ... ..	1,352	2,741	3,143	3,157	3,374	3,331
<b>Secondary Schools—</b>						
High ... ..	...	4	27	38	42	42
Intermediate High ... ..	...	...	25	51	50	50
District ... ..	...	...	13	6	4	5
<b>Continuation Schools—</b>						
Commercial ... ..	...	...	15	16	16	16
Junior Technical ... ..	...	...	26	32	26	26
Domestic ... ..	...	...	46	53	36	36
Evening ... ..	...	...	46	45	36	36
Rural Schools ... ..	...	...	...	14	14	14
Composite† ... ..	58	113	57	461	562	487
Total—Secondary and Continuation Schools	58	117	255	719	786	712

\*Includes Third-time Schools. † Superior Public Schools. ‡ Excludes one annex in 1936 and 1937.

The number of individual schools at the end of 1937 was 3,469, which is less than the foregoing figures indicate, owing to the fact that many secondary schools are conducted in conjunction with primary schools.

It is the policy of the State educational authorities to meet as far as practicable the demand for post primary education. For this purpose composite courses have been arranged in a number of primary schools, and secondary courses are conducted by the correspondence school. The figures in the table are exclusive of a number of small country schools where, by means of lesson sheets and with the assistance of the teacher, pupils may secure a year's course of super-primary instruction.

#### *Central Schools and Boarding Allowances.*

Small schools are not established where it is convenient to arrange for the daily conveyance of the pupils to a central school. In such cases the teachers and parents and citizens' associations make arrangements for the transport of the children, and the cost of conveyance is defrayed by the Department.

Attendance at central schools is encouraged also by means of subsidies paid under certain conditions as an aid towards boarding children with relations or friends in a township for the purpose of attending school. The amount expended for conveyance and boarding allowances during 1937 was £21,665.

#### *State Primary Schools.*

Primary work in its various stages is undertaken in State schools classified broadly into three groups,—(a) Primary schools in more or less populous centres; (b) schools in isolated and sparsely-settled districts, viz., provisional, half-time, subsidised schools, and one travelling school, and (c) a correspondence school instructing children so isolated as to be unable to attend school.

A public school may be established in any locality where the attendance of twenty children is assured. In most schools boys and girls are taught together, but schools with an average attendance of 360 pupils are divided into two departments, and those with an attendance exceeding 600 into three departments, viz., boys, girls, and infants.

The infants' course extends over a period of two years. The primary course is usually completed when the pupil is about 12½ years of age.

Provisional schools are maintained where there is an average attendance of ten pupils and where doubt exists as to the permanence of the settlement. At the end of 1937 there were 618 such schools in operation, with an effective enrolment of 11,120, an increase of 14 schools and a decrease of 49 scholars as compared with the preceding year.

Half-time schools are established where a number of children sufficient to maintain a minimum attendance of ten pupils can be collected in two groups, not more than 10 miles apart. One teacher divides his time between the two groups, so arranging that home-work and preparatory study shall occupy the time of each pupil in his absence from either school.

There were twenty-four half-time schools at the end of 1937, and the number of pupils enrolled was 196. The course of instruction in provisional and half-time schools follows the course of full-time schools.

There is one travelling school which visits localities where families are so isolated that they cannot combine readily for the education of the children. The teacher is provided with a vehicle to carry school requisites, and a tent for use as a schoolroom, in which to teach for a week at a time at each centre in his circuit. Formerly there were more travelling schools, but in recent years teaching by correspondence has been developed as a more satisfactory method of educating children in isolated localities.

#### *Subsidised Schools.*

Subsidised schools are formed in sparsely populated districts so far removed from any public school that attendance is impracticable, if there is a single family with at least three children of school age or two or more families combine to engage a teacher.

The teacher is selected with the approval of the Department of Education, and receives an annual subsidy in addition to the salary paid by the parents. In the eastern portion of the State the subsidy is at a minimum rate of £30 per annum, increasing according to the average monthly attendance to a maximum of £110 per annum. Elsewhere the minimum and maximum rates are £33 and £120 per annum respectively.

The course in the subsidised schools is as far as practicable the same as in the primary schools, and a post-primary course may be given by means of leaflets issued by the correspondence school. The schools are subject to inspection by the State school inspectors. The number of subsidised schools in 1937 was 720, with an average weekly attendance of 5,547.

#### *Correspondence School.*

Pupils taught by correspondence are organised as a single school located at Sydney. The primary course is followed, and super-primary instruction to the intermediate standard is given in such subjects as English, history, geography, mathematics, art, business principles, book-keeping, French and Latin. Pupils are not admitted to the school until they reach the age of seven years. During 1937 leaflets for post-primary instruction were issued by the Correspondence School to 2,679 pupils of small country schools, including 159 subsidised schools. During 1937 primary instruction was given to 7,021 children, and secondary instruction to 496. There were 166 candidates from the correspondence classes at the primary final examination, and 127 passed. Of these 46 were admitted to high schools. Twelve pupils sat for the intermediate certificate examination, and eight were successful.

Weekly broadcast talks are given from the headmaster's office, and it was ascertained that the homes of 842 pupils were equipped with wireless sets.

The staff of the Correspondence School included the headmaster, first assistant, 7 supervisors, and 141 assistant teachers.

There is reciprocity between the Correspondence School and the Sydney Technical College in regard to teaching certain secondary and technical subjects by correspondence. In this way duplication is avoided and the pupils of the one institution—school or college—obtain tuition from the teachers of the other.

*Secondary Education in State Schools.*

The number of pupils receiving secondary education at State schools in 1921 and 1929, and in each year since 1931 is shown in the following statement. Particulars relating to evening continuation schools are not included, but are shown later.

TABLE 208.—State Schools—Pupils receiving Secondary Education, 1921 to 1937.

Year.	Secondary Schools.			Super-Primary Courses at Primary School.		
	Schools.	Gross Enrolment.	Average Attendance.	Schools.	Effective Enrolment.	Average Attendance.
1921 ... ..	152	26,728	18,680	57	1,530	1,281
1929 ... ..	217	56,194	42,218	1,176	5,690	4,804
1931 ... ..	213	66,248	51,620	461	4,337	3,616
1932 ... ..	208	64,977	52,647	492	4,836	3,988
1933 ... ..	201	63,171	50,981	537	4,991	4,100
1934 ... ..	195	62,699	50,150	529	4,066	3,348
1935 ... ..	190	59,179	50,070	516	4,018	3,251
1936 ... ..	189	60,866	52,476	562	4,723	4,252
1937 ... ..	160	63,141	54,561	487	3,879	3,212

The secondary schools consist of high, intermediate high, district, continuation and rural schools.

Each high school is a self-contained unit conducted apart from any other type of school, to provide courses of instruction covering five years leading to the higher leaving certificate examination.

Intermediate high and district schools are conducted in the same group of buildings as a primary school and are controlled by the same head master. The courses of instruction cover the first three years of the secondary course leading to the intermediate certificate examination. The courses are for the most part educational only, but the intermediate and leaving certificates are generally accepted as proof of sufficient educational qualification for admission to the Public Service, the teaching profession, banks, and kindred bodies.

At the end of 1937 there were 14 high schools in the metropolitan area (including a technical high school) and 29 in the country districts providing a full course of instruction. There were 50 intermediate high schools, of which 15 were in the metropolis. At most country high schools non-language as well as language courses are in operation, the former including practical subjects in lieu of languages.

The following particulars relate to high schools and intermediate high schools maintained by the State. In addition to the holders of bursaries as shown in the table there were 250 holders of scholarships in 1911. In later years scholarships have not been awarded, all pupils being supplied with text-books free of cost.

TABLE 209.—High Schools—Pupils and Teachers, 1901 to 1937.

Year.	High Schools.	Inter-mediate High Schools.	Teachers.			Pupils.			Bursars.
			M.	F.	Total.	Enrolment.		Average Daily Attendance.	
						Net.	Average Weekly.		
1901	4	...	16	11	27	676	526	489	*
1911	8	...	59	38	97	2,293	1,864	1,786	201
1921	27	25	349	299	648	14,247	12,199	11,253	1,005
1929	34	49	594	525	1,119	25,370	23,778	22,026	881
1931	39	54	707	613	1,320	33,229	30,710	28,524	863
1932	42	54	732	576	1,308	35,334	31,499	29,078	770
1933	42	56	772	607	1,379	34,539	30,857	28,340	647
1934	42	54	779	581	1,360	33,957	30,419	27,646	558
1935	42	54	840	577	1,417	34,942	31,172	28,412	516
1936	43	50	850	567	1,417	35,187	31,997	29,443	493
1937	43	50	863	592	1,460	36,986	33,708	30,893	*

\* Not available.

The enrolment at these schools which had expanded in each decade since 1901 increased by 10,000 between 1929 and 1932, when pupils who would have sought employment under normal conditions continued their attendance at school. Then a tendency to decline became apparent, but the enrolment in 1937 was more numerous by 1,652, or 4.7 per cent. than in 1932.

There were five district schools in 1937. All were located in country towns. The teachers numbered 22; the net enrolment was 433 and the average attendance 341.

#### *Day Continuation and Rural Schools.*

Training in commercial subjects is provided in commercial continuation schools and a preparatory course leading to the trade courses under the technical system is given in junior technical (continuation) schools. At these schools boys may continue for a period of three years elementary courses commenced in primary schools in commercial subjects and in manual training respectively. In the junior technical schools the subjects are essentially of a practical nature, viz., technical drawing and workshop practice, English, practical mathematics, history and civics, and elementary science. The courses in English, mathematics, and history are on the same standard as in high schools.

The continuation schools for girls are known as domestic science schools. The syllabus provides for a course extending over three years from the end of the primary school stage. The course during the first two years is of a domestic and general educational character, embracing English, arithmetic, history, civics, and morals, art and home decoration, botany and practical gardening, needlework, cookery, laundry, home management, hygiene, care of infants and care of the sick. The third year course is of a commercial character and provide for further studies in English and arithmetic, and elementary training in business principles, shorthand and typewriting. At several schools the course has been extended to five years, then the pupils may sit for the leaving certificate examination.

Candidates who are successful in the annual domestic science examination may enter upon the home economics course at the Technical College.



District rural schools are conducted in conjunction with the primary schools in country centres. At these schools super-primary courses are provided extending over a period of three years in general subjects and in elementary agriculture, agricultural nature study, applied farm mechanics, rural economics and horticulture.

The following table provides a comparison of the number of continuation schools and the gross enrolment during various years since 1921.

TABLE 210.—Continuation Schools—Gross Enrolment, 1921 to 1937.

Year.	Day Continuation Schools.						Rural Schools.	
	Commercial.		Junior Technical.		Domestic Type.		No.	Gross Enrolment.
	No.	Gross Enrolment.	No.	Gross Enrolment.	No.	Gross Enrolment.		
1921	15	1,162	26	3,853	46	6,337	...	...
1929	17	2,693	20	9,956	57	13,543	15	1,762
1931	16	3,395	32	11,313	53	14,963	14	1,864
1932	16	3,420	26	9,845	48	12,885	15	1,890
1933	17	3,778	26	9,179	42	12,445	14	1,737
1934	17	3,567	26	8,927	37	13,050	15	1,726
1935	16	3,335	25	8,583	35	12,708	14	1,662
1936	16	3,040	26	9,104	36	13,438	14	1,663
1937	16	2,788	26	9,419	36	13,887	14	1,670

The average attendance during 1937 was as follows:—Commercial 2,310, junior technical 7,849, domestic 11,723, rural 1,401.

#### *Super-Primary Courses in Country Schools.*

Composite courses are provided at primary schools in country districts where secondary schools are not readily accessible. The courses lead to the intermediate certificate and the Public Service entrance examinations.

Super-primary instruction by means of leaflets is arranged for children attending small country schools who have passed the primary final examination and are prepared to continue their education for at least one year. The subjects of instruction are Latin, English, history, arithmetic, elementary science, business principles and art, and for girls, hygiene and home management. A series of eleven papers comprises a course, and each paper contains sufficient work for one month. This system differs from instruction by correspondence in that the pupil's work is arranged and corrected by the teacher in charge of the school.

#### *Evening Continuation Schools.*

Evening continuation schools have been established for the benefit of pupils who leave school for work at the termination of the primary course. They are organised on the same lines as day continuation schools and provide similar courses adapted to the requirements of students who are able to attend evening classes for only a few hours per week. An evening continuation school may be established in any centre where the number of students who will guarantee to attend for two years is sufficient. Attendance is encouraged by granting free admission to unemployed pupils and by refunding all fees charged to others whose conduct and attendance have been satisfactory. The average age of the pupils attending the evening continuation schools is 18 years.

In 1937 there were 36 evening continuation schools, viz., 13 junior technical and 13 commercial for boys and 10 domestic science for girls.

The following is the record of enrolment and attendance at evening continuation schools:—

TABLE 211.—Evening Continuation Schools, 1921 to 1937.

Year.	Commercial (Boys).		Junior Technical (Boys).		Domestic Science (Girls).		Total.	
	Average Weekly Enrolment	Average Attend- ance.	Average Weekly Enrolment	Average Attend- ance.	Average Weekly Enrolment	Average Attend- ance.	Average Weekly Enrolment	Average Attend- ance.
1921 ...	1,586	1,245	1,290	994	821	531	3,697	2,770
1929 ...	2,345	1,802	2,113	1,694	969	683	5,427	4,179
1931 ...	2,045	1,644	1,798	1,446	1,621	1,288	5,464	4,378
1932 ...	1,820	1,474	1,418	1,124	1,662	1,286	4,900	3,884
1933 ...	1,821	1,452	1,347	1,046	1,698	1,290	4,866	3,788
1934 ...	1,740	1,360	1,291	959	1,259	988	4,290	3,307
1935 ...	1,658	1,284	1,249	933	1,231	925	4,138	3,142
1936 ...	1,763	1,396	1,308	1,016	1,106	838	4,177	3,250
1937 ...	1,619	1,258	1,268	969	893	658	3,780	2,885

The enrolment at the evening continuation schools has declined appreciably. It is probable that improved facilities for Technical College classes has caused some diversion of pupils from these schools. Of the 580 candidates who sat during 1937 for the Evening Continuation school examinations 368 or 63 per cent. were successful.

#### *Agricultural Education.*

There are two State agricultural high schools, viz., Yanco (750 acres) in the Murrumbidgee Irrigation Area for resident students and the Hurlstone Agricultural College (220 acres) at Glenfield, 23 miles from Sydney, for resident and day pupils.

The course at each school extends over five years, with an examination for the intermediate certificate at the end of three years, and for the leaving certificate at the conclusion of the course. Successful candidates at the intermediate certificate examination may gain entrance to the Hawkesbury Agricultural College; those successful at the examinations for the leaving certificate may qualify for matriculation in one of the faculties of science, agriculture and veterinary science at the University or compete for scholarships at the Sydney Teachers' College.

In December, 1937, there were 186 pupils at Yanco and 365 at the Hurlstone College.

Courses in agriculture were given also at 24 State secondary schools and 3 public schools.

In co-operation with the Department of Agriculture a system of junior farmer clubs has been established in country centres. The majority of members are school pupils and instruction is given by State teachers. Advisory committees and district councils assist in organising competitions and demonstrations and in preparing exhibits for agricultural shows.

At the end of 1937 there were 318 clubs with 8,000 members, of whom 5,681 were school pupils.

#### *School Forestry.*

Portions of State forests or Crown lands may be set apart for the purpose of enabling pupils of State schools to acquire some knowledge of scientific forestry and silviculture. The control and management of each school forest area is vested in a trust consisting of the inspector of State schools

for the district as chairman, the teacher of the school as deputy-chairman, and two members nominated by the Parents and Citizens' Association. The trust may sell the products of the area, and any surplus over expenses may be used for educational purposes as determined by the Minister for Education.

#### *Special Schools.*

Special classes are arranged for pupils of superior ability. The pupils are selected by means of scholastic and intelligence tests and are grouped under special teachers at a central school where they are given work commensurate with their ability. In this way the pupils are enabled to enjoy a broader and enriched curriculum which cannot be provided in classes composed of children of varying ability. There were five such schools at the close of 1937.

An Activity or Handicraft school was opened at the beginning of the 1936 school year for pupils whose studies beyond the primary stage require to be of a character different from the usual type. The school is for boys of average intelligence who have failed to make normal progress in their education through illness or interrupted schooling, or whose interests are not in the direction of academic attainment. The aim of the school is to prevent these boys becoming educational misfits. The curriculum includes general subjects, but a large proportion of the time is devoted to manual work, handicrafts of various kinds, drawing and hobbies. The full course extends over three years.

Education of children who are subnormal but educable is undertaken by the Department of Education at a special school at Glenfield, which is described on page 196.

#### PRIVATE SCHOOLS.

The position of private schools in the education system of the State has been discussed at the beginning of this chapter.

Children between the ages of 7 and 14 years must be provided with efficient education, and a school is not recognised as efficient unless it is certified by the Minister for Education, who takes into account the standard of instruction, the qualifications of the teachers, the suitability of the school premises, and the general conduct of the school. This provision applies to both primary and secondary schools where children of statutory ages are educated. The conditions upon which benefits under the Bursary Endowment Act are extended to private secondary schools involve a similar inspection and certification, and nearly all of them have been registered by the Department of Education. The standards of instruction required of private schools under both Acts are the same as those of public schools of similar grade and situation.

The total number of private schools certified by the Minister for Education in 1937 was 863. Of these, 548 were certified for education of children of statutory school age, and 130 were certified for the instruction of children up to a specified age only. Under the Bursary Endowment Act 113 secondary schools were registered as efficient to provide the full secondary course; and 72 were recognised as qualified for the education of pupils to the Intermediate Certificate stage of the secondary course.

#### *The Roman Catholic School System.*

The Roman Catholic schools comprise the largest group of private schools in New South Wales. They are organised to provide a complete school system of religious and secular education, comprising kindergarten, primary, super-primary, technical and secondary schools; and there are

two Roman Catholic colleges within the University of Sydney. Special schools are maintained for deaf mutes and the blind (as described on page 189) as well as orphanages and refuge schools. There are also the training centres of the religious communities and seminaries for the education of the clergy, but particulars of these are not included in the statistics of schools.

The Roman Catholic school system is organised on a diocesan basis in eight dioceses in New South Wales. Supervision is exercised by the Bishop through clerical and lay inspectors in each diocese, and a Director of Catholic Education, appointed by the Bishops, is charged with general supervision.

The majority of the schools are parochial primary schools for the education of children from 6 to 14 years; at many of them post-primary education to the intermediate certificate standard is provided—especially in country districts—if a Catholic secondary school is not available. These schools are parochial property and the parochial authorities are responsible for the buildings, maintenance, repairs and equipment. The cost is provided only to a small extent by school fees, and these are supplemented by parochial collections and voluntary contributions.

Secondary education, usually the five years course leading to the leaving certificate examination, is provided at boarding colleges and day secondary schools for boys and for girls, and there are day schools where the course extends to the intermediate certificate examination. The secondary schools are registered under the Bursary Endowment Act; in secular subjects they follow the curricula of the Department of Education and they are subject to inspection by the departmental inspectors. As a general rule, the secondary schools are the property of the religious communities who conduct them and are supported by the fees charged. In association with some of the secondary schools for boys, a separate primary school, which is parochial property, is conducted for boys from 9 to 14 years by the same community as the secondary school. At the secondary day school for girls there is, in many localities, a primary department for the elementary education of pupils who proceed to the secondary courses and the fees are charged at a higher scale than in parochial primary schools.

Commercial and technical training is provided in connection with the day secondary schools, and in some separate institutions; and there are commercial schools for boys and for girls in Sydney. At two institutions—one at Lismore and the other at Campbelltown—theoretical and practical study of agriculture is combined with the regular secondary course; farm training is given also at the Westmead Home for orphan boys. In all the orphanages special attention is given to training the boys and girls in some trade or occupation as a means of future livelihood and at the Westmead Home there is a fully equipped printing shop where boys are trained in this skilled trade. Domestic science is a usual subject in the girls secondary schools; needlework and art form part of the ordinary curriculum, and tuition is given in vocal and instrumental music.

The pupils of the Roman Catholic schools attend the public examinations described on page 265; also examinations conducted by the diocesan inspectors at the end of the primary and the intermediate stages. On the results of these examinations, scholarships and bursaries are awarded.

The teaching staffs are, with few exceptions, members of religious communities. Information relating to their training for teaching is shown on page 276.

*Private Schools and Scholars.*

The following table shows particulars of the private schools of each denomination in 1936 and 1937, excluding charitable schools described on page 264.

TABLE 212.—Private Schools—Teachers and Scholars, 1936 and 1937.

Classification.	1936.				1937.			
	Schools.	Teachers.	Enrolment December Term.	Average Daily Attendance.	Schools.	Teachers.	Enrolment December Term.	Average Daily Attendance.
Undenominational ...	133	414	6,303	5,352	122	399	6,209	5,275
Roman Catholic ...	535	2,593	84,095	69,991	548	2,743	83,929	71,296
Church of England ...	49	338	5,159	4,640	51	366	5,532	4,721
Presbyterian ...	9	88	1,663	1,537	9	104	1,879	1,697
Methodist ...	5	60	1,010	946	5	62	1,029	959
Lutheran ...	3	3	102	92	3	4	92	81
Seventh Day Adventist ...	9	33	649	565	10	42	680	601
Theosophical ...	1	5	29	29	1	6	38	34
Christian Science ...	1	6	63	58	1	5	77	70
Total ...	745	3,540	99,073	83,210	750	3,731	99,465	84,734

The number of teachers as shown in the table, does not include those who visit schools to give tuition in special subjects only, because many of them give instruction in more than one school. The actual number of private school teachers is not recorded.

Fees are usually charged at private schools, but they vary considerably in amount. In some denominational schools the payment of fees is to some extent voluntary, and a number of scholarships and bursaries have been provided by private subscriptions for the assistance of deserving students. Some of the private schools are residential. In 1937 there were 90,682 day scholars and 8,783 boarders.

The following statement shows the number of secondary pupils enrolled in private schools during the December term, as indicated in the returns for 1922 (the first year for which the particulars are available) and later years:—

TABLE 213.—Private Schools—Secondary Pupils, 1922 to 1937.

Year.	Schools.	Secondary Pupils Enrolled in Private Schools.		
		Boys.	Girls.	Total.
1922	199	5,690	5,944	11,634
1929	314	7,388	8,364	15,752
1931	358	8,340	8,050	16,390
1932	365	8,864	8,722	17,586
1933	378	8,933	8,581	17,514
1934	395	8,963	8,976	17,939
1935	364	9,002	8,392	17,394
1936	374	9,153	9,543	18,696
1937	378	10,197	9,618	19,815

The number of secondary pupils in private schools has shown a considerable increase. The pupils so enumerated are defined as those who follow a course of instruction similar to that of the State secondary schools. There are, however, in private schools a number of pupils over 14 years of age not recorded as secondary pupils in the returns supplied. Some of these attend business colleges for commercial education while others follow super-primary courses.

*Private Charitable Schools.*

In addition to the private schools to which the foregoing tables relate, there are schools connected with charitable institutions or organisations, which are certified under the Public Instruction Act, for the education of children of statutory school age. There were 14 such schools in 1937—13 were under the auspices of the Roman Catholic Church and one under the Church of England. The gross enrolment at these institutional schools during 1937 was 1,759.

The Kindergarten Union maintains in the city and suburbs 16 free kindergarten schools and playgrounds for children under statutory school age. In 1937 the enrolment was 1,673, and the average daily attendance was 857. The organisation receives a State subsidy of £1,500 per annum.

The education of deaf, dumb and blind children is undertaken at two schools in connection with the Institution for the Deaf and Dumb and the Blind, which is endowed by the State. At the end of 1937 there were 197 children in the institution.

Deaf mutes are trained also at two Roman Catholic institutions, one at Waratah for girls, with 35 inmates at the end of 1937, and the other established at Castle Hill, where 44 boys were enrolled. A Roman Catholic school for blind children was opened at Homebush, Sydney, in 1938.

The total number of private charitable schools in 1937 was 34, and there were 127 teachers. The gross enrolment during the year was 3,732, and the average daily attendance 2,370. In December term there were 2,763 scholars on the roll, of whom 1,281 were under 7 years of age, 1,312 between 7 and 14 years, and 170 over 14 years.

*Enrolment in Private Schools.*

A comparative statement of the enrolment in private schools (including the schools at private charitable institutions) is shown below. The enrolment at Kindergarten schools and playgrounds is not included.

TABLE 214.—Private Schools—Enrolment during December Term, 1911 to 1937.

Year.	Scholars on Roll during December Term.								
	Un-denominational.	Roman Catholic.	Church of England.	Presbyterian.	Metho-dist.	Seventh Day Adventist.	Lutheran.	Other Denominations.	Total.*
1911 ...	11,097	46,656	3,397	370	311	213	34	...	62,078
1921 ...	8,496†	63,486	5,417	788	605	301	51	163	79,307
1929 ...	7,760	75,311	6,220	1,599	1,074	311	76	50	92,401
1931 ...	6,339†	79,684	5,459	1,235	890	310	105	...	94,022
1932 ...	6,312†	81,135	4,885	1,274	874	314	105	65	94,964
1933 ...	6,467†	82,125	4,863	1,320	868	322	93	59	96,122
1934 ...	6,373†	83,516	5,001	1,365	860	270	93	89	97,567
1935 ...	6,356	84,290	4,962	1,530	905	365	92	70	98,570
1936 ...	6,527†	85,449	5,269	1,663	1,010	649	102	63	100,732
1937 ...	6,444†	85,270	5,638	1,879	1,029	680	92	77	101,109

\* Includes schools at private charitable institutions. † Includes scholars at Theosophical schools.

Since 1929 the enrolment in private schools (including institutional schools) has increased by 8,708 or 9.4 per cent. In undenominational schools there was a marked decline between 1911 and 1921 and during the following decade, but the number has not varied greatly during the last seven years. The enrolment in Roman Catholic schools, which constitute the great

majority of the private establishments, has increased by 34.3 per cent. since 1921. There was a decline in most of the other denominational schools between 1929 and 1932 and an increase in subsequent years.

#### SCHOOL EXAMINATIONS.

To test the proficiency of students who have completed the primary course and those who are attending higher courses, a system of public examinations has been organised by the Department of Education in co-operation with the secondary schools and the University, where appropriate certificates issued by the Department are accepted as evidence of educational qualification. The University also holds an annual matriculation examination, on the results of which a number of University scholarships and prizes are awarded.

The regulations of the Department of Education provide for the issue of certificates which mark definite stages in the progress of school pupils. The primary final examination is held at the end of the primary course and on the results admission to secondary schools and super-primary courses is determined, and bursaries are awarded under the Bursary Endowment Act.

The intermediate certificate marks the satisfactory completion of the super-primary courses and of the first three years of the secondary course. Arrangements are being made for an examination for the leaving certificate to be held subject to the requirements of the Board of Secondary School Studies at the end of the fourth year of the secondary school course. Successful candidates, at the close of a year's further study, may submit themselves for examination for a higher leaving certificate, which will be accepted as indicating fitness for admission to the University, if a pass is shown in matriculation subjects. The higher leaving certificate will be equivalent to the leaving certificate awarded hitherto.

Certificates of proficiency are awarded to pupils of evening continuation schools whose attendance and work have been satisfactory throughout the course.

The following statement relates to the number of candidates for entrance to the high school at the primary final examinations and the candidates for the intermediate and leaving certificates during the ten years ended 1937:—

TABLE 215.—School Examinations, 1928 to 1937.

Year.	High School Entrance and Bursaries (at Primary Final).		Intermediate Certificate.		Leaving Certificate.	
	Candidates.	Passes.	Candidates.	Passes.	Candidates.	Passes.
1928 ... ..	*	*	7,617	5,951	1,998	1,521
1929 ... ..	*	*	9,291	6,850	2,512	1,709
1930 ... ..	20,617	14,710	13,142	9,262	3,167	2,216
1931 ... ..	22,415	15,607	11,995	8,842	3,930	2,726
1932 ... ..	22,320	14,261	13,011	9,350	4,272	2,963
1933 ... ..	21,650	13,926	12,516	9,479	3,964	2,854
1934 ... ..	21,396	14,350	12,075	9,308	3,199	2,332
1935 ... ..	22,155	15,362	12,296	9,419	3,011	2,260
1936 ... ..	22,610	16,118	13,591	11,219	2,778	2,132
1937 ... ..	22,230	16,622	14,266	11,490	2,805	2,181

\* Comparable data not available.

The proportion of passes in 1937 was 80.5 per cent. of the candidates at the intermediate certificate examination and 77.8 per cent. at the leaving certificate examination.

## TECHNICAL EDUCATION.

The State system of technical education is under the direct control of the Department of Education, and is administered by a Superintendent, who is also Assistant Director of Education, with general and financial procedure independent of other branches of the education system. The courses of instruction are co-ordinated, however, with those of the ordinary schools.

The Central Technical College is situated at Ultimo (Sydney). Colleges have been established also at Darlinghurst (East Sydney), Newcastle, Wollongong and Broken Hill and there are seventeen trade schools, viz., seven in the suburbs, nine in country towns and one at Canberra. In addition, elementary instruction is provided in special subjects at various metropolitan and country centres (including the colleges and trade schools) and by correspondence. There is a department of mathematics and physics at the Sydney Technical College and classes in mathematics are conducted in the suburbs and by correspondence.

Specialised instruction in the practice of a wide range of callings is provided for the apprentice and journeyman, while higher courses, embracing the technology of the various trades and technical professions, may be followed by more advanced students.

The lower trade courses cover a period of three years in the Trade Schools, but sometimes they are extended to five years. Comprehensive courses covering five years and higher courses of two years' duration are given in the Technical Colleges. The subjects are grouped to form trade classes, instruction being given in all branches of mechanical and electrical engineering, building, sanitation, applied art, domestic science, commercial subjects, agriculture, sheep and wool classing, optometry and in manufacturing trades.

Some of the higher courses of evening instruction are co-ordinated with first-year courses at the University. The satisfactory completion of any course of instruction is marked by the award of certificates, viz., the Certificate of Trade Competency in trade courses and the College Diploma in the higher courses. These certificates are recognised by employers and the diploma courses of the Technical College are recognised by the Australian Chemical Institute as equivalent to the B.Sc. course in chemistry at an Australian University.

Students applying for admission to the technical courses are required to furnish evidence that they possess sufficient preparatory knowledge to take profitable advantage of the training, and a student is not usually admitted to a course unless actually engaged in the specific trade to which the course relates. Special provision is made for the admission of journeymen, without preliminary test, to any part of the courses relating to their trades. Young students are admitted if they furnish a guarantee to become apprenticed before reaching the limit of the age of apprenticeship.

A pre-apprenticeship course covering two years in general education and in work associated with skilled trades was introduced in 1937 for boys who have completed two years in a junior technical school and show aptitude for technical work. Upon completion of the pre-apprenticeship course, efforts are made to place students in suitable employment.

Classes in the different sections of trade and diploma courses are co-ordinated with practical needs by means of advisory committees composed of representatives of employers and employees in particular trades.

The committees visit the classes regularly and discuss with the superintendent and heads of departments matters relating to the maintenance of standards of efficiency in equipment and teaching.



Advisory Councils have been constituted to co-ordinate the work of the committees and to facilitate the discussion of general problems arising in technical education.

The fees payable for technical classes are very low, being usually at the rate of 5s. per term of thirteen weeks for juniors, and 10s. for seniors.

The following table shows the number of classes and teachers and the enrolments at the Technical College and trade schools in 1931 and later years, together with particulars of receipts and expenditure.

TABLE 216.—Technical Education—Teachers, Scholars and Finance, 1931 to 1937.

Year.	Number of Classes.	Lecturers and Teachers.	Total Enrolments.*	Individual Students.	Gross Expenditure. †	Receipts.	Net Expenditure. †	
							Amount.	Per Student.
1931	747	576	33,345	15,152	178,581	34,229	144,352	9 10 6
1932	766	518	34,197	15,549	157,294	28,912	128,382	8 5 2
1933	775	554	36,174	17,102	190,325	33,907	156,418	9 2 11
1934	778	580	39,014	18,564	204,525	32,470	172,056	9 5 4
1935	789	633	43,129	19,059	192,869	34,964	157,905	7 18 3
1936	802	672	46,759	21,364	242,230	50,131	192,099	8 19 10
1937	870	848	57,173	26,188	450,376	56,851	393,525	15 0 6

\* Students being counted in each class. † Includes buildings and sites.

The number of individual students was fairly constant at about 15,500 during the period 1928 to 1932, and there was a steady increase of about 1,500 per annum during the next four years. In 1937 an increase of 4,800 was recorded.

Expenditure has increased since 1931 in consequence of the expansion of the system and the restoration of rates of salaries which had been reduced during the period of the economic depression. Expenditure in 1937 and 1938 included the cost of additional buildings in Newcastle and Sydney, and of a number of sites acquired for new technical schools.

A comparative statement showing the ages of male and female students enrolled at technical classes in 1929, 1932, and later years is shown below.

TABLE 217.—Technical Colleges and Trade Schools—Ages of Students, 1929 to 1937.

Year.	Age last Birthday.								Total.
	14.	15.	16.	17.	18.	19.	20.	21 and over.	
Males.									
1929	253	682	1,555	1,852	1,605	1,245	798	2,792	10,782
1932	235	538	969	1,308	1,450	1,251	950	3,137	9,928
1933	269	688	1,508	1,552	1,539	1,357	995	3,327	11,235
1934	305	870	1,654	1,866	1,527	1,322	1,065	3,806	12,415
1935	457	952	1,733	1,900	1,816	1,412	1,012	4,024	13,306
1936	450	1,211	1,908	1,990	1,821	1,564	1,151	4,600	14,695
1937	625	1,532	2,735	2,542	2,251	1,770	1,393	5,568	18,416
Females.									
1929	540	638	612	515	338	299	219	1,310	4,471
1932	421	713	863	833	598	362	275	1,556	5,621
1933	440	709	834	773	616	403	297	1,795	5,867
1934	462	811	917	788	611	423	305	1,832	6,149
1935	557	814	856	790	708	516	390	2,022	6,653
1936	598	883	892	744	591	493	364	2,104	6,669
1937	666	1,129	1,149	929	710	497	392	2,300	7,772

Between 1929 and 1932 there was a decline in the enrolment of boys under 19 years of age and an increase in older students. Since 1932 there has been an increase at all ages and the number of adults in 1937 was double the number in 1929. The increase at the younger ages was due partly to the introduction of the pre-apprenticeship course. Enrolments are most numerous at ages 16 and 17 years. Amongst female students those aged 15 or 16 years form the largest groups.

The courses attended by male students in 1937 were diploma 1,451, trades 10,434, art classes 673 and miscellaneous 5,858. The female students were distributed as follows:—Diploma 17, trades 12, art classes 821, cookery classes 996, women's handicrafts 4,851 and miscellaneous 1,075.

Particulars of enrolments in 1929, 1932 and the last three years are as follows:—

TABLE 218.—Technical Colleges and Trade Schools—Departments and Enrolments, 1929 to 1937.

Departments.	Students Enrolled.*				
	1929.	1932.	1935.	1936.	1937.
Agriculture ... ..	22	29	23	32	31
Sheep and Wool ... ..	917	1,132	1,492	1,551	2,387
Art ... ..	3,839	4,716	6,580	6,392	6,291
Bakery ... ..	124	113	165	147	159
Chemistry ... ..	1,264	1,637	2,213	2,371	2,849
Engineering—Electrical ... ..	3,253	3,030	3,467	3,641	4,929
Mechanical ... ..	4,321	3,840	5,020	5,606	8,453
Printing ... ..	652	431	543	593	736
Public Health, Engineering and Hygiene	2,143	1,879	1,776	1,872	2,184
Women's Handicrafts ... ..	6,222	8,970	10,161	10,416	11,737
Domestic Science ... ..	1,183	1,016	789	612	680
Biology ... ..	69	109	114	103	118
Geology ... ..	512	261	350	351	361
Mathematics ... ..	3,692	2,833	4,866	6,749	8,921
Commercial ... ..	987	1,460	1,826	2,400	2,938
Separate Classes ... ..	305	283	373	358	424
Correspondence Courses ... ..	715	801	1,265	1,292	1,427
Total Enrolment ... ..	33,280	34,197	43,129	46,759	57,173
Individual Students ... ..	15,253	15,549	19,959	21,364	26,188

\* Students counted in each class.

Enrolment is expanding in nearly all departments and the expansion since 1932 has been marked in the classes in the sheep and wool, engineering, chemistry, mathematics and commercial departments. Enrolment has been limited to some extent through lack of accommodation for all applicants and the increase in 1937 was due partly to increased facilities.

#### Technical Education Examinations.

The following are particulars of examinations conducted under the technical education system during the last five years:—

TABLE 219.—Technical Education Examinations, 1933 to 1937.

Particulars.	1933.	1934.	1935.	1936.	1937.
Number Examined ... ..	22,364	23,573	27,237	31,613	45,128
Number of Passes ... ..	18,857	19,565	22,087	26,782	38,816
Percentage of Passes ... ..	84·3	83·0	81·1	84·7	86·0

The number of students examined increased from 22,364 in 1933 to 45,128 in 1937. Successful candidates numbered 18,857 in 1933, and 38,816 in 1937. The proportion of passes has been fairly constant, ranging from 81.1 per cent. in 1935 to 86 per cent. in 1937.

*Railway and Tramway Institutes.*

Classes for the technical, commercial and general education of railway employees are conducted by the Railway Institute, which is under the control of a director.

The headquarters of the institute are in Sydney, and there are branches in various parts of the State. The total membership embraces more than half the railway employees, and was 24,606 in 1937-38. Instruction is given in elementary railway principles and various subjects to the University matriculation standard. Correspondence courses are provided. The number of students was 7,564 in 1937-38. The institute possesses a library of 130,066 volumes.

A scholarship of the value of £150 per annum, tenable for four years, in engineering at Sydney University is awarded periodically to the most proficient student in the Engineering Matriculation Class.

Educational and recreational facilities are provided by the Road Transport and Tramways Institute, the membership of which at 30th June, 1938, was 5,465. The institute possesses an excellent library of 28,452 books. Three hundred and sixty-eight students were enrolled at 30th June, 1938.

UNIVERSITY OF SYDNEY.

The University of Sydney was incorporated by Act of Parliament on 1st October, 1850, and it was granted a Royal Charter on 27th February, 1858, when its graduates were accorded the same status in the British Empire as graduates of the Universities of the United Kingdom. Since 1884 women have been eligible for all University privileges.

Within the University there are ten faculties, viz., Arts, Law, Medicine, Science, Engineering, Dentistry, Veterinary Science, Agriculture, Architecture, and Economics, besides a School of Domestic Science. Degrees are awarded in each of these faculties and may be awarded in Divinity.

Diplomas are awarded in Commerce, Education, Public Health, Tropical Medicine, Tropical Hygiene, Psychological Medicine, Anthropology, Public Administration, Radiology, and Pharmaceutical Science. There is a course of study for pharmacy students proceeding to the final examination of the Pharmacy Board of New South Wales.

In 1854 an Act was passed to provide for the establishment within the University grounds of residential colleges in connection with the religious denominations. These colleges and the year in which each college was incorporated by Act of Parliament are as follows:—The Church of England (St. Paul's) 1854, Roman Catholic (St. John's) 1857 and (Sancta Sophia for women) 1929, Presbyterian (St. Andrew's), 1867, Methodist (Wesley) 1910. There is also the Women's College (1889), which is conducted on an undenominational basis. A Teachers' College not affiliated with the University is situated in the University grounds. It is non-residential and is maintained by the State for the training of teachers.

In 1930 the Rockefeller Foundation of New York authorised a grant of £100,000 towards the cost of building a clinical laboratory for the medical school which was opened on 29th September, 1933.

In 1937 an Act was passed, giving the Senate power to establish and maintain University Colleges outside the metropolitan area. The first college, the New England University College, was established at Armidale in 1938, and courses for the B.A. degree have been arranged.

*University Finances.*

The University is supported chiefly by Government aid, the fees paid by students, and income derived from the private foundations.

Many benefactions have been bestowed by private persons. These endowments include the Challis Fund, of which the original amount, £276,856, has been increased by investment to £374,688; the G. H. Bosch Fund, £257,962; the P. N. Russell Fund, £100,386; and the Fisher Estate, £42,563. In addition, the University receives a large annual revenue from the trustees of the McCaughey bequest. Excluding the principal of this bequest, the credit balances of the private foundations amounted to £1,160,799 on the 31st December, 1937.

The following statement shows the amounts derived from the principal sources of revenue, and the total expenditure during each year since 1933. Under the items are included sums received for capital expenditure on buildings, etc., and amounts from benefactors to establish new benefactions:—

TABLE 220.—University—Receipts and Expenditure, 1933 to 1937.

Year.	Receipts.					Expenditure.	Private Endowment Funds—Credit Balance at end of Year.*
	Government Aid.	Fees.	Private Foundations	Other Sources.	Total.		
	£	£	£	£	£	£	£
1933	55,433	68,362	130,965	20,030	274,840	263,229	1,248,743
1934	56,333	72,556	77,615	5,694	212,198	204,251	1,264,618
1935	57,056	74,640	68,920	5,300	205,910	201,342	1,295,764
1936	67,945	79,955	79,272	2,568	229,740	219,934	1,162,053
1937	69,738	84,915	68,618	3,028	226,299	375,375	1,160,799

\* Includes Retiring Allowances Fund.

Governmental aid represented nearly 31 per cent of the total receipts in 1937, fees 38 per cent., and receipts from private foundations 30 per cent.

Salaries comprise the principal item of disbursements in each year. The total expenditure, inclusive of capital expenditure in each year since 1933, was distributed as follows:—

TABLE 221.—University—Classification of Expenditure, 1933 to 1937.

Classification.	Expenditure.				
	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Salaries ... ..	147,281	150,055	158,764	172,548	178,534
Maintenance, Apparatus, etc.	33,082	32,246	32,238	32,886	37,600
Buildings and Grounds ...	77,436	13,739	3,340	6,799	151,030
Scholarships and Bursaries ...	6,971	6,842	7,000	7,053	7,625
Other ... ..	1,459	1,369	...	618	586
Total ... ..	263,229	204,251	201,342	219,934	375,375

In 1937 the sum of £146,072 was expended on new buildings and on remodelling existing buildings; and the expenditure on buildings and grounds represented 40 per cent. of the total. Salaries represented 48 per cent., maintenance, etc., 10 per cent., and scholarships and bursaries, 2 per cent.

*Lectures, Staff, and Students.*

Before admission to courses of study leading to degrees, students must afford proof of educational qualifications by passing in prescribed subjects at the leaving certificate or matriculation examination. Non-matriculated students are admitted to lectures and to laboratory practice in certain faculties, but are not eligible for degrees. On the satisfactory completion of any course, however, they may be awarded a certificate. Lectures are delivered during the daytime in all subjects necessary for degrees and diplomas, and evening lectures are provided in the faculties of Arts and Economics. Students are required to attend at least ninety per cent. of the lectures in each course of study leading to a degree.

Lectures are delivered during three terms in each year. The period of study and cost of graduation in each faculty are as follow:— Arts 3 years, £80; Arts—Honours, 4 years, £81; Economics, 4 years, £102; Law, 4 years, £103; Medicine, 6 years, £259; Dentistry, 4 years, £223; Agriculture, 4 years, £125; Veterinary Science, 5 years, £151; Science, 3 years, £105; Science (Honours), 4 years, £121; Engineering, 4 years— Civil, £167; Mechanical and Electrical, £188; Mining and Metallurgy, £191; Technology, £167; and Architecture, 5 years, £195.

Diploma courses are given in the following subjects, the term of study and cost being indicated in each instance:—Commerce, 3 years, £48; Education, 1 year, £27; Pharmaceutical Science, 3 years, £77; Psychological Medicine, 4 terms, £29; Public Administration, 3 years, £48; Public Health, 1 year, £10; Tropical Medicine, three months, £5; and Tropical Hygiene, 3 months, £5. Instruction in the last three courses is given at the Commonwealth School of Public Health and Tropical Medicine.

Public exhibitions or exemptions from the payment of fees are granted annually on the results of the leaving certificate examination to 200 students entering the University, and fees are remitted in the case of teachers or students in training for the teaching profession attending University lectures. A number of scholarships are awarded from private foundations, and bursaries may be awarded by the Senate. In 1937, fees were remitted in respect of 1,003 students, including exhibitors, State and University bursars, teachers and students in training as teachers. A general service fee of £1 1s. per term is imposed upon all students in attendance at lectures, including students exempt from payment of ordinary fees.

The number of degrees conferred by the University from the foundation to the end of 1937 was 15,427, made up as follows:—

TABLE 222.—University—Degrees Conferred.

Degree.	Number Conferred.		Degree.	Number Conferred.		Degree.	Number Conferred.	
	During 1937.	To end of 1937.		During 1937.	To end of 1937.		During 1937.	To end of 1937.
M.A. ...	15	714	B.D.S. ...	27	333	B.Sc. Dom. ...	...	1
B.A. ...	136	5,073	L.D.S. ...	...	30	D.Sc. Eng. ...	...	2
LL.D. ...	...	37	D.Sc. ...	2	46	M.E. ...	1	21
LL.B. ...	36	1,030	M.Sc. ...	8	66	B.E. ...	35	893
M.D. ...	2	95	B.Sc. ...	73	1,361	M.Ec. ...	1	10
M.B. ...	84	2,625	D.Sc. Agr. ...	1	4	B.Ec. ...	38	468
Ch. M. ...	2	1,674	M.Sc. Agr. ...	...	4	B. Arch. ...	4	110
M.S. ...	1	4	B.Sc. Agr. ...	11	138			
B.S. ...	81	530	D.V.Sc., ...	...	4			
D.D.Sc. ...	...	10	B.V.Sc. ...	26	144	Total ...	584	15,427

In 1937 the teaching staff of the University included 50 professors and 204 lecturers and demonstrators. Professors and most of the lecturers are paid fixed salaries, and the remainder receive fees. Provision is made for superannuation for professors and full-time members of the teaching and administrative staffs.

The University has not the power to confer honorary degrees, but may admit *ad eundem gradum* graduates of approved Universities.

The following statement shows the number of students (including both degree and diploma students) attending in the different faculties in various years since 1921:—

TABLE 223.—University—Students in Attendance, 1921 to 1937.

Course.	1921.	1926.	1929.	1931.	1932.	1936.	1937.		
							Men.	Women.	Total.
Faculty—									
Arts ... ..	868	813	927	1,057	925	736	375	371	746
Law ... ..	328	288	260	300	279	310	316	14	330
Medicine ... ..	985	403	385	483	545	742	744	110	854
Science ... ..	220	217	237	333	366	314	181	131	312
Engineering ... ..	224	124	131	166	171	150	158	...	158
Dentistry ... ..	82	59	65	64	78	106	119	11	130
Veterinary Science ...	16	10	33	43	49	144	127	14	141
Agriculture ... ..	28	25	35	60	56	50	52	8	60
Architecture ... ..	55	41	50	44	35	25	18	9	27
Economics ... ..	286	213	266	398	419	451	408	45	453
Pharmacy Students ...	204	243	130	161	149	170	140	30	170
Massage Students ...	21	11	27	38	38	23	...	27	27
	3,317	2,447	2,546	3,147	3,110	3,221	2,638	770	3,408
Less Students enrolled twice ... ..	42	25	26	28	19	15	21	9	30
Total, Individual Students ...	3,275	2,422	2,520	3,119	3,091	3,206	2,617	761	3,378

In 1937 there were 2,299 men and 618 women studying for degrees, and the diploma students consisted of 128 men and 25 women; also there were 211 men and 127 women attending special courses and lectures in single subjects. There were also in attendance 105 post-graduate students, viz., 70 in the faculty of Arts, 16 in Science, 15 in Medicine, 3 in Agriculture, and 1 in Economics.

The number of students increased by 23 per cent. between 1929 and 1932, and by 9 per cent. between 1932 and 1937. In recent years there has been a marked increase in students studying medicine, dentistry, veterinary science and economics.

Students admitted to matriculation during 1937 numbered 734, as compared with 575 in 1921 and 573 in 1929.

#### University Clinics.

Three metropolitan hospitals, viz., Royal Prince Alfred, Sydney, and St. Vincent's, provide clinical schools for students in medicine who are required to attend at these institutions for clinical lectures, training and practice during the fourth, fifth, and sixth years of the medical course.

At the Royal Alexandra Hospital for Children provision is made for systematic instruction to medical students in diseases of children.

Clinical training and practice in obstetrics is provided at the Royal Hospital for Women (Paddington) and the Women's Hospital (Crown-street).

Other hospitals where studies may be undertaken in connection with the faculty of medicine are:—the Callan Park and Newcastle Mental Hospitals, the Broughton Hall Psychiatric Clinic, the Renwick Hospital for Infants, and the South Sydney Hospital for Women.

In connection with the Faculty of Dentistry, the Dental Hospital of Sydney provides facilities for the instruction of students. The University lecturers in surgical and mechanical dentistry are, *ex officio*, honorary dental surgeons of the hospital.

#### *Appointments Board.*

An Appointments Board has been created for the purpose of assisting undergraduates and recent graduates in obtaining positions. To this end the Board endeavours to supply employers with accurate reports concerning graduates and undergraduates who are required to register with the Board.

#### *Extension Lectures.*

University Extension Lectures are conducted under the direction of a University Extension Board of twelve to eighteen members appointed annually by the Senate. Courses of lectures upon topics of literary, historical, and scientific interest are given in various centres at a charge of £2 per lecture. At the conclusion of a systematic course of ten lectures, an examination may be held and certificates awarded to successful candidates. During 1937, a grant of £260 was received from the Government for the maintenance of Extension Board classes, and 356 lectures were delivered in Sydney and 13 country towns.

#### *Tutorial Classes.*

The Senate has established regular evening tutorial classes, and the Government contributes an annual grant for the maintenance of tutorial classes, the amount in 1936-37 being £3,866. Tutorial classes are open to unmatriculated as well as to matriculated students, and diplomas may be issued to persons who have studied in these classes for at least one year in any one subject. Tutorial classes, which may be established in particular branches of study upon specific requisition by intending students, have been formed in conjunction with the Workers' Educational Association in suburban and country centres as well as at the University. A resident tutor is stationed at Newcastle. Reference is made to the Workers' Educational Association on page 281.

#### SCHOLARSHIPS AND BURSARIES.

It is the policy of the State to assist promising students to obtain secondary and tertiary education by granting scholarships and bursaries and a number are provided by private endowment. Particulars of these scholarships and bursaries and the conditions attached thereto have been given in previous issues of the Year Book.

Scholarships tenable at State secondary schools are not awarded because fees are not charged, and school material is supplied to all pupils. A few scholarships—seven in 1937—are provided by the State to enable boys to attend the Sydney Grammar School.

At the Intermediate Certificate Examinations, 1937, which included pupils from Junior Technical, Commercial, and Domestic Science Schools, 103 scholarships were awarded. Thirty boys were given scholarships for lower trade courses at the Technical College, 14 boys were awarded agricultural scholarships, 2 boys and 18 girls were awarded commercial scholarships, and scholarships for art, domestic arts and women's handicrafts

were awarded to 39 girls. At the Leaving Certificate Examination 20 boys and 3 girls were awarded scholarships for diploma courses at Technical Colleges; in addition, 200 exhibitions were provided exempting the holders from the payment of fees to the University, viz., 134 pupils of State schools, and 66 pupils of registered secondary schools. In the same year 10 boys at evening continuation schools won scholarships for free education and a supply of text-books valued at £1 10s. per annum, tenable at day courses.

#### *Bursary Endowment.*

The Bursary Endowment Act, 1912, as amended in 1936, provides public moneys for bursaries tenable in public or private secondary schools, in technical schools or colleges under the Department of Education, and in the University of Sydney. The fund is administered by a board, consisting of two representatives each of the University of Sydney, of the Department of Education, and of the private secondary schools registered under the Act.

The bursaries awarded in 1938 numbered 296, of which 294 were accepted. Of these, 229 were tenable at State high schools and 65 at private schools for 5 years from 1st January, 1938.

Bursaries in connection with pre-apprenticeship classes at the Sydney Technical College tenable for 2 years from 1st January, 1938, were awarded to 8 boys and all but 1 were accepted.

Bursaries tenable for two years are awarded upon the results of the Intermediate Certificate examination. They are of the value of fourth and fifth year bursaries. Thirty-nine were awarded during 1938, and of these 23 were accepted by boys and 15 by girls.

Bursaries tenable at the University of Sydney may be awarded at the Leaving Certificate examination to candidates who are under 19 years of age, and whose parents' means are inadequate for the expense of a University education. The number of such bursaries awarded in 1938 was 37, of which 27 were accepted by boys and 9 by girls.

At 30th June, 1938, excluding 219 holders of war bursaries, there were 1,031 pupils holding bursaries under the Bursary Endowment Act, viz., 947 attending courses of secondary instruction, and 84 attending University lectures. The annual monetary allowances paid in 1936-37 and 1937-38 were as follow:—

TABLE 224.—Bursary Endowment Act—Bursars.

Rate of Allowance.	Number of Bursars.		Rate of Allowance.	Number of Bursars.	
	1936-37.	1937-38.		1936-37.	1937-38.
£ s.			£ s.		
9 12	400	526	25 3	1	...
14 8	82	92	26 8	...	2
18 4	...	3	29 8	...	1
19 4	67	83	29 19	...	1
19 12	1	1	32 0	139	182
20 0	41	57	40 0	62	54
21 12	3	1	52 0	17	27
24 0	...	1			
24 12	1	...	Total ...	814	1,031



In addition to the bursaries made available by the Bursary Endowment Board, two bursaries, tenable for three years at the Hawkesbury Agricultural College, are awarded by the Department of Agriculture. These bursaries exempt their holders from payment of the education and maintenance fee of £30 per annum.

War bursaries are provided by the Bursary Endowment Board for children of incapacitated and fallen soldiers. The number in operation at 30th June, 1938, was 219, each bursar receiving £10 per annum. The total number awarded since they were initiated in 1916 was 2,661.

The war bursaries are awarded usually to children between 11 and 13 years of age. On reaching the latter age, the children of permanently incapacitated soldiers may be assisted by the Repatriation Commission under the Soldiers' Children Education scheme. In New South Wales 7,046 applications for assistance had been approved to 30th June, 1938, and £685,800 had been expended. The expenditure has been met for the most part from the funds of the Commonwealth Government and partly by private gifts and bequests.

For the education of the children of fallen soldiers and sailors assistance is granted also from the Anzac Memorial Bursary Fund which was created by public subscription and vested in the Bursary Endowment Board. Bursaries awarded from this fund are tenable at secondary schools or the University. To 30th June, 1938, the number of such bursaries awarded was 84.

#### TRAINING OF TEACHERS.

Two colleges are maintained by the State for training teachers for service in State schools, viz., at Sydney and Armidale.

The Sydney Teachers' College, situated in the University grounds, provides two courses for the training of teachers, viz.:—(a) for service in the infant, primary, and rural schools, and (b) for service in secondary schools. The former course extends over two years and the latter over four years including graduation to the University in Arts, Science, Economics or Agriculture. The course for secondary school teachers may be extended to five years in special circumstances, and in the case of students who had graduated before admission to the college only one year's professional training is required. Practical training is provided at special demonstration schools associated with the college and at other selected schools.

A hostel has been established for men students and seven hostels for women students. Women students, living away from home, are required to reside in a hostel unless given special exemption. In 1938 the teaching staff included the principal, vice-principal, warden of women students, 43 lecturers and 3 visiting lecturers. There were 1,173 students enrolled during the year, of whom 42 were University graduates.

The course at the Armidale College is similar to the two years' course at the Sydney Teachers' College. A hostel has been established for women students. The teaching staff in 1938 included the principal, vice-principal, warden of women students, 19 lecturers, and 7 visiting lecturers. There were 364 students on the roll during the year.

Most of the students at the training colleges are holders of scholarships, but there is usually a small group of paying students. Teachers for private schools may be trained at the colleges, but few persons avail themselves of this provision. Members of the teaching staffs of the colleges are afforded opportunity for study abroad, and leave of absence on full pay may be granted for this purpose.

Particulars of students enrolled at the Teachers' Colleges during 1938 are shown in the following statement:—

TABLE 225.—Teachers' Colleges—Students, 1938.

Students.	Men.	Women.	Total.
Special Course for Artisan Teachers ... ..	56	15	71
Two-year Course—			
First year ... ..	279	334	613
Second year ... ..	276	269	545
University Course—			
First year ... ..	39	65	104
Second year ... ..	33	54	87
Third year ... ..	22	34	56
Fourth year ... ..	6	...	6
Graduate Professional Course ...	17	25	42
Private ... ..	..	13	13
Total ... ..	728	809	1,537

The libraries at the Teachers' Colleges contained 56,150 volumes in 1938.

Teachers in the Roman Catholic schools, who are members of religious communities, are trained at thirty-three centres, located in different parts of the State. These centres are registered after inspection by a Board of Registration—a central body appointed by the Roman Catholic Hierarchy of New South Wales. The course of training lasts two years, the first is the novitiate year required by the communities, and is devoted largely to the testing and formation of character. The second is the year of professional training; it consists of a course of study of pedagogy, combined with practical exercises and opportunities for observing experienced teachers; it is terminated by an examination in theory and practical work. The entrance qualification is the leaving certificate or its equivalent. Certificates of competence are issued in three grades—sub-primary, primary and super-primary—to those who are successful in the examinations at the end of the course.

#### *Classification of State Teachers.*

Teachers in the service of the State are classified, and are promoted from one grade to another according to their efficiency, which is gauged on reports of inspectors and their attainments as tested by written and oral examinations. Students who have completed a course of training at the Teachers' Colleges are required to obtain practical experience as teachers before they are classified.

A comparative statement of the classification of the teaching staff of the State schools (including students in training) at the end of the years 1927 and 1937 is shown below; those in the Technical Education Branch are not included.

TABLE 226.—State Schools—Classification of Teachers, 1927 and 1937.

Teachers.	1927.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
High School Teachers ...	457	398	885	878	589	*1,467
Principals and Assistants—						
First Class ...	705	151	656	510	150	660
Second Class ...	1,328	1,114	2,442	2,089	1,967	3,996
Third Class ...	1,187	1,766	2,953	1,261	1,397	2,658
Unclassified ...	181	446	627	96	254	350
Awaiting Classification ...	347	654	1,001	382	307	689
Cookery Teachers ...	...	133	133	...	214	214
Sewing Mistresses ...	...	230	230	...	167	167
Manual Training Teachers ...	193	...	193	267	...	267
Visiting Teachers ...	11	57	68	21	108	129
Temporary Teachers ...	41	615	656	35	286	321
<b>Total ...</b>	<b>4,280</b>	<b>5,564</b>	<b>9,844</b>	<b>5,539</b>	<b>5,379</b>	<b>10,918</b>
Subsidised School Teachers ...	31	414	445	134	586	720
Students in Training ...	483	773	1,261	481	573	1,059
<b>Grand Total ...</b>	<b>4,799</b>	<b>6,751</b>	<b>11,550</b>	<b>6,154</b>	<b>6,543</b>	<b>†12,697</b>

\* In addition there were 15 High School Teachers on leave or exchange teaching outside the State.

† Includes 88 Teachers on leave or exchange.

There has been a general advance in the standard of educational attainments of teachers in New South Wales during the past ten years. At the end of 1937 there were 1,933 University graduates in the teaching service, viz., 1,099 men and 834 women, whereas there were only 994 in 1927.

Teachers awaiting classification consist mainly of ex-students of the Teachers' Colleges ineligible for classification until they have obtained the requisite teaching experience. Most of them possess the educational attainments for second or third class certificates.

Teachers of subsidised schools must have sufficient educational attainments to teach the curriculum of primary schools. Schools of method are held in Sydney during the mid-summer vacation for the purpose of increasing the knowledge and efficiency of these teachers. The average number of pupils enrolled in subsidised schools is only eight per teacher, the schools being situated in remote districts.

In October, 1932, legislation was passed to restrict the employment of married women as lecturers or teachers in the service of the State and provision was made for the termination of the services of a number of such teachers in order that positions might be made available for students who had completed courses of training provided by the State. To 31st December, 1937, the services of 682 married women teachers had been terminated.

## STATE EXPENDITURE ON EDUCATION.

*State Schools.*

The following statement provides a comparison of the State expenditure on schools at intervals since 1901. The expenditure on technical education is not included. The basis used for calculating costs per pupil is the average weekly enrolment, except for years prior to 1921, for which the average weekly enrolment is not available, and the average quarterly enrolment has been used.

TABLE 227.—Expenditure on State Schools, 1901 to 1937.

Year.	Average Weekly Enrolment.*	Expenditure.			Per Pupil—Average Weekly Enrolment.		
		Maintenance and Administration.	School Premises.	Total.	Maintenance and Administration.	School Premises.	Total Expenditure.
		£	£	£	£ s. d.	£ s. d.	£ s. d.
1901 ..	212,725†	703,974	57,663	761,637	3 6 2	0 5 5	3 11 7
1911 ...	223,603†	1,048,583	193,993	1,242,576	4 13 9	0 17 4	5 11 1
1921 ..	295,961	3,229,042	329,795	3,558,837	10 18 3	1 2 3	12 0 6
1929 ...	352,071	4,207,754	846,625	5,054,379	11 19 0	2 8 1	14 7 1
1931 ...	371,841	3,823,684	415,379	4,239,063	10 5 8	1 2 4	11 8 0
1932 ...	368,868	3,529,989	178,532	3,708,521	9 11 5	0 9 8	10 1 1
1933 ...	366,178	3,267,221	360,195	3,627,416	8 18 5	0 19 8	9 18 1
1934 ...	364,513	3,312,617	360,969	3,613,616	9 1 9	0 16 6	9 18 3
1935 ...	363,407	3,523,552	406,662	3,930,214	9 13 11	1 2 5	10 16 4
1936 ...	358,047	3,642,321	377,463	4,019,724	10 3 5	1 1 1	11 4 6
1937 ...	350,054	3,994,646	467,920	4,462,566	11 8 2	1 6 9	12 14 11

\* Inclusive of Evening Continuation Schools.

† Average quarterly enrolment.

Although the expenditure on the State schools rose steadily between 1901 and 1911, the expansion of the system caused a more rapid increase in expenditure during the following decade. Part of this additional expenditure was occasioned by the increase in the number of scholars, but the cost of education per pupil was more than doubled between 1911 and 1921, while the increase in enrolment was less than 33 per cent. Thereafter the expenditure continued to rise steadily and in 1929 the cost of maintenance and administration was £4,207,754, or £11 19s. per pupil, and the expenditure on school premises £846,625, or £2 8s. 1d. per pupil, making a total of £5,054,379, or £14 7s. 1d. per pupil. In 1930 measures were taken to restrict general expenditure, and moneys for buildings were curtailed so that the total annual expenditure on primary and secondary schools in 1933 and 1934, with an enrolment of about 366,000 pupils, was reduced to £3,600,000, or little more than in 1921, when the enrolment was 296,000. Subsequently expenditure on maintenance and buildings was increased, and in 1937 amounted to £4,462,566, of £12 14s. 11d. per pupil.

The following statement shows the distribution of expenditure, including capital expenditure in connection with State primary and secondary schools (but omitting expenditure on technical education) in 1921 and subsequent years:—

TABLE 228.—Dissection of Expenditure on State Schools, 1921 to 1937.

Particulars.	1921.	1923.	1931.	1936.	1937.
Sites, Buildings Additions*—	£	£	£	£	£
Primary Schools‡ ... ..	173,781	429,501	145,012	62,163	161,411
High Schools ... ..	26,703	41,742	13,505	72,132	47,610
Teachers' Colleges ... ..	3,816	...	26,427	...	173
Rates (municipal and shire)†	36,376	61,531	69,625	42,428	31,422
Rent, Furniture and Repairs ...	89,120	168,144	160,810	200,660	227,304
Salaries and Allowances—					
Primary Schools‡ ... ..	2,446,638	2,645,591	2,736,554	2,651,470	2,870,550
High Schools ... ..	200,028	333,966	465,767	523,807	591,889
Evening Continuation Schools..	12,190	16,191	16,826	11,034	11,524
Other Maintenance Expenditure—					
Primary Schools‡ ... ..	188,975	195,673	202,755	180,057	206,410
High Schools ... ..	27,314	39,990	37,476	41,727	46,662
Evening Continuation Schools...	1,541	1,558	1,219	624	649
Bursaries and Scholarships ...	58,285	36,305	39,237	18,710	16,716
Boarding and Conveyance Allowances	36,149	44,503	53,332	20,530	21,665
Training of Teachers ... ..	98,537	118,315	135,501	64,994	87,526
School Medical Inspection ... ..	22,197	34,219	21,593	20,516	22,746
School Inspection ... ..	47,971	50,288	113,428	108,852	118,369
Administration and other Expenses	89,216	110,553			
Total... ..	£3,558,837	4,327,570	4,239,061	4,019,724	4,462,566

\* Includes State Insurance on School Buildings. † Expended by Resumed Properties Department on behalf of Department of Education. ‡ Includes expenditure on super-primary education in intermediate high, district, continuation and rural schools.

The amounts shown in the foregoing tables do not include any allowance for dwellings owned by the State in which teachers reside; the annual value of these residences was estimated at £51,254 in 1937. The figures are exclusive also of interest paid on loan moneys used for the erection of schools.

*Capital Expenditure on State School Buildings, etc.*

Large sums have been expended for the purpose of building new schools, teachers' residences, etc. The total amount so expended during the decennium ended 30th June, 1938, was £3,031,677, the expenditure in each year being as follows:—

TABLE 229.—Capital Expenditure on State Schools, 1929 to 1938.

Year ended 30th June.	Amount.	Year ended 30th June.	Amount.
	£		£
1929	788,701	1934	238,041
1930	400,323	1935	216,294
1931	335,647	1936	229,704
1932	91,438	1937	220,985
1933	135,824	1938	374,720

- This expenditure was met from loan funds with the exception of £180,275 in 1931 and £48,314 in 1932 from the Unemployment Relief Fund,

*Total Public Expenditure on Education.*

In addition to expenses incurred in respect of the State school system, the public expenditure on education in New South Wales includes grants and subsidies to the University and other educational and scientific organisations. A summary of the total expenditure by the State in respect of education in various years since 1911 is shown below. The expenditure on buildings, equipment, sites, etc., representing capital expenditure, is distinguished as far as practicable from expenditure for maintenance, including grants and subsidies which may be regarded as annual costs.

TABLE 230.—Public Expenditure on Education, 1911 to 1938.

Year ended 30th June.	Expenditure.			
	Capital.	Annual.	Total.	Per head of Population.
	£	£	£	£ s. d.
1911	176,778	1,213,368	1,390,146	0 17 5
1921	251,880	3,473,545	3,725,425	1 15 8
1929	798,955	4,756,250	5,555,205	2 4 9
1931	345,870	4,662,103	5,007,973	1 19 4
1932	93,786	4,175,204	4,268,990	1 13 3
1933	140,791	3,844,849	3,985,640	1 10 9
1934	241,225	3,701,015	3,942,240	1 10 2
1935	238,819	3,946,122	4,184,941	1 11 9
1936	243,252	4,227,154	4,470,403	1 13 8
1937	221,598	4,444,926	4,666,434	1 14 10
1938	375,714	5,086,141	5,461,855	2 0 4

These figures are exclusive of amounts spent by the State on the Hawkesbury Agricultural College and experiment farms and societies for the promotion of agricultural and allied interests. They exclude also the interest paid on loan moneys invested in works used for education.

## EDUCATIONAL AND SCIENTIFIC SOCIETIES.

Many organisations are in existence in New South Wales which have for their objective the encouragement of professional interests, and the advancement of science, art, and literature. These include the Royal Society of New South Wales, which has for its objects the advancement of science in Australia and the encouragement of original research in all subjects of scientific, artistic, and philosophic interest, and the Linnæan Society of New South Wales, established for the special purpose of promoting the advancement of the botany and natural history of Australia.

Other important scientific societies are the Royal Zoological Society of New South Wales, inaugurated in 1879; a branch of the British Medical Association, founded in 1881; the Royal Australasian College of Physicians; the Royal Australasian College of Surgeons; the Australian Chemical Institute; the Australian National Research Council; the Australian Institute of Political Science; the Australian Institute of International Affairs; the Australian Academy of Art; the Society of Artists; a branch of the British Astronomical Association; the Australasian Association for the Advancement of Science; the Royal Geographical Society; the University Science Society; the Royal Australian Historical Society; and a branch of the Economic Society of Australia and New Zealand.

The learned professions such as solicitors and barristers, engineers, surveyors, architects and optometrists are represented by institutes, associations or societies.

The Royal Art Society holds an annual exhibition of artists' work at Sydney; and of the many musical societies, mention may be made of the Royal Sydney Apollo Society, and the Royal Sydney Philharmonic Society.

#### *Workers' Educational Association.*

The Workers' Educational Association of New South Wales was founded at a conference called by the Labour Council of New South Wales in June, 1913. It organises tutorial classes, study circles, summer and holiday schools and public lectures. In 1938, the membership of the association consisted of 877 individual members including 452 students using the library, and 54 organisations other than tutorial classes were affiliated with it.

In 1938 68 tutorial classes were held, viz., 14 at the University, 25 in the city and suburbs, 14 in the Newcastle district and 15 in other country districts. The number of students enrolled was 2,100, and the effective enrolment was 1,591.

There were also in operation 9 discussion groups with an enrolment of 114.

The income of the association in 1938 was £1,810, including an endowment of £750 from the State, a grant of £150 from the University, and subscription fees amounted to £753.

#### CONSERVATORIUM OF MUSIC.

The State Conservatorium of Music, which was established in 1915, provides tuition in music, from the elementary to the advanced stages. The studies are divided into two sections. The music school section provides three courses, viz., elementary, intermediate, and advanced—the last-mentioned extending over two years. A certificate is granted on the satisfactory conclusion of each course. The advanced grade certificate of the music school section entitles the holders to admission to the diploma section, in which a course of two years' tuition, leading to the professional diploma, is given under the personal direction of the Director of the Conservatorium. A preparatory course is available for juveniles who have not previously received musical tuition. An opera school was established in February, 1935, in connection with the Conservatorium to provide complete opera and stage training for talented young singers.

The number of students enrolled in the various courses of study at the Conservatorium was 1,295 in 1938, as compared with 1,410 in 1929 and 937 in 1932. Ten students gained the diploma in 1938. Receipts in 1938 consisted of fees, proceeds from concerts, etc., amounting to £25,414 and the expenditure was £32,062.

#### MUSEUMS, LIBRARIES, AND ART GALLERY.

The Government of New South Wales maintains a number of museums and libraries and a National Art Gallery. The capital expenditure by the State on buildings for these institutions to 30th June, 1938, amounted to £418,094, including the capital cost of the Herbarium £11,436.

#### *Museums.*

The Australian Museum in Sydney is the oldest institution of its kind in Australia. It is incorporated under the control of trustees, with a statutory endowment of £1,000 per year, which is supplemented by annual Parliamentary appropriations. It contains fine specimens of the principal objects of natural history, and a valuable collection of zoological, mineral and

ethnological specimens. A library containing 29,927 volumes at 31st December, 1938, is attached to the institution. Lectures and gallery demonstrations are given in the Museum and are open to the public. During the year 1938 visitors to the Museum numbered 209,416, as compared with 203,113 in 1937. The expenditure during the year 1938 was £21,457, and amounted to £18,214 in 1937. Including the vote from consolidated revenue, the income for the year ended 30th June, 1938, amounted to £21,791, as compared with £18,431 in the preceding financial year.

A Technological Museum has been established as an adjunct to the Central Technical College. It contains a valuable series of specimens illustrative of various stages of manufacturing, and a collection of natural products acquired by purchase, gift, loan, or exchange. Technological Museums are established also at Goulburn, Bathurst, West Maitland, Newcastle, and Albury.

Research work is conducted by the scientific staff at the Technological Museum in connection with the development of the natural resources of Australia.

There is a Mining and Geological Museum attached to the Department of Mines. Its functions include the preparation and collection of minerals to be used as teaching aids in schools and in other institutions.

The Agricultural and Forestry Museum is an adjunct of the Department of Agriculture.

The public have access to the "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, the Museum of Normal and Morbid Anatomy, attached to the Sydney University, and the National Herbarium and Botanical Museum at the Botanic Gardens. Housed in the Macleay Museum is the Aldridge collection of Broken Hill minerals.

#### *Public Library of New South Wales.*

The Australian Subscription Library, established in 1826, became a State institution in 1869. It was incorporated in 1899, as the Public Library of New South Wales, with a body of trustees and an annual statutory endowment of £2,000, which is supplemented by Parliamentary appropriations.

The library embraces a General Reference Library, a Country Circulation Department, the Mitchell Library and the William Dixon Gallery. In June, 1938, the General Reference Library contained 271,570 volumes, exclusive of pamphlets, and visitors numbered 198,404 on week days and 13,164 on Sundays during the year 1937-38. This library includes a Research Department, which made 822 researches during the year and added 24,915 references to its indexes. The Country Circulation Department contains 86,625 volumes. During the year 4,991 boxes and parcels were sent to rural schools, 593 boxes to agricultural bureaux, teachers' associations, mechanics' institutes and similar institutions, and 60,115 books to individual students.

In 1898 the late David Scott Mitchell promised the trustees of the Public Library a collection of 60,000 volumes dealing principally with Australasia and the Southern Pacific, together with manuscripts and pictures. With these he bequeathed £70,000, and the income from the bequest is spent on additions. In June, 1938, there were 142,918 volumes in the Mitchell Library, and visitors during 1937-38 numbered 47,481.



In 1928 Mr. William Dixson gave a unique collection of pictures and prints relating to Australian history to the Public Library, to which he has made valuable additions from time to time. This collection forms the William Dixson Gallery.

The total cost to the State of the Public Library buildings at 30th June, 1938, was £140,806, including £112,113 expended on the new building (incomplete) which contains the Mitchell Library, the Dixson Gallery and the Country Circulating Department. The expenditure on maintenance during 1937-38 was £26,735, including £2,562 from the Mitchell Library Endowment Fund.

#### *Sydney Municipal Library.*

The Sydney Municipal Library is a free lending library administered by the Council of the City of Sydney. It contained 47,491 volumes in 1938.

Maintenance costs during 1938 amounted to £13,809, including £1,722 for new books.

#### *Other Libraries.*

Local libraries established in a large number of centres throughout the State, may be classed broadly under two heads—Schools of Arts, which are organised and controlled by committees of private citizens and dependent upon the monetary support accorded by the public; and free libraries established in connection with municipalities. Under the provisions of the Local Government Act any shire or municipality may establish a public library, art gallery, or museum.

The library of the Australian Museum, though intended primarily as a scientific library for staff use, is accessible to students. It contains 29,927 volumes. In the library attached to the National Herbarium there are approximately 10,000 volumes.

The libraries in connection with the Technological Museum, and the Technical College and branches contained 27,588 text-books. In the libraries of the Teachers' Colleges there are 56,150 volumes; in libraries attached to State Schools, 553,531 volumes; and in the Fisher Library at the University 246,000 volumes.

The Parliamentary Library contains 84,215 books, and large numbers of volumes are in the libraries of the law courts and Government offices.

#### *Reorganisation of the Public Library Service.*

An advisory committee was appointed by the Government in June, 1937, to inquire as to the adequacy of the library service provided by the public and municipal libraries, Schools of Arts, etc., with a view to its reorganisation. In a report dated October, 1938, the committee recommended the establishment of a system of local public libraries subsidised by the central and local government bodies, the extension of the facilities afforded by the Public Library to provide a central reference library, the appointment of a Library Board to render advice and assistance in organising and maintaining the services and the establishment of a school for librarians.

#### *National Art Gallery of New South Wales.*

The National Art Gallery contains a good collection of oil paintings, water colours and statuary, including some works of prominent modern artists, and some valuable gifts from private persons.

The present value of the contents of the Gallery is approximately £143,680, and the cost of the building to 30th June, 1938, was £95,629.

The number of paintings, etc., in the Gallery at the end of 1938 was 3,529, viz., 732 oil paintings, 501 water-colours, 1,161 black-and-white works, 204 statuary casts and bronzes, and 931 other works of art, and the total amount expended during the year in purchasing works of art was £2,069. Thirty works of art were acquired by purchase during the year and 21 works of art and a collection of old English pewter by gift.

The total expenditure during 1938 amounted to £8,397, including salaries and wages £4,294. In 1937 expenditure amounted to £8,273, of which £3,666 was paid in salaries and wages.

The attendance at the National Art Gallery during 1938 was 250,530 on week-days and 101,205 on Sundays. Attendances in 1937 were 141,370 and 76,595 respectively.

Art students, under certain regulations, may copy works and enjoy the benefit of a collection of books of reference on art subjects. Collections of pictures are sent to the principal country towns for temporary exhibition, 323 pictures being so distributed during 1938; also 198 works of art were on loan to various Government departments and institutions in the city and suburbs.

The Gallery has received but small support from private endowments, and by reason of its limited funds, is restricted mainly to the collection of specimens of contemporary art.

The Wynne Art Prize consisting of the interest on approximately £1,000 is awarded annually to the Australian artist or sculptor producing the best landscape painting of Australian scenery in oils or water colours, or the best production of figure sculpture.

The Archibald Prize is awarded for the best portrait, "preferably of some man or woman distinguished in art, letters, science, or politics painted by any artist resident in Australasia." The amount available for the prize in each year is approximately £100.

The Sir John Sulman Prize founded by the widow and children of the late Sir John Sulman is derived from the proceeds from the investment of £2,500. It is awarded annually for the best subject of genre painting or mural decoration or design for an intended mural decoration, done by an artist resident in Australia for two years preceding the date fixed for the submission of the pictures for inspection.

## LAW COURTS.

A cardinal principle of the legal system of New South Wales, like that of England on which it is based, is the supremacy of the law to which all persons are bound to conform. No person may be punished except for a breach of law which has been proved in due course of law in a court before which all persons have equal rights. It excludes the existence of arbitrariness or prerogative on the part of the government or of any exemption of officials or others from obedience to the ordinary law or from the jurisdiction of the ordinary tribunals.

### SOURCES OF LAW.

The law in force in New South Wales consists of—

- (i) So much of the common law of England and such English statute law as came into force on the original settlement of the colony in 1788, or was made applicable by the New South Wales Constitution Act passed in 1828.
- (ii) Acts passed by the Parliament of the State of New South Wales, together with regulations, rules, orders, etc., made thereunder.
- (iii) Acts passed by the Parliament of the Commonwealth of Australia within the scope of its allotted powers, together with regulations, rules, orders, etc., made thereunder.
- (iv) Imperial law binding New South Wales as part of the British Empire, as part of the Commonwealth of Australia, or as a State—subject, since 1931, to the Statute of Westminster. (These relate mainly to external affairs or matters of Imperial concern.)
- (v) Case law. (The extent to which judicial decisions of the English, Commonwealth or State Courts respectively form part of the State law would require too lengthy a statement to be set out here.)

The proper subjects for Federal legislation are limited to those specified in the Commonwealth Constitution. In some cases Federal powers of legislation are exclusive of, in others concurrent with, those of the State. In all cases of conflict valid Federal laws override State laws.

### THE JUDICIAL SYSTEM.

Characteristic features of the judicial system are—(a) The law is enforceable in public courts; (b) the judiciary is independent of control by the executive; (c) officials concerned with the administration of justice do not enjoy any exemption from law; (d) advocates are admitted to practice by the Supreme Court and are subject to control exercisable through the Court.

The work of the courts is distributed amongst various jurisdictions with a view to simplifying procedure and avoiding unnecessary delay. Minor civil matters are heard in Courts of Petty Sessions (Small Debts Courts) which have a jurisdiction limited in point of locality and amount. The civil jurisdiction of District Courts also is limited in these respects. The Supreme Court's jurisdiction is limited only in respect of matters which are reserved for the original jurisdiction of the Federal Courts. In criminal matters less serious offences are heard in Courts of Petty Sessions (Police Courts), and other offences, not being of a capital nature, are dealt with by Courts of Quarter Sessions. Capital charges are tried at sittings of the Supreme Court and, in practice, offences of an important public nature are often so dealt with.

A number of legal tribunals have been established to deal with special matters, viz., Licensing Courts, Taxation Courts of Review, Wardens' Courts (Mining), Courts of Marine Inquiry, Land and Valuation Court,

and, among criminal courts of magisterial rank, Coroners' Courts and Children's Courts. Special jurisdictions are exercised by the Industrial Commission and by the Workers' Compensation Commission. Particular matters arising under the various land laws of the State are dealt with by Local Land Boards. A Transport Appeal Court, consisting of a District Court Judge, hears appeals from certain decisions of the transport authorities. Jurisdiction to hear disputes arising under the Friendly Societies Act and the Co-operation Act is given to the Registrar under those Acts. Women are eligible to be appointed as judges, magistrates, or justices of the peace.

New South Wales as a State of the Commonwealth forms part of the Commonwealth judicial system. By the Commonwealth Judiciary Act, 1903-1934, the jurisdiction of the High Court is exclusive in regard to certain matters. In regard to other matters the courts of the State are invested with Federal jurisdiction subject to conditions stated in that Act.

Appeal lies to the Privy Council from the Supreme Court of New South Wales and the High Court of Australia, respectively, in proper cases. The Privy Council is the final Court of Appeal for the British Dominions.

#### ADMINISTRATION OF JUDICIAL SYSTEM.

##### *Ministers of the Crown.*

In New South Wales the duty of administering laws is allotted to Ministers of the Crown in their respective spheres. A table of Acts administered by each Minister, is published in "The New South Wales Parliamentary Companion." A list of these Acts, together with other functions of the various Ministers, appears in each copy of *Hansard* (daily proceedings). Usually an Attorney-General and a Minister of Justice are included amongst the Ministers, but sometimes these offices are combined. At times a Solicitor-General has been included in the Cabinet. At other times he has been a salaried public servant. There is also a Crown Solicitor—a salaried public servant. A common practice is to have an officer known as Assistant Law Officer as a further legal adviser to the Government.

The Attorney-General who is the legal adviser of the Government, is charged with the conduct of business relating to the higher courts (such as Supreme and District Courts), the offices of the Crown Solicitor, Crown Prosecutors, Clerk of the Peace, Parliamentary draftsmen and Court reporters as well as statute law consolidation and certain Acts, including the Crimes Act, the Poor Prisoners' Defence Act and the Poor Persons' Legal Remedies Act. Furthermore, he advises Ministers on questions on which his legal opinion is required, initiates and defends proceedings by and against the State, and determines whether a bill should be found in cases of indictable offences. The grand jury system has not been adopted. The Attorney-General is in the position of a grand jury to find a bill. No person can be put upon his trial for an indictable offence unless a bill has been found, except where an *ex officio* indictment has been filed by the Attorney-General or the Supreme Court has directed an information to be filed.

The Minister of Justice supervises the working of the magistrates' courts, of gaols and penal establishments, also the operations of the various offices connected with the Supreme and District Courts. He administers Acts of Parliament relating to justices, juries, coroners, prisons and prisoners, landlords and tenants, inebriates, real property, land titles, registration of firms, companies and deeds, births, deaths and marriages, and licensed trades and callings.

## SUPREME COURT.

The Supreme Court of New South Wales was established in 1824 under the Charter of Justice. Jurisdiction is exercised by a Chief Justice and not more than ten Puisne Judges, of whom four are engaged usually in the Common Law and Criminal jurisdictions, and the remainder in Equity, Bankruptcy, Probate, Lunacy, and Matrimonial Causes.

The Court possesses original jurisdiction over all litigious matters arising in the State, except where its jurisdiction is excluded by statute, in certain cases where extra territorial jurisdiction has been conferred, in Admiralty, and in appeal. Its original jurisdiction is exercised usually by one judge. The procedure and practice of the Court are defined by statute, or regulated by rules which may be made by any three or more judges. The Supreme Court has power at common law to restrain inferior courts which act in excess of their jurisdiction, and to grant mandamus to enforce a legal right. The right of appeal to the Supreme Court from inferior courts is purely the creation of statute law. In proper cases appeals may be carried from findings of the Supreme Court to the High Court of Australia or to the Privy Council.

Particulars are given below of each division of the civil jurisdiction of the Court.

*Common Law Jurisdiction.*

The jurisdiction of the Supreme Court at Common Law extends to cases not falling within any other jurisdiction. Actions are tried usually in the first instance in sittings at nisi prius, before one judge and a jury of four, or of twelve in special cases. A jury may be dispensed with by consent of both parties and under statutes governing certain cases. A judge may sit "in chambers" to deal with questions not requiring to be argued in court.

The following table gives particulars of causes set down and writs issued in the Supreme and Circuit Courts (Common Law Jurisdiction) during the last five years. The number of writs issued includes cases which were settled by the parties without further litigation.

TABLE 231.—Common Law Jurisdiction—Writs and Causes, 1934 to 1938.

Particulars.	1934.	1935.	1936.	1937.	1938.
Writs Issued ... ..	4,439	4,228	4,389	4,532	4,170
Judgments Signed ... ..	2,423	2,162	2,184	2,132	2,039
<b>Causes Tried—</b>					
Verdict for Plaintiff ... ..	167	202	198	210	250
"  Defendant ... ..	57	77	85	70	77
Jury Disagreed ... ..	3	1	1	4	4
Nonsuits ... ..	11	23	12	16	8
<b>Total ... ..</b>	<b>238</b>	<b>303</b>	<b>296</b>	<b>300</b>	<b>339</b>
<b>Causes—</b>					
Not proceeded with ... ..	213	237	241	333	209
Referred to Arbitration... ..	...	...	...	1	2
<b>Total Causes dealt with ... ..</b>	<b>451</b>	<b>540</b>	<b>537</b>	<b>634</b>	<b>550</b>

The difference between the number of writs issued and judgments signed indicates the extent to which suits are not proceeded with, and the difference between the number of judgments signed and the number of causes tried indicates the extent to which cases are settled without legal proceedings in court.

*Equity Jurisdiction.*

The jurisdiction of the Supreme Court in Equity (which includes infancy) is exercised by the Chief Judge in Equity, or by any other Judge of the Supreme Court sitting in Equity. The procedure of the Court is governed by the Equity Act, 1901, and subsidiary rules. The jurisdiction extends to granting equitable relief by enforcing rights not recognised at Common Law and by special remedies such as the issue of injunctions, writs of specific performance, and a jurisdiction in infancy. The Court in making binding declarations of right may obtain the assistance of specialists such as actuaries, engineers, or other persons. In deciding legal rights incidental to its cases, it exercises all the powers of the Common Law jurisdiction of the Supreme Court, and may award damages in certain cases.

The office of the Court is under the control of the Master in Equity who performs many judicial functions, and, when directed by the Court, determines certain matters such as conducting inquiries, taking accounts, etc. He is also Registrar of the Court, and controls the records and funds within its charge.

The transactions in Equity during the year ended 30th June, 1938, included the following:—Decrees 106, orders on motions and petitions 1,332, orders by Judge in Chambers 288. In 1936-37 113 decrees were made, and 1,251 orders on motions and petitions, 317 orders by Judge in Chambers and 8 orders by the Master in Equity.

*Lunacy Jurisdiction.*

The Supreme Court in its Lunacy jurisdiction is constituted, except on appeal, by the Chief Judge in Equity or by any other judge sitting for him during his absence or illness or at his request. In respect of the administration of estates the jurisdiction may be exercised by the Master in Lunacy and the Deputy Master in Lunacy.

Persons whose affairs are brought under control by the Lunacy Act are grouped in three main classes—(1) persons of unsound mind and incapable of managing their affairs; (2) persons who are incapable of managing their affairs through mental infirmity arising from disease or age; and (3) insane patients in the mental hospitals. The affairs of those in the first class are administered by committees, and those in the second class by managers, subject in both cases to the order and direction of the Court constituted by the Master; and the affairs of insane patients are administered by the Master in Lunacy.

The amount of trust funds controlled by the Master in Lunacy was £1,242,777 at 30th June, 1938. The funds comprised mortgages £106,003, Commonwealth Government securities £748,995, fixed deposits £354,806 and cash £32,973. In addition there were assets of considerable value in the form of scrip, real estate, etc. A deduction ranging up to 4 per cent. from the net income of insane persons whose estates are managed by the Master in Lunacy amounted to £1,300 in 1937-38, and fees collected to £269.

*Probate Jurisdiction.*

Probate jurisdiction extends over all property, real or personal, in New South Wales of deceased persons, testate or intestate. The jurisdiction is exercised by a Probate Judge, or by any judge acting on his behalf.

The Registrar in Probate exercises jurisdiction in granting probate and letters of administration in all matters where no contention has arisen and in passing the accounts of executors and administrators, including the allowance of commission to them for their trouble. The Registrar or any interested party may refer any matter to the Court. The Registrar also exercises jurisdiction in minor dealings affecting estates where no objection is raised by any interested party.

Until the granting of probate or letters of administration the property of deceased persons vests in the Public Trustee, and cannot be legally dealt with except in minor matters. In this way the rights of the successors, the creditors, and the State are safeguarded. Cases of disputed wills are tried by the Judge, with or without a jury, to determine issues of fact, and jurisdiction is exercised over administrators and executors.

The following table shows the number and values of estates dealt with in the past five years:—

TABLE 232.—Probate Jurisdiction—Number and Value of Estates, 1934 to 1938.

Year.	Probates Granted.		Letters of Administration.		Total.	
	Number of Estates.	Gross Value of Estates.	Number of Estates.	Gross Value of Estates.	Number of Estates.	Gross Value of Estates.
		£		£		£
1934	5,603	21,320,509	2,189	2,409,842	7,792	23,730,351
1935	5,861	22,696,050	2,745	2,759,547	8,606	25,455,597
1936	5,188	24,669,041	3,228	2,679,454	8,416	27,348,495
1937	6,229	27,827,847	2,319	2,700,606	8,548	30,528,453
1938	6,362	28,386,483	2,875	3,176,389	9,237	31,562,872

The values shown above represent the gross value of estates, inclusive of those not subject to duty, and of estates dealt with by the Public Trustee. In some cases probate or letters of administration are taken out a second time and such estates are duplicated in the foregoing figures. Where estates are less than £300 in value probate or letters of administration may be granted on personal application to the Registrar, without the intervention of a solicitor.

#### *Jurisdiction in Matrimonial Causes (Divorce).*

This jurisdiction was conferred on the Supreme Court by the Matrimonial Causes Act, 1873. Previously marriages could be dissolved only by special Act of Parliament. This Act, with its amendments, was consolidated in 1899. A Judge of the Supreme Court is appointed Judge in Divorce, but any other judge may act for him. The forms of relief granted are dissolution of marriage, judicial separation, declaration of nullity of marriage, jactitation of marriage, and orders for restitution of conjugal rights. Orders for the custody of children, alimony, damages, and settlement of marriage property may be made. Decrees for the dissolution of marriage are usually made provisional for a short period, and absolute at the expiration thereof if no reason to the contrary is shown, *e.g.*, collusion. Where there is reason to believe that dissolution of marriage is sought for ulterior motives and that collusion has taken place between the parties, it is customary for the Crown to intervene and place before the Court any relevant facts in its possession. The Crown, however, cannot intervene after the *decree nisi* has been made absolute.

The grounds on which dissolution may be granted on petition and the conditions as to domicile have been set out in earlier issues of this Year Book.

The following statement shows the number of petitions in matrimonial causes made and granted in New South Wales during the past five years in comparison with the average per year in quinquennial periods since 1908:—

TABLE 233.—Divorces, Petitions and Decrees—1908 to 1938.

Year.	Petitions for Divorce, Judicial Separation, and Nullity of Marriage Lodged.	Number of Petitions Granted:					Restitution of Conjugal Rights.	
		Divorces:		Petitions for Judicial Separation Granted.	Nullity of Marriage.		Petitions.	Decrees Granted.
		Decrees <i>Nisi</i> Granted.	Decrees <i>Nisi</i> made Absolute.		Decrees <i>Nisi</i> Granted.	Decrees <i>Nisi</i> made Absolute.		
1908-12*	453	260	260	12	4	4	28	18
1913-17*	642	393	342	9	3	3	74	51
1918-22*	1,041	672	562	13	7	5	236	141
1923-27*	1,391	992	903	13	9	8	266	168
1928-32*	1,480	1,060	967	10	11	9	311	180
1933-37*	1,749	1,216	1,124	13	11	11	365	224
1934	1,780	1,132	1,078	13	16	14	386	196
1935	1,728	1,127	1,124	15	9	9	343	188
1936	1,814	1,367	1,147	12	15	13	352	234
1937	1,811	1,367	1,261	11	7	11	412	271
1938	1,904	1,526	1,424	9	7	7	432	285

\* Average per year.

The number of petitions lodged increased rapidly between 1908 and 1927. The annual average in the quinquennium 1923-27 was more than three times the average of 1908-12. The increase continued until 1929 when the number was 1,545. After a decline to 1262 in 1931, the upward trend was resumed and the petitions in 1938 were more numerous by 23 per cent. than in 1929.

The number of petitions lodged with a suspension of fees or *in forma pauperis* during 1938 was 767 of which 661 were for divorce, 5 for nullity of marriage, 8 for judicial separation, and 93 for restitution of conjugal rights.

The number of petitioners of each sex in cases where decrees for divorce or nullity of marriage were made absolute, or judicial separation was granted, during each of the past ten years was as follow:—

TABLE 234.—Divorces—Sex of Petitioners, 1929 to 1938.

Year in which Petition was granted.	Number of Successful Petitions lodged by			Year in which Petition was granted.	Number of Successful Petitions lodged by		
	Husband.	Wife.	Total.		Husband.	Wife.	Total.
1929	429	666	1,095	1934	451	654	1,105
1930	396	555	951	1935	466	682	1,148
1931	440	647	1,087	1936	505	667	1,172
1932	362	503	870	1937	580	753	1,283
1933	429	607	1,036	1938	611	829	1,440



The proportion of the petitions lodged by husbands is about 40 per cent. The grounds of suits in which decrees for divorce or nullity of marriage were made absolute during each of the past five years were as follow:—

TABLE 235.—Divorces—Grounds of Suit, 1934 to 1938.

Ground of Suit.	1934.	1935.	1936.	1937.	1938.
Adultery ... ..	246	256	267	284	309
Bigamy ... ..	15	11	9	6	9
Cruelty and Repeated Assaults ... ..	2	3	6	2	5
„ „ Habitual Drunkenness ... ..	7	11	8	11	10
Desertion ... ..	609	688	686	772	827
Habitual Drunkenness and Neglect to Support, or Neglect of Domestic Duties ... ..	20	16	15	12	16
Non-compliance with Order for Restitution of Conjugal Rights ... ..	190	141	160	172	252
Other ... ..	3	7	9	13	3
Total ... ..	1,092	1,133	1,160	1,272	1,431

In the 1,424 cases in which decrees for divorce were made absolute during 1938 the mean duration of marriage was as follows: Under 5 years, 64; 5-9 years, 455; 10-14 years, 389; 15-19 years, 237; 20-29 years, 236; 30-39 years, 47 and 40-49 years, 6. In the cases of 473 marriages there were no children; one child in 474 cases; two children, 245; three children, 117; four children, 50; and five or more children in 60 cases. In 5 cases the details were not stated.

#### *Admiralty Jurisdiction.*

Jurisdiction as a Colonial Court of Admiralty was conferred on the Supreme Court of New South Wales on 1st July, 1911, by Order-in-Council, under the Colonial Courts of Admiralty Act (Imperial), 1890. The Court may sit also as a Prize Court by authority of a proclamation of August, 1914, under the Prize Courts Act (Imperial), 1894.

#### HIGHER CRIMINAL COURTS.

The higher courts of criminal jurisdiction consist of the Central Criminal Court (which sits in Sydney and is presided over by a Judge of the Supreme Court), of the Supreme Court on circuit, and of Courts of Quarter Sessions held at important centres throughout the State, each presided over by a Judge of the District Court as chairman of Quarter Sessions. These courts deal with indictable offences which are the more serious criminal cases. Offences punishable by death may be tried only before the Central Criminal Court, which exercises the criminal jurisdiction of the Supreme Court, or before the Supreme Court on circuit.

All persons charged with criminal offences must be charged before a judge with a jury of twelve chosen by lot from a panel provided by the sheriff. The question of the guilt or innocence of the accused is determined by the jury after the direction by the presiding judge as to the law and the facts proved by evidence, and the verdict must be unanimous. If unanimity is not reached within twelve hours, the jury is discharged and the accused may be tried before another jury. Women are not eligible to act as jurors.

Indictable offences against Commonwealth law are tried before these courts.

*Central Criminal Court and Supreme Court on Circuit.*

The Central Criminal Court exercises the criminal jurisdiction of the Supreme Court in Sydney, and a Judge of the Supreme Court presides at sittings of the Supreme Court in circuit towns. Usually capital offences, the more serious indictable offences committed in the metropolitan area, and offences which may not be tried conveniently at Quarter Sessions, or at sittings of the Supreme Court in the country, are tried at the Central Criminal Court. Appeal from these courts lies to the Court of Criminal Appeal, consisting of three or more Judges of the Supreme Court and, in proper cases, to the High Court of Australia or the Privy Council. A Judge of the Supreme Court sitting in Sydney or at circuit towns may act as a Court of Gaol Delivery, to hear and determine the cases of untried prisoners upon returns of such prisoners supplied by the gaolers of the State under rules of the Court.

*Courts of Quarter Sessions.*

These courts are held at times and places appointed by the Governor-in-Council, in districts which coincide with those of District Courts. Forty-four places were appointed in 1938, courts being held usually prior to District Court sittings, from two to four times a year in country centres, but eleven times in Sydney, and six times in Parramatta.

In addition to exercising their original jurisdiction, the courts hear appeals from Courts of Petty Sessions and certain appeals from other courts, *e.g.*, Licensing Courts. Appeals from Quarter Sessions or sittings of the Supreme Court by persons convicted on indictment are heard by the Court of Criminal Appeal.

*Cases before Higher Criminal Courts.*

The following table relates to the number of distinct persons charged before Courts of Quarter Sessions, sittings of the Supreme Court at circuit towns, and the Central Criminal Court, and it shows the number of convictions in each of the classes of more serious offences. Where two or more charges were preferred against the same person, account has been taken only of the principal charge.

TABLE 236.—Higher Courts—Persons Charged and Convictions,  
1911 to 1938.

Year ended 30th June.	Distinct Persons Charged.	Not Guilty, etc.	Convictions—Principal Offence.				Total Persons Convicted	
			Against Person.	Against Property.	Against Currency, and Forgery.	Other Offences.	Number.	Per 10,000 of Popula- tion.
1911*	979	441	141	313	48	36	538	3.23
1921*	1,722	611	166	853	48	44	1,111	5.27
1931	1,711	503	170	977	36	25	1,208	4.75
1934	1,287	432	153	630	37	35	855	3.27
1935	1,191	329	153	640	38	31	862	3.27
1936	1,084	318	179	523	19	45	766	2.88
1937	977	354	126	443	18	36	623	2.32
1938	1,087	392	121	528	15	31	695	2.55

\* Year ended 31st December.

In view of the fact that trials of accused persons in higher criminal courts take place on indictment by the Attorney-General, and usually after magisterial inquiry into the sufficiency of evidence for such trials, and that the question of guilt is decided by a jury of laymen, it is interesting to note that only about two-thirds of the persons charged are convicted, and in the case of offences against the person the proportion is approximately one-half.

Of the persons convicted during the year ended 30th June, 1938, males numbered 681 and females 14; and the proportion per 100,000 of each sex was males 49.8, females 1.0

The following table shows the number of persons convicted for specific offences included in the foregoing statement:—

TABLE 237.—Higher Courts—Convictions for Specific Offences, 1911 to 1938.

Offences.	Number of Offenders Convicted.				
	1911.	1921.	1935-36.	1936-37.	1937-38.
Murder ... ..	3	8	10	3	5
Attempted Murder and Shooting at with Intent	3	3	3	1	1
Manslaughter ... ..	4	13	11	6	4
Rape and other Offences against Females ...	29	21	58	43	34
Unnatural Offences ... ..	2	23	29	20	19
Abortion and Attempts to Procure... ..	3	2	2	...	1
Bigamy and offences relating to Marriage ...	16	22	14	8	17
Assault ... ..	80	63	14	15	15
Burglary and Housebreaking ... ..	62	244	322	275	288
Robbery and Stealing from the Person ...	14	35	29	34	35
Stealing Horses, Cattle, Sheep ... ..	26	48	1	2	4
Embezzlement and Stealing by Servants ...	26	42	20	9	19
Larceny and Receiving ... ..	131	376	74	85	120
Fraud and False Pretences ... ..	38	80	39	24	41
Arson ... ..	...	1	8	3	4
Forgery, Uttering Forged Documents ...	41	44	11	11	13
Conspiracy ... ..	10	16	24	24	13
Perjury and Subornation .. ..	10	17	3	3	4

#### DISTRICT COURTS.

District Courts have been in existence in New South Wales since 1858 as intermediaries between the Small Debts Courts and the Supreme Court. They are presided over by judges with special legal training, whose jurisdiction is defined in the District Courts Act, 1912-1936. Sittings are held at places and times appointed by the Governor-in-Council. There are nine District Court Judges and arrangements were made for sittings in sixty-three districts in 1938. The courts sit at intervals during ten months of the year in Sydney, and two or more times per year in important country towns. A registrar and other officers are attached to each court.

Ordinarily cases are heard by a judge sitting alone, but a jury may be empanelled by direction of the judge, or upon demand by either plaintiff or defendant, in any case where the amount claimed exceeds £20. The jurisdiction of the Court extends over issues of fact in equity, probate, and divorce proceedings remitted by the Supreme Court, and over actions at Common Law involving an amount not exceeding £400, or £200 where a title to land is involved.

The findings of the District Court are intended to be final, but new trials may be granted, and appeals may be made to the Supreme Court in certain cases.

Particulars of suits brought in District Courts in their original jurisdictions during the last five years are given in the following table:—

TABLE 238.—District Courts—Transactions, 1934 to 1938.

Year.	Causes Tried.		Causes Dis-continued or Settled without hearing.	Judgment for Plaintiff by Default, Con- fession, or Agree- ment.	Causes referred to Arbit- ration.	Total Suits disposed of.	Total Suits arising during Year.	Causes Pending and in Arrear.
	Verdict for Plaintiff.	Verdict for Defendant (including Nonsuit, etc.).						
1934	832	330	3,987	5,855	1	11,005	9,799	3,248
1935	926	333	2,936	5,775	...	10,020	10,737	3,965
1936	920	346	2,955	6,157	...	10,378	10,556	4,143
1937	774	262	3,187	5,548	4	9,775	9,681	4,049
1938	773	297	3,057	5,861	1	9,989	10,035	4,145

Of the causes tried during 1938, 157 were tried by jury and 913 without a jury. The amount of judgment for plaintiffs during the year was £334,169.

In addition to the suits covered by the foregoing table a considerable amount of work under various Acts is done in the District Courts.

#### LAND AND VALUATION COURT.

The Land Court of Appeal, established originally in 1889, was re-constituted at the close of 1921, as the Land and Valuation Court. This court is presided over by a judge, whose status is equal to that of a Judge of the Supreme Court, and he may sit as an open court at such places as he determines or in certain circumstances, with two assessors in an advisory capacity. The procedure of the court is governed by rules made by the Judge, who also exercises powers over witnesses and the production of evidence similar to those of a Judge in the Supreme Court. On questions of fact the decisions of the Judge are final, but appeal may be made to the Supreme Court against his decision on points of law.

The Court exercises original jurisdiction in: (a) claims for compensation arising out of resumption by public authorities or for damages caused by the execution of authorised works; (b) registration of land agents and their charges; and (c) determination of certain rentals under the Landlord and Tenant Act. The Court also exercises appellate jurisdiction in respect of (a) appeals from the decisions of the local land boards under the Crown Lands Acts, Pastures Protection Acts, Irrigation Acts and kindred Acts; (b) valuations by the Valuer-General; (c) valuations by rating authorities including the City Council where the valuation exceeds £5,000; (d) claims for compensation in respect of delicensed premises; (e) claims for compensation under the Mines Subsidence Act, and (f) appeals under the Reclamation Act and the Transport Act.

#### WORKERS' COMPENSATION COMMISSION.

A special and exclusive jurisdiction is conferred on the Workers' Compensation Commission to determine all questions arising under the Workers' Compensation Act and its amendments. The Commission is a body

corporate and consists of a chairman and two members appointed from barristers of more than five years' standing. All have the same status, rights and tenure of office as a District Court judge. Each of these three judges sits alone and exercises the jurisdiction, powers and authorities of the Commission. The sittings are arranged by the chairman, who is also the permanent head of the staff of the Commission. There is statutory power to appoint a fourth judge permanently to the Commission, also under certain conditions, an acting judge. A medical referee may be summoned to sit as medical assessor with the Commission.

For the purpose of conducting its proceedings the Commission has the powers of a Commissioner under the Royal Commissions Act, 1923.

The determinations of the Commission on matters of fact are final, and may not be challenged in any court. Appeal by way of a case stated on questions of law lies to the Supreme Court and from the Supreme Court to the High Court of Australia and the Privy Council.

During the year 1937-38, the Commission in open Court dealt with 1,558 applications for determination regarding the liability of employers to pay compensation and in Chambers considered 1,527 applications by dependants of deceased workers, or by workers under a legal disability. In 1936-37, 1,282 applications were dealt with in open Court, and 1,402 applications were disposed of in Chambers. Further particulars relating to compensation are shown in the chapter relating to Employment.

#### COURTS OF MARINE INQUIRY.

Cases of shipwreck or casualty to British vessels, or the detention of any ships alleged to be unseaworthy, and charges of misconduct against officers of British vessels arising on or near the coast of New South Wales, or on any ship registered at or proceeding to any port therein, are heard by one or more authorised Judges of the District Court or Police or Stipendiary Magistrates sitting with two or more assessors as a Court of Marine Inquiry.

The proceedings of the Court are governed by the Navigation Acts of the State and Commonwealth.

#### INDUSTRIAL TRIBUNALS.

A system of industrial arbitration was inaugurated in 1901, when courts of law were established to determine certain disputes between employers and employees relating to working conditions. The system has been changed fundamentally from time to time, and the statutory basis of the present system is the Industrial Arbitration Act, 1912, with subsequent amendments.

The Industrial Commission of New South Wales was constituted as the chief industrial tribunal in 1926. The Commission consists of a President and five other members, and may be constituted by three members. It may delegate any of its powers or functions to any one member, but appeal from his findings lies to the Commission. Members hold office during good behaviour and have the same status and rights as a puisne Judge of the Supreme Court. Persons eligible for appointment as a member of the Commission are puisne Judges of the Supreme Court, District Court Judges, practising barristers of five years' standing, and practising solicitors of seven years' standing. The Commission on any reference or application to it may make awards fixing rates of pay and working conditions, and determine the standard hours to be worked in industries within its jurisdiction, and has power to determine any "industrial matter," which by definition under the Act has wide application. It

has authority to adjudicate in cases of illegal strikes, lockouts or unlawful dismissals, and may summon persons to a compulsory conference and hear appeals from the determinations of the subsidiary industrial tribunals.

The powers of the Commission were extended in December, 1938, to enable it to conduct investigations on reference by the Minister of Labour and Industry regarding the prices of commodities and services and the rents of dwellings.

There is a Conciliation Commissioner, appointed for a term of seven years, who is chairman of the Conciliation Committees. These committees may be established for various industries on the recommendation of the Industrial Commission, but the Conciliation Commissioner may sit with or without the members of the committee, to inquire into industrial matters and to make awards governing working conditions. If members sit with the Commissioner, they sit as assessors only and are without voting powers. The Commissioner has original jurisdiction in respect of industrial matters arising in industries in respect of which the Industrial Arbitration Act applies.

The Apprenticeship Commissioner appointed by the Governor, and the members of the Conciliation Committee for an industry constitute the apprenticeship council for that industry, with power to regulate wages, hours, and other conditions of apprenticeship.

Industrial magistrates exercise jurisdiction in cases arising out of non-compliance with awards and statutes governing working conditions of employees. Their powers are cognate with those of police magistrates.

Details of the constitution and operations of these tribunals are published in the chapter relating to "Industrial Arbitration."

#### TAXATION APPEALS.

The Income Tax (Management) Act, 1936, provides for the constitution of a Board of Appeal consisting of three members of whom one is a barrister or solicitor and one a public accountant, in each case of not less than seven years' standing. The Board may hear and determine any appeal against a State assessment and its decision is final except where a question of law is involved, or in the case of a question of fact, when the Board certifies that the amount of tax in dispute exceeds the sum of three hundred pounds. In such a case appeal lies from the Board to the Full Supreme Court.

The Board held its first sitting on 5th September, 1937. To 30th June, 1938, 105 appeals had been received in respect of 269 assessments, and 71 appeals in respect of 193 assessments had been finalised.

An appeal may be made direct to the Supreme Court against the decision of the Commissioner of Taxation on an objection to an assessment in any case, except where the taxpayer is dissatisfied with any opinion, decision or determination given by the Commissioner in the exercise of a discretion conferred upon him by statute. Appeals against the exercise of the Commissioner's discretion may be made to the Board of Appeal only. For the purpose of hearing appeals made direct to it, the Supreme Court consists of a single justice. There is no right of appeal to the Full Court, but the Court may state a case for the opinion of the Full Supreme Court upon questions of law. There is an appeal to the High Court from any decision of the Supreme Court whether that decision is given by a single justice or by the Full Court.

LOWER COURTS OF CIVIL JURISDICTION.  
*Courts of Petty Sessions (Small Debts Court).*

A limited civil jurisdiction is conferred by the Small Debts Recovery Act, 1912-1933, on magistrates and justices sitting as Small Debts Courts to determine, in a summary way according to equity and good conscience, actions for the recovery of debt or damages. The jurisdiction of these courts is limited to cases involving not more than £50. A police or stipendiary magistrate may exercise the full jurisdiction of the court, two justices of the peace may hear cases involving amounts up to £30, and one justice up to £5. In cases of indefinite demands jurisdiction extends only to cases involving £10, or, by consent of the parties, up to £30, but the courts may not deal with matters involving titles to freehold or future rights.

In general, a decision of the court is subject to review only when it exceeds its jurisdiction or violates natural justice.

The principal officers of the court are a registrar, who acts as clerk to the bench and may enter judgment in cases of default of defence, or where claims are admitted and agreed upon, and such bailiffs as are appointed from time to time for the service and execution of process.

Particulars of the transactions of Small Debts Courts during the last five years are shown below.

TABLE 239.—Small Debts Courts Transactions, 1934 to 1938.

Year.	Plaints entered.	Verdicts for Plaintiff.		Executions issued.	Garnishee Orders issued.
		Number.	Amount.		
			£		
1934	61,171	37,253	384,909	7,516	6,391
1935	59,377	34,451	346,268	8,257	7,631
1936	62,239	36,901	369,391	8,874	8,855
1937	64,741	35,658	345,241	9,292	10,301
1938	68,940	33,093	368,106	9,179	11,460

In garnishee cases the Court may order that all debts due by a garnishee to the defendant may be attached to meet a judgment debt, and by a subsequent order, may direct the garnishee to pay so much of the amount owing as will satisfy the judgment debt. In respect of wages or salary, garnishee orders may be made only for so much as exceeds £2 per week. The garnishee cases numbered 10,301 in 1937, and 11,460 in 1938.

*Licensing Courts.*

Under the Liquor Act of 1912 and amendments three persons, each of whom is a stipendiary or police magistrate, are appointed licensing magistrates in respect of licenses for the sale of intoxicating liquor and constitute the Licensing Courts for all the licensing districts of the State.

The licensing magistrates are empowered, with the approval of the Minister, to delegate their jurisdiction either generally or in any special matter to stipendiary or police magistrates. Under a general delegation applications for renewals, transfers, booth licenses and other minor matters are dealt with by such stipendiary or police magistrates.

The Licensing Court sits as an open court and appeals from its decisions lie to a Court of Quarter Sessions.

The three licensing magistrates also constitute the Licenses Reduction Board which was established to reduce publicans' and Australian wine licenses.

Particulars relating to the operations of the Licensing Courts and the Licenses Reduction Board are shown in the chapter entitled "Social Condition."

*Wardens' Courts (Mining).*

By virtue of the Mining Act, 1906, and amendments, mining wardens may hold courts to determine disputes within their districts as to the possession of mining lands, or claims under mining contracts. In general their procedure is summary, and their decisions final, but appeal lies in certain cases to a District Court sitting as a Mining Appeal Court or, on points of law, by way of stating a case to the Supreme Court.

*Land Boards.*

Local Land Boards each consisting of a salaried chairman, usually possessing legal and administrative experience, and of two other members (paid by fees) possessing local knowledge, were first appointed under the Crown Lands Act of 1884. These boards sit as open courts, and follow procedure similar to that of Courts of Petty Sessions. Their functions are to determine questions under the Crown Lands Acts, and other matters referred by the Minister. Sittings are held as required at appointed places in each of twelve Land Board Districts in the Eastern and Central Divisions of the State. There are also special Land Boards for the Yanco, Mirrool, and Coomealla Irrigation Areas.

The management and control of Crown Lands in the Western Division of the State is vested in a Commissioner and two persons are appointed by the Governor to be chairman of the local land boards and to exercise such of the powers and functions of the Commissioner as he may direct. The term of office of the Commissioner and the Chairman is ten years. The Land Boards consisting of a chairman and one other member (paid by fees) function in administrative districts in this division similarly to those in the other territorial divisions.

LOWER COURTS OF CRIMINAL AND QUASI-CRIMINAL JURISDICTION.

*Courts of Petty Sessions (Police Courts).*

These Courts are held daily in large centres, and periodically, as occasion demands, in small centres. They operate under various statutes (chiefly the Crimes Act, 1900, Police Offences Act, 1901-1936, and Vagrancy Act, 1902), which describe the nature of offences, penalties, and certain procedure, and prescribe the number of justices or magistrates for the trial of various offences. Cases are heard by a Stipendiary Magistrate in the Sydney, Broken Hill, Parramatta, Newcastle, Bathurst, Windsor, Richmond, and Wollongong Districts, and in other districts by a Police Magistrate or by Justices of the Peace. The procedure is governed in a general way by the Justices Act, 1902, and its amendments. These courts deal with minor offences, which may be treated summarily, while charges for indictable offences are investigated, and the accused committed for trial to higher courts when a *prima facie* case is made out.

Offences punishable summarily by Courts of Petty Sessions include most offences against good order and breaches of regulations. Certain indictable offences may be dealt with summarily with the consent of the accused. Certain indictable offences, where the value of the property in respect of which the offence is charged does not exceed ten pounds, may be dealt with summarily without the consent of the accused. The courts deal also with certain other cases, such as proceedings arising under the Master and Servants Act, the Deserted Wives and Children Act, Child Welfare Act, and administrative regulations.

Reference to the right of appeal to Quarter Sessions is made on page 301.



*Children's Courts.*

Children's Courts were established by proclamation under the Infant-Protection Act, 1904, and the Neglected Children and Juvenile Offenders Act, 1905, which were consolidated with other enactments by the Child Welfare Act, 1923. Each court consists of a special magistrate with jurisdiction within a proclaimed area. Elsewhere the jurisdiction of a court may be exercised by a special magistrate, or two Justices of the Peace. The magistrates exercise all the powers of a Police or Stipendiary Magistrate in respect of cases involving children as parties or witnesses to the exclusion of ordinary courts of law. At any hearing or trial before a Children's Court, persons not directly interested in the case are excluded from the court room. By these means children are protected against the adverse influences which they would encounter in the ordinary courts.

The jurisdiction embraces proceedings concerning maintenance of infants, offences by or against children, and neglected or uncontrollable children. Matters arising under the Deserted Wives and Children Act, *e.g.*, complaints for wife maintenance, are also determined by the Children's Court. The Court is endowed with extensive powers, such as the committal of children to reformatory homes, release on probation, etc.

Appeal from its decision lies in proper cases to the Supreme Court, Quarter Sessions, or in certain circumstances to a District Court.

Separate statistics of the proceedings of Children's Courts are not available, as they are included with those of ordinary Courts of Petty Sessions.

*Cases before Magistrates' Courts.*

Particulars of the number of offences charged, and convictions obtained in Courts of Petty Sessions and Children's Courts, are shown below. Except where otherwise stated the figures represent the total number of offences charged, and where multiple charges are preferred at the same time, separate account is taken of each. The figures should not be used for the purpose of comparison with other States or countries, unless the same rules are observed in tabulating the statistics of crime.

TABLE 240.—Courts of Petty Sessions and Children's Courts—Charges and Convictions, 1911 to 1938.

Year.	Offences Charged.				Proportion of Total Offences Charged.		
	Withdrawn or Discharged.	Convicted.	Committed to Higher Courts.	Total.	With-drawn.	Con-victed	Com-mitted to Higher Courts.
1911	8,878	65,058	1,178	75,114	per cent. 11·8	per cent. 86·6	per cent. 1·6
1921	11,877	80,214	2,594	94,685	12·6	84·7	2·7
1931	17,317	101,675	2,751	121,743	14·2	83·5	2·3
1934	22,210	104,018	1,732	127,960	17·3	81·3	1·4
1935	23,017	110,135	1,748	134,900	17·1	81·6	1·3
1936	23,597	117,490	1,620	144,707	17·7	81·2	1·1
1937	20,748	103,272	1,771	125,791	16·5	82·1	1·4
1938	16,540	96,933	2,048	115,521	14·3	83·9	1·8

Toward the end of 1916 provision was made whereby persons arrested for drunkenness were allowed to forfeit a deposit (nominally bail) in lieu of appearing in court. The amount was originally fixed at 5s., the usual penalty imposed, but it has been increased to 10s. More than one-third of the cases of drunkenness are dealt with in this manner, and they are included in the statistics as convictions, as well as those cases where the offender is admonished and set free without penalty.

It is not possible to determine the number of distinct persons charged in each year, as particulars obtained from persons accused of minor offences, particularly vagrants, do not form a reliable basis for identification.

Only a small proportion of the offences for which summary convictions are effected are really criminal offences, that is, offences against person or property. The following table shows a classification of the offences for which summary convictions were recorded, also the rate per 1,000 of mean population:—

TABLE 241.—Courts of Petty Sessions and Children's Courts—Convictions, 1911 to 1938.

Year.	Number of Convictions for Minor Offences.					Total Summary Convictions.
	Against the Person.	Against Property.	Against Good Order		Other Offences.	
			Drunken- ness.	Other.		
1911	1,664	3,404	29,299	14,886	15,805	65,058
1921	2,127	5,924	28,702	18,086	25,375	80,214
1931	1,849	11,708	20,559	15,598	51,961	101,675
1934	1,546	10,305	26,344	12,889	52,934	104,018
1935	1,677	10,368	27,823	13,548	56,719	110,135
1936	1,504	11,660	30,267	12,502	61,557	117,490
1937	1,483	10,927	27,651	13,238	49,973	103,272
1938	1,507	10,030	27,181	12,638	45,577	96,933
Number per 1,000 of Mean Population.						
1911	1·00	2·04	17·60	8·94	9·49	39·07
1921	1·01	2·81	13·61	8·58	12·04	38·05
1931	0·72	4·58	8·04	6·10	20·34	39·78
1934	0·59	3·93	10·04	4·91	20·18	39·65
1935	0·63	3·92	10·52	5·12	21·44	41·63
1936	0·56	4·37	11·36	4·68	23·07	44·04
1937	0·55	4·06	10·26	4·91	18·54	38·32
1938	0·56	3·68	9·99	4·64	16·75	35·62

There has been a marked increase in comparison with 1921 in convictions classified under the heading "other offences," which consist mainly of breaches of administrative law, *e.g.*, traffic regulations and local government by-laws. A large proportion are minor breaches or are committed through inadvertence or in ignorance of the law, and are met with the infliction of a fine. As local and other administrative activities have been extended, it is a natural corollary that such offences should become more numerous. Thus the convictions under the traffic regulations have increased to such an extent that in recent years they have represented a very large proportion of the offences classified in this group, the number in 1938 being 20,112, as compared with 4,192 in 1921. During the same period, however, the number of registered motor vehicles has increased from 44,443 to 322,940. Excluding offences of this class, the number of convictions per 1,000 of population in 1938 was approximately the same as in 1921.

There was a decrease during 1938 in summary convictions for offences against property, the number being the lowest since 1933, when it was 9,454. The number of convictions for drunkenness since 1921 was lowest in 1931 and highest in 1936. There was a decrease of 10 per cent. during the last two years.

*Coroners' Courts.*

The office of Coroner was established in New South Wales by letters patent in 1787, and is regulated by the Coroners Act, 1912, which consolidated previous laws.

Every Stipendiary or Police Magistrate has the powers and duties of a coroner in all parts of the State, the Metropolitan Police District being under the jurisdiction of the City Coroner. In districts not readily accessible by Police Magistrates, a local resident, usually a Justice of the Peace, is appointed coroner.

At the discretion of the Coroner, inquiries are held into the causes of violent or unnatural deaths, into the causes of deaths in gaols or in mines, and into the origin of fires causing damage or destruction to property, but inquiries as to cause of deaths may be dispensed with where the Coroner deems inquiry unnecessary. The Coroner may order the attendance of any medical practitioner at the inquest, and may direct him to hold a post-mortem examination. On the evidence submitted the Coroner is empowered to commit for trial persons adjudged guilty of manslaughter, murder, or arson, and in such cases may grant bail.

In certain cases a jury of six persons may be empanelled to find as to the facts of the case, and on their verdict against any person he may be committed for trial. The instructions to coroners provide that an inquest should be held into the cause of every death occurring among prisoners in gaols and lock-ups. In such cases a jury of six is empanelled. Persons apprehended by the police subsequent to the decisions of coroners are charged in the Courts of Petty Sessions.

During 1938, 16 persons were committed for trial by coroners on charges of murder, 39 for manslaughter and 13 for arson. The corresponding figures for the year 1937 were:—Murder, 16; manslaughter, 42; and arson, 5.

The coroners held inquiries into the origin of 97 fires in 1938, and found that 17 fires were accidental, 28 were caused wilfully, and in 52 cases the evidence was insufficient to indicate the origin. The inquiries in 1937 related to 90 fires and there were verdicts of arson in 19 cases and accident in 18 cases.

## APPELLATE JURISDICTION.

Generally speaking, appellate jurisdiction is exercised, in cases where appeals are authorised by statute, by Courts of Quarter Sessions from Magistrates' Courts, by the Supreme Court from District Courts and Magistrates' Courts, by the High Court of Australia from the Supreme Court, and (in certain cases) by the Privy Council from either of the two last-named courts. Appeal on points of law (usually by stating a case) may be made to the Supreme Court from special courts, *e.g.*, Industrial Commission and Workers' Compensation Commission.

A Court of Criminal Appeal, presided over by Judges of the Supreme Court, was established in 1912.

*Appeals to Quarter Sessions.*

The right of appeal from Courts of Petty Sessions to Courts of Quarter Sessions lies against all convictions or orders by magistrates, excepting adjudication to imprisonment for failure to comply with an order for the payment of money, for the finding of sureties for entering into a recognizance or for giving security. The Appeal Court rehears the cases, deciding questions of fact as well as of law.

### *Appeals to the Supreme Court.*

Three or more Judges of the Supreme Court may sit in its various civil jurisdictions to hear appeals from District Courts or from decisions of justices in chambers, and to consider motions for new trials and kindred matters, or to hear appeals from orders and decrees made by one justice in the various jurisdictions of the court. One judge may sit in chambers to hear applications for writs of mandamus or prohibition, and to determine special cases stated by magistrates. Reference is made on page 296 to the jurisdiction of the Supreme Court in regard to appeals from the Taxation Board of Appeal and against the decision of the Commissioner of Taxation.

### *Court of Criminal Appeal.*

The Court of Criminal Appeal was established by the Criminal Appeal Act of 1912, which prescribes that the Supreme Court shall be the Court of Criminal Appeal, constituted by three or more Judges of the Supreme Court as the Chief Justice may direct. Any person convicted on indictment may appeal to the Court against his conviction (1) on any ground which involves a question of law alone, or (2) with the leave of the Court or upon the certificate of the judge of the court of trial, on any ground which involves a question of fact alone, or of mixed law and fact, or any other ground which appears to the Court to be sufficient. With the leave of the Court, a convicted person may appeal also against the sentence passed on conviction. In such appeal the Court may quash the sentence and substitute another either more or less severe. The Attorney-General may appeal to the Court against a sentence pronounced by the Supreme Court or any Court of Quarter Sessions.

In addition to determining appeals in ordinary cases the Court has power, in special cases, to record a verdict and pass a sentence in substitution for the verdict and sentence of the Court of trial. It also may grant a new trial, either on its own motion or on application of the appellant.

### *Appeals to the High Court of Australia.*

Appeal to the High Court of Australia from judgments of the Supreme Court of New South Wales may be made in any case by permission of the High Court, and as of right in cases involving a matter valued at £300 or more, or involving the status of any person under laws relating to aliens, marriage, divorce or bankruptcy, provided that appeal lay to the Privy Council in such case at the date of establishment of the Commonwealth. Such appeal may be made even if a State law provides that the decision of the Supreme Court is final.

An appeal to the High Court from the Court of Criminal Appeal may be made by special leave of the High Court.

### *Appeals to the Privy Council.*

Appeals from Dominion Courts to the Crown-in-Council are heard by the Judicial Committee of the Privy Council by virtue of the royal prerogative to review decisions of all Courts of the Dominions, which can be limited only by Act of Parliament.

The cases which may be heard on appeal by the Judicial Committee were defined by Order-in-Council in 1909. Appeal may be made as of right from determinations of the Supreme Court involving any property or right to the value of £500 or more, and as of grace from the Supreme or High Court in any matter of substantial importance, including criminal cases in special circumstances. Except where the High Court consents no appeal may be made to the Privy Council upon any question as to the limits *inter se* of the constitutional powers of the Commonwealth or States.

## JURY SYSTEM.

Crimes and misdemeanours prosecuted by indictment in the Supreme Court or Courts of Quarter Sessions must be tried before a jury of twelve persons, who find as to the facts of the case, the punishment being determined by the judge. Most civil cases may be tried before a special jury of four persons, or a jury of twelve persons, upon application and with the consent of the court. The jury in such cases determines questions of fact and assesses damages. The procedure in relation to juries is governed principally by the Jury Act, 1912, and its amendments, and other Acts regulate special cases.

Persons liable to service on juries include, with certain exceptions, any man above the age of 21 years residing in New South Wales, and having a clear yearly income of £30 or more from real and personal estate, or a real and personal estate of the value of £300 or more. The principal exceptions are foreign subjects, who have not resided in New South Wales for at least seven years, and certain persons attainted of treason or felony. Men specially exempt include judges, members of Parliament, certain public officers, officers of the public service of the Commonwealth, members of the defence forces, employees of the State Governments, clergymen, barristers, solicitors, magistrates, police officers, doctors, dentists, chemists, schoolmasters, certain employees of banks, incapacitated persons, and men above the age of 60 years who claim exemption. Women are not eligible to act as jurors.

A jurors' list is compiled annually in October for each Petty Sessions District by the senior police officer. This list is made available for public inspection, and revised in December before a magistrate. Lists of persons qualified and liable to serve on special juries are prepared also. They include persons of prescribed avocations.

The jurors summoned to hear an issue are decided by lot. Accused persons and the Crown each have the right to challenge eight jurors in criminal cases, and twenty in capital cases, without assigning reasons. In civil cases not more than four times the number of jurors required may be summoned, and in striking the jury to try the case twice the number required are drawn from those summoned and one-fourth of that number is struck off by each party to the case.

In criminal cases the verdict of the jury must be unanimous. Where agreement is not reached within twelve hours, the jury may be discharged, and the accused tried before another jury. In civil cases where a unanimous agreement has not been reached after six hours' deliberation the decision of three-fourths of the jury shall be taken as the verdict of all; but if after twelve hours' deliberation three-fourths of the jury do not concur, the jury shall be discharged and the case may be set down for a new trial.

## JUDGES, MAGISTRATES AND COURT OFFICERS.

*Judges of the Supreme Court.*

Judges of the Supreme Court of New South Wales are styled "Justices," and are appointed by Commission of the Governor on the advice of the Executive Council. No person may be appointed Judge of the Supreme Court unless he is a barrister of five years standing. The judges have power to make rules governing court procedure and to control the admission to practice of barristers and solicitors and to supervise their conduct.

A judge cannot be sued for any act done in the performance of his judicial duties within the scope of his jurisdiction. He holds office "during good behaviour" until the age of seventy years at a salary fixed by statute. By these provisions the judiciary is rendered independent of the executive, but a judge may be removed from office by the Crown on the address of both

Houses of Parliament. Each member of the Industrial Commission of New South Wales and the judge of the Land and Valuation Court have the same status and rights as a puisne judge of the Supreme Court. A judge, including the Chief Justice, is granted a pension on retirement, the amount of which is dependent on his salary and length of service.

#### *Judges of the District Court.*

Any barrister of five years standing or attorney of seven years standing may be appointed as judge of the District Court by the Governor to exercise the jurisdiction of the Court in districts allotted by the Governor. Such persons hold office during ability and good behaviour up to the age of 70 years. They may be removed from office by the Governor for inability or misbehaviour subject first to appeal to the Governor-in-Council. A judge may not engage in the practice of the legal profession. A judge of any District Court is also a chairman of every Court of Quarter Sessions in the State. A judge is granted a pension on retirement, the amount of which is dependent on length of service.

#### *Officers of the Courts.*

Certain ministerial functions are performed by magistrates and justices in addition to their judicial duties, but special officers are appointed for certain purposes in the administration of justice, viz., Crown Prosecutors to act in Criminal Courts in prosecuting persons accused of indictable offences, Clerks of Petty Sessions, the Clerk of the Peace and his deputies to act as Clerks for the Courts of the Quarter Sessions, Registrars of the Small Debts and District Courts, and bailiffs.

In connection with the Supreme Court there are two important officers in addition to those connected with special jurisdictions, viz., the Prothonotary and the Sheriff.

The Prothonotary of the Supreme Court is its principal officer in the common law and criminal jurisdiction. He acts as registrar of the Courts of Admiralty and Criminal Appeal. The Prothonotary or his deputy is empowered under rules of the court to transact business usually transacted by a judge sitting in chambers, except in respect of matters relating to the liberty of the subject. The Matrimonial Causes Jurisdiction has its own Registrar who, with the Deputy Registrar, is empowered by the rules of the Court to exercise certain delegated powers formerly performed by the judge of the jurisdiction sitting in chambers.

The office of Sheriff is regulated by the Sheriff Act, 1900. There is a Sheriff and Under Sheriff. Sheriff's officers are stationed at convenient country centres, where there is a Deputy Sheriff—usually a Police Magistrate. The functions of the Sheriff include the enforcement of judgments and execution of writs of the Supreme Court, the summoning and supervision of juries, and administrative arrangements relating to the holding of courts.

#### *Magistrates.*

Magistrates are appointed from among members of the Public Service unless it is certified by the Public Service Board that no member of the service is suitable and available for such office. Persons so appointed must have attained the full age of thirty-five years, and have passed the prescribed examination in law. They hold office at the pleasure of the Governor.

Within the districts of the Metropolis, Parramatta, Newcastle, Broken Hill, Bathurst, Windsor, Richmond, and Wollongong, the jurisdiction of the Court of Petty Sessions is exercised exclusively by Stipendiary Magistrates. In country districts jurisdiction in Petty Sessions is exercised by Police Magistrates wherever convenient, and otherwise by honorary justices

in minor cases. Police Magistrates were first appointed in 1837, and Stipendiary Magistrates in 1881.

The jurisdiction of magistrates is explained in connection with Courts of Petty Sessions, and their functions comprise those of Justices of the Peace, explained later. In addition they usually act in country centres as District Registrars in Bankruptcy, Revising Magistrates, Visiting Justices to gaols, Deputy Sheriffs, Mining Wardens, Coroners and Industrial Magistrates and exercise delegated jurisdiction under the Liquor Act.

#### *Justices of the Peace.*

Persons of mature age and good character may be appointed as Justices of the Peace by Commission, under the Grand Seal. The office is honorary, and is held during the pleasure of the Crown. No special qualifications in law are required, but appointees must be persons of standing in the community and must take prescribed oaths. Women became eligible for the office under the Women's Legal Status Act, 1918.

The functions of justices are numerous, extending over the administration of justice generally, the maintenance of peace, and the judicial duties of the office. The judicial powers are explained in connection with the Courts of Petty Sessions, and other duties include the issue of warrants for arrests, issue of summonses, administration of oaths, and certification of documents.

On 31st December, 1938, there were approximately 36,000 Justices of the Peace in New South Wales, of whom 1,870 were women.

#### POOR PERSONS' LEGAL EXPENSES.

Under the Poor Prisoners' Defence Act, 1907, a person committed for trial for an indictable offence may apply for legal aid for his defence before the jury is sworn. If the judge or committing magistrate considers that the person is without adequate means, and that such legal aid should be supplied, the Attorney-General may arrange for the defence of the accused and for payment of expenses of all material witnesses.

The Poor Persons' Legal Remedies Act, 1918, authorises judges to make rules regulating the practice and procedure, and the costs and fees payable in respect of proceedings to which poor persons are parties. Such proceedings may not be instituted without permission, and judges to whom applications for permission are made are authorised to act as conciliators. The rules made under this Act do not apply to criminal proceedings.

Barristers and solicitors have enrolled under this Act to give their services free of charge on being assigned in a proper case. Out-of-pocket expenses are paid by the Crown.

#### LEGAL PROFESSION.

The legal profession in New South Wales is controlled by rules of the Supreme Court, which prescribe the conditions of entry to the profession, regulate studentships at law and specify the legal examinations which must be passed prior to admission to practice. Separate boards have been established to govern the admission of barristers and of solicitors. Women are eligible for admission.

By the Legal Practitioners Act, 1898-1936, provision has been made for the admission of conveyancers as solicitors and the discontinuance of the grant of conveyancer's certificates; for the examination of accounts of solicitors and conveyancers; and for the establishment and administration of a solicitors' fidelity guarantee fund. The fund is maintained from annual contributions from or levies imposed on solicitors. From it may be paid the amount of pecuniary loss suffered by persons as the result of theft or fraudulent misapplication by a solicitor of any monies or other valuable property entrusted to him.

Any solicitor duly admitted to practice has the right of audience in all courts of New South Wales. By the Legal Practitioners' Act, 1898-1936, provision is made for the hearing of charges of professional misconduct upon the part of solicitors by the Statutory Committee of the Incorporated Law Institute of New South Wales, which has the power to make an order striking off the roll, suspending from practice or imposing a fine on any solicitor. There is also provision for an appeal to the Court from an order of the Statutory Committee.

Barristers have, in general, no legal right to fees for their services in court, but scales of charges for certain services rendered by solicitors are prescribed by regulation and in certain instances costs of suits are taxed by an officer of the Supreme Court.

The following table shows the number of members of the legal profession in practice at intervals since 1911, and illustrates the increase in numbers in recent years:—

TABLE 242.—Barristers and Solicitors, 1911 to 1938.

End of Year.	Barristers.	Solicitors.		
		Sydney.	Country.	Total.
1911	156	603	411	1,014
1921	185	681	431	1,112
1931	236	1,013	568	1,581
1932	257	1,020	586	1,606
1933	259	1,048	*600	1,648
1934	270	1,075	*624	1,699
1935	272	1,052	*598	1,650
1936	281	1,069	*603	1,672
1937	271	1,073	*625	1,698
1938	280	1,089	*634	1,723

\* In addition, there were 4 solicitors practising in the Australian Capital Territory.

The number of barristers at the end of 1938 included 26 King's Counsel. The number stated in the table does not include the District Court judges, the Master in Equity, magistrates, State officials who are barristers, non-practising barristers, nor those on the roll—but not resident—in New South Wales. There were also 41 certificated conveyancers.

Barristers are organised under the Council of the Bar of New South Wales, and solicitors under the Incorporated Law Institute of New South Wales. There is also a Society of Notaries.

#### PUBLIC TRUSTEE.

The Public Trustee exercises administrative functions in regard to estates in terms of the Public Trustee Act, 1913, as amended in 1923 and 1936. The Public Trustee may act as trustee under a will, or marriage or other settlement; executor of a will; administrator under a will where the executor declines to act, is dead or absent from the State; administrator of intestate estates; and as agent or attorney for any person who authorises him so to act. In general the Public Trustee takes out probate or letters of administration in the Probate Court in the ordinary way, but he may file an election to administer in that court in certain cases in testacy or intestacy where the gross value of the estate does not exceed £400. He may act also as manager, guardian or receiver of the estate of an insane or incapable person, or as guardian or receiver of the estate of an infant. He is a *corporation sole* with perpetual succession and a seal of office and is subject to the control and orders of the Supreme Court.

Where the net value of an intestate estate does not exceed £100, the Public Trustee may pay the whole amount direct to the widow, and he may apply the share of an infant, not exceeding £500, to the maintenance of



the infant. As attorney or agent he may collect rents or interest on investments, supervise repairs, prepare taxation returns, and pay taxes, etc. Agents of the Trustee are appointed in towns throughout the State.

Operations are not conducted for profit, and the fees and commission chargeable are regulated to provide sufficient money to cover working expenses only. The accounts of the Public Trust Office are audited by the Auditor-General.

In addition to functions under the Public Trustee Act the Public Trustee administers the funds of the Destitute Children's Asylum, the Matraville Soldier's Settlement, and the sale of land under the Local Government Act for the non-payment of rates. The Public Trustee has also the responsibility of administering the National Relief Fund of New South Wales.

The following is a summary of the transactions of the Public Trust office during the last five years. Operations in respect of the Dacey Garden Suburb and the National Relief Fund are not included.

TABLE 243.—Public Trust Office—Transactions, 1934 to 1938.

Particulars.	Year ended 30th June.				
	1934.	1935.	1936.	1937.	1938.
Estates received for Administration ... ..	1,902	2,014	2,208	2,063	2,073
	£	£	£	£	£
Amount Received* ... ..	1,138,954	1,132,587	1,281,821	1,504,787	1,571,901
Amount Paid* ... ..	1,128,903	1,056,953	1,287,701	1,483,962	1,477,608
Commission and Fees† ... ..	43,906	48,548	49,710	57,272	68,079
Office Administration ... ..	38,605	41,290	44,961	56,494	62,656
Unclaimed Money—					
Paid into Treasury ... ..	18,626	11,416	19,399	7,246	9,757
Subsequently Claimed... ..	2,779	1,117	1,267	2,909	902
Values of Estates in active Administration ... ..	7,222,825	7,044,965	6,612,093	6,768,070	6,749,730

\* Trust Moneys.

† Office Revenue.

The cost of the administration of the Public Trust Office amounted to £62,656 in 1937-38.

#### REGISTRATION OF LEGAL DOCUMENTS, ETC.

The Registrar-General in New South Wales registers certain occurrences and transactions of special legal significance as prescribed by Act of Parliament. Registrations are made of births, deaths, and marriages; deeds, titles to land, transfers, land leases; mortgages and liens; companies and firms, and documents under the Real Property Act; bills of sale; and instruments under the Newspapers and Printing and certain other Acts; also business names required to be registered under the Business Names Act, 1934.

The documents relating to registration are usually available for inspection by the public. Fees are charged in most cases for registration and for inspection. The amount collected as fees for registration, inspection, and searches, and for public documents sold by the Registrar-General during 1938 was £215,961, of which £147,598 was collected by the Land Titles Branch, and £59,976 by the Deeds Branch.

#### COURTS OF FEDERAL JURISDICTION.

By the Commonwealth Judiciary Act, 1903-1937, jurisdiction under federal laws is vested in the courts of the States within the limits of their several jurisdictions, as to locality, subject-matter, etc. Justices of

the Peace, however, are excluded from exercising federal jurisdiction. Certain Acts (*e.g.*, the Postal Act and Customs Act) also confer jurisdiction in special cases on State Courts. Bankruptcy jurisdiction under federal legislation is conferred on the Supreme Court of New South Wales. A Federal Court of Bankruptcy was constituted in 1928.

There are two Commonwealth courts which possess certain jurisdiction, exclusive of State courts, *viz.*, the High Court of Australia and the Commonwealth Court of Conciliation and Arbitration. An account of the latter court is given in the chapter of this volume entitled "Industrial Arbitration."

The High Court of Australia was established in 1903, and consists of a Chief Justice and five puisne justices. Its principal seat is at the seat of Government, but sittings are held in the various States, and district registrars are appointed as required. The jurisdiction of the Court, which may be exercised in the first instance by one judge, is exclusive with regard to suits between States or any State and the Commonwealth, matters arising directly under a treaty, or writs of mandamus or prohibition against a federal officer or court. The High Court is constituted also as a Court of Appeal for Australia.

The Federal Court of Bankruptcy consists of one or two Judges appointed by the Governor-General by Commission.

#### BANKRUPTCY.

Bankruptcy law and procedure in New South Wales were virtually codified by a consolidating Act, passed in 1898. The State law has been superseded by the Commonwealth Bankruptcy Act, 1924-1933, which came into force on 1st August, 1928, and the State Act applies only to proceedings prior to and pending at 1st August, 1928.

Under the present bankruptcy law any person unable to pay his debts, provided the aggregate amount of indebtedness exceeds £50, may voluntarily file his petition in the Court of Bankruptcy for the sequestration of his estate, or his creditors may apply for a compulsory sequestration, or the debtor may surrender his estate under parts XI or XII of the said Act. Provision is made for the postponement and payment by instalments of fees payable by a debtor on filing his own petition for relief against creditors pressing him in case of hardship. Upon the issue of an order for sequestration the property of the bankrupt vests in the official receiver named in the order, and no creditor has any remedy against the property or person of the bankrupt except by appeal to the Court. After sequestration of his estate a bankrupt may compound with his creditors or enter into a scheme of arrangement, if approved by the Court.

An Inspector-General in Bankruptcy has been appointed under the Commonwealth Act. The bankruptcy jurisdiction in New South Wales and the Australian Capital Territory, which form one of the federal bankruptcy districts, is vested in the Federal Court of Bankruptcy and the State Supreme Court.

The Court has power to decide question of priorities and other questions of law affecting a bankrupt estate. Questions of facts may be tried before a jury.

The Registrar in Bankruptcy has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and he exercises powers of an administrative nature, delegated by the Court. He may hear debtors' petitions, make full examination of bankrupts or of persons suspected to be indebted to a bankrupt, make sequestration orders, and

grant orders of discharge where the applications are not opposed. Stipendiary and police magistrates are appointed deputy registrars in country districts.

The duties of an Official Receiver have relation to the conduct of the debtor and to the realisation and administration of his estate; he acts under the general authority of the Attorney-General, and is controlled by the Court. The receiverships of particular estates are distributed by the Court. During 1934 a permanent officer of the Commonwealth Public Service was appointed Official Receiver, and all sequestrated estates are now vested in him. Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates.

Particulars of the operations in New South Wales under the Bankruptcy Act of the Commonwealth are shown in the chapter of this Year Book relating to Private Finance.

#### REGISTRATION OF PATENTS, COPYRIGHTS, TRADE MARKS, AND DESIGNS.

The registration of patents, trade marks, designs and copyrights devolves upon the federal authorities. Patents are granted under the Commonwealth Patents Act, 1903-1935, in respect of the Commonwealth of Australia, Norfolk Island and the territories of Papua and New Guinea. The term of a patent is sixteen years, subject to the payment of renewal fees, the first being due before the expiration of the fifth year of the patent and the remainder annually thereafter.

Under the Trade Marks Act, 1905-1936, a trade mark is registered for a period of fourteen years, but may be renewed from time to time on payment of the prescribed fee and on proof of substantial use during the period of registration.

Under the Designs Act, 1906-1934, the registration of a design subsists for a period of five years, and may be extended for two further terms of five years each.

It is provided in the respective Acts that application may be made to the High Court or the Supreme Court for the revocation of a patent, rectification of the register of trade marks, and the cancellation of the registration of a design.

Copyright in a literary, dramatic, musical or artistic work or the performing right in a musical or dramatic work extends for the life of the author and fifty years after his death. The British Copyright Act, subject to certain modifications, is in force under the Copyright Act, 1912-1935.

#### EXTRA TERRITORIAL SERVICE AND EXECUTION—FUGITIVE OFFENDERS.

By the Service and Execution of Process Act of the Commonwealth, civil process commenced in any State of the Commonwealth may be served in any other, and judgment obtained in any State may be enforced in any other. In criminal proceedings, warrants issued in one State and endorsed in another may be duly executed in the latter State and the fugitive surrendered.

Special arrangements governing these matters as between different parts of the British Empire are made in terms of an Imperial Act.

Extradition to foreign countries is governed by Imperial Acts, or local Acts in pursuance of treaties concluded with the countries concerned by the Imperial Government though since 1930 the right of the Australian Government to enter into such treaties on its own account subject to certain conditions has been conceded.

## POLICE.

THE police force of New South Wales is organised under the Police Regulation Act of 1899 and amendments. The Commissioner of Police, under direction of the Chief Secretary, is charged with the superintendence of police, and is responsible for the organisation, discipline, and efficiency of the force. The Commissioner of Police may be removed from office for incompetence or misbehaviour by resolution of both Houses of Parliament, and he must retire on attaining the age of 65 years. Superintendents and inspectors of police are appointed by the Governor as subordinates of the Commissioner. Sergeants and constables are appointed by the Commissioner, but such appointments may be disallowed by the Governor.

No person may be appointed constable unless he is of sound constitution, able-bodied, under the age of 30 years, of good character, and able to read and write. In practice, however, persons over 27 years of age are not considered to be eligible, and preference is given to young men between 20 and 24 years of age. A high physical standard is required of recruits. Any person who has been convicted of a felony, is in other employment, or keeps a house for the sale of liquor may not act as an officer of police.

Youths between 16 and 19 years of age may be appointed as police cadets and a comprehensive course of training is provided for them. At 31st December, 1938, there were 99 cadets in training.

The Police Department controls a wireless station and an auxiliary receiving station; also a radio telephony system is in operation for communication with patrols throughout a wide area.

Pension and gratuity rights accrue to officers who retire by reason of medical unfitness for duty, or on or after attaining the age of 60 years. Where an officer is disabled or killed in the execution of his duty, a special allowance not exceeding his salary at the time of disablement may be paid to him or his dependants. Particulars of the pension fund are shown in the chapter entitled "Social Condition."

The primary duties of the police are to prevent crime, to detect offenders and to bring them to justice, to protect life and property, to enforce the law, and to maintain peace and good order throughout the State. In addition, they perform many duties in the service of the State, *e.g.*, they act as clerks of petty sessions in small centres, as Crown land bailiffs, foresters, mining wardens, inspectors under the Fisheries and other Acts, and they collect a large volume of statistical returns. In the metropolitan area and Newcastle the police regulate the street traffic. Their work in connection with motor transport is described in the chapter relating to motor and other licensed vehicles.

The State is divided into seven superintendents' districts containing 522 police stations. The strength of the police force, including police women, cadets, trackers, etc., was 3,817 at 31st December, 1938. A classification is shown below.

TABLE 244.—Police, Classification at 31st December, 1938.

Classification.	Commissioner and Superintendents.	In-spectors.	Ser-geants.	Con-stables.	Other.	Total.
General ... ..	16	65	619	2,293	...	2,993
Criminal Investigation Branch. ... ..	1	4	35	116	...	156
Others on detective work ... ..	...	...	45	157	...	202
Traffic ... ..	1	2	22	285	...	310
Water ... ..	...	...	4	20	...	24
Trainees ... ..	...	...	...	...	7	7
Total of Foregoing ... ..	18	71	725	2,871	7	3,692
Cadets ... ..	...	...	...	...	99	99
Special Constables ... ..	...	...	...	2	...	2
Police Women ... ..	...	...	1	7	...	8
Matrons ... ..	...	...	...	...	4	4
Trackers ... ..	...	...	...	...	12	12
Total ... ..	18	71	726	2,880	122	3,817

The following statement shows for various years since 1901 the strength of the police establishment (exclusive of cadets, special constables, police women, matrons and trackers) in relation to the population:—

TABLE 245.—Police Force in relation to Population, 1901 to 1938.

Year.	Number of Police.*	Inhabitants to each Policeman.	Year.	Number of Police.*	Inhabitants to each Policeman.
1901	2,172	634	1934	3,534	746
1911	2,487	684	1935	3,510	757
1921	2,734	779	1936	3,614	742
1931	3,646	704	1937	3,713	730
1932	3,582	724	1938	3,692	741
1933	3,562	734			

\* Exclusive of Cadets, Special Constables, Police Women, Matrons and Trackers.

The strength of the police force has been increased by about 1,200 men since 1921 and there is on the average about one police officer in New South Wales to every 741 inhabitants. During the interval since 1921 there has been a considerable growth in the volume of administrative work done by the police apart from any extension of duties arising from the increase in the number of inhabitants. The traffic police numbered 119 and the detective police 46 in 1921, as compared with 310 traffic police and 358 in the criminal investigation branch and on detective work in 1938.

A comparative statement of the annual expenditure of the Police Department is shown below:—

TABLE 246.—Police Department—Annual Expenditure, 1911 to 1938.

Year ended 30th June—	Expenditure.				State Contribution to Superannuation Fund.
	Salaries.	Contingencies.	Total.	Per Head of Population.	
	£	£	£	s. d.	£
1911 ... ..	392,602	99,951	492,553	5 11	24,000
1921 ... ..	833,818	228,283	1,062,101	10 2	80,000
1931 ... ..	1,291,737	302,089	1,593,826	12 6	190,800
1932 ... ..	954,041	261,285	1,215,326	9 6	191,500
1933 ... ..	919,384	260,237	1,179,621	9 1	208,400
1934 ... ..	929,817	253,983	1,183,800	9 1	209,000
1935 ... ..	939,953	253,512	1,193,465	9 1	208,500
1936 ... ..	999,990	266,583	1,266,573	9 6	230,700
1937 ... ..	1,026,914	271,989	1,298,903	9 8	234,930
1938 ... ..	1,096,088	289,663	1,385,751	10 3	219,800

Including the State contribution to the Police Superannuation Fund the cost of the Police Department reached the maximum in 1929-30, viz., £1,816,215 or 14s. 5d. per head of population. There was a steep decline in 1931-32 due mainly to reductions in salaries. Expenditure has increased each year since 1932-33 and it amounted to £1,605,551 or 11s. 10d. per head of population in 1937-38.

## PRISONS.

A PRISON may be established by proclamation of the Governor, at any premises prepared and maintained as a prison at the public expense. A Comptroller-General is appointed by the Governor for the care of prisons and custody of convicted prisoners. Persons in custody not being prisoners under sentence for an indictable offence or adjudication of imprisonment for some offence punishable on summary conviction are held by the Comptroller-General for the Sheriff, as also are prisoners under sentence of death.

All prisons must be visited at least once a week by a magistrate appointed to be "Visiting Justice," who may enter and inspect, and report to the Chief Secretary upon any matter connected with the gaol as often as he deems necessary. Such justice may hear and determine complaints against prisoners and award a term of solitary confinement as punishment. Any judge of the Supreme Court may visit and examine any prison at any time how and when he thinks fit.

At 30th June, 1938, there were 22 gaols in New South Wales. Six were classed as principal gaols, 6 as minor, 5 as special establishments, and 5 as police gaols. The principal gaols were the State Penitentiary for men and the State Reformatory for women—both at Long Bay, Sydney—the Goulburn Reformatory and the gaols at Parramatta, Bathurst, and Maitland. Each of these gaols is used for a particular class of prisoners.

The State Penitentiary, Long Bay, is used for the detention of persons awaiting trial at metropolitan courts. The majority of prisoners convicted in the metropolitan area are lodged in the State Penitentiary in the first instance, the short sentence men being retained and those serving longer periods of imprisonment being drafted to country establishments. Facilities are provided at Long Bay for the observation and treatment of prisoners suffering from mental or physical defects. The State Reformatory is used for female prisoners of all classes. Special treatment is provided for first offenders at the Goulburn Reformatory, and prisoners convicted more than once are imprisoned at Bathurst and Parramatta.

The smaller gaols are used for prisoners undergoing short sentences, and for the detention of those who require special treatment apart from other long-sentence prisoners. The special establishments are the Afforestation Camps at Bombala, Glen Innes, Oberon, and Mannus, and the Emu Plains Prison Farm. At the Prison Farm, prisoners—usually first offenders under 25 years of age—are trained in farm work; at Glen Innes older men are employed on a pine plantation, and similar work is provided at other afforestation camps for prisoners of the several classes. At these establishments the conditions of gaol life are modified with the object of fitting the men to lead useful lives after release, and for this reason the prisoners sent to the camps are selected with discrimination.

The police gaols are used for the detention of persons sentenced in the various districts for periods not exceeding fourteen days, whose removal to the established gaols would involve undue expense in consequence of the shortness of the term of imprisonment.

In the larger gaols the prisoners are classified according to character and previous record, and the principle of restricted association is in operation.

## PRISONERS.

The number of gaol entries during various years since 1901 and the number of prisoners in gaol at the close of each year are shown below. The figures are exclusive of persons detained under the Inebriates Act:—

TABLE 247.—Prisons—Numbers of Prisoners, 1901 to 1938.

Year ended 30th June.	Number of Gaol Entries during Year.	Prisoners under Sentence.							
		Received during Year.				In Prison at end of Year.			
		Males.	Females.	Total.	Per 1,000 of Population	Males.	Females.	Total.	Per 10,000 of Population.
1901*	14,361	8,899	2,941	11,840	8.6	1,605	207	1,812	12.3
1911*	9,532	6,086	1,347	7,433	4.5	1,134	115	1,249	6.9
1921*	8,817	5,541	1,073	6,614	3.1	1,272	97	1,369	6.0
1930	11,271	7,378	1,286	8,664	3.4	1,749	94	1,843	7.3
1931	12,731	8,563	1,264	10,127	4.0	1,628	63	1,691	6.6
1932	13,504	9,644	1,241	10,885	4.2	1,596	52	1,648	6.4
1933	14,556	10,693	1,303	11,996	4.6	1,683	92	1,775	6.8
1934	13,527	9,868	1,094	10,962	4.2	1,448	67	1,515	5.8
1935	11,772	8,628	828	9,456	3.6	1,351	47	1,398	5.3
1936	11,786	8,639	1,012	9,651	3.6	1,284	46	1,330	5.0
1937	9,943	7,315	917	8,232	3.1	1,137	46	1,183	4.4
1938	9,976	7,276	860	8,136	3.0	1,137	39	1,176	4.3

\* Calendar Year.

The number of gaol entries shown in the table includes convicted persons, persons awaiting trial, debtors, naval and military offenders, and persons on remand, some of whom were received and counted several times.

The number of persons received into prison under sentence in 1937-38 counted once each time received, was 8,136, viz., males 7,276 and females 860, showing decreases of 39 males and 57 females in comparison with the preceding year. The number of prisoners received into gaol under sentence per 1,000 of the population was 3.0 in 1937-38 as compared with 8.6 in 1901, 4.5 in 1911, and 3.1 in 1921. During the last ten years the proportion was greatest in 1932-33 when the total number of prisoners received under sentence was 11,996 and the ratio 4.6 per 1,000 of the population.

The number of distinct persons received into gaol under sentence in 1937-38 was 6,874, of whom 625 were women. The number was greater by 24 than in the preceding year when distinct persons received numbered 6,850, of whom 522 were females.

Particulars of the sentences imposed on prisoners received into gaol during each of the last two years are as follows:—

TABLE 248.—Prisoners—Sentences, 1936-37 and 1937-38.

Sentences.	1936-37.	1937-38.
Not exceeding one week ... ..	4,039	4,126
Over one week and not exceeding one month ... ..	1,992	1,820
Over one month and not exceeding six months ... ..	1,189	1,188
Over six months and not exceeding one year ... ..	277	266
Over one year and not exceeding two years ... ..	219	199
Over two years and not exceeding five years ... ..	70	60
Over five years and not exceeding ten years ... ..	4	10
Over ten years ... ..	1	2
Governor's pleasure ... ..	...	...
Life ... ..	3	1
Death ... ..	1	6
Term not specified ... ..	437	458
Total ... ..	8,232	8,136



The sentences imposed on 71 per cent. of the male prisoners, and on 91 per cent. of the females received during 1937-38 did not exceed one month. Of the total number committed to gaol, 92 per cent. were received from police courts and 583 or 8 per cent. from the higher courts. The number of persons committed to prison in default of payment of fines imposed was 5,251.

The daily average number of prisoners under sentence during the year ended 30th June, 1938, was 1,272, of whom 44 were females.

The prisoners remaining in gaol under sentence on 30th June, 1938, numbered 1,176, including 69 serving life sentences, and 66 who had been declared habitual criminals and sentenced for an indefinite period. There are 7 habitual criminals in mental hospitals, who are not included in prison figures.

Capital punishment may be inflicted in New South Wales, but executions are unusual. Since the beginning of the year 1918 there have been six executions—two in 1924, one in 1932-33, two in 1935-36, and one in 1937-38.

The system of indeterminate sentences was introduced in terms of the Habitual Criminals Act, 1905, which empowers a judge to declare as an habitual criminal any person convicted for the third or, in some cases, the fourth time of certain criminal offences, as specified in the Act. The declarations were made only in the case of convictions on indictment until the Act was amended in 1924 to extend the system to persistent offenders, who are convicted summarily. In such cases a stipendiary or police magistrate may direct that an application be forwarded to a Judge of the Supreme Court or a Court of Quarter Sessions to have the prisoner declared an habitual criminal.

The habitual criminal serves the definite sentence imposed for the offence of which he has been convicted, then he is detained for an indefinite term, until he is deemed fit for freedom. The indeterminate stage is divided into three grades—intermediate, higher, and special. A minimum period of 4 years 8 months must be spent in the lower grades before the prisoner can gain admission to the special grade, wherein cases may be brought under consideration with a view to release on license. After release he is required to report to the authorities at stated intervals during a period specified in the license.

The cases of all habitual criminals are considered at quarterly intervals by a consultative committee appointed for that purpose and the case of each such prisoner is brought annually under the notice of the Minister of Justice.

The Habitual Criminals Act prescribes that while under detention as an habitual criminal every prisoner must work at some useful trade, and receive a share of the proceeds of his work. As the majority of these persons have not been trained in any branch of skilled labour, facilities are afforded them, while serving the definite term, to acquire training in some remunerative employment.

Fifty-two men and one woman were declared habitual criminals during the year ended 30th June, 1938. At 30th June, 1938, there were under detention 41 men who had not yet completed the definite period of their sentence, and 66 who had passed into the indeterminate stage.

Among the special classes of prisoners are those known as "maintenance confinees," who have been imprisoned for disobeying orders of the courts for the maintenance of their wives and children. Such prisoners are required to work, and the value of the work, after deducting the cost of the prisoner's keep, is applied towards the satisfaction of the orders for maintenance, etc.

During 1937-38, the number of maintenance confinees received into gaol was 330, as compared with 343 during the year 1936-37. Gaol earnings to the amount of £1,249 were paid to dependants of confinees. Seventy-six confinees paid the amount of their orders from gaol earnings and 66 partly from gaol earnings. The number in gaol on 30th June, 1938, was 52.

#### *Conduct of Prisoners.*

The conduct of prisoners during 1937-38 was satisfactory; 122 were punished, representing approximately 1 per cent. of the total. Of the 238 offences committed, 7 were assaults on officers and 10 assaults on prisoners.

#### *Sickness and Mortality in Gaols.*

The medical statistics of prisons show that, with an average daily number of 1,272 inmates during 1937-38, the total number of cases of sickness treated in hospital was 687. Six prisoners died, and 16 were released on medical grounds. The death rate was 4.4 per 1,000 of the average number of inmates.

Particulars relating to cases of venereal diseases amongst prisoners and those detained in lock hospitals are shown in the chapter entitled "Social Condition."

#### *Industrial Activity in Prison Establishments.*

It is an accepted principle that useful employment is one of the most potent factors in promoting discipline and good conduct in the gaols and in reforming those who have lapsed into crime. Therefore employment at industries calculated to inspire interest, to encourage some degree of skill, and subsequently to prove remunerative, is provided under the supervision of competent instructors. The principal activities are farming, gardening, bread-baking, the manufacture of clothing, furniture, matting, etc., and the scope for employment in skilled trades is being extended steadily. Prisoners may receive payment for work in excess of a fixed task.

In 1937-38 the value of prisoners' labour of a productive nature, excluding domestic employment, amounted to £50,025, compared with £56,313 in the previous year.

#### BIRTHPLACES, RELIGIONS, AND EDUCATION OF PRISONERS.

Of the prisoners under sentence on 30th June, 1938, 66 per cent. were natives of New South Wales, 18 per cent. were from other States of the Commonwealth, 11 per cent. came from the British Isles and the remainder were chiefly Europeans.

The distribution of prisoners serving sentences at 30th June, 1938, according to birth-place and religion, was as follows:—

TABLE 249.—Prisoners—Birthplaces and Religions, 1937-38.

Birthplace.	Males.			Females.			Total.		
	Males.	Females.	Total.	Religion.	Males.	Females.	Total.		
New South Wales ...	746	28	774	Church of England	421	15	436		
Other Australian States	199	7	206	Roman Catholic .	403	19	422		
New Zealand ...	23	2	25	Methodist ...	53	1	54		
England and Wales ...	74	..	74	Presbyterian ...	56	3	59		
Scotland ...	33	..	33	Other Christian ..	55	..	55		
Ireland ...	16	1	17	Non-Christian ...	11	1	12		
Other British ...	14	..	14	No religion ...	138	..	138		
Foreign Countries ...	31	1	32	Total ...	1,137	39	1,176		
At Sea ...	1	..	1						
Total ..	1,137	39	1,176						

Nine prisoners were illiterate, and four could read and write in a foreign language only.

### REMISSION OF SENTENCES.

#### *First Offenders.*

Special provision is made by the Crimes Act, 1900, and its amendments, for lenience towards any person convicted of a minor offence and sentenced to imprisonment, provided such person has not been convicted previously of an indictable offence. The term "minor offence" includes offences punishable summarily, and any other offence to which the court applies these provisions of the Act. In such cases the execution of the sentences is suspended upon the defendant entering into recognizance to be of good behaviour for a fixed period, which may not be less than twelve months. Such persons are required to undergo an examination to facilitate future identification and to report periodically to the police. During the period of probation they may be arrested and committed to prison for the term of sentence imposed for any breach of the conditions of their release.

The hearing of charges against female first offenders except cases of larceny in retail shops, must be in private unless the defendant elects to be heard in open court, and reports of such cases may not be published.

The following table shows particulars concerning persons released as first offenders in the various years since 1901; cases of children released on probation by the Children's Courts are not included.

TABLE 250.—First Offenders released on Probation, 1901 to 1938.

Year.	First Offenders Released on Probation.			Year. ended 30th June.	First Offenders Released on Probation		
	By Higher Courts.	By Magistrates Courts.	Total.		By Higher Courts.	By Magistrates Courts.	Total.
1901	156	23	179	1934	4	338	342
1911	220	61	281	1935	...	407	407
1921	246	395	641	1936	1	342	343
1931*	1	703	704	1937	...	423	423
1932*	9	464	473	1938	1	571	572
1933*	4	434	438				

\* Year ended 30th June.

#### *Prisoners released on Probation.*

By good conduct and industry certain classes of prisoners may gain the remission of part of their sentences. They are released on license on terms similar to those applied to first offenders as described above.

The licenses operate for the unexpired portion of the sentence, and a breach of the conditions of release may be punished by the cancellation of the license, and recommittal to gaol for the balance of the sentence. Licenses under the Crimes Act were granted to 129 men and 5 women during the year ended 30th June, 1938.

## COST OF ADMINISTRATION OF JUSTICE.

The following table shows the amount expended by the State in the administration of justice, in the protection of property, and in the punishment of criminals, in New South Wales during 1920-21 and 1930-31, and in each of the last three years; also the amount of fines and fees, and net returns from prisoners' labour paid into the Consolidated Revenue.

TABLE 251.—Cost of Administration of Justice, 1921 to 1938.

Expenditure and Revenue.	1920-21.	1930-31.	1935-36.	1936-37.	1937-38.
Expenditure—					
Law Administration—	£	£	£	£	£
Salaries, Pensions, etc., of Judges	59,106	63,903	67,713	80,021	80,319
Other ... ..	288,742	380,919	365,429	371,093	420,255
	347,848	444,822	433,142	451,114	500,574
Police—					
Administration, etc. ... ..	1,062,201	1,593,826	1,250,631	1,263,079	1,385,751
Payments to Pension Fund ... ..	80,000	190,800	230,700	234,930	219,800
	1,142,201	1,784,626	1,481,331	1,498,009	1,605,551
Prisons .. ..	126,122*	215,809	178,445	180,581	193,069
Total Expenditure ... ..	1,616,171	2,445,257	2,092,918	2,129,704	2,299,194
Revenue—					
Fees ... ..	100,188	210,418	192,361	206,059	222,999
Fines and Forfeitures ... ..	45,303	62,503	86,189	73,133	68,907
Receipts by Prisons Department	212	15,029	8,047	8,176	8,465
Total Revenue ... ..	145,703	287,950	286,597	287,368	300,371
Net Cost ... ..	1,470,468	2,157,307	1,806,321	1,842,336	1,998,823
Expenditure per Head of Mean Population—	s. d.	s. d.	s. d.	s. d.	s. d.
Law Administration ... ..	3 4	3 7	3 3	3 5	3 8
Police ... ..	10 11	14 3	11 2	11 2	11 10
Prisons ... ..	1 2	1 9	1 4	1 4	1 5
Total Expenditure ... ..	15 5	19 7	15 9	15 11	16 11
Revenue ... ..	1 5	2 4	2 2	2 2	2 2
Net Cost ... ..	14 0	17 3	13 7	13 9	14 9

\* Calendar year preceding

The expenditure on law administration includes the salaries, etc., of judges, and the expenditure of the Departments of the Attorney-General and of Justice, except the expenditure on prisons, which is shown separately, and on sub-departments not directly concerned in the administration of the law, and certain other expenses.

The expenditure by the Police Department shown above is not absorbed solely by police services proper, since the members of the police force perform extensive administrative services for other Departments of State.

The receipts of the Prisons Department as stated in the table do not include the value of work done by the prisoners for the prisons and Government departments.

## PUBLIC FINANCE.

The collection and expenditure of public moneys in New South Wales are controlled by four authorities, viz.:—(1) The Government of the State of New South Wales; (2) the Government of the Commonwealth of Australia; (3) the Municipal, Shire, and County Councils (local governing bodies operating in defined areas); and (4) statutory bodies appointed by the Government to administer such public services as railways, tramways, water and sewerage, Sydney harbour, irrigation, and main roads.

The governmental revenue of the State Government is derived mainly from taxes—such as income and wages taxes, stamp and probate duties, betting and entertainment taxes; the State lottery and fees for licenses; from the sale and leasing of its lands and forests; and an annual contribution by the Commonwealth under the financial agreement of 1927. The expenditure of the State on governmental account includes the cost of such services as education, public health, hospitals, police, prisons, the law of the State, industrial tribunals, navigation (in part), agriculture and lands administration, water conservation and irrigation, local government (administration and grants), social aid, administration of mining, fisheries, and factory laws, and the development and maintenance of the resources of the State, also public debt charges (in so far as they are not borne by State undertakings).

The governmental revenue of the Commonwealth Government is derived mainly from the customs and excise and primage duties, sales tax, income tax, land tax, and estate duty. Its expenditure is mainly in connection with defence and repatriation services, old age and invalid pensions, maternity allowances, lighthouses, navigation (in part), quarantine, bounties on production, the control of customs, meteorological services, Federal industrial tribunals, financial assistance to the States, and public debt charges.

Local governing bodies are required to levy a general rate of not less than 1d. in the £1 on the unimproved capital value of lands within the areas administered by them, and, in some cases, they are empowered also to levy rates on the improved capital value. They provide minor services to meet local needs, such as the construction, maintenance, and lighting of streets and roads, the control and maintenance of public parks and recreation areas, the supervision of building operations, and, in some cases, the provision of water, sanitary, electricity, and gas services. In general the cost of these services is defrayed from the rates but charges are imposed for special services rendered. In some instances loans are raised for expenditure on revenue services and are repaid by special or increased general rates in the area concerned.

The revenue of the statutory bodies administering railways, tramways, Sydney harbour works, etc., is derived almost entirely from charges for the use of services which they administer, and all are ultimately subject to the control of the Government. Revenue by way of motor taxes is used for the most part by the Main Roads Department on the construction and maintenance of roads throughout the State.

State and Federal Governments each have power to raise loans on their own security subject to approval by the Australian Loan Council of the amounts and conditions. The constitution of the sinking fund and the management of the public debt are regulated by the Financial Agreement between the Commonwealth and States, which is described on page 367 hereof. Municipalities, county councils, shires, and the Metropolitan Water, Sewerage and Drainage Board have power to raise loans under certain conditions, and similar power was extended to the Hunter District and

Broken Hill Water Boards during 1938. Such loans are subject to the approval of the Governor and (if in excess of £100,000) of the Australian Loan Council.

## TAXATION.

The following statement shows the amount of taxation collected in New South Wales by the State Government, and the rates and charges received by local bodies, etc., during the five years ended 30th June, 1938.

TABLE 252.—State and Local Taxation.

Head of Taxation, or Charge.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
STATE.					
	£	£	£	£	£
Income Tax ... ..	2,808,851	3,146,495	4,088,164	5,186,972	6,367,046
Unemployment Relief Tax ...	2,197,583	171,295	...	...	...
Special Income Tax ... ..	1,477,300	1,971,292	2,826,210	3,242,336	3,559,681
Wages Tax ... ..	1,573,404	3,120,034	3,264,082	3,559,553	3,389,603
Family Endowment Tax ...	998,914	37,778	71,132	24,523	13,671
Land Tax ... ..	2,199	2,461	2,034	2,221	2,237
Stamp and Probate Duties—					
Stamps ... ..	1,013,604	1,047,844	1,141,305	1,264,646	1,368,919
Betting Tickets ... ..	32,254	36,200	46,807	52,183	52,474
Probate ... ..	1,542,475	1,693,966	1,673,805	2,081,548	2,233,144
Betting Taxes ... ..	180,781	183,945	214,833	230,031	196,392
Totalisator Tax ... ..	110,567	119,790	115,611	114,720	97,082
Greyhound Racing Clubs Tax	...	...	...	...	5,816
Racecourses Admission Tax ..	78,780	82,016	87,787	88,000	48,933
Entertainments Tax ... ..	56,997	69,226	82,986	91,265	120,881
Fees for Registration of Dogs..	21,305	22,576	24,457	26,455	25,780
Other Licenses ... ..	333,090	351,188	386,441	407,368	436,112
Total Governmental Taxation £	12,428,104	12,056,106	14,125,654	16,371,821	17,917,771
Motor Tax, Licenses, etc.*—					
Motor Tax ... ..	1,301,109	1,433,232	1,596,227	1,750,886	1,925,772
Motor Licenses ... ..	411,643	435,791	473,701	514,142	561,132
Motor Fees (Transport Act, 1930) ... ..	18,346	18,519	20,405	22,195	23,198
Motor Fees (Transport Co- ordination Act, 1931) ...	15,597	18,166	20,758	24,349	26,271
Motor Charges (Transport Co-ordination Act, 1931)..	24,133	28,957	52,977	42,977	50,438
Total Motor Taxation etc.	1,770,828	1,934,665	2,164,068	2,354,549	2,586,811
Total, State Taxation £	14,198,932	13,990,771	16,289,722	18,726,370	20,504,582
LOCAL, ETC.					
Wharfage and Tonnage Rates	727,585	842,609	921,389	987,356	1,086,845
Municipal Rates†—					
City of Sydney ... ..	1,020,439	985,912	983,451	958,329	1,000,608
Suburban and Country ...	3,110,365	3,058,801	3,045,309	3,119,213	3,168,487
Shire Rates† ... ..	1,264,824	1,281,434	1,294,426	1,330,420	1,380,937
Water and Sewerage Rates etc.	2,699,801	2,672,492	2,773,341	2,915,269	3,110,200
Total, Local Rates and Charges ... ..	£ 8,823,014	8,841,248	9,017,916	9,310,587	9,747,077
Grand Total ... ..	£ 23,021,946	22,832,019	25,307,638	28,036,957	30,251,659

\* Most of the motor taxation is credited to the Main Roads Dept. and not included as governmental revenue. (See page 332.)

† Year ended 31st December preceding; Harbour Bridge and Main Roads rates are included.

The amount of Federal Taxation which is borne by the people of New South Wales cannot be determined definitely. The amount of customs and excise revenue collected in the State is shown in the chapter "Commerce" of this Year Book, but some of these taxes relate to goods consumed in other States. Federal land and income taxes paid by persons owning property and deriving income in more than one State are included in assessments made by the Central Office, and cannot be allocated to the individual States except arbitrarily. The average amount of Federal taxation per head of population in the Commonwealth was £8 9s. 6d. in 1933-34, £8 15s. 4d. in 1934-35, £9 8s. 6d. in 1935-36, £9 4s. 6d. in 1936-37, and £10 1s. 2d. in 1937-38.

*Taxation per Head of Population.*

The amounts stated in Table 252 are shown below at their equivalent rates per head of population:—

TABLE 253.—State and Local Taxation per Head of Population.

Head of Taxation, or Charge.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
<b>STATE.</b>					
Income Tax ... ..	£ 1 1 6	£ 1 3 11	£ 1 10 9	£ 1 18 9	£ 2 7 1
Unemployment Relief Tax ... ..	0 16 10	0 1 4	...	...	...
Special Income Tax ... ..	0 11 4	0 15 0	1 1 4	1 4 2	1 6 3
Wages Tax ... ..	0 12 0	1 3 8	1 5 4	1 6 7	1 5 0
Family Endowment Tax ... ..	0 7 8	0 0 3	0 0 6	0 0 2	0 0 1
Land Tax ... ..	...	...	...	...	...
Stamp and Probate Duties—					
Stamps ... ..	0 7 9	0 8 0	0 8 7	0 9 5	0 10 1
Betting Tickets ... ..	0 0 3	0 0 3	0 0 4	0 0 5	0 0 5
Probate ... ..	0 11 10	0 12 10	0 12 7	0 15 6	0 16 6
Betting Taxes ... ..	0 1 5	0 1 5	0 1 7	0 1 9	0 1 5
Totalisator Tax ... ..	0 0 10	0 0 11	0 0 11	0 0 10	0 0 9
Racecourses Admission Tax ... ..	0 0 7	0 0 7	0 0 8	0 0 8	0 0 4
Entertainments Tax ... ..	0 0 5	0 0 6	0 0 8	0 0 8	0 0 11
Fees for Registration of Dogs ... ..	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2
Other Licenses ... ..	0 2 6	0 2 8	0 2 11	0 3 1	0 3 3
<b>Total Governmental Taxation..</b>	<b>4 15 1</b>	<b>4 11 6</b>	<b>5 6 4</b>	<b>6 2 2</b>	<b>6 12 3</b>
<b>Motor Tax Licenses etc.</b>					
Motor Tax ... ..	0 10 0	0 10 11	0 12 0	0 13 1	0 14 3
Motor Licenses ... ..	0 3 2	0 3 4	0 3 7	0 3 10	0 4 2
Motor Fees (Transport Act, 1930) ... ..	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2
Motor Fees (Transport Co-ordination Act, 1931) ... ..	0 0 1	0 0 2	0 0 2	0 0 2	0 0 2
Motor Charges (Transport Co-ordination Act, 1931) ... ..	0 0 2	0 0 3	0 0 5	0 0 4	0 0 4
<b>Total, Motor Tax, etc. ...</b>	<b>0 13 7</b>	<b>0 14 10</b>	<b>0 16 4</b>	<b>0 17 7</b>	<b>0 19 1</b>
<b>Total State Taxation ... ..</b>	<b>5 8 8</b>	<b>5 6 4</b>	<b>6 2 8</b>	<b>6 19 9</b>	<b>7 11 4</b>
<b>LOCAL, ETC.</b>					
Wharfage and Tonnage Rates ... ..	0 5 7	0 6 5	0 6 11	0 7 4	0 8 0
Municipal Rates*—					
City of Sydney ... ..	0 7 10	0 7 6	0 7 5	0 7 2	0 7 5
Suburban and Country ... ..	1 3 10	1 3 3	1 2 11	1 3 3	1 3 5
Shire Rates* ... ..	0 9 8	0 9 9	0 9 9	0 9 11	0 10 2
Water and Sewerage Rates etc.	1 0 7	1 0 3	1 0 10	1 1 9	1 3 0
<b>Total, Local Rates and Charges</b>	<b>3 7 6</b>	<b>3 7 2</b>	<b>3 7 10</b>	<b>3 9 5</b>	<b>3 12 0</b>
<b>Total, State and Local Taxation</b>	<b>8 16 2</b>	<b>8 13 6</b>	<b>9 10 6</b>	<b>10 9 2</b>	<b>11 3 4</b>

\* See footnote † to table 252.

## STATE TAXES.

*State Land Tax.*

State land tax is levied only on the unincorporated districts of the Western Division where local rates are not imposed. The rate of tax is 1d. in the £ on the unimproved value. For the purpose of assessment a statutory deduction of £240 is made from the assessed value of the lands held by each individual. The amount of land tax collected in the year ended 30th June, 1938, was £2,237.

*State Income Tax.*

Income tax was first levied in New South Wales as from 1st January, 1896, and it has been levied in each subsequent year, though the incidence of the tax has been changed from time to time. Incomes are assessed for taxation in the year following that in which they are derived, the returns for assessment being made up for the twelve months ended 30th June or such other date as is approved by the Commissioner.

The income tax law was revised in 1928 by an Act which applies to the taxation of incomes derived in 1927-28 to 1934-35 inclusive. There was further revision in 1936 following an investigation by a Royal Commission on Taxation appointed by the Commonwealth and a committee appointed by the Government of New South Wales. The main object of this revision was greater uniformity in methods of taxation by the Commonwealth and the various States. The law as revised applies to the taxation of incomes derived in 1935-36 and subsequent years.

*Exemptions.*—The incomes exempt from State income tax include the salary of the Governor-General and of the Governor of this State; the official salaries of the representatives in Australia of the government of other countries, of a foreign consul, a trade commissioner of any part of the British Empire other than Australia and members of their staff temporarily resident in Australia, subject to certain conditions as to reciprocity; the remuneration paid to a person not a resident of Australia for expert advice to the Government or as a member of a Royal Commission; income derived as representative of certain educational, scientific, religious and sporting associations visiting Australia; the revenue of a municipal corporation or other local governing body or public corporation; the income of religious, scientific, charitable or public educational institutions and of trade unions or associations of employers; building societies and rural co-operative societies registered under the Co-operation Act; societies not carried on for the gain of individual members being a friendly society or a society established for the encouragement of music, art, science, or literature, or for the development of aviation, or of the agricultural, pastoral, manufacturing or industrial resources of Australia; incomes of provident and superannuation funds and trust funds for public charitable purposes; pensions paid under the Australian Soldiers' Repatriation Act, income derived from gold-mining in Australia, Papua, or New Guinea; interest on bonds, debentures, stock or other securities issued by the Commonwealth or New South Wales and certain stocks issued by the Rural Bank of New South Wales.

*Assessable Income.*—Any receipt in the nature of income is assessable unless exempted under the Income Tax (Management) Act. A resident of New South Wales is liable to tax upon income derived in New South



Wales and upon certain classes of income derived outside New South Wales, *e.g.*, salaries and wages earned whilst temporarily absent from the State, certain interest and dividends and the profits on the sale of goods, etc., where not taxed in the place of sale. Persons not resident in New South Wales are assessable upon income derived or deemed to be derived in New South Wales.

*Taxable Income*, broadly speaking, is gross income less expenses incurred in earning it and less the concessional deductions and statutory exemption.

*Concessional deductions* allowed to taxpayers (other than companies) domiciled in New South Wales are as follows:—£50 expended by the taxpayer in respect of his wife or one relative, provided in the latter case he expended at least £50 on maintenance (the deduction is not allowed where the wife or relative derived a net income in excess of £100); £50 for each child under the age of 16 years; medical expenses not exceeding £50 and funeral expenses not exceeding £20 for taxpayer, his wife and children under 21 years; dental expenses where the taxable income does not exceed £400; and life assurance premiums, superannuation, payments to friendly societies not exceeding £100 in the aggregate.

Certain other concessional deductions are allowable, *e.g.*, gifts to public bodies such as a hospital or benevolent institution, an authority engaged in research into causes, prevention or cure of disease, a university, library, museum, art gallery, public memorial in New South Wales relating to the Great War, a public fund for benefit of returned soldiers; sums paid or set apart as pensions or retiring allowances for the personal benefit of employees in the taxpayer's business.

The *statutory exemption* allowable in the case of a taxpayer (other than a company) domiciled in New South Wales is £250 less £1 for every £8 by which the income exceeds £250. In the case of a taxpayer other than a company, not domiciled in New South Wales, the exemption is £50 less £1 for every £8 by which the income exceeds £50.

*Concessional deductions* and *statutory exemption* are allowed (other than from income of companies) firstly from personal exertion income and secondly from property income.

*Rate of Tax—Individuals.*—The tax on incomes derived in 1935-36 1936-37 and 1937-38 is assessed according to the scale of rates shown below. The taxable income from personal exertion (formerly charged at a lower rate) is reduced by one-fifth or £900, whichever is the less, and tax is charged on the remainder plus the taxable income from property, if any.

(a) On income not exceeding £5,500.

$$\frac{85}{100} \times \left( 9d. + \frac{\text{Taxable income} \times 3}{500} \right) \text{ pence in the } \pounds.$$

(b) On income exceeding £5,500.

£5,500 at 35.7 pence in £.

Balance at 51 pence in £.

Where income is derived from agricultural or pastoral pursuits, the rate of tax is determined by averaging the whole income over a period of not more than five years.

*Minimum Tax.*—The minimum amount of tax is 10s.

*Companies.*—Tax is levied on the net income of a company. Dividends paid by companies are assessable in the hands of the shareholder. A rebate of tax is allowed of the lesser amount of (a) the tax on the dividends calculated at the rate payable by companies for the year of income, or (b) the amount of additional tax due to the inclusion of dividends in the shareholder's assessment.

*Rates of Tax for Companies.*—Other than life assurance companies, 2s. 3d. in £; mutual life assurance companies, 1s. 6d. in £; non-mutual life assurance companies, 1s. 6d. in £, on the profits of life assurance distributed to shareholders, and 2s. 3d. in the £ on the balance. Interest paid or credited by a company to non-residents on debentures used in New South Wales, or money lodged at interest with the company in the State is taxable at the rate of 1s. 6d. in the £.

The statistics published by the State Income Tax Commissioner since those for assessments made in 1910-11 have been very scanty, but the following statement shows for certain years the data that have been made available:—

TABLE 254.—State Income Tax Annual Assessments 1921 to 1938.

Returns Supplied in year ended 30th June.*	Companies.		Individuals.		Total Amount of Tax Assessed.
	Number Assessed.	Amount of Tax Assessed.	Number Assessed.	Amount of Tax Assessed.	
1921	2,201	£ 2,344,043	68,599	£ 2,472,281	£ 4,816,324
1926	3,338	3,692,863	85,795	2,054,146	5,747,009
1929	4,178	4,972,162	138,289	3,333,290	8,305,452
1930	4,452	4,515,185	142,972	3,087,309	7,602,494
1931	3,851	3,190,958	128,968	2,256,195	5,447,153
1932	2,838	1,970,643	84,728	1,219,525	3,190,168
1933	2,557	1,717,263	66,484	920,269	2,637,532
1934	2,515	1,772,582	59,557	787,044	2,559,626
1935	2,646	2,044,830	64,287	1,028,006	3,072,836
1936	3,549	2,577,356	74,211	1,146,202	3,723,558
1937	4,355	3,129,051	97,801	1,644,852	4,773,903
1938	4,932	3,928,023	109,372	2,173,473	6,101,496

\* The assessments relate to income derived in the previous year ended 30th June.

In considering the variations in the number of assessments and the amount of tax assessed from year to year, due allowance should be made for changes in the rates and incidence of the tax. Particulars for the years 1923-24 to 1927-28, were shown in the Year Book for 1927-28 on page 397. In 1928-29 the taxable field and rates of tax were increased substantially. The rates of tax were reduced by 5 per cent. in 1929-30 and by approximately 10 per cent. in 1932-33.

The following is a summary of assessments actually issued, amounts collected, and carry-over in each of the past four years. The transactions of individual years presented in this way do not relate to the income derived in any individual year, but to the actual time of issuing assessments:—

TABLE 255.—State Income Tax, Collections and Carry-over, 1934 to 1938.

Heading,	Years ended 30th June.				
	1934.	1935.	1936.	1937.	1938.
Tax Assessed—					
Net Tax Assessed and Levied	£ 2,667,137	£ 3,133,377	£ 4,124,984	£ 5,208,788	£ 6,370,320
Miscellaneous Items ... ..	848	3,189	4,140	5,479	1,614
Net Tax unpaid from previous year... ..	1,068,542	893,622	780,357	672,581	651,247
Total Receivable ... ..	3,736,527	4,030,188	4,909,481	5,886,848	7,023,181
Tax Collected—					
Net collections, amounts written off, etc. ... ..	2,842,905	3,249,831	4,236,900	5,235,601	6,407,511
Unpaid Tax carried forward to succeeding year ... ..	£ 893,622	780,357	672,581	651,247	615,670

The amount of unpaid tax, £615,670, as at 30th June, 1938, represented 9.7 per cent. of the net tax assessed and levied during the year 1937-38, and consisted of £260,233, assessed on account of 1936-37, and £355,437 on account of previous years.

The amounts actually collected during each of the five years 1933-34 to 1937-38 are shown in Table 252. The collections during 1937-38, viz., £6,367,046, consisted of £5,818,470 from assessments on the taxable income earned during 1936-37, and £548,576 in respect of tax assessed on income of previous years, and miscellaneous items.

#### *Unemployment Relief Tax.*

The Unemployment Relief Tax, introduced in 1930, was levied on salaries and wages and other income from employment, as from 1st July, 1930, and on income from other sources derived during the year ended 30th June, 1930, and subsequent years. It was replaced by the Wages Tax and the Special Income Tax in December, 1933. The proceeds were paid into the Unemployment Relief Fund, from which expenditure was subject to approval by the Unemployment Relief Council until the fund was merged into the Consolidated Revenue Fund as from 1st July, 1932, and became subject to appropriation by Parliament.

Information as to the incidence and rates of the Unemployment Relief Tax are shown in the 1933-34 issue of the Year Book at page 621.

#### *Wages Tax and Special Income Tax.*

*Wages Tax* is levied on wages, salaries and other income from employment at the source, i.e., it is deducted by the employer from the amount due to the employee and paid by him to the State either directly by cheque (in the case of employers with ten or more taxable employees) or by purchase of stamps (in the case of employers with less than ten employees).

When the tax commenced in December, 1933 exemption was provided where the rate of pay was less than £2 a week. The limit of exemption was raised to £3 per week as from 1st December, 1937, and in the case of

wage earners with dependants to £4 4s. a week as from 1st January, 1939. Tax on wages and salaries at rates higher than the limit of exemption is payable on the full amount of pay without concessional or other deduction, except a tax rebate of 6d. per week for each dependent child under 16 years of age and for the wife of a married taxpayer. This concession was introduced on 1st December, 1937.

The rates of wages tax according to a scale which commenced on 1st December, 1937, are as follow:—

TABLE 256.—Wages Tax Rates.

Wages per week.		Tax.	Wages per week.		Tax.
£ s. d.	£ s. d.	s. d.	£ s. d.	£ s. d.	s. d.
3 0 1	to 3 10 0	0 10	4 16 1	to 4 18 0	2 3
3 10 1	„ 3 15 0	1 1	4 18 1	„ 5 0 0	2 4
3 15 1	„ 3 17 6	1 2	5 0 1	„ 5 2 0	2 7
3 17 7	„ 4 0 0	1 3	5 2 1	„ 5 4 0	2 8
4 0 1	„ 4 2 0	1 6	5 4 1	„ 5 6 0	2 9
4 2 1	„ 4 4 0	1 7	5 6 1	„ 5 10 0	2 10
4 4 1	„ 4 6 0	1 8	5 10 1	„ 5 12 0	2 11
4 6 1	„ 4 8 0	1 9	5 12 1	„ 5 14 0	3 0
4 8 1	„ 4 10 0	1 10	5 14 1	„ 5 16 0	3 1
4 10 1	„ 4 12 0	2 0	5 16 1	„ 6 0 0	3 2
4 12 1	„ 4 14 0	2 1	6 0 1	„ 6 2 0	3 8
4 14 1	„ 4 16 0	2 2			

Thereafter the tax is 1d. for each 2s. or part thereof in each £1 of wages up to £20 per week, except that 1d. is levied on that part of each £ exceeding 10s. but not exceeding 14s.

Where wages exceed £20 per week the rates of tax are as follows:— On the first £2 of wages the tax is 6d. in the £; on the second £2 the tax is 8d. in the £; on the balance the tax is 10d. in the £, or 1d. in each 2s. The tax assessed on these rates is subject to rebate in respect of wife and children as noted above.

*Special Income Tax* levied on income, other than income from employment, is complementary to the wages tax, and is similar in scope and rates, except that it is levied by annual assessment. The tax is levied on net assessable income, i.e., gross income less expenses incurred in earning it. Income derived by residents of New South Wales from sources outside the State (other than wages or income from carrying on a trade or business, not being an investment business) is taxable.

The amount of tax is reduced by 26s. in respect of the wife and each dependent child of the taxpayer. Incomes of residents whose total income from all sources does not exceed £156 are exempt. A further exemption up to £219 a year where taxpayers have dependants (applied to wages tax as from 1st January, 1939) is implemented in respect of 1937-38 income by a rebate of half the special income tax remaining after allowing for any other rebate. As in the case of wages tax, incomes over these limits are taxable on the full amount.

General exemptions from *Special Income Tax* are as follows: The incomes, revenues, and funds exempt from *Income Tax* (see page 322), old age, invalid, war and widows' pensions and allowances under the *Family Endowment and Child Welfare Acts*; Government relief; the wages of crews employed on ships trading between Australia and New

Zealand and on New Zealand articles; the income of life assurance companies other than that appropriated for the payment of dividends; and income from property of a person ordinarily resident in a reciprocating State. At present only Victoria and South Australia reciprocate.

The rates of Special Income Tax payable on income derived during the year 1937-38 are as follows:—

TABLE 257.—Special Income Tax Rates.

Net Assessable Income.	Rate of Tax per £1.		
	1st £100.	2nd £100.	Balance.
Not exceeding £156 ... ..	d. 3	d. ...	d. 3
Over £156 but not over £208 ... ..	4	4	4
Over £208 but not over £260 ... ..	4	6	8
Over £260 but not over £312 ... ..	5	6	8
Over £312 but not over £1,040 ... ..	5	8	9
Over £1,040 ... ..	6	8	10

Where income is derived partly from wages and partly from other sources, the rate is calculated in regard to the total income.

*Companies:* The rate of Special Income Tax payable by Companies is 10d. in the £. A deduction is allowed on account of dividends paid out of assessable income within nine months of the close of the income year to shareholders in New South Wales or on a New South Wales share register.

*Unemployment Relief, Wages & Special Income Tax Collections.*

The following statement shows the amount of Unemployment Relief, Wages, and Special Income Tax collected as deductions from earnings or by annual assessment in each year since 1930-31.

TABLE 258.—Unemployment Relief, Wages and Special Income Taxes, Collections 1931 to 1938.

Year.	Sale of stamps and deductions from earnings.	Assessments on incomes.	Total collections.	Year.	Sale of stamps and deductions from earnings.	Assessments on incomes.	Total collections.
	£	£	£		£	£	£
1930-31 ...	2,720,887	1,654,916	4,375,803	1934-35 ...	3,120,034	2,142,587	5,262,621
1931-32 ...	4,014,399	1,785,120	5,799,519	1935-36 ...	3,364,082	2,826,210	6,190,292
1932-33 ...	3,718,960	2,983,479	6,702,439	1936-37 ...	3,559,553	3,242,336	6,801,889
1933-34 ...	3,165,178	2,083,109	5,248,287	1937-38 ...	3,389,603	3,559,681	6,949,284

The deductions from earnings (wages tax) collected in any year relate almost entirely to the earnings of that year, and the collections by assessment (special income tax) relate, for the most part, to income derived in the preceding year.

In 1931-32 the rate of tax was 1s. in the £ where wages were 40s. a week or more, and deductions from earnings amounted to £4,014,399. The subsequent decline was due to substantial reductions in the rate of tax in October, 1932, December 1933, and January 1936. In 1936-37 the rate of tax ranged from 3d. to 7d. in the £ on wages between £2 and £5 a week and from 7d. to 10d. in the £ on wages of £5 a week or over, and the collections amounted to £3,559,553. There was another substantial reduction in

rates in December 1937, when the exemption limit was raised to £3 a week and rebate was provided for taxpayers with dependants. Nevertheless the collections in 1937-38 were only £170,000 lower than in the previous year.

The collections by assessments at the rate of 1s. in the £ on incomes of £100 and over amounted to £1,785,120 in 1931-32, and £2,983,479 in 1932-33. The collections in 1937-38 at rates ranging from 4d. to 10d. in the £ on incomes of £156 or over amounted to £3,559,681. These collections include payments by wage-earners on income other than wages.

#### *Family Endowment Tax.*

The Family Endowment tax was imposed for the purpose of providing funds for the payment of family allowances, as described in the chapter Social Condition of this Year Book. The tax was paid by employers on the amount of wages paid by them. It commenced on 23rd July, 1927, and was suspended from 31st October, 1927, to 1st April, 1929, and abolished at the end of the year 1933.

The proceeds were paid to the Family Endowment Fund until 30th June, 1932, when this fund was merged with the Consolidated Revenue Fund.

#### *State Probate Duties.*

Probate Duties have been imposed by the State continuously since 1880. The tax is payable on assessment or within six months after the death of the deceased.

The rates of probate duty payable on estates of persons domiciled in New South Wales dying on or after 1st November, 1933, are as follows:—

Not exceeding £500—Exempt.

Exceeding £500 but not exceeding £1,000	2	per cent.
"    1,000    "    "    "    2,000	2½	per cent.
"    2,000    "    "    "    3,000	2½	per cent.
"    3,000    "    "    "    4,000	2¾	per cent.
"    4,000    "    "    "    5,000	3	per cent.
"    5,000    "    "    "    6,000	3½	per cent.

and increasing by steps of ¼ per cent. per £1,000 up to 17 per cent. on estates valued at £60,001 to £61,000.

Where the value is over £61,000 but not over £62,000 the rate is 17 <sup>1</sup>/<sub>4</sub> per cent., and it increases by steps of ½ per cent. per £1,000 to 24 <sup>4</sup>/<sub>5</sub> per cent. on £100,000. Where the value is over £100,000 the rate of tax is 25 per cent.

Where the net value of the estate does not exceed £1,000 any property passing to the widow and/or children under 21 years of age is exempt from duty, and where the net value of the estate exceeds £1,000 but not £5,000, if property passes to the widow and children under 21 years, duty is assessed at half rates thereon, but this concession applies only in the case of local domicile.

On estates of deceased persons dying domiciled outside New South Wales the rates of tax are as follow:—

Not exceeding £500	.. .. .	3	per cent.
Exceeding £500 but not exceeding £1,000		3½	per cent.
"    £1,000    "    "    "    £2,000		3¾	per cent.

The rate increases by steps of ½ per cent. per £1,000 to 20 per cent. on estates valued at £50,001 to £51,000. On estates valued at over £51,000 but under £52,000 the rate of tax is 20 <sup>1</sup>/<sub>2</sub> per cent., and it increases by steps of ½ per cent. per £1,000 to 24 <sup>4</sup>/<sub>5</sub> per cent. on £75,000. On estates valued at £75,001 or over the rate of tax is 25 per cent.

The dutiable value of the estate of a deceased person is the assessed value of all property of the deceased situated in New South Wales at his death, and in case of persons deceased since 31st March, 1931, domiciled in New South Wales, personal property outside New South Wales. It includes all property disposed of by trust to take effect after his death; any gift made by him within three years of his death (inclusive of any money paid or property transferred by him without equivalent consideration other than by way of gifts for charitable or patriotic purposes); any property so disposed of that a life interest therein was reserved to deceased or that deceased reserved power to restore to himself; any gift not assumed by the donee to the entire exclusion of deceased; any property comprised in a *donatio mortis causa*; any property vested by deceased in himself and another jointly, so that the beneficial interest therein passes to such other person on the death of deceased; money payable under policy of assurance on the life of deceased kept paid by him for the benefit of a beneficiary; any annuity purchased by deceased to accrue at his death to a beneficiary; any property over which deceased at his death had general power of appointment; any property which on death of deceased passes to any other person by virtue of an agreement made by deceased to the extent which the value of the property exceeds the value of the consideration; any property which deceased had within three years of his death vested in a private company in consideration of shares or an interest in the company.

Whether deceased was domiciled in New South Wales or not at the time of his death, his estate includes every specialty debt secured to him over property in New South Wales. Where duty is paid on personal property situate outside New South Wales, in any part of His Majesty's Dominions, a refund will be allowed of either the duty paid in the Dominion or the duty paid in New South Wales, whichever is the lesser.

Deductions are allowed in respect of all debts actually due and owing by deceased.

Particulars of the amount of probate duty collected in each of the past five years are shown in Table 252. The number and values of estates assessed annually are shown in the chapter of this Year Book relating to "Private Finance," and in greater detail in the Statistical Register of New South Wales.

#### *State Stamp Duties.*

Stamp Duty is imposed on a considerable number of legal and commercial documents, such as acknowledgments under Wills, Probate and Administration Act, 1898-1932, agreements, appointments of trustees and receivers, appointments of property in execution of powers of appointment, awards, bank notes, betting tickets, bills of exchange and promissory notes, bills of lading, charter parties, memoranda and articles of association, certificates of incorporation of companies, contract notes for sale of marketable securities, conveyances of property, declarations of trust, deeds of all kinds, foreclosure orders, guarantees, hire purchase agreements, leases, letters of allotment and letters of renunciation of shares in companies, letters or powers of attorney, partitions, policies of insurance (other than life), real property applications, real property transfers, certain transmission applications and consents to transmission applications by executors or administrators, applications for merger, applications for discharge or modification of restrictive covenants, receipts or discharges given for payments of money or bills of exchange, including cheques amounting to £2 and upwards (other than wages, salaries, etc.), transfers of shares, etc. Certain exemptions in all cases are laid down in the Stamp Duties Act, and other statutes,

notably in regard to documents of particular organisations not operating for-profit. The rates of certain stamp duties were reduced as from 1st November, 1933.

The amount of Stamp Duty collected in each of the past five years is shown in Table 252.

#### *State Betting Taxes.*

Taxes on racing clubs and associations and on bookmakers were first imposed by the Finance (Taxation) Act, 1915.

Taxes in respect of racing clubs are levied on license or registration fees received from bookmakers. The existing rates of tax range from 50 per cent. of the fees for racecourses within 40 miles of the General Post Office, Sydney, to 20 per cent. in respect of other racecourses.

Taxes payable by bookmakers comprise a registration tax, stamp duty on bets made, and a tax on the total amount of bets.

The registration tax is payable in respect of the licenses issued by the racing clubs and associations to entitle bookmakers to operate on various racecourses or groups of racecourses. The amount of tax varies according to the particular racecourses and enclosures in which the bookmakers operate. The incidence of this tax was altered as from 1st January, 1938, with a view to reduction where the bookmakers pay in respect of more than one license.

Stamp duty is payable on betting tickets issued by bookmakers; also on the number of credit bets made, at the same rate as if tickets were issued. Under the Act of 1915 the amount of duty was one penny for each ticket issued in the saddling paddock, and one-halfpenny in the other parts of the racecourse. During 1917 these rates were doubled, and in 1920 the amount on the saddling paddock tickets was increased to three-pence. Since the 1st October, 1932 the rates have been one penny in the saddling paddock and one-halfpenny in the other parts of the racecourse.

A tax on bookmakers' turnover has been charged since 1st October, 1932. The rate was 1 per cent. on the total amount of bets made by backers until 1st January, 1938, when it was reduced to  $\frac{1}{4}$  per cent. This tax replaced the winning bets tax introduced on 20th December, 1930, at the rate of 1s. in each 10s. of winning bets.

#### *State Totalisator Tax.*

It is prescribed by the Totalisator Act, 1916-1937, that registered racing clubs and associations, when directed by the Government, must establish an approved totalisator on the racecourses at which they hold race meetings. Commission is deducted by the club concerned from the total amount invested by patrons, a proportion being paid to the Treasury and the balance retained by the club. From 20th December, 1920, to 31st December, 1937, the rate of commission was  $12\frac{1}{2}$  per cent., and the Treasury received 9 per cent. of the investments at metropolitan race meetings (excluding trotting meetings) and  $5\frac{1}{2}$  per cent. in respect of other meetings; and the racing clubs retained  $3\frac{1}{2}$  per cent. and 7 per cent., respectively, as well as unpaid fractions and dividends unclaimed for one month.

As from 1st January, 1938, the rate of commission was fixed at 10 per cent. The Government's share is 5 per cent. in respect of metropolitan meetings (except trotting) and 2 per cent. elsewhere, also unpaid fractions and unclaimed dividends; and the clubs retain 5 per cent. and 8 per cent., respectively.



*State Racecourses Admission Tax.*

A tax on admissions to racecourses in the metropolitan and Newcastle districts was levied by the State in terms of the Racecourses Admission Tax Act which commenced on 1st October, 1920. The racecourses in the latter district, except the course of the Newcastle Racing Club, were exempted in June, 1930. The tax varied from 2d. to 3s. 4d. on the charges for admission; members of racing clubs and season ticket holders were required to pay at the rate of 40 per cent. of the amount of their annual subscriptions.

This tax was replaced as from 1st January, 1938, by a tax under the Entertainments Tax Act, 1929-1937, as described below.

*Greyhound Racing Admission Tax.*

A tax on admissions to greyhound meetings held on racecourses within 40 miles of the General Post Office, Sydney, and on meetings held on the greyhound racecourse of the Newcastle Jockey Club, is imposed under the Finance (Greyhound-racing Taxation) Act, 1931-1937. For admission to the saddling paddock the tax for males is 1s., and for females 6d., and to any other section of the racecourse the tax is 6d. for all persons.

The tax on admission to other greyhound race meetings throughout the State is levied under the State Entertainments Tax Act, 1929-1937.

*Greyhound Racing—Tax on Gross Income.*

Greyhound racing clubs which conduct meetings within 40 miles of the General Post Office, Sydney, are required to pay tax on their gross income. The tax was imposed as from 1st January, 1938, in terms of the Racing Taxation Act, 1937, and the rate is 15 per cent. of the total gross income of the club from all sources arising out of the conduct of these meetings.

*State Taxes on Betting and Racing—Collections.*

The following table shows the total amount of taxation collected by the State in connection with betting and horse and greyhound racing during each of the last ten years. State Entertainments tax on admission to race meetings is not included; nor is the Commonwealth Entertainments tax, which was collected during the earlier years of the period under review, until its abolition in October, 1933:—

TABLE 259.—State Taxes on Racing and Betting, Collections 1929-1938.

Year ended 30th June.	Racing Clubs and Associations.	Book-makers Licenses	Book-maker's Turnover	Betting Tickets	Totalisator	Race-courses Admission	Winning Bets	Total.
	£	£	£	£	£	£	£	£
1929	71,735	41,342	.....	119,351	193,868	123,713	.....	556,059
1930	68,704	38,507	.....	116,933	193,172	129,320	.....	546,636
1931	57,676	30,947	.....	75,674	142,939	86,579	227,650	621,465
1932	53,202	29,732	.....	65,488	122,049	76,992	204,098	551,561
1933	56,341	31,273	76,065	36,332	104,231	71,459	27,368	403,069
1934	47,519	28,904	104,171	32,254	110,567	78,780	187	402,382
1935	49,289	33,125	101,463	36,200	119,790	82,016	68	421,951
1936	59,585	37,016	117,302	46,807	115,611	87,787	30	465,038
1937	75,886	38,559	115,543	52,183	114,720	88,000	43	484,934
1938	75,150	35,537	91,453	52,474	97,032	*48,933	18	400,697

\* The tax on admissions, except to greyhound meetings, was replaced by Entertainments Tax (not included here) on 1st January, 1938.

Further references to taxes on betting and racing are contained in the chapter "Social Condition."

*State Entertainments Tax.*

A tax on entertainments has been imposed by the State Government since 1st January, 1930. Entertainments for purely philanthropic, religious, public, educational or charitable objects are exempt, also greyhound race meetings in the metropolitan district and Newcastle, which are subject to the admission tax described above.

The entertainments tax is collected on the payments for admission at the following rates, those which do not exceed 1s. 6d. being free from taxation:—Over 1s. 6d. and under 2s., tax  $\frac{1}{2}$ d.; 2s. and over, tax 1d. for the first 2s. and  $\frac{1}{2}$ d. for each additional 6d.

For admission to metropolitan racecourses and the Newcastle racecourse, formerly taxable under the Racecourses Admission Tax Act (see above), entertainments tax is levied, as from 1st January, 1938, at the rate of 2d. for every 1s. by which the payment for admission exceeds 1s., and charges not exceeding 1s. are exempt. This rate is levied also in respect of admissions to country racecourses (other than Newcastle) for which the charge is 9s. 4d. or more.

Details regarding the number of taxable admissions are shown in the chapter "Social Condition."

*State Motor Taxes.*

Taxes are levied by the State on motor vehicles, and fees and charges are imposed in respect of motor transport services and the registration and licensing of vehicles and drivers in terms of the Motor Vehicles (Taxation) Act, the Motor Tax Management Act, the Transport Act, and the State Transport (Co-ordination) Act. Details as to the rates of taxes, fees and charges, the amounts collected and their allocation among the various road and transport funds are shown in the chapter "Motor and Other Licensed Vehicles" of this Year Book. The amounts collected in the last five years are shown also in Table 252 in this chapter.

COMMONWEALTH TAXES.

*Federal Land Tax.*

The land tax imposed in 1910 was the first direct taxation by the Commonwealth. It is a graduated tax on the unimproved value of the lands in Australia.

Land to the value of £5,000 is exempt from the tax in the case of landowners who are resident in Australia. The basic rates of tax, which were applied to assessments in 1914-15, have been varied from time to time by percentage increases or decreases as shown in earlier issues of the Year Book. They were revised in 1938 and the following rates apply to assessments made after 30th June, 1938:—The rate is  $\frac{18751}{37500}$  d. for the first £ of value in excess of £5,000, then it increases uniformly by  $\frac{1}{37500}$  d. for every increase of £1 to  $2\frac{1}{2}$ d. in the £ on a taxable value of £75,000; and the tax is  $4\frac{1}{2}$ d. for every £ in excess of that amount.

Absentee owners are required to pay  $\frac{1}{2}$ d. in the £ on the value up to £5,000 and the rate on higher values is  $\frac{1}{2}$ d. more than the corresponding rate payable by a resident. These rates represent an increase of 11.1 per cent. on the rates in force at 30th June, 1938.

Lands exempt from taxation are those owned by a State, municipality, or other public authority, by savings banks, friendly societies, or trade unions, and those used for religious, charitable, or educational purposes, grounds owned by clubs, etc., and used for sports (except golf and horse-racing), and pastoral lands leased from the Crown.

The following table gives particulars regarding taxable lands held in New South Wales at the 30th June each year, 1930 to 1936. Details relating to each State and the Commonwealth are shown in the annual reports of the Commonwealth Commissioner of Taxation.

TABLE 260.—Federal Land Tax, Value of Taxable Lands in New South Wales.

Year.	Taxable Lands at 30th June.				Tax Assessed.		Area of Country Lands Assessed.
	Improved Value.		Unimproved Value.		Town.	Country.	
	Town.	Country.	Town.	Country.			
	£000.	£000.	£000.	£000.	£	£	acres 000.
1930	142,828	120,818	80,106	64,698	1,035,636	547,682	32,325
1931	129,350	105,341	68,416	54,458	800,223	405,384	31,035
1932	126,024	94,737	65,046	50,558	501,832	232,782	31,626
1933	135,061	111,088	60,560	51,895	370,849	182,833	32,924
1934	132,276	113,407	60,231	51,895	376,510	185,788	33,200
1935	135,468	112,838	59,678	51,412	380,601	184,488	32,814
1936	142,679	114,680	64,079	53,227	428,331	204,450	32,391

The tax assessed in the Commonwealth on land held at 30th June was £3,116,253 in 1930, £1,145,381 in 1935 and £1,255,834 in 1936. The sharp decline in the amount of tax was due to a fall in land values and to reductions in rates of tax, viz., 33½ per cent. in 1932 and 25 per cent in 1933.

#### *Commonwealth Income Tax.*

The Commonwealth as well as the various States, levies a tax on incomes. The Federal tax was first levied as a war measure in the year ended 30th June, 1916. It is payable by residents and absentees in respect of income derived from sources within Australia and Papua.

Incomes are assessed for taxation in the year following that in which they are derived, the returns for assessment being made up for the twelve months ended 30th June or such other date as is approved by the Commissioner. The tax is usually payable before the next succeeding 30th June.

Towards the end of 1923 arrangements were made between the Commonwealth and the States (except Western Australia) by which the State Commissioners of Taxation collect the Commonwealth as well as the State income tax and the Commonwealth contributes a proportion of the working expenses of the State taxation departments. In Western Australia the Commonwealth collects both Federal and State taxes. The arrangement obviates the necessity for taxpayers to supply separate returns for State and Federal purposes.

*Exemptions.*—The incomes exempt from Income Tax include the salary of the Governor-General and of the Governor of a State; the official salary of the representative in Australia of the government of another country; of a foreign consul, a trade commissioner of any part of the British Empire other than Australia, and of members of their staff temporarily resident in Australia (subject to certain conditions as to reciprocity); the remuneration paid to a person not a resident of Australia for expert advice to the

Government or as a member of a Royal Commission; income derived by representatives of certain educational, scientific, religious and sporting associations visiting Australia; the revenue of a municipal corporation or other local governing body or public corporation; the income of religious, scientific, charitable or public educational institutions; of trade unions or associations of employers; a society not carried on for the gain of individual members being a friendly society or one established for the encouragement of music, art, science, literature, or for the development of aviation, or of the agricultural, pastoral, manufacturing or industrial resources of Australia; incomes of provident and superannuation funds and trust funds for public charitable purposes, pensions paid under the Australian Soldiers' Repatriation Act, income derived from a mining property in Australia or New Guinea worked for the purpose of obtaining gold or gold and copper if gold represents at least 40 per cent. of the output.

*Assessable Income.*—In addition to the items set out in the Act, which include certain capital profits, any receipt in the nature of income is assessable unless exempted under the Act.

A *resident* of Australia, in addition to being liable for tax upon income derived or deemed to be derived in Australia, is liable also upon income derived from all sources outside Australia, unless such income is liable to tax, or the goods from the sale of which the income is derived, is subject to royalty or export duty, in any country outside Australia.

A *non-resident* of Australia is assessable upon income derived or deemed to be derived in Australia.

*Taxable income* broadly speaking is gross income less expenses incurred in earning it and (except in respect of companies) less the concessional deductions and statutory exemption.

*Concessional deductions* allowed to resident taxpayers include £50 in respect of the spouse of the taxpayer, or, in the case of a widower or widow, of a female relative having the care of the taxpayer's children under 16 years of age, provided such spouse or relative is wholly maintained and whose separate net income does not exceed £50; £50 for each child under the age of 16 years, medical expenses not exceeding £50 and funeral expenses not exceeding £20 for taxpayer, his spouse or children under 21 years; an amount not exceeding £100 in the aggregate as payments to superannuation funds, friendly societies, and life assurance premiums. Certain other deductions in the nature of concessional deductions are allowable, *e.g.*, State income tax, Federal and State land tax, non income-producing rates, calls paid on shares in a mining company or syndicate mining for gold, silver, base metals, rare mineral or oil, or carrying on afforestation in Australia; gifts to the following public bodies—hospitals, benevolent institutions, authorities engaged in research into causes, prevention or cure of disease in human beings, animals or plants, universities, public memorials relating to the Great War; sums paid or set apart as pensions or retiring allowances for the personal benefit of employees who are or were employed in the taxpayer's business.

These deductions are allowable from income in the following order:—Personal exertion, property other than dividends, dividends.

*Statutory exemption* in the case of resident taxpayers (other than companies) amounting to £250 less £1 for every £2 by which the income exceeds £250, is allowed from income in the following order:—Property other than dividends, dividends, personal exertion.

*Rate of Tax—Individuals.*—The rates of tax on income from personal exertion are as follows in respect of income derived in the year 1937-38:—

(a) On income not exceeding £6,900—

$$\frac{87.975}{100} \times \left( 3d. + \frac{\text{Taxable Income}}{160} \right) \text{ pence in the } \pounds.$$

(b) On income exceeding £6,900—

First £6,900 @ 40.5784d.  
Balance @ 79.1775d.

On income from property the following rates apply:—

(a) On income not exceeding £500—

$$\frac{103.5}{100} \times \left( 3d. + \frac{\text{Taxable Income}}{100} \right) \text{ pence in the } \pounds.$$

(b) On income not exceeding £1,500—

$$\frac{103.5}{100} \times \left( 1d. + \frac{\text{Taxable Income} \times 14}{1,000} \right) \text{ pence in the } \pounds.$$

(c) On income not exceeding £3,700—

$$\frac{103.5}{100} \times \left( 4\frac{3}{4}d. + \frac{\text{Taxable Income} \times 23}{2,000} \right) \text{ pence in the } \pounds.$$

(d) On income exceeding £3,700—

First £3,700 @ 48.9555d.  
Balance @ 93.15d.

Where income is derived from agricultural or pastoral pursuits the rate is determined by averaging the whole income over a period of not more than five years. This principle of averaging was applied to other income from 1922 to 1937-38; then it was restricted to income from the rural industries.

*Minimum Tax.*—The minimum amount of tax is 10s.

*Companies Tax* is levied on the net income of a company. A co-operative company is allowed a deduction of the amount distributed among its shareholders as rebates or bonuses based on business done by shareholders with the company, also the amount of interest on dividends or shares distributed to shareholders. A life assurance company is allowed a deduction equal to 4 per cent. of a part of the calculated liabilities. Dividends paid by companies are assessable in the hands of the shareholder. A rebate of tax is allowed of the lesser amount of (a) the tax on the dividends calculated at the rate payable by companies for the year of tax, and (b) the rate of tax payable by the shareholder on income from property.

*Companies.*—The rate of tax payable is 1/1.8d. in the £. Tax at this rate is payable by a company in respect of debentures used in Australia or money lodged at interest with the company in Australia, on all interest, paid or credited to a non-resident company, and on the amount in excess of £250 paid or credited to a non-resident individual.

Particulars of the number and amount of taxable incomes according to grade are shown in the annual reports of the Federal Commissioner of Taxation.

#### *Commonwealth Estate Duties.*

The Estates Duty Assessment Act, which came into operation on 21st December, 1914, provided for the imposition of a duty on properties of persons who died after the commencement of the Act. The rate of tax is 1 per cent. of the value of the estate where the total value exceeds £1,000,

but does not exceed £2,000, and an additional one-fifth per cent. for every thousand pounds, or part thereof, in excess of £2,000, the maximum being 15 per cent. of the value of the estate.

A reduction to two-thirds of the above rates is allowed if the estate is left to the widow, children, or grandchildren of the testator.

The rates of tax have remained unchanged since the inception of the Act.

#### *Customs, Excise and Primage Duties.*

The exclusive power to impose customs and excise duties in Australia is vested in the Commonwealth of Australia Constitution Act. Particulars regarding the customs and excise tariffs and of the ad valorem primage duty levied since July, 1930, on a wide range of imports, are published in the chapter "Commerce" of this Year Book.

#### *Sales Tax.*

A sales tax on locally manufactured and imported goods has been imposed by the Commonwealth since 1st August, 1930. The tax is payable by manufacturers and wholesale merchants on sales of taxable goods to retailers or consumers, and by importers on taxable goods imported by retailers, consumers and users. The tax is not charged on sales by manufacturers or merchants to other manufacturers or merchants (unless the goods are for use by the purchaser).

Many goods are exempt from the tax, and the general exemptions include primary products produced in Australia, goods sold for export and goods sold to a Government or statutory authority. The list of exemptions was extended considerably from time to time between June, 1931, and October, 1936.

The rate of tax was  $2\frac{1}{2}$  per cent. of sale value, as from 1st August, 1930. Subsequent changes were as follows:

Date.	Per cent.	Date.	Per cent.
1930—1st August	... .. $2\frac{1}{2}$	1936—11th September	... .. 4
1931—11th July	... .. 6	1938—22nd September	... .. 5
1933—26th October	... .. 5		

The amount of sales tax collected in New South Wales was £3,207,349 in 1931-32, £3,210,342 in 1936-37, and £3,276,383 in 1937-38.

#### *Flour Tax.*

A flour tax was levied for the first time by the Commonwealth in December, 1933, when it replaced a levy in New South Wales by the State Government. The rate was £4 5s. per ton (2,000 lb.) from 4th December, 1933, until it terminated on 31st May, 1934. It was imposed again at the rate of £2 12s. 6d. from 7th January, 1935, to 24th February, 1936.

The Commonwealth tax was imposed again in December, 1938, on flour used for home consumption as part of a scheme adopted by the Commonwealth and the States to ensure to wheat growers a payable price for wheat used for home consumption. The scheme is described in the chapter of this Year Book entitled "Agriculture."

The rate of tax is based on the approximate difference between the export parity price of wheat and the home consumption price, but may not exceed £7 10s. per ton (2,000lb.) of flour. It is fixed on the recommendation of a Commonwealth Advisory Committee. The rate was fixed at £5 15s. per ton as from 5th December, 1938, reduced to £5 7s. 6d. as from 16th

December, 1938, increased to £5 17s. 6d. as from 15th March, 1939, reduced to £5 5s. on 27th April, 1939, and to £5 on 19th May, 1939, and increased to £5 10s. on 16th June, 1939. The proceeds are applied in making payments to the States for the assistance of wheat farmers.

#### *Wool Levy.*

A wool tax is levied by the Commonwealth on wool grown in Australia and shorn on or after 1st July, 1936—except dead or skin wool. The rate may not exceed 6d. per bale, 3d. per fadge or butt, or 1d. per bag, and these maximum rates have been levied since the tax was introduced. The proceeds are paid from Consolidated Revenue into a special fund to be used for publicity and research for the benefit of the wool growing industry. The amount collected in Australia was £72,805 in 1936-37 and £77,519 in 1937-38, the collections in New South Wales being £32,617 and £32,701 respectively.

#### STATE FINANCE.

For many years prior to 1928-29 the accounts of the State of New South Wales were kept on a cash basis, and the statements of revenue and expenditure included only the moneys actually deposited in or paid out of the Treasury during the year. A change of method was introduced as from 1st July, 1928, with the object of placing the accounts as far as practicable upon the income and expenditure basis, by crediting income to the accounts of the period in which it is earned or accrued and debiting the expenditure to the year in which it is incurred. In effect, however (but subject to some variation of dates for closing accounts of receipts and expenditure at the end of certain years), the Consolidated Revenue Account remains a statement of receipts and payments in the twelve months ended 30th June, so far as the Sydney accounts are concerned, and the twelve months ended 30th April so far as the London account is concerned.

From time to time the accounts of the principal business undertakings have been separated from consolidated revenue and placed on an income and expenditure basis, and special funds have been created in respect of such matters as motor taxation and unemployment relief. As from 1st July, 1928, the Public Works Fund was replaced by the Special Purposes (Revenue) Fund, and the relationship between this account and the Consolidated Revenue Account was completely altered. As from 1st July, 1931, reversion was made to a system practically the same as that in operation prior to 1st July, 1928. In some cases, however, the earnings of departments are deducted from their expenditure and the net amounts are taken to account in the Consolidated Revenue Fund. In others, the earnings are included as revenue receipts. By reason of these and other changes, described in later pages, it is difficult to make comparisons concerning the accounts of recent years.

The principal accounts of the State Government in operation during 1937-38 related to the Consolidated Revenue Fund, the Closer Settlement Fund, the Special Deposits, the General Loan Fund, and various road and transport funds. There were also the accounts of the State business undertakings.

The *Consolidated Revenue Fund* was created by the Constitution Act. All taxes and territorial and other revenues of the Crown are paid to this fund, unless it is prescribed by statute that they are to be paid into some other fund. Subject to certain charges fixed by the Constitution Act, the fund may be appropriated by Parliament for expenditure on specific purposes, as prescribed by statute. Parliamentary appropriations may be

either special or annual. A special appropriation is one which is contained in an Act which itself gives authority for the expenditure incurred on the object or function to which it relates. Annual appropriations are made each year to meet expenses of government not covered by special appropriations and not provided for by payments from special funds. Annual appropriations or balances of consolidated revenue are not available for expenditure after the end of the year for which they were voted.

Prior to 30th June, 1924, the Consolidated Revenue Account embraced practically the whole of the receipts and expenditure on revenue account of the State Government and of the statutory bodies appointed by it, inclusive of those in connection with railways, tramways, water and sewerage works, harbours and navigation works, housing, and the Government grain elevators, but exclusive of certain industrial undertakings, and of the Metropolitan Meat Industry Board.

As from 1st April, 1925, the accounts of the Metropolitan Water, Sewerage and Drainage Board were separated from the Consolidated Revenue Fund, and from 1st July, 1924, the whole or part of the revenue obtained from taxation of motor vehicles and from motor licenses has been credited to the funds of the Main Roads Department, which came into being after that date, or to funds created in terms of the Transport Act, 1930.

As from 1st July, 1928, the accounts of the railways and tramways, the Sydney Harbour Trust, and the Hunter District Water and Sewerage Board were removed from the Consolidated Revenue Account, and the Special Purposes (Revenue) Fund was constituted within the Consolidated Revenue Fund upon the abolition of the Public Works Fund, of which particulars are shown in the 1928-29 issue of the Year Book at page 148. The Special Purposes (Revenue) Fund was abolished as from 1st July, 1931. Its scope is outlined on page 650 of the 1930-31 issue of the Year Book.

The *Closer Settlement Fund* relates to moneys used for the promotion of land settlement. Particulars of the fund are shown on page 345.

The *Special Deposits Account* is an account in the Treasury books for recording transactions on a number of accounts relating to sums held by or deposited with the Treasurer for store accounts, advance accounts, and moneys (not included in the consolidated revenue, general loan, or trust accounts) which the Treasurer directs to be carried to the Special Deposits Account. The funds in this account are not subject to annual appropriations by Parliament, and balances may be expended at any time subject to certain regulations and the issue of warrants.

The *General Loan Account* relates to the moneys which the Government has borrowed by the issue of stock, Treasury bills, and debentures under the authority of a Loan Act. To the account are credited the net proceeds of loans raised for works, services and redemptions. Expenditure under these heads is debited to the account in the year in which it is voted by Parliament. There is also a Loans Expenditure Suspense Account, to which are debited amounts expended on works and services which it is proposed to debit to General Loan Account, and which are voted by Parliament and debited to General Loan Account in the year after they are expended.



All expenditure from loan moneys must be authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue. At the close of a financial year unapplied appropriations and balances of appropriations made by a Loan Act passed two years or longer lapse, except for the payment of claims in respect of any outstanding contract or work in progress.

Measures to secure the investigation of proposals for the construction of public works, whether from loan or revenue funds, are prescribed by the Public Works Act, 1912. With certain exceptions, proposals regarding works estimated to cost more than £20,000 are to be submitted for report to a Parliamentary Committee on Public Works, as described on page 25.

*Revenue Accounts of New South Wales.*

The following table shows the receipts and expenditure of the principal revenue accounts combined during the ten years ended 30th June, 1938, that is, the period during which the changed form of accounts has been in operation.

TABLE 261.—State Revenue and Expenditure, 1929 to 1938.

Year ended 30th June.	Revenue.		Expenditure.	
	Governmental.	Principal Business Undertakings.	Governmental.	Principal Business Undertakings.
1929	20,756,538	26,316,250	21,764,110	26,874,551
1930	21,979,920	23,859,727	23,160,068	26,939,364
1931	22,380,904	20,220,363	26,011,821	25,278,600
1932	21,839,563†	20,234,656	31,018,488†	25,256,236
1933	25,097,759	20,675,193	25,458,478	24,059,758
1934	21,857,185	20,287,869	22,739,202	22,603,754
1935	21,439,522	21,671,381	22,816,551	22,637,129
1936	23,174,539	22,848,899	24,588,674	23,149,414
1937	25,470,090	23,970,996	25,936,910	23,435,191
1938	27,632,692	26,137,177	28,051,248	25,686,841

\* Including interest chargeable on loan capital.

† Receipts do not include certain collections delayed until 1932-33, and expenditure includes interest due in 1930-31, which had been paid by the Commonwealth, £1,544,750.

The receipts and payments of the Consolidated Revenue Fund are included in the table under "Governmental." The administrative departments to which this division of the State accounts relates are listed in table 267, and the nature and cost of the services they provide are summarised in table 263. A dissection of the receipts is shown in tables 263 to 266.

The principal business undertakings are the Government Railways, Tramways and Omnibuses, the Sydney Harbour Works, and the Hunter District Water and Sewerage Services. The accounts of these undertakings are on an income and expenditure basis; they are shown individually in table 271.

The foregoing table does not present a complete summary of the annual finances of the State, as it is exclusive of special funds, *e.g.*, Main Roads, Traffic, and Closer Settlement Funds, and those of certain undertakings, though it includes the particulars of the Unemployment Relief and Family Endowment Funds, which were merged with the Consolidated Revenue Fund, as from 1st July, 1932. Moreover, the value of the table for comparative purposes is impaired by changes which have been made from time to time in the composition of the Consolidated Revenue Fund.

The following table shows the debit and credit balances of the respective sections of the revenue accounts shown in the previous table:—

TABLE 262.—State Revenue, Annual Surplus or Deficiency, 1929 to 1938.

Year ended 30th June.	Surplus (+) or Deficiency (—).		
	Governmental.	Principal Business Undertakings.	Total for Year.
	£	£	£
1929	(—) 1,007,572	(—) 558,301	(—) 1,565,873
1930	(—) 1,180,148	(—) 3,129,637	(—) 4,309,785
1931	(—) 3,630,917	(—) 5,058,237	(—) 8,689,154
1932	(—) 9,178,925	(—) 5,021,580	(—) 14,200,505
1933	(—) 360,739	(—) 3,384,565	(—) 3,745,304
1934	(—) 882,017	(—) 2,315,885	(—) 3,197,902
1935	(—) 1,377,029	(—) 965,748	(—) 2,342,777
1936	(—) 1,414,135	(—) 300,515	(—) 1,714,650
1937	(—) 465,920	(+) 535,805	(+) 69,885
1938	(—) 418,556	(+) 450,336	(+) 31,780

\* After payment of interest chargeable on loan capital.

These balances have been struck after the payment of substantial sums to the National Debt Sinking Fund. Such payments in respect of the accounts covered by the table amounted to £1,419,666 in 1937-38, and £9,430,010 in the ten years ended 30th June, 1938. The total payments to the sinking fund, including those from road and other funds, Commonwealth contributions and interest earnings, are shown in table 296.

A summary of the items of Governmental receipts and payments for the past three years is shown below:—

TABLE 263.—Consolidated Revenue Fund, Receipts and Payments.

Classification.	Amount.			Per Head of Population.		
	1935-36.	1936-37.	1937-38.	1935-36.	1936-37.	1937-38.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
<b>Receipts.</b>						
Contribution by Commonwealth towards Interest...	2,917,411	2,917,411	2,917,411	1 2 0	1 1 9	1 1 7
State Taxation ...	14,125,654	16,371,822	17,017,771	5 0 4	6 2 2	6 12 3
Land Revenue ...	1,699,549	1,791,594	1,871,754	0 12 9	0 13 4	0 13 10
Receipts for Services Rendered ...	1,479,753	1,477,914	1,562,419	0 11 2	0 11 0	0 11 6
General Miscellaneous ...	2,952,172	2,912,240	3,363,337	1 2 3	1 1 9	1 4 10
<b>Total Revenue ...</b>	<b>23,174,539</b>	<b>25,470,990</b>	<b>27,632,692</b>	<b>8 14 6</b>	<b>9 10 0</b>	<b>10 4 0</b>
<b>Payments.</b>						
Legislative and General Administration ...	7,872,216	8,421,713	8,261,102	2 19 3	3 2 10	3 1 0
Maintenance of Law, Order and Public Safety ...	2,485,561	2,552,723	2,747,601	0 18 9	0 19 0	1 0 3
Regulation of Trade and Industry ...	86,453	90,636	107,144	0 0 8	0 0 8	0 0 10
Education ...	4,199,828	4,392,728	5,051,547	1 11 7	1 12 9	1 17 3
Encouragement of Science, Art and Research...	59,573	86,764	71,287	0 0 6	0 0 8	0 0 6
Promotion of Public Health and Recreation ...	1,849,889	2,031,813	2,276,957	0 13 11	0 15 2	0 16 10
Social Amelioration...	5,243,290	5,306,685	6,228,861	1 19 6	1 19 7	2 6 0
War Obligations ...	70,583	75,682	90,772	0 0 6	0 0 7	0 0 8
Development and Maintenance of State Resources...	2,459,867	2,747,892	2,938,939	0 18 6	1 0 6	1 1 8
Local Government ...	265,365	230,274	277,038	0 2 0	0 1 9	0 2 1
<b>Total Expenditure</b>	<b>24,592,625</b>	<b>25,936,910</b>	<b>28,051,248</b>	<b>9 5 2</b>	<b>9 13 6</b>	<b>10 7 1</b>

Taxes represented 64.8 per cent. of the receipts in 1937-38. Details of these taxes are shown in table 252, together with motor taxes, fees, etc. (which are paid into special funds), and rates levied by local governing authorities.

The Commonwealth grants credited to Consolidated Revenue Fund include the amount of £2,917,411, which is payable annually in terms of the Financial Agreement described on page 368, and the special grants shown as miscellaneous receipts in table 266. Certain Commonwealth grants are paid into special funds, the principal being grants for roads and contributions to the national debt sinking fund established to provide for repayment of the State loan debt (see page 368). The system of Federal aid for roads is described in the chapter "Roads and Bridges" of this Year Book.

*Land, Forestry, and Mining Revenue of the State.*

At the establishment of responsible government in 1856, the control of lands was vested exclusively in the Parliament of New South Wales. At that date only 7,000,000 acres had been alienated, and approximately 191,000,000 acres of land were owned by the Crown. Nearly all these lands have been made available for settlement. Approximately 47,418,000 acres have been absolutely alienated, 21,054,000 acres are in course of sale on terms, and 113,818,000 acres are occupied by landholders at rental under various leasehold tenures. Unoccupied lands include 15,745,000 acres of reservations, roads and beds of lakes and rivers. About 3,434,000 acres were available for selection on 30th June, 1938.

In a considerable area the State has reserved to itself mineral rights, which produce a substantial income from royalties. In addition, there are approximately 6,500,000 acres of State forests and timber reserves and land within irrigation areas which return revenue to the Government.

The receipts from lands, mineral resources, and forests credited to the Consolidated Revenue Fund during the last five years are shown below:—

TABLE 264.—Consolidated Revenue Fund, Receipts from Land, Minerals and Forests.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Receipts from Sales ... ..	796,314	805,063	835,170	865,936	829,025
Rentals for Leases, Fees and other Receipts ... ..	578,111	532,597	551,260	562,785	561,793
Royalties on Minerals, Rents for Mining Leases, etc. ... ..	144,951	168,939	214,795	259,453	372,257
Forestry—Royalties, Rentals, etc.	78,680	92,396	98,324	103,420	108,679
Total, Land Revenue ...	1,598,086	1,599,000	1,699,549	1,791,594	1,871,754

The interest on deferred sales and rentals for leases of land are classified as revenue.

Royalties on minerals and one-half of the royalties from timber and other forestry receipts are payable to Consolidated Revenue Fund. The balance of the forestry receipts is not included in the accounts of the Consolidated Revenue Fund, but is paid to a special fund and set apart for afforestation. Payments to the special fund amounted to £70,867 in 1933-34, £84,454 in 1934-35, £91,538 in 1935-36, £97,128 in 1936-37, and £96,592 in 1937-38.

Royalties on minerals, which constitute the principal item of mining revenue, are subject to fluctuation, royalty being assessed in some cases on the profits of the mining companies and in other cases on the quantity of minerals produced. The bulk of the receipts from this source is paid in respect of coal-mining.

*Receipts for Services Rendered.*

Fees charged in respect of services rendered by the administrative departments which are within the ambit of the Consolidated Revenue Fund amount to a considerable sum. The principal items are shown below:—

TABLE 265.—Consolidated Revenue Fund, Receipts for Services Rendered.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Harbour Rates and Fees, Pilotage, etc. ...	252,009	291,115	304,979	330,122	356,785
<b>Fees—</b>					
Registrar-General ... ..	122,474	138,918	157,458	177,117	197,791
Law Courts ... ..	188,842	182,386	191,210	204,591	221,291
Valuation of Land ... ..	47,600	29,015	61,820	44,870	47,343
Grain Elevators—Handling Fees, etc. ...	192,829	353,114	356,893	338,510	319,352
Charge for Collection of Motor Taxes ...	62,734	69,077	37,197	...	...
Maintenance of Inmates of Public Institutions	59,338	35,154	28,840	23,165	29,245
Maintenance of Patients in Mental Hospitals	98,127	95,628	101,650	105,941	106,346
Other ... ..	169,595	195,181	230,706	253,508	284,266
<b>Total... ..</b>	<b>1,193,548</b>	<b>1,380,588</b>	<b>1,479,753</b>	<b>1,477,914</b>	<b>1,562,419</b>

Receipts from pilotage, harbour and light dues in all ports, and from tonnage and wharfage rates, rents, etc., in ports other than Sydney and Port Kembla, are paid into the Consolidated Revenue Fund. The tonnage and wharfage rates, rents, etc., collected in the port of Sydney are paid into the Sydney Harbour Trust Fund (Maritime Services Board), and those collected at Port Kembla are paid into the Port Kembla Haulage and Shipment Account. Both of these accounts are operated as separate business undertakings. The charge for the collection of motor taxes was derived from a percentage levy on the taxes which was abolished on 31st December, 1935. Amounts deducted from the proceeds of vehicle registration fees to meet the cost of services rendered by the police in regulating traffic and registering vehicles and licensing drivers are not taken to account as receipts, but are applied to the reduction of expenditure from the Consolidated Revenue Fund. The amounts were £155,032 in 1933-34, £203,420 in 1934-35, £194,787 in 1935-36, £237,104 in 1936-37 and £425,485 in 1937-38.

Receipts for the principal services rendered to the Commonwealth Government in 1937-38 were:—Maintenance of old-age and invalid pensioners in State institutions £37,823; contribution for services of magistrates, £1,079; and other, £2,055.

*General Miscellaneous Receipts.*

All items not placed under headings already shown are included in the general miscellaneous group, a substantial part of the total amount being interest collections:—

TABLE 266.—Consolidated Revenue Fund, General Miscellaneous Receipts.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37	1937-38.
	£	£	£	£	£
Interest Collections—					
Metropolitan Water, Sewerage, and Drainage Board Advances ... ..	501,092	202,296	201,237	193,226	187,543
Country Towns Water Supply & Sewerage Works ... ..	181,107	155,518	189,585	160,605	170,799
Rural Bank, Agencies, etc. ... ..	.....	1,410	54,804	106,880	107,327
Daily Credit Balances with Banks ... ..	4,143	7,145	5,963	13,755	16,608
Advances to Necessitous Farmers ... ..	14,681	16,036	21,060	10,918	9,263
Advances for Wire-netting ... ..	12,867	12,755	14,655	22,580	17,621
Other Interest ... ..	135,880	158,587	132,992	96,376	143,564
Rents of Buildings, Wharves, etc. ... ..	36,547	32,087	35,017	31,724	32,323
Fines and Forfeitures ... ..	53,097	64,091	86,189	73,133	68,907
Darling Harbour Resumed Area ... ..	38,678	39,829	41,525	45,008	40,059
Sale of products of Experiment Farms, Prisons, Institutions, etc. ... ..	128,973	122,655	122,926	129,338	128,359
Repayment—Balances not required ... ..	16,768	44,201	44,440	134,372	113,494
Repayments to Credit of Votes, previous years	867,047	705,047	613,342	385,707	421,196
State Lotteries ... ..	696,475	676,600	736,300	769,794	849,329
State Superannuation Board—Repayment of part Employers' contributions and Interest thereon ... ..	328,728	328,728	328,728	328,728	328,728
Tourist Bureau Collections ... ..	.....	.....	.....	95,833	122,198
Liquor Compensation Fund—Part balance not required ... ..	250,000	.....	.....	.....	.....
Government Insurance Office—Part balance not required ... ..	300,000	.....	.....	.....	.....
Commonwealth Government—State's share of special grants ... ..	.....	786,000	205,000	197,000	50,000
Proceeds of Sale, etc., of Industrial Undertakings ... ..	.....	.....	.....	.....	442,230
Other Miscellaneous Receipts ... ..	153,953	124,431	138,409	118,272	107,799
Total ... ..	3,720,036	3,477,416	2,952,172	2,912,249	3,363,337

Large non-recurring items appear sometimes amongst the miscellaneous receipts. For example, in 1933-34, sums of £250,000 and £300,000 were transferred from accumulations in special funds, and in 1937-38 a sum of £442,230, represented working profits and surpluses from the realisation of certain State industrial enterprises. These consisted of the following:—State Brickworks £192,757, State Monier Pipe and Reinforced Concrete Works £157,674, and State Metal Quarries £91,799.

The Special Commonwealth grant of £50,000 credited to Consolidated Revenue Fund in 1937-38 was portion of a grant of £79,000 for training youths and placing them in employment. The amount of £50,000 was used to offset expenditure in supplementing wages paid to young men placed as apprentices in skilled trades. The balance, £29,000, was set aside in a Special Deposits Account for technical education.

Interest receipts comprise miscellaneous amounts only and do not include large sums taken to account as land revenue in respect of Crown lands sold on the instalment system, nor recoupmets by business undertakings and other activities which have been provided with capital from State loan funds. As a general rule these recoups are treated as a contra to interest payments, thus reducing the net amount of interest chargeable to the Consolidated Revenue Fund.

*Expenditure from Revenue.*

Expenditure from the Consolidated Revenue Fund in 1937-38 amounted to £28,051,248, an increase of £2,114,338 as compared with the previous year.

The classification of expenditure according to functions as shown in table 263 indicates the nature and cost of the various services provided by the Government from the Consolidated Revenue Fund. In the following statement the expenditure is classified according to administrative departments.

TABLE 267.—Consolidated Revenue Fund, Payments According to Departments.

Department.	1936-37.	1937-38.	Department.	1936-37.	1937-38.
Education—	£	£	Special Appropriation—	£	£
General ... ..	4,300,232	4,920,984	Interest on portion of		
Child Welfare ... ..	214,336	225,827	Public Debt ... ..	4,788,737	4,847,862
	4,514,568	5,146,811	Sinking Fund ... ..	1,199,725	746,012
Chief Secretary—			Superannuation Contribu-		
Police ... ..	1,277,666	1,368,471	tions ... ..	290,000	310,000
Other ... ..	278,470	315,578	Widows' Pensions Act ...	539,623	601,511
	1,556,145	1,684,049	Other ... ..	854,621	927,870
Social Services—	4,323,414	5,157,733		7,672,706	7,433,255
Treasury—			Executive and Legislative	38,200	42,826
Interest ... ..	295,784	265,430	Attorney-General and Jus-		
Exchange ... ..	692,514	688,921	tice ... ..	730,215	792,265
Contribution to Railways	800,000	800,000	Agriculture ... ..	561,253	651,050
Coal Settlement Agreement	61,277	46,511	Lands ... ..	343,533	352,137
State Lotteries ... ..	56,289	56,287	Works and Local Govern-		
Subventions to Friendly			ment ... ..	916,307	1,133,848
Societies ... ..	66,105	70,165	Premier ... ..	132,222	260,825
Other ... ..	835,495	875,793	Labour and Industry ... ..	53,317	66,849
	2,807,464	2,803,112	Water Conservation ... ..	92,668	106,508
Public Health—			Mines ... ..	76,291	84,762
Hospital Fund ... ..	891,310	1,015,435	Forests ... ..	62,703	69,512
Care of Sick, Aged, Baby			Ministry of Transport ... ..	69,085	91,367
Welfare, etc. ... ..	298,416	312,569	Schedule—Judges' Pensions,		
Mental Hospitals ... ..	633,906	690,292	etc. ... ..	39,540	41,267
Other ... ..	123,638	114,776		3,115,343	3,693,216
	1,947,270	2,133,072	Grand Total ... ..	25,930,910	28,051,248

An analysis of payments from Consolidated Revenue according to objects of expenditure in the three years ended 30th June, 1938, is as follows:—

TABLE 268.—Consolidated Revenue Fund, Payments according to Objects or Services.

Object or Service.	1935-36.	1936-37.	1937-38.
	£	£	£
Salaries and Payments in the Nature of			
Salaries ... ..	7,506,712	7,808,921	8,739,796
Maintenance and Working Expenses—			
Subsidiary Staff Charges ... ..	142,546	147,123	151,970
Expenses in connection with Buildings ...	394,484	377,481	466,256
Subsistence and Transport Expenses ... ..	364,020	381,232	399,308
General Expenses—Stores, Stationery,			
Provisions, etc. ... ..	1,161,056	1,236,878	1,351,356
Interest, Exchange and Sinking Fund ... ..	6,507,576	6,976,770	6,548,226
Other Services—			
Grants, Contributions and Subsidies ... ..	1,066,712	1,256,783	1,597,781
Food Relief Payments ... ..	980,760	1,114,950	1,263,901
Family Endowment Payments ... ..	1,804,392	1,595,183	1,469,932
Grants, Loans and Advances for Relief for			
Unemployed ... ..	836,799	999,122	1,803,747
Relief of Deserted Wives, etc. ... ..	215,715	208,653	219,605
Charitable Services ... ..	214,301	280,504	226,114
Pensions and Gratuities ... ..	1,284,763	1,283,265	1,319,060
Maintenance of Public Works and Services	350,874	362,279	447,652
Contribution to Losses on Developmental			
Railways ... ..	800,000	800,000	800,000
Other ... ..	961,915	1,107,766	1,246,545
Total ... ..	£ 24,592,625	25,936,910	28,051,249

## CLOSER SETTLEMENT ACCOUNT.

The Closer Settlement Fund is maintained as a separate account, and its transactions are not included in the Consolidated Revenue Fund. It was established under an Act passed in 1906 and replaced as from 1st July, 1928, by a new Closer Settlement Fund, incorporating its liabilities and the Returned Soldiers Settlement Accounts. A liability of £3,544,005, being the net loan expenditure in respect of the settlement of returned soldiers, as at 30th June, 1928, was transferred to the new fund.

The working capital of the Closer Settlement Fund is derived from loan moneys made available by the State, Parliamentary appropriations from the Consolidated Revenue Fund, insurance fees paid in respect of property under the Real Property Act, and capital and interest repaid by settlers. The expenditure from the fund consists mainly of the purchase price of estates, the cost of subdivisions and improvements, advances to returned soldiers, interest and sinking fund charges on loan moneys, sums paid in respect of assurance claims under the Real Property Act, amounts for the redemption of closer settlement debentures issued in lieu of cash payments for estates, and premiums for fire insurance in respect of improvements. The fund is charged also with costs of administration,

Up to 30th June, 1938, an amount of £14,383,130 had been expended from the combined Closer Settlement Funds on the acquisition, improvement and disposal of estates and leases, and in making advances to soldier settlers. This amount consisted of cash payments to vendors and others, £9,341,701, and debentures issued in part payment for estates, £5,041,429.

At 30th June, 1938, the loan indebtedness of the fund, less £450,986 contributed to the National Debt Sinking Fund, was £12,359,063, consisting of Closer Settlement Debentures, £131,700, and Commonwealth stock and advances from General Loan Account, £12,227,363. Closer Settlement Debentures to the face value of £4,909,729 have been redeemed as follows:—£3,764,979 from General Loan Account and resources of the funds, £236,800 from the National Debt Sinking Fund and £907,950 by conversion to Commonwealth stock under the national debt conversion of 1931.

The following cash statement shows the receipts and payments of the Closer Settlement Fund during the year ended 30th June, 1938:—

TABLE 269.—Closer Settlement Fund, 1937-38.

RECEIPTS.		£	PAYMENTS.		£
Repayments of Principal, Interest and Fire Insurance Premiums	...	661,041	Acquisition of Land and Advances to Rural Bank Agency	...	113,338
Fees under Real Property Act	...	22,396	Subdivision, Maintenance, Improvement and Disposal of Land	...	8,861
Repayments—Previous Year's Expenditure	...	15	Advances to Soldier Settlers	...	307
Transfer from General Loan Account	...	10,000	Administration	...	24,068
Sale of Commonwealth Stock and Bonds	...	77,658	Repayment of Commonwealth Stock and Bonds	...	77,850
			Contribution to Sinking Fund	...	56,201
			Interest	...	433,859
			Fire Insurance Premiums	...	2,265
			Claims under Real Property Act	...	420
			Total Payments	...	717,169
			Excess of Receipts	...	53,939
Total Receipts	...	771,108	Total	...	771,108

The fund has been in overdraft since 1929-30; the maximum overdraft was £312,343 at 30th June, 1935, and it declined in each subsequent year to £363,501 in 1937-38.

Balances owing to the fund in respect of purchase-money, advances, and interest amounted to £13,277,419 at 30th June, 1938. This included instalments in arrears; viz., principal £473,238 and interest £487,960. Substantial sums have been written off debtors' balances as a result of reappraisements of the capital values of properties, and a large amount of interest has been capitalised and instalments thereon have been deferred free of interest to the end of the term of purchase.

The interest chargeable to the fund was at rates applicable to the various loans from which its capital had been obtained until 30th June, 1932. Then the rate payable on moneys due to the General Loan Account and on Commonwealth securities was reduced to 4½ per cent. and it was further reduced to 3½ per cent. in January, 1933. The rate on Closer Settlement Debentures was reduced in terms of the Interest Reduction Act, 1931, as described on page 402, the rate payable on debentures outstanding since 1932 being reduced from 5 per cent. to 4 per cent. As from 1st July, 1932, the fund was relieved of a proportionate charge in respect of the oversea exchange on interest on the State debt.

#### LEDGER BALANCES.

The Audit Act provides that the Treasurer may arrange with any bank for the transaction of the general banking business of the State. The accounts are kept under various headings, and all amounts paid into any of the accounts mentioned are deemed to be "public moneys." For interest purposes the several accounts are treated as one. The special accounts, which consist of "Supreme Court Moneys," are not controlled by the Audit Act, but directly by the officers in charge of the Departments concerned.

The ledger balances in the Treasury Accounts on 30th June in each of the last five years were distributed as follows:—

TABLE 270.—State Accounts, Ledger Balances, 1934 to 1938.

Balance held in—	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Sydney—Cash ...	Cr. 4,844	Cr. 879,852	Cr. 2,535,362	Cr. 2,486,041	Cr. 2,379,382
Securities ...	Cr. 1,596,522	Cr. 1,726,558	Cr. 1,751,697	Cr. 1,816,204	Cr. 1,850,481
Total, Sydney ...	Cr. 1,601,366	Cr. 2,606,410	Cr. 4,287,059	Cr. 4,302,245	Cr. 4,229,863
London... ..	Cr. 1,920,697	Cr. 1,981,169	Cr. 2,010,668	Cr. 1,705,767	Cr. 1,508,840
Total ... ..	Cr. £3,522,063	Cr. £4,587,579	Cr. £6,297,727	Cr. £6,008,012	Cr. £5,738,703

In order to obtain a complete view of the cash position it is necessary to take into account the issue of short-term Treasury Bills, and debentures to cover cash deficiencies. Particulars of these are shown on page 359.

#### ACCOUNTS OF STATE ENTERPRISES.

The principal State enterprises are those usually known as business undertakings; viz., railways, tramways, motor omnibuses, Sydney Harbour works and the Hunter District Water and Sewerage Services. The capital of these enterprises has been provided by the State Treasury, mostly from loan funds. Their financial operations on revenue account were passed through the Consolidated Revenue Fund on a receipts and payments basis until 30th June, 1928, when a separate account in respect of each undertaking was opened in the State Treasury. Since that date their annual accounts



have been kept on a revenue and expenditure basis and these combined with the receipts and payments of the Consolidated Revenue Fund and the Road Transport and Traffic Fund form the State Revenue Budget.

On 1st April, 1925, the Metropolitan Water and Sewerage Board was constituted an autonomous body and its finances ceased to be recorded in the Treasury accounts. Similar action was taken on 1st July, 1938, in connection with the Hunter District Water and Sewerage Board, the receipts and payments of which had previously been included in the Consolidated Revenue Fund.

Details regarding the individual business undertakings are published in the chapters of this Year Book relating to "Railways and Tramways," "Motor Omnibus Services," "Shipping" (as to Sydney Harbour works), and "Local Government" (as to water and sewerage services). Particulars of their revenue and expenditure during the year ended 30th June, 1938 are summarised in the following table:—

TABLE 271.—State Business Undertakings, Revenue and Expenditure, 1937-38.

Service.	Revenue.	Expenditure.					Surplus or Deficit (-)
		Working Expenses	Interest.	Ex-change.	Sinking Fund.	Total.	
<b>Business Undertakings—</b>							
Railways ... ..	£ 20,286,116	£ 13,654,647	£ 5,340,000	£ 710,000	£ 530,000	£ 20,234,647	£ 51,469
<b>Tramways—</b>							
Metropolitan ... ..	3,304,526	2,882,151	291,435	37,115	33,697	3,244,398	60,123
Newcastle ... ..	224,842	188,716	35,843	4,233	3,979	232,771	(-) 7,929
Total Tramways ...	3,529,368	3,070,867	327,278	41,348	37,676	3,477,169	52,199
<b>Omnibuses—</b>							
Metropolitan ... ..	708,898	681,614	8,582	1,094	582	691,872	17,026
Newcastle ... ..	56,458	64,714	1,012	132	91	65,949	(-) 9,491
Total Omnibuses ...	765,356	746,328	9,594	1,226	673	757,821	7,535
Sydney Harbour ...	1,186,279	349,174	426,405	55,217	55,987	886,783	299,496
Hunter District Water Supply and Sewerage Board ... ..	370,058	132,510	*158,782	*22,677	*16,452	*330,421	*39,637
Total Business Undertakings ...	26,137,177	17,953,526	6,262,659	330,468	640,788	25,686,841	450,336

\* See context below.

The railway revenue, as shown in the table, includes certain sums received from the Consolidated Revenue Fund; *viz.*, a contribution of £800,000—made annually since 1928-29—towards losses incurred on developmental country lines, and £137,106 representing rebates in respect of freight concessions allowed to primary producers and on the carriage and handling of coal. The railways were first charged with sinking fund as from 1st October, 1937, and the amount was £530,000 for the nine months ended 30th June, 1938. The classification of expenditure on the railways as in the foregoing table differs from that adopted by the Commissioner for Railways, which includes with working expenses, £13,759,988, portion of the sinking fund charge used in writing off discarded assets, £159,653, but does not include loan management expenses £54,312 which the Commissioner appropriates from net earnings.

The working expenses of the tramways and omnibuses include current depreciation £126,075 and £132,064, respectively, which is provided in these undertakings by way of a regular annual charge. An appropriation of £31,634 towards arrears of tramways depreciation has been excluded from expenditure.

Charges for interest, sinking fund and exchange as shown for the Hunter District Water and Sewerage Board represent the amounts actually paid to the Treasury under arrangements which allowed for some reduction of the statutory charges in anticipation of a writing-down of the Board's capital indebtedness to the Government. Pending legislative authority for the reduction and final determination of the amount, a corresponding allowance was not made in the accounts published by the Board, where the charges are shown at a somewhat higher amount; *viz.*, interest £199,704, sinking fund £24,712, and exchange £25,590. By reason of these differences the Board's own accounts disclose a deficit of £12,458 on the year's operations as compared with the surplus of £39,637 shown in the foregoing table.

In addition to the business undertakings there are several State-owned utilities for the supply of essential services and, formerly, there were a number of trading concerns. The capital of such enterprises has been provided from State loan and revenue funds and, in some cases, from surplus earnings. Their revenue accounts, however, have not been brought within the scope of the State Revenue Budget, although they are part of the Special Deposits Accounts in the Treasury. The following table shows the revenue and expenditure of the major State enterprises (other than the business undertakings) which were in operation during the year 1937-38:—

TABLE 272.—State Enterprises, Revenue and Expenditure, 1937-38.

Enterprise.	Revenue	Expenditure.			Surplus	Deficit.
		Working Expenses.	Interest and Exchange.	Sinking Fund.		
	£	£	£	£	£	£
Water Supply—						
Broken Hill* ... ..	45,566	37,197	2,992	...	5,377	...
Junce* ... ..	8,571	5,297	7,600	2,265	...	6,591
South-West Tableland* ...	21,896	12,866	27,422	...	...	18,392
Electricity—						
Burrinjuck ... ..	118,222	48,445	41,541	4,096	24,140	...
Port Kembla ... ..	102,149	72,938	22,656	...	6,555	...
Metropolitan Meat Industry ...	706,336	669,425	32,797	3,489	625	...
Port Kembla Coal Shipment ...	33,595	25,224	3,231	...	5,140	...
State Coal Mine ... ..	180,120	166,335	12,382	1,320	83	...
Murrumbidgee Irrigation Area...	270,569	174,998	227,527	...	...	131,956

\* Year ended 31st December, 1937.

The history and operations of the State trading concerns, which were known as industrial undertakings, have been described in earlier issues of this Year Book. With few exceptions, these undertakings have been closed or sold to private purchasers as going concerns. The most recent sales were made in 1935-36, *viz.*, the Brickworks, the Monier Pipe Works, and the Metal Quarries. The accounts of the Government Tourist Bureau and the Building Construction Branch were merged with the Consolidated Revenue Fund as from 1st July, 1936, and the activities of the latter

were restricted. The aggregate profits and losses, including the results of the realisation of the industrial undertakings which have been closed or sold, are summarised below:—

TABLE 273.—Inoperative State Industrial Undertakings.

Undertaking.	Year in which Trading ceased.	Aggregate Profits on Trading and Realisation.	Aggregate Losses on Trading and Realisation, represented by—		
			Unpaid Loan Advances and Overdrafts.	Funds provided from and Charges borne by State Revenues.	Total Losses.
Rozelle Joinery ... ..	1914	£	£	£	£
Botany Brick Works ... ..	1915	...	22,374	5,240	27,614
Lime Works ... ..	1917	...	23,474	7,927	31,401
Power Station ... ..	1923	...	13,654	5,744	19,398
Trawlers ... ..	1923	...	4,350	18,804	23,154
Timber Yards ... ..	1923	...	242,361	71,660	314,021
Saw Mills ... ..	1924	...	153,432	170,193	323,625
Brickworks ... ..	1936	194,235	16,687	50,466	67,153
Monier Pipe Works ... ..	1936	158,673	...	...	...
Metal Quarries ... ..	1936	96,278	...	...	...

Of the aggregate profits of the three undertakings sold in 1936, a sum of £445,064 has been transferred to the Consolidated Revenue Fund (*viz.*, £442,230 in 1937-38, and £2,834 in earlier years), there is a cash deposit at the Treasury £2,928, and book debts and unsold assets amounted to £1,194. The aggregate losses incurred on the other undertakings have been met in part from State revenue funds, but at 30th June, 1938, there were outstanding in respect of them unpaid advances from the General Loan Account £307,037, and bank overdrafts not yet transferred to the Treasurer's accounts £180,973. Against these outstanding capital liabilities there existed assets consisting of cash deposits at the Treasury £269, and outstanding debtors £11,409.

#### SPECIAL DEPOSITS AND SPECIAL ACCOUNTS.

The Special Deposits and Special Accounts form a very important division of the public finances, not only from the nature and volume of the transactions, but also by reason of the manner in which they are used in connection with the general finances of the State.

These funds are of great assistance in the banking operations of the Government, and they form a reserve on which the Treasurer may draw to meet temporary requirements. Although the Audit Act provides that the funds cannot be used except for the specific purpose for which they were deposited, it has been the custom for many years to draw on the balances for overdrafts of the Consolidated Revenue Fund and Loan Accounts if required. The great bulk of the funds bear interest, whether invested or not, and the power to use them enables the Government to effect a large saving in the interest which might otherwise be charged for accommodation from the banks.

The following table shows the amount of the Special Deposits and Special Accounts in each of the last fifteen years:—

TABLE 274.—Special Deposits and Special Accounts, 1924 to 1938.

As at 30th June	Amount.	As at 30th June.	Amount.	As at 30th June.	Amount.
	£		£		£
1924	19,666,636	1929	24,705,014	1934	23,053,914
1925	26,001,112	1930	24,544,829	1935	15,769,982
1926	25,069,338	1931	23,698,304	1936	15,033,653
1927	20,009,040	1932	25,163,347	1937	14,401,234
1928	22,738,617	1933	24,144,728	1938	15,078,684

At the 30th June, 1938, the amount at the credit of the Special Deposits Account was £14,576,667, and the Special Accounts £502,017. The marked decline in the amount during 1934-35 was due to the transfer to General Loan Account of long standing deposits lodged by the Commonwealth to finance State expenditure on the settlement of returned soldiers. The amount transferred in this year was £7,531,261, and a further amount of £934,722 was transferred in 1935-36.

The amount at the credit of the principal accounts as at 30th June, 1938, is shown in the following table:—

TABLE 275.—Special Deposits and Special Accounts, Principal Accounts.

<i>Special Deposits Accounts.</i>		<i>Special Accounts.</i>	
	£		£
Commonwealth Bank Advances		Deposits lodged by Trustee companies ... ..	80,870
Deposit Account ... ..	450,000	Workers' Compensation Act—	
Commonwealth Savings Bank of		Security Deposits ... ..	546,049
Australia Deposit Account ...	6,591,308	Loan Repayments Suspense ...	300,877
Advances by Commonwealth ...	423,129	Hunter District Water and	
Fixed Deposit Account ... ..	500,000	Sewerage Board ... ..	94,093
State Debt Commissioners'		Maritime Services Board ... ..	500,000
Trust Accounts ... ..	97,531	Port Kembla Electricity Supply	
Government Insurance Office		Sydney Harbour Bridge	
Funds ... ..	787,099	Account ... ..	67,429
Main Roads Department ... ..	109,218	Wire Netting Account ... ..	95,594
Public Vehicles Account ... ..	212,923	Forestry Account ... ..	83,299
Liquor Act Compensation Fund	324,167	State Superannuation Board ...	367,725
State Lotteries Account ... ..	66,236	Burrinjuck Electricity Supply	237,626
Public Works Department's		Murrumbidgee Irrigation Area	220,058
Accounts ... ..	112,228	Government Printing Office	
Homes for Unemployed ... ..	67,700	Account ... ..	78,264
Flour Acquisition Act, 1931 ...	187,767	Government Dockyards ... ..	265,955
Hospital Fund ... ..	41,012	Deposits on Tenders ... ..	48,334
Treasury Fire Risk Accounts... ..	200,000	Other ... ..	856,740
Public Trustee—Unclaimed			
Balances of Intestate Estates	296,428	Total ... ..	14,576,667
Relief to Necessitous Farmers			
Working Account ... ..	144,396		

The total sum to the credit of the accounts on the 30th June, 1938, was £15,078,684 of which £1,773,481 was invested in securities; £9,605,985 was not invested but was used in advances and on public account at interest ranging from 1 to  $3\frac{1}{8}$  per cent.; the remainder was used similarly, but without interest. In cases where interest was being paid by the Treasurer on the 30th June, 1938, the rate was 3 per cent., with the following exceptions:—Main Roads and Treasury Fire Risks, 1 per cent.; Insurance Funds,  $2\frac{1}{2}$  per cent.; Port Kembla and Burrinjuck Electricity, 2 per cent.; Murrumbidgee Irrigation Areas,  $3.66774$  per cent.; Fixed Deposit,  $3\frac{1}{8}$  per cent.

The Treasury pays interest on deposits lodged by trustee companies, and sundry security deposits and trust accounts, at the rate ruling on the stock in which the deposits are invested.

Interest rates on Special Accounts were  $1\frac{1}{2}$  per cent. on Equity and Probate Accounts, 1 per cent. on Lunacy Accounts, and  $2\frac{1}{4}$  to  $2\frac{3}{8}$  per cent. on Public Trustee Accounts.

The funds in the custody of the State Treasurer at credit of Special Deposits and Special Accounts were held as follows:—

TABLE 276.—Special Deposits and Special Accounts, Cash and Investments.

Funds.	30th June, 1936.	30th June, 1937.	30th June, 1938.
In Banks—	£	£	£
Special Deposits Account ... ..	12,941,505	12,294,245	12,803,186
Special Accounts ... ..	417,450	367,785	502,017
Australian Consolidated Inscribed Stock ...	1,010,800	1,080,944	1,120,844
Securities not Specified ... ..	663,898	658,260	652,637
Total ... ..	£ 15,033,653	14,401,234	15,078,684

#### STATE LOAN FUNDS.

The moneys raised on loans are credited to the General Loan Account with the following exceptions, viz., long term loans of relatively small amounts which have been utilised in funding revenue deficiencies; a large amount of short dated treasury bills which has been credited to a special account and used to meet unfunded revenue deficiencies; small amounts credited to the Closer Settlement Fund for the conversion, at maturity, of portion of the fund's loan debt.

The whole of the loans outstanding, with the exception of those used for revenue purposes, have been raised for capital expenditure on works and services. A reconciliation of the loan liability of the State at 30th June, 1938,

with the accumulated net loan expenditure on works and services from General Loan Account (including old loan accounts now defunct) is provided in the following table:—

TABLE 277.—Reconciliation of State Loan Liability with Total Loan Expenditure, 30th June, 1938.

	£
Outstanding Loan Liability at 30th June, 1938 ... ..	354,167,254
<i>Add</i> Debt liability assumed by Commonwealth Government in respect of transferred properties ... ..	4,788,005
	358,955,259
<i>Less</i> Loans not credited until after 30th June, 1938—	
Local Flotation, May, 1938 ... ..	331,460
	358,623,799
<i>Deduct</i> Amounts included in loan liability, but not in net loan expenditure statements—	£
Commonwealth Advance—Grafton—South Brisbane Railway ... ..	1,416,762
Conversion of Closer Settlement Debentures...	907,650
Loans—	
Revenue Deficiency (to 30th June, 1928) ...	4,965,634
Revenue Deficit 1935-36 ... ..	1,273,964
Deficiency Treasury Bills ... ..	30,870,000
Advances to Settlers ... ..	120,050
*True net expenses of Loan Flotations (including discounts on various issues) ...	17,436,117
	56,990,177
	301,633,622
<i>Add</i> Redemptions from Revenue and Sinking Funds ... ..	20,917,078
	322,550,700
<i>Deduct Cr.</i> Balance of General Loan Account ... ..	4,800,800
	317,749,900
<i>Add</i> Balance, Loans Expenditure Suspense Account at 30th June, 1938 ... ..	332,700
	£318,082,600

\* Difference between securities sold and proceeds realised.

*Loan Expenditure.*

The specific services on which the loan expenditure to 30th June, 1938, has been incurred are classified as follows:—

TABLE 278.—State Loan Expenditure to 30th June, 1938.

Work or Service.	Expenditure to 30th June, 1938.
	£
Railways ... ..	149,507,395
Trainways ... ..	8,870,094
Omnibuses ... ..	322,052
State Coal Mine ... ..	580,705
Public Buildings, Sites, etc.—	
Land Settlement ... ..	3,958,937
Closer Settlement ... ..	8,300,074
Educational and Scientific ... ..	6,848,169
Charitable, etc. ... ..	3,703,724
Agriculture ... ..	7,137,034
Other ... ..	5,158,078
Industrial Undertakings ... ..	1,771,144
Housing ... ..	964,344
Water Supply ... ..	23,723,068
Sewerage ... ..	17,630,111
Water Conservation and Irrigation ... ..	15,748,376
Roads, Bridges, Punts ... ..	9,742,871
Sydney Harbour Bridge ... ..	8,202,512
Harbours and Rivers ... ..	9,476,055
Sydney Harbour ... ..	11,904,863
Immigration ... ..	1,952,690
Electricity Supply... ..	1,587,086
Relief of Unemployment, including Advances and Grants to Shires and Municipalities ... ..	16,227,715
Shires and Municipalities—Miscellaneous Works ... ..	749,711
Commonwealth Services, Telegraphs, Defence Works, etc. ... ..	*3,965,937
Queensland Public Works, prior to Separation, 1859... ..	49,855
Total, Works and Services ... ..	318,082,600

\*Liability has been accepted by Commonwealth Government.

The amounts shown above represent the net expenditure after deducting repayments and recoups. The total, £318,082,600, includes expenditure from General Loan Account, £317,749,900, and Loans Expenditure Suspense Account, £332,700.

The following table gives a reconciliation of the total indebtedness as shown on page 362 with the net expenditure on works and services:—

TABLE 279.—Reconciliation of Total State Indebtedness with Total Loan Expenditure, 30th June, 1938.

	£
Expenditure on Works and Services ... ..	318,082,600
Grafton-South Brisbane Railway ... ..	1,416,762
Acquisition of Closer Settlement Estates ... ..	1,039,350
Exchange on Remittances, Discounts and Flotation Expenses, etc. ... ..	17,436,117
Transferred to Consolidated Revenue Fund, (Deficiency funded to 30th June, 1938) ... ..	4,965,634
Held in suspense to fund Deficiency, 1935-36... ..	1,273,964
Utilised towards meeting General Cash Deficiency ... ..	30,870,000
Advances to Settlers, Inscribed Stock ... ..	120,050
	375,204,477
Less Redemptions from Consolidated Revenue and Sinking Fund ... ..	20,917,078
„ Sinking Fund Balance ... ..	180,669
„ Value of Properties Transferred to Commonwealth ... ..	4,788,005
	25,885,752
Total Public Indebtedness ... ..	349,318,725

The total differs from the total loan liability to the Commonwealth, as shown on page 362, to the extent that it includes the overdraft on Loans Expenditure Suspense Account, £332,700, and Closer Settlement Debentures external to the Financial Agreement, £131,700, and excludes the credit balance of the General Loan Account £4,800,800, and of the Sinking Fund £180,669, and loan proceeds not credited until after the 30th June, 1938, amounting to £331,460.

*Annual Loan Expenditure.*

The actual loan expenditure by the State Government and the Metropolitan Water, Sewerage and Drainage Board in each of the past nine years, was as follows:—

TABLE 280.—Annual Gross Loan Expenditure, 1930 to 1938.

Year ended 30th June.	Actual Loan Expenditure. *	Year ended 30th June.	Actual Loan Expenditure. *	Year ended 30th June.	Actual Loan Expenditure. *
	£		£		£
1930	13,192,755	1933	5,717,976	1936	11,019,596
1931	7,180,708	1934	9,149,527	1937	10,503,721
1932	4,203,586	1935	12,166,785	1938	11,530,035

\* Includes expenditure by Metropolitan Water, Sewerage and Drainage Board.

A summary of the gross loan expenditure of the State and the Metropolitan Water, Sewerage and Drainage Board during each of the past five years is shown below. Loan moneys expended by Federal and local bodies are not included.

TABLE 281.—Annual Gross Loan Expenditure, General Loan and Loan Suspense Accounts.

Service.	1934.	1935.	1936.	1937.	1938.
Gross amount charged to General Loan Fund in respect of Works and Services.*	7,907,924	10,272,307	9,558,172	7,343,015	7,887,252
Less Loan expenditure suspense of previous year included above.	111,830	2,000	336,768	269,704	109,212
Plus Loan expenditure suspense of year	7,796,094 2,000	10,270,307 336,768	9,221,404 269,704	7,073,311 109,212	7,778,040 332,700
Actual expenditure on Works and Services from Treasury Loan Accounts. Expended by Metropolitan Water Sewerage and Drainage Board. †	7,798,094	10,607,075	9,491,108	7,182,523	8,110,740
Commonwealth advance for Grafton-Kyogle-Brisbane Railway.	1,352,099	1,559,710	1,628,988	3,321,198	3,410,295
Actual Loan expenditure under State control.	(—) 666	.....	(—) 500	.....	.....
	9,149,527	12,166,785	11,019,596	10,503,721	11,530,035

\* Excluding repayments to votes in respect of expenditure during the year shown, and redemptions of Closer Settlement Debentures. † Excluding Loans provided from State Funds.

The figures quoted represent the gross or new loan expenditure in each year and include, in addition to moneys obtained by new loans, repayments to the General Loan Account of amounts expended in earlier years. The repayments in 1937-38, amounting to £3,009,875, were unusually large. This was due partly to the repayment from loans raised by municipal and shire councils of earlier years' expenditure on country water and sewerage works. Formerly these repayments were spread over a long term of years and were paid from the annual revenues of the councils. The repayments amounted to £793,616 in 1933-34, £882,313 in 1934-35, £1,512,288 in 1935-36, and £846,445 in 1936-37.



*Distribution of Annual Loan Expenditure.*

The principal heads of the gross loan expenditure by the State Government and the Metropolitan Water, Sewerage and Drainage Board on works and services during each of the past three years are shown below in summary form. Full details are shown in the Public Accounts and Auditor-General's Reports:—

TABLE 282.—Annual Gross Loan Expenditure, Works and Services.

Work or Service.	Expenditure during year ended 30th Jnne.		
	1936.	1937.	1938.
Railways, Tramways and Omnibuses—	£	£	£
Railways ... ..	2,541,986	2,259,999	2,575,000
Tramways ... ..	172,930	159,700	123,700
Omnibuses ... ..	3,500	127,135	180,700
	2,718,416	2,546,834	2,879,400
Water Supply, Sewerage, etc.—			
Metropolitan Drainage Works ... ..	666,851	287,416	291,934
Hunter District W.S. & S. Board... ..	165,253	165,077	206,725
Country Towns, Water, Sewerage, etc. ... ..	570,815	240,267	483,236
Water & Drainage* ... ..	467,357	306,577	404,193
	1,870,276	999,337	1,386,088
Irrigation, Water Conservation, etc.—			
Murrumbidgee Irrigation Area ... ..	72,209	70,831	138,316
River Murray Commission ... ..	93,726	112,229	102,200
Wyangala Storage Reservoir ... ..	12,733	8,143	3,685
Keepit Storage Reservoir ... ..	...	...	523
	178,668	191,203	244,724
Harbours—			
Sydney Harbour ... ..	44,500	54,000	27,000
Other Harbours, Rivers, Wharves, Docks and Dredges ... ..	123,418	155,196	734,310
	167,918	209,196	761,310
Roads and Bridges—			
Roads and Bridges ... ..	230,773	772,357	821,761
Sydney Harbour Bridge ... ..	1,786	568	120
	232,559	772,925	821,881
Public Buildings—			
Educational Buildings ... ..	197,706	228,781	395,230
Hospital and Charitable Buildings ... ..	186,001	292,990	353,594
Other Government Buildings—			
Police Stations, Court Houses and Gaols ... ..	25,581	29,932	19,624
	409,288	551,703	768,457
Electricity Undertakings ... ..	38,959	92,571	195,518
Grain Elevators ... ..	297,206	44,658	26,712
Rural Bank—Government Agencies, Housing, etc. ... ..	160,000	35,000	10,000
Provision for Unemployment Relief Work ... ..	3,391,065	1,443,577	1
Shires and Municipalities—Miscellaneous Works and Improvements ... ..	...	235,708	739,107
Erskineville Housing Scheme... ..	...	...	35,000
Other ... ..	26,753	59,811	242,542
Total Works and Services ... ..	£ 9,491,108	7,182,523	8,110,740
Expended by Metropolitan Water, Sewerage, and Drainage Board† ... ..	1,528,988	3,321,198	3,419,295
Commonwealth Advances—Grafton—Kyogle—Brisbane Railway† ... ..	(—) 500	...	...
Grand Total Expenditure on Works and Services ... ..	£ 11,019,596	10,503,721	11,530,035

\* Including Water Supply and Irrigation Districts, etc. † Not included in General Loan Account of N.S.W.

The State Government's net expenditure from General Loan Account on works and services (exclusive of redemptions, conversions, and renewals of loans, discount, flotation charges, etc.) is shown below for the period of thirty-nine years, 1842-1880, in decennial periods from 1881 to 1930, and for each year since 1930-31. The figures differ from those for corresponding years shown in tables 281 and 282, in that they relate to the net loan expenditure, *i.e.*, gross expenditure less repayments of amounts expended in previous years, and do not include the operations of Loan Expenditure Suspense Account.

TABLE 283.—Net Expenditure from General Loan Account, 1842 to 1938.

Years.	During Each Period.		Total at end of Period.	
	Amount.	Per Inhabitant.	Amount.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.
1842-1880	16,316,530	41 12 2	16,316,530	21 9 11
1881-1890	27,639,022	29 8 8	43,955,552	39 3 7
1891-1900	20,515,704	16 6 8	64,471,256	47 12 1
1901-1910	26,876,468	18 0 4	91,347,724	56 11 11
1911-1920	65,228,221	35 5 8	156,575,945	75 13 5
1921-1930	112,957,971	48 1 2	269,533,916	106 10 11
1930-31	5,951,488	2 6 9	275,485,404	107 16 8
1931-32	3,387,144	1 6 5	278,872,548	108 3 1
1932-33	4,209,601	1 12 6	283,082,149	108 16 8
1933-34	7,114,309	2 14 5	290,196,458	110 13 8
1934-35	9,389,994	3 11 3	299,586,452	113 5 6
1935-36	6,789,501	2 11 1	306,375,953	114 18 10
1936-37	6,496,570	2 8 6	312,872,523	116 3 10
1937-38	4,877,377	1 16 0	317,749,900	116 17 4

The repayments to General Loan Account of amounts expended in previous years are shown on page 354 for the five years 1933-34 to 1937-38. The amount of £1,512,288 in 1935-36 is exclusive of a book-keeping adjustment of £1,256,383 deducted from gross loan expenditure in arriving at the net figure as shown in the foregoing table.

*External Loans Maturing.*

The amounts, rates of interest, and latest dates of maturity of the long term oversea loans of New South Wales outstanding in London and New York at 30th June, 1938, are shown below:—

TABLE 284.—External Loans, Latest Dates of Maturity.

Latest Date of Maturity.	Amount.	Rate of Interest.	Latest Date of Maturity.	Amount.	Rate of Interest.
<i>Repayable in London.</i>			<i>Repayable in London.</i>		
	£	per cent.		£	per cent.
1 Oct., 1941	12,420,113	3	1 July, 1975	† 668,552	1, 1½
1 Jan., 1943	10,954,600	2½	1 ,, 1975	1,416,762	5
15 Oct., 1948	9,527,090	4	Indefinite ...	1,200	5
15 Mar., 1949	2,741,400	3½	Overdue ...	8,650	...
1 July, 1950	*11,779,928	3½	Total, London..	£149,481,194	...
15 Sept., 1952	11,975,958	3½			
15 Dec., 1953	4,866,232	3½			
1 Feb., 1954	6,176,815	3½			
1 July, 1957	17,870,500	5½			
15 April, 1958	20,542,000	3	<i>Repayable in New York.</i>		
1 June, 1959	3,829,050	3½	1 May, 1956	*3,892,633	4½
1 July, 1962	10,372,396	4	1 Feb., 1957	4,483,510	5
1 Dec., 1965	14,130,000	5	1 April, 1958	4,525,840	5
1 July, 1970	9,322,446	4	Overdue	17,980	...
1 ,, 1975	877,502	5	Total, New York ...	£12,919,963 (\$62,875,000)	...

\* Earliest date of maturity passed—Commonwealth may redeem upon due notice.

† Advances from Commonwealth Government under Migration Agreement.

Sterling Treasury Bills amounting to £9,965,276 at 30th June, 1938, are not included in the foregoing table. These bills have a currency of three months and bear interest at the rate of 2½ per cent.

## NATIONAL DEBT CONVERSION LOAN.

As part of the plan (known as "The Premiers' Plan") to meet the economic crisis in Australia consequent on the world depression, the Premiers' Conference held in Melbourne in May and June, 1931, decided to invite holders of Government securities in Australia to convert them into new issues on terms involving reduced rates of interest and alternative dates of redemption.

A brief summary of the plan and of the circumstances leading up to it is published in the Commonwealth Year Book for 1931, and detailed reports of the various conferences have been issued as printed documents by the Commonwealth Parliament. Particulars of the financial and economic crisis which affected the State in common with Australia as a whole is given in the Commonwealth Year Book for 1937.

The conversion of the debt was authorised in terms of the Commonwealth Debt Conversion Agreement Acts (July and November, 1931); the Commonwealth Debt Conversion Act (August, 1931); and the (State) Debt Conversion Agreement Act (July, 1931) as modified by supplementary and amending enactments. The terms and conditions were set out on page 667 and following pages of the Official Year Book of New South Wales 1930-31.

## COST OF RAISING AND MANAGING LOANS.

Operations incidental to the issue of loans in London are conducted by the Commonwealth Bank of Australia and in respect of some earlier loans by the Westminster Bank Ltd. The charges of the latter bank are

$\frac{1}{2}$  per cent. per £100 of stock on all loan issues, and £150 per million annually for the inscription and management of stock, including the payment of the half-yearly dividends. At 30th June, 1938, stock to the value of £54,154,024 was managed by the Westminster Bank and the balance by the Commonwealth Bank of Australia.

The management of the internal debts of Australian Governments has been conducted by the Commonwealth authorities, in accordance with the Commonwealth Inscribed Stock Regulations, since the conversion of the internal loans of Australia into Commonwealth Consolidated Stock in the latter half of 1931.

With the approval of the Loan Council, Commonwealth securities may be sold at the State Treasury, and the proceeds are applied as part of the loan proceeds allocated to the State in terms of the financial agreement. Such issues are not underwritten, and the price of flotation is usually par.

Commission paid for management expenses in connection with the public debt is a charge on the Consolidated Revenue Fund; expenses incurred in the negotiation of loans, such as brokerage, underwriting, printing, etc., are charged against the proceeds of the loans. The amount so charged, together with discounts allowed to subscribers at various issues, amounted to £17,436,117 at 30th June, 1938.

The following statement shows the charges for the negotiation of recent loans, inclusive of the accrued interest and discounts allowed to investors. The statement includes both new loans and conversions, but does not include Treasury Bill transactions:—

TABLE 285.—Cost of Raising Loans.

Year of Flotation.	Amount of Principal.	Price of Issue per cent.	Gross Amount Raised.	Costs of Negotiation.	Net Amount Credited to A/c. etc.	Date from which Interest Accrues.	Nominal Rate of Interest.	Date of Maturity.
Issued in London.								
1935-36	£ (a) 12,420,113	100	£ 12,420,113	£ 162,525	£ 12,257,588	1-10-35	3	1-10-41
"	(a) 21,057,000	95 $\frac{1}{2}$	20,682,435	282,429	20,400,006	15-4-36	3	15-4-58
"	(a) 10,954,600	99	10,845,054	159,042	10,686,012	15-9-36	2 $\frac{1}{2}$	1-1-43
1936-37	(a) 12,360,958	96 $\frac{1}{2}$	11,928,325	158,771	11,769,554	15-9-37	3 $\frac{1}{2}$	15-9-52
1937-38	(a) 6,427,465	97	6,234,641	81,816	6,152,819	1-2-38	3 $\frac{1}{2}$	1-2-54
Issued in Australia.								
1934-35	(a) 5,757,620	100	5,757,620	.....	5,757,620	§	4	15-11-41
"	7,368,110	99 $\frac{1}{2}$	7,331,270	49,571	7,281,699	§	3 $\frac{3}{4}$	15-10-49
"	2,000	100	2,000	.....	2,000	23-8-34	3 $\frac{1}{2}$	15-10-48
"	(a) 4,347,300	100	4,347,300	.....	4,347,300	10-8-34	3	10-8-39
"	48,000	100	48,000	.....	48,000	11-12-34	3	15-10-48
"	6,958,880	99 $\frac{1}{2}$	6,941,483	44,085	6,897,398	§	3	15-10-48
"	(b) 7,531,261	100	7,531,261	.....	7,531,261	§	4	§
1935-36	3,729,480	99 $\frac{1}{2}$	3,720,156	28,084	3,692,072	26-10-35	3 $\frac{3}{4}$	15-10-49
"	4,386,990	98 $\frac{1}{2}$	4,321,185	33,327	4,287,858	2-6-36	3 $\frac{1}{2}$	15-10-51
1936-37	1,995,570	97 $\frac{1}{2}$	1,945,681	16,987	1,928,694	§	3 $\frac{3}{4}$	15-10-51
"	2,855,000	99 $\frac{1}{2}$	2,833,587	23,597	2,809,990	§	3 $\frac{3}{4}$	15-10-48
"	(d) 95,400	97 $\frac{1}{2}$	93,015	.....	(d) 93,015	1-2-37	3 $\frac{3}{4}$	15-10-51
1937-38	2,798,540	99 $\frac{1}{2}$	2,791,544	22,866	2,768,678	§	3 $\frac{3}{4}$	15-11-51
"	(c) 2,441,460	99 $\frac{1}{2}$	2,429,353	(c)	(c) 2,110,000	§	3 $\frac{3}{4}$	15-8-54
"	(d) 77,850	99 $\frac{1}{2}$	77,655	.....	(d) 77,655	1-2-38	3 $\frac{3}{4}$	15-11-51

§ Various amounts at various dates.

(a) Conversions. (b) Funding of Commonwealth advances for settlement of soldiers. (c) Subject to adjustment. Charges and balance of proceeds to be brought to account in 1938-39. (d) Credited to Closer Settlement Account for conversion of debentures.

No new money has been obtained overseas since 1931-32. During the six years 1932-33 to 1937-38, however, twelve conversion loans, amounting in the aggregate to £113,615,177, were floated in London. Two of these loans, amounting to £18,788,423, were for the further conversion of loans converted in 1932 and 1933.

By reason of the general decline in interest rates since the beginning of 1932, the conversions have resulted in substantial savings in interest. The nominal rates of interest payable on the loans prior to conversion ranged between 3 per cent. and  $6\frac{1}{2}$  per cent., and averaged 4.93 per cent. Nominal rates of interest on the converted loans range between  $2\frac{3}{4}$  per cent. and 4 per cent. and the average rate is 3.35 per cent. The annual interest saving is nearly £1,500,000.

#### *Temporary Accommodation.*

Short term securities have been renewed from time to time during recent years. The growth of temporary accommodation by means of Treasury Bills and short term Debentures is illustrated in the following table:—

TABLE 286.—State Short Term Debt 1929 to 1938.

Amount outstanding at 30th June	Australia.	London.	Total.
	£000.	£000	£000
1929 ... ..	...	4,000	4,000
1930 ... ..	...	8,600	8,600
1931 ... ..	9,754	13,117	22,871
1932 ... ..	25,010	12,674	37,684
1933 ... ..	27,890	10,408	38,298
1934 ... ..	29,190	10,113	39,303
1935 ... ..	28,310	10,113	38,423
1936 ... ..	30,605	9,965	40,570
1937 ... ..	30,560	9,965	40,525
1938 ... ..	30,870	9,965	40,835

The rates of interest chargeable on the short-term debt have decreased progressively. The rate chargeable on Treasury Bills issued in Australia has decreased from 6 per cent. in 1930 to  $1\frac{3}{4}$  per cent., the rate current since January, 1935, as shown in table 323, page 398. The rate charged on the London short-term debt outstanding at 30th June in each year ranged between  $3\frac{1}{2}$  and 5 per cent. in 1932,  $2\frac{1}{2}$  and  $3\frac{1}{2}$  per cent. in 1933, and  $2\frac{1}{2}$  and 3 per cent. in 1934. The rate was  $2\frac{1}{2}$  per cent. in 1935 and 1936 and  $2\frac{1}{4}$  per cent. in later years.

#### THE PUBLIC DEBT.

The first loans raised by New South Wales were for the promotion of immigration. From 1831 to 1841 the expenses attached to immigration were met by the Land Fund, into which were paid the proceeds of land sales. These proved insufficient, and in 1841 it became necessary to obtain additional funds.

It was, therefore, decided by the Governor to borrow on the security of the Territorial or Land Revenue, and a debenture loan of £49,000 was offered locally on the 28th December, 1841. The loan was issued during 1842 in

two instalments, the nominal rates of interest being 5½d. and 4d. per cent., respectively, per diem. This was the first loan floated in Australia, as well as the first raised by an Australian Government. It was not until 1854 that a loan was placed on the London market.

The Public Debt in November, 1855, when responsible Government was proclaimed, was £1,000,800, distributed under the following heads:—

Raised on the Security of Territorial Revenue—		£
Immigration	... ..	423,000
Sydney Railway Company's Loan	... ..	217,500
Raised on the Security of General Revenue—		
Amount for Sydney Sewerage	... ..	51,900
„ „ Sydney Water Supply	... ..	28,000
„ „ Railways	... ..	256,400
„ „ Public Works	... ..	21,000
Total	... ..	<u>£1,000,800</u>

Since 1855 the debt has grown steadily by reason of loan expenditure.

The amount of public debt outstanding at the end of each year from 1842 to 1860 is published on page 423 of the Official Year Book for 1926-27. The amount of debt at the end of each subsequent year to 1931 is shown on page 661 of the "Statistical Register" for 1930-31.

The following table shows the amount of "funded" Public Debt outstanding at the end of various years from 1842 to 1890 and at 30th June in 1895 and later years:—

TABLE 287.—Funded Debt of New South Wales, 1842 to 1938.

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1875	11,470,637	1910	92,525,095
1845	97,700	1880	14,903,919	1915	127,735,405
1850	132,500	1885	35,564,259	1920	152,776,082
1855	1,000,800	1890	48,383,333	1925	201,702,327
1860	3,830,230	1895	58,220,933	1930	259,589,967
1865	5,749,630	1900	65,332,993	1935	298,678,493
1870	9,681,130	1905	82,321,998	1938	313,331,978

The unfunded debt (which is not included in the table) consisted mainly of advances from the Commonwealth to the State Government until 1930, and almost entirely of short-dated Treasury Bills in 1935 and 1938. The Commonwealth advances, which amounted to £10,147,627 at 30th June, 1930, were later converted into funded debt. The Treasury Bills outstanding in 1935 amounted to £38,422,776, and in 1938 to £40,835,275.

In considering the rate of growth of the debt, attention should be paid to the effect of variations in the purchasing power of the money expended, the steady growth of population throughout the period, the economic development of the State, as measured by the growth of its wealth, income and productiveness, and the earning power of the works constructed from loans.

Furthermore, comparisons of the rate of growth of the State debt with that of other States of Australia should take into account the differences in the distribution of governmental functions as between the central and local governments and the inclusion or non-inclusion of the capital debts of public utilities controlled by governmental authority.

Similarly, in making international comparisons care should be taken to allow for differences in the distribution of debt as between central, provincial and local governments and the existence or otherwise of reproductive assets acquired from loan funds. Superficial comparisons made without reference to these factors lead to erroneous conclusions.

The following statement shows the amount of Stock and Debentures on each register at quinquennial intervals from 1900 to 1938. Treasury Bills issued in London are included in the statement but those issued in Australia are not included as they are not credited to the General Loan Account. Stocks are transferable normally from London to Australia.

TABLE 288.—Stock, Debentures and London Treasury Bills Outstanding, 1900 to 1938.

As at 30th June.	Stock, Debentures and London Short Term Securities Registered in—					
	London and New York.		Australia.		Total	
	Amount.	Proportion to Total.	Amount.	Proportion to Total.	Amount.	Per head of Population.
	£	per cent.	£	per cent.	£	£ s. d.
1900	55,060,650	84.28	10,272,343	15.72	65,332,993	48 4 9
1905	64,007,550	77.75	18,314,448	22.25	82,321,998	56 12 2
1910	67,154,805	72.58	25,370,290	27.42	92,525,095	57 6 6
1915	86,167,288	67.46	41,568,117	32.54	127,735,405	67 10 11
1920	101,977,445	66.75	50,798,637	33.25	152,776,082	73 16 11
1925	136,064,505	67.45	65,637,822	32.55	201,702,327	87 19 4
1930	168,993,285*	65.10	90,596,682	34.90	259,589,967	102 12 4
1935	173,394,202*	56.41	133,979,805	43.59	307,374,007	116 4 5
1936	173,191,631*	55.06	141,362,901	44.94	314,554,532†	118 8 1
1937	172,195,956*	54.10	146,118,781	45.90	318,314,737†	118 4 4
1938	170,949,671*	53.11	150,930,821	46.89	321,880,492	118 7 7

\* Including £13,945,628 in 1930, £13,226,343 in 1935, £13,171,273 in 1936, £13,071,098 in 1937 and £12,919,963 in 1938, registered in New York.

† Exclusive of £10,954,600 in 1935-36, and £12,360,958 in 1936-37, loans for conversions, proceeds not credited until following year.

Treasury Bills issued in Australia amounted to £30,870,000 at 30th June, 1938, and Commonwealth advances in connection with the Grafton-South Brisbane railway to £1,416,762. These amounts are excluded from the foregoing table, but are included in tables 290 to 292 where the loan liability to the Commonwealth at 30th June, 1938 is shown at £354,167,254.

Formerly the State Government depended principally on the London money market for the flotation of its loans and more than 84 per cent. of the loans outstanding at 30th June, 1900, were registered in London. As the State developed, loanable funds became available on the local market and, despite heavy borrowings by the Commonwealth Government in Australia for war purposes, the State's loan capital has been provided to an increasing extent from local resources. Owing to the stringency on the London money market in the early part of 1927 the State raised two 25,000,000 dollar loans in New York, the total amount of principal being £10,273,973. In the following year the State received £3,955,615, part of the proceeds of a 50,000,000 dollar loan raised in New York by the Commonwealth. At 30th June, 1938 an amount of £12,919,963 was outstanding in respect of the New York loans.

#### TOTAL PUBLIC DEBT OF STATE.

The total public debt of New South Wales consists of (a) the stock, debentures, etc., shown in the previous table; (b) the net advances by the Commonwealth Government for various purposes; (c) the amount of debentures and ministerial certificates issued in payment for estates acquired for purposes of closer settlement and (d) short term Treasury Bills and debentures. This total is adjusted by adding overdrafts or subtracting credit balances on general loan account and on loan expenditure suspense account.

Upon the inception of the Commonwealth Financial Agreement on 1st July, 1927 (see page 367), it became necessary to introduce a new classification of items comprised in the public debt. The following table is a summary of items which may be said to constitute the total indebtedness. For reasons given earlier, the classification is not considered quite satisfactory, but is given for comparative purposes.

TABLE 289.—Total State Indebtedness.

Particulars.	Amount of Debt as at 30th June.			
	1935.	1936.	1937.	1938.
	£	£	£	£
Stock and Debentures. ... ..	297,261,231	304,589,256	308,349,461	311,915,216
Commonwealth Advances, Grafton-South Brisbane Railway. ... ..	1,417,262	1,416,762	1,416,762	1,416,762
Total ... ..	298,678,493	306,006,018	309,766,223	313,331,978
Treasury Bills and Short Term Debentures—				
London ... ..	10,112,776	9,965,276	9,965,276	9,965,276
Sydney ... ..	28,310,000	30,605,000	30,560,000	30,870,000
Total ... ..	38,422,776	40,570,276	40,525,276	40,835,276
LOAN LIABILITY TO THE COMMONWEALTH ... ..	337,101,269	346,576,294	350,291,499	354,167,254
Less Sinking Fund Balances ... ..	913,237	653,323	646,588	180,669
NET DEBT AS DEFINED BY FINANCIAL AGREEMENT	336,188,032	345,922,971	349,744,911	353,986,585
Closer Settlement Debentures external to Agreement	131,700	131,700	131,700	131,700
Loans Expenditure Suspense Account Overdraft ... ..	336,768	269,704	109,212	332,700
Total ... ..	336,656,500	346,324,375	349,985,823	354,450,985
Less Loan Proceeds due but not credited till following year ... ..	1,386,360	821,990	85,000	331,460
Less General Loan Credit Balance ... ..	5,406,836	6,171,939	4,988,878	4,800,800
Total Public Indebtedness ... ..	329,863,304	339,330,446	344,911,945	349,318,725

Debit balances on revenue accounts are not shown, as treasury bills have been issued in respect of them.

The particular services upon which the amount of £349,318,725 has been expended are shown in table 278.



*Domicile and Rates of Interest on Public Debt.*

The following tables show in respect of the New South Wales public debt owing to the Commonwealth as at 30th June, 1938, the amount in the various registers, the rates of interest, and the latest dates of maturity:—

TABLE 290.—Stock, Debentures and Treasury Bills, at 30th June, 1938, Domicile and Rates of Interest.

Rate per cent.	Payable in—			Total:	Annual Interest.
	New York.	London.	Australia.		
£ s. d.	£	£	£	£	£
5 5 0 ... ..	...	17,870,500	...	17,870,500	938,201
5 0 9 ... ..	...	...	3,035	3,035	153
5 0 0 ... ..	9,009,350	16,425,464	...	25,434,814	1,271,741
Total, £5 and over	9,009,350	34,295,964	3,035	43,308,349	2,210,095
4 13 0 ... ..	...	...	572,910	572,910	26,640
4 10 0 ... ..	3,892,633	...	...	3,892,633	175,169
4 5 3 ... ..	...	...	2,124,060	2,124,060	90,538
4 1 4½ ... ..	...	...	11,246,140	11,246,140	457,577
4 0 0 ... ..	...	29,221,931	67,942,599	97,164,530	3,886,581
Total, £4 and under £5	3,892,633	29,221,931	81,885,709	115,000,273	4,636,505
3 17 6 ... ..	...	...	3,157,250	3,157,250	122,344
3 15 0 ... ..	...	7,607,633	28,765,959	36,373,592	1,384,010
3 10 0 ... ..	...	33,761,751	4,428,150	38,189,901	1,336,646
Total, £3 10s. and under £4	...	41,369,384	36,351,359	77,720,743	2,823,000
3 9 9 ... ..	...	...	51,900	51,900	1,810
3 7 6 ... ..	...	...	7,406,310	7,406,310	249,963
3 5 0 ... ..	...	...	5,137,634	5,137,634	166,973
3 2 6 ... ..	...	...	2,000	2,000	63
3 2 0 ... ..	...	...	479,811	479,811	14,874
3 0 0 ... ..	...	32,962,113	17,951,762	50,913,875	1,527,416
2 15 0 ... ..	...	10,954,600	...	10,954,600	301,251
2 14 3 ... ..	...	...	291,421	291,421	7,905
2 6 6 ... ..	...	...	645,653	645,653	15,011
2 5 0 ... ..	...	9,965,276	...	9,965,276	224,219
1 15 0 ... ..	...	...	30,870,000	30,870,000	540,225
1 13 4 ... ..	...	668,552	...	668,552	11,143
1 5 0 ... ..	...	...	665,711	665,711	8,321
1 0 0 ... ..	...	...	58,426	58,426	584
Total, under £3 10s.	...	54,550,541	63,560,628	118,111,169	3,069,758
Overdue ... ..	17,980	8,650	90	26,720	...
Total ... ..	12,919,963	159,446,470	181,800,821	354,167,254	12,739,358

The rates of interest payable on the State loan debt have declined substantially since 30th June, 1931, when 72.9 per cent. of the total loans bore interest at rates ranging from 5 per cent. to 6½ per cent., and only 6.7 per cent was at rates below 3½ per cent. At 30th June, 1938, the maximum rate was 5¼ per cent., 12.2 per cent. of the loans bore interest at rates of 5 per cent. or over, and 33.4 per cent. was at rates under 3½ per cent.

Additional details are given in the following table:—

TABLE 291.—Stock, Debentures and Treasury Bills in Interest Groups, 1931 and 1938.

Rate of Interest.	As at 30th June, 1931.		As at 30th June, 1938.	
	Amount.	Percentage.	Amount.	Percentage.
5½ to 6½ ... ..	£ 88,461,781	30·7	£ ...	...
5 to 5½ ... ..	121,540,659	42·2	43,308,349	12·2
4 and under 5 ... ..	38,652,512	13·4	115,000,273	32·5
3½ and under 4 ... ..	20,248,030	7·0	77,720,743	21·9
1 and under 3½ ... ..	19,193,021	6·7	118,111,169	33·4
Matured ... ..	12,750	...	26,720	...
Totals ... ..	288,108,753	100·0	354,167,254	100·0

*Domicile and Term of Loan Liability to Commonwealth.*

The dates of repayment of the debt extend to 1976, and the amount falling due for redemption in each year varies considerably, as will be seen from the following table, which shows the amount repayable as at 30th June, 1938, in London, in New York and in Australia according to the latest due dates:—

TABLE 292.—Stock, Debentures and Treasury Bills at 30th June, 1938, Dates of Maturity and Annual Interest.

Due Date.	Registered in—				Annual Interest on Loans Registered in—			
	Australia.	London.	New York.	Total.	Australia.	London.	New York.	Total.
	£	£	£	£	£	£	£	£
Overdue ...	90	8,650	17,980	26,720	...	...	...	...
(Government Option ...	6,070,924	...	...	6,070,924	176,948	...	...	176,948
1938-39† ...	41,773,031	9,965,276	...	51,738,307	1,006,662	187,832	...	1,194,494
1939-40 ...	4,813,980	...	...	4,813,980	149,365	...	...	149,365
1940-41 ...	711,845	...	...	711,845	30,540	...	...	30,540
1941-42 ...	30,736,090	12,420,113	...	43,156,203	1,238,104	372,603	...	1,610,707
1942-43 ...	14,836,270	10,954,600	...	25,790,870	547,390	301,251	...	848,641
1943-44 ...	4,829,050	...	...	4,829,050	172,365	...	...	172,365
1944-45 ...	6,826,412	...	...	6,826,412	266,327	...	...	266,327
1945-46 ...	1,100	...	...	1,100	35	...	...	35
1947-48 ...	4,782,067	...	...	4,782,067	191,158	...	...	191,158
1948-49 ...	15,373,390	12,268,490	...	27,641,880	499,785	483,880	...	983,671
1949-50 ...	11,238,240	...	...	11,238,240	393,711	...	...	393,711
1950-51 ...	4,679,805	11,779,928	...	16,459,733	187,108	412,297	...	599,405
1951-52 ...	9,953,620	...	...	9,953,620	373,261	...	...	373,261
1952-53 ...	7,000	11,975,958	...	11,982,958	244	419,159	...	419,403
1953-54 ...	4,519,235	11,043,047	...	15,562,282	180,752	398,672	...	579,424
1954-55 ...	2,444,160	...	...	2,444,160	91,649	...	...	91,649
1955-56 ...	4,539,991	...	3,892,633	8,432,624	181,600	...	175,168	356,768
1956-57 ...	...	...	4,483,510	4,483,510	...	...	224,176	224,176
1957-58 ...	4,433,964	38,412,500	4,525,840	47,372,304	177,359	1,554,461	226,292	1,958,112
1958-59 ...	...	3,829,050	...	3,829,050	...	134,017	...	134,017
1959-60 ...	4,449,704	...	...	4,449,704	177,988	...	...	177,988
1961-62 ...	4,309,742	...	...	4,309,742	172,390	...	...	172,390
1962-63 ...	106,804	10,372,306	...	10,479,200	3,311	414,896	...	418,207
1965-66 ...	...	14,130,000	...	14,130,000	...	706,500	...	706,500
1970-71 ...	...	9,322,446	...	9,322,446	...	372,898	...	372,898
1975-76 ...	...	2,962,816	...	2,962,816	...	125,856	...	125,856
Interminable ...	363,707	1,200	...	364,907	11,282	60	...	11,342
Total(†) £	181,800,821	159,446,470	12,919,963	354,167,254*	6,229,334	5,884,388	625,636	12,739,358
	Percentage of Total Debt:				Average Nominal Rate of Interest:			
	51·33	45·02	3·65	100·00	£3/8/6	£3/13/0	£4/16/10	£3/11/11

\* Total Loan Liability to Commonwealth.

† Includes short term Debt, Australia £30,870,000 and London £9,965,276.

As against the gross loan liability to the Commonwealth, £354,167,254, the sinking fund balances amounted to £180,669 at 30th June, 1938, making the net liability to the Commonwealth as defined by the Financial Agreement £353,986,585, as shown in table 289.

*Loans Guaranteed by the State.*

In addition to liability for its own loans, the State has guaranteed, in terms of various Acts, the loans and overdrafts of certain corporate bodies and institutions, etc., engaged, as a rule, in the promotion of public welfare and development. The guarantees extend to all loans issued by certain corporate bodies, the issue of the loans being subject to the Governor's approval. In other cases, with minor exceptions, the guarantee is given by the Treasurer with the Governor's approval and on the recommendation of the appropriate administrative authority.

The loans and overdrafts under State guarantee as at 30th June, 1938, are summarised in the following statement. The amounts shown do not indicate the net amount of the contingent liability of the State, because sinking funds for repayment have been accumulated in respect of some of the loans. Furthermore, the amounts shown under the Government Guarantee Act, 1934-1937, represent the limit of overdrafts and not the amount outstanding.

TABLE 293.—Loans Guaranteed by State, 30th June, 1938.

Loans Issued by—	£	£
Metropolitan Water, Sewerage and Drainage Board ...	18,451,649	
Rural Bank of New South Wales ... ..	25,447,292	
Public Hospitals ... ..	694,722	
Shire and County Councils ... ..	334,857	
Fire Commissioners ... ..	185,500	
	-----	45,114,020
Overdrafts and Advances (under Government Guarantee Act, 1934-1937)—		
Hospitals ... ..	*286,392	
Co-operative Building Societies ... ..	*7,922,325	
Other Co-operative Societies, Marketing Boards, etc. ...	*467,762	
Miscellaneous ... ..	*15,550	
	-----	*8,692,029
Advances to Settlers (Government Guarantee Act, 1929-1934)—		
Rural Bank Borrowers ... ..	.....	306,905

\* Limit of Guarantee.

THE INTEREST BILL OF THE STATE.

The amount of *annual interest* on the State loan liability to the Commonwealth as at 30th June, 1938, is shown in tables 290 and 292 at £12,739,358: This amount is calculated to represent a full year's interest at the rates applicable to the various loans outstanding at that date. It differs, therefore, from the amount of interest *actually paid* which embodies the effects of changes in the composition of the loan debt during the year, and includes interest paid on temporary deposits lodged with the Government.

The amount of interest *actually paid* during the year ended 30th June, 1938, was £13,133,178, comprising £12,070,732 on Debentures and Funded Stocks, £797,016 on Treasury Bills, and £265,430 on moneys held temporarily by the Government. The amount paid on the overseas debt, excluding exchange, was £6,743,023, *viz.*, £6,110,303 in London and £632,720 in New York; and £6,390,155 was paid in Australia.

A proportion of the interest bill is allocated to the various business undertakings and other activities that have been provided with capital from State loan funds, and the balance is paid from the Consolidated Revenue Fund. The amount paid in 1937-38 by the business undertakings, etc., was £7,757,385, and by the Consolidated Revenue Fund £5,375,793. The latter sum includes interest amounting to £262,500, on State loan funds expended by the Metropolitan Water, Sewerage and Drainage Board in respect of which the Board's liability was cancelled at the beginning of the year. This interest was charged to the "Vote" of the Minister for Social Services as the remission of part of its capital indebtedness enabled the Board to undertake works in relief of unemployment.

*Average Rate of Interest.*

The average rate of interest on the public debt is calculated in two ways, showing the average nominal rate payable as at the end of the financial year and the effective rate or actual rate paid during the year.

The average nominal rate of interest on the Debentures, Stock, and Treasury Bills outstanding in Australia, London and New York at 30th June in the years 1921, 1931, 1936, and 1938, is shown in the following table:—

TABLE 294.—Annual Interest at 30th June, 1921 to 1938, Amount and Average Nominal Rate.

Loans registered in—	Annual Interest at 30th June—							
	1921.		1931.		1936.		1938.	
	Amount.	Average Nominal Rate.	Amount.	Average Nominal Rate.	Amount.	Average Nominal Rate.	Amount.	Average Nominal Rate.
	£000	per cent.	£000	per cent.	£000	per cent.	£000	per cent.
Australia ...	2,515	4.50	5,772	5.33	5,858	3.41	6,229	3.42
London ...	4,759	4.39	7,840	4.72	5,970	3.69	5,884	3.69
New York ...	...	...	672	4.86	639	4.85	626	4.84
Total ...	7,274	4.43	14,284	4.96	12,467	3.60	12,739	3.60

Interest is payable in London and New York in sterling and dollars respectively. The amounts shown do not include the cost of exchange incurred in remitting interest oversea.

The average effective rate of interest is calculated each year to determine the amount of interest properly chargeable to the various undertakings and enterprises. The rate was 3.66 per cent. in 1900-01; then with some fluctuation it declined to 3.51 per cent. in 1905-06, rose to 3.653 in 1907-08, and fell to the lowest rate of the period, 3.489 per cent. in 1911-12. During the next ten years there was a gradual rise to 5.1606 per cent. in 1922-33. Subsequent variations are shown below:—

TABLE 295.—Interest on State Loan Debt, Average Effective Rate, 1924 to 1938.

Year ended 30th June.	Rate. Per cent.	Year ended 30th June.	Rate. Per cent.	Year ended 30th June.	Rate. Per cent.
1924 ...	5.1606	1929 ...	5.14062	1934 ...	4.12554
1925 ...	5.01327	1930 ...	5.17204	1935 ...	3.92041
1926 ...	5.144	1931 ...	5.14421	1936 ...	3.81666
1927 ...	5.1312	1932 ...	4.85673	1937 ...	3.70787
1928 ...	5.12027	1933 ...	4.37804	1938 ...	3.66774

The rate has decreased in each year since 1930, and was lower in 1937-38 than in any year since 1912-13.

#### REDEMPTIONS AND SINKING FUNDS.

An account of the debt redemptions and sinking funds of New South Wales prior to the transfer to the National Debt Commission in terms of the Financial Agreement, was published on pages 170 and 171 of the Official Year Book for 1929-30. The present sinking fund is described on page 368 hereof.

#### FINANCIAL RELATIONSHIP BETWEEN COMMONWEALTH AND STATES.

The history of the financial relationships existing between the Commonwealth and States since federation in 1901 has been sketched in earlier issues of this Year Book, and the trend of discussions on proposals for the readjustment of these relationships was outlined on page 284 of the Year Book for 1925-26.

#### *Financial Agreement, 1927.*

All the matters under discussion were incorporated in a comprehensive scheme propounded by the Commonwealth and placed before conferences of Premiers in Melbourne in May, 1927, and in Sydney in July, 1927. After amendment the scheme was accepted by all the States and by the Commonwealth, and, except in certain minor matters, it was brought into operation as from 1st July, 1927. The provisions were outlined on page 682 of the 1930-31 Year Book, and full details are given in the Commonwealth Year Book, 1937, on pages 21 to 33.

#### *Australian Loan Council.*

All borrowings by the State are arranged by the Commonwealth, in accordance with the decisions of the Australian Loan Council, which consists of a Minister of the Commonwealth appointed by the Prime Minister, and one Minister of each State appointed by the Premier of the State. The Council determines the amount, rates and conditions of loans to be raised after consideration of the annual programmes submitted by the Commonwealth and by each State. The functions of the Council and the method by which the amounts to be borrowed are determined were outlined on pages 682-3 of the 1930-31 Year Book, and are given in detail on page 23 of the Commonwealth Year Book, 1937.

#### *Transfer of States' Debts to Commonwealth.*

On 1st July, 1929, the Commonwealth took over, in terms of the financial agreement, the debts of the States, and assumed, as between the Commonwealth and States, the liabilities of the States to bondholders. The debts taken over consisted of the balance then unpaid of the gross public debt of each State existing on 30th June, 1927, and of all other debts of each State existing on 1st July, 1929, other than for temporary purposes.

#### *Transferred Properties.*

The net public debt of each State represents the gross debt less (1) the value of properties transferred to the Commonwealth, which amounted to £4,788,005 and £10,924,323 for New South Wales and for the Commonwealth respectively, and (2) the balances of the States' sinking funds at 30th June, 1927.

The Commonwealth had been paying to the various States interest at the rate of  $3\frac{1}{2}$  per cent. on the value of properties transferred to the Commonwealth after federation. For the purposes of the financial agreement new valuations were agreed upon, and on these values the Commonwealth paid interest to the State at the rate of 5 per cent. during the two years 1927-28 and 1928-29. Then the Commonwealth, on 1st July, 1929, relieved the States of the liability for principal, interest and sinking fund on an amount of debt equal to the value of the properties, each State having agreed to issue to the Commonwealth freehold titles to the properties consisting of land or interests in land.

#### *Payment of Interest on Public Debt.*

The Commonwealth, as agent for the States, has agreed to pay to bondholders interest due on the public debt of the States and, for a period of fifty-eight years from the 1st July, 1927, to contribute £7,584,912 per annum towards the interest, the States to pay the balance to the Commonwealth. After this period the States will pay to the Commonwealth the whole of the interest due. The contribution by the Commonwealth is equal to the amount paid by the Commonwealth to the States in 1926-27, at the rate of 25s. per head of population, and the contribution to New South Wales is £2,917,411 per annum.

In 1931 and 1932 the State of New South Wales failed to provide certain interest payments on its loans in London and New York, whereupon the Commonwealth Government claimed the responsibility for oversea borrowing and the power to seize the revenues of a defaulting State. Accordingly the Financial Agreement Enforcement Act was passed by the Commonwealth early in 1932. The State of New South Wales attacked the validity of the Act as being *ultra vires* the Commonwealth Parliament and an infringement of State rights. The High Court upheld the Act and subsequently refused leave to appeal to the Privy Council.

#### *National Debt Sinking Fund.*

A national debt sinking fund was established in terms of the financial agreement, and is controlled by the National Debt Commission. The annual payments to the fund are contributed partly by the Commonwealth and partly by the States. Contributions in respect of the net debts of the States at 30th June, 1927, and on conversions thereof, are at the rate of 7s. 6d. per cent. per annum, the Commonwealth contributing 2s. 6d. per cent. and the States 5s. per cent. for a period of fifty-eight years, commencing on 1st July, 1927, as regards all States except New South Wales, whose period commenced on 1st July, 1928. On new borrowings after 1st July, 1927 (except those for redemptions or conversions or for funding a State deficit), contributions are at the rate of 10s. per cent. per annum, contributed in equal shares by the Commonwealth and the States for a period of fifty-three years from 1st July, 1928, in the case of New South Wales, and from 1st July, 1927, in the case of the other States. Contributions in respect of loans raised to meet revenue deficits accruing after 1st July, 1927, are made by the State concerned, at a rate not less than 4 per cent., for a period sufficient to provide for the redemption of those loans, the contributions being deemed to accumulate at the rate of  $4\frac{1}{2}$  per cent. compound interest. Further information relating to the Sinking Fund was given on page 685 of the 1930-31 Year Book.

Separate accounts are kept by the Commonwealth for each State in respect of debt, interest, and sinking funds. The operations of the National Debt Sinking Fund in regard to the debts of the State of New South Wales

during each of the three years ended 30th June, 1936 to 1938, and the aggregate since 1st July, 1928, are shown below:—

TABLE 296.—National Debt Sinking Fund, Transactions on Account of New South Wales.

Heading.	1935-36.	1936-37.	1937-38.	Total, 1-7-23 to 30-6-38.
Contributions by—				
Commonwealth ... ..	£ 562,451	£ 589,332	£ 603,251	£ 5,165,714
New South Wales ... ..	1,335,962	1,500,389	1,644,785	*11,253,897
Contributions in terms of Federal Aid				
Roads Agreement ... ..	27,435	27,435	25,149	251,498
Interest ... ..	14,666	20,318	14,291	158,840
Total Receipts ... ..	£ 1,940,514	2,137,474	2,287,476	*16,829,949
Cost of Repurchases and Redemptions—				
In London ... ..	1,122,065	942,783	1,672,287	7,898,579
In New York ... ..	54,166	97,857	148,712	1,160,809
In Australia ... ..	790,944	874,993	468,158	5,629,906
Total ... ..	£ 1,967,175	1,915,633	2,289,157	14,689,294
Exchange on Remittances ... ..	233,253	328,576	364,238	1,959,986
Total Payments ... ..	£ 2,200,428	2,244,209	2,653,395	16,649,280
Balance of Fund, 30th June, 1938 ... ..	...	...	...	180,669

\* Includes £30,061, balance on hand prior to institution of sinking fund under Financial Agreement.

The face value of securities repurchased or redeemed during the ten years ended 30th June, 1938 was £8,303,372 in London, £1,309,976 in New York, and £5,603,745 in Australia—a total of £15,217,093. The balance at credit of the sinking fund as at 30th June, 1938, was £180,669, of which £95,106 was held in London, £65,660 in New York, and £19,903 in Australia. The following table indicates the source of contributions by New South Wales during the period:—

TABLE 297.—National Debt Sinking Fund, Source of Contributions by New South Wales.

Source.	1935-36.	1936-37.	1937-38.	Total, 1-7-23 to 30-6-38.
Railways ... ..	£ ...	£ ...	£ 530,000	£ 530,000
Road Transport and Tramways ... ..	26,649	37,332	38,349	318,332
State Coal Mine ... ..	1,171	1,306	1,320	6,864
Closer Settlement Fund ... ..	46,845	52,762	56,201	450,986
Met. Water, Sew'ge. and Drainage Board	96,600	282,316	234,960	806,561
Hunter District Water Board ... ..	44,196	15,344	16,452	142,106
Country Towns Water Supply and Sewerage Works ... ..	15,000	.....	38,372	133,926
Water and Drainage Trusts ... ..	960	.....	1,933	8,233
Main Roads Department ... ..	23,930	25,444	26,600	140,584
Sydney Harbour Bridge ... ..	...	76,019	39,228	210,248
Sydney Harbour Services ... ..	60,849	50,329	56,853	429,128
Burrinjuck Hydro-Electric Scheme ... ..	...	...	4,000	4,000
Metropolitan Meat Industry Commissioner	2,503	3,100	3,291	29,394
State Metal Quarries ... ..	591	(—)8	...	2,233
Tourist Bureau ... ..	...	...	...	797
Consolidated Revenue Fund ... ..	1,016,668	956,445	597,226	8,010,444
Total ... ..	£ 1,335,962	1,500,389	1,644,785	11,223,836

## PRIVATE FINANCE.

## CURRENCY.

CURRENCY matters in Australia are under the supervision of the Commonwealth Government. Matters relating to the metallic currency are administered in terms of the Coinage Act, 1909-1936, and the paper currency is controlled by the Commonwealth Bank Act, 1911-1932, and the Bank Notes Tax Act passed in 1910.

Gold coins ceased to circulate as internal currency during the war period and paper money came into general use. Restrictions imposed on the export of gold from Australia as a war time measure remained in force until 29th April, 1925.

Under an amendment of the Commonwealth Bank Act, passed on 17th December, 1929, the Bank Board is empowered (with the authority of the Treasurer) to require any persons to furnish particulars of gold coin and bullion held by them and to exchange any gold coin or bullion for its equivalent in Australian notes, calculated at the nominal value £3 17s. 10½d. per oz. of standard gold content, which is eleven-twelfths fine gold. It was provided also that, on the recommendation of the Bank Board, the Governor General may, by proclamation, prohibit the export of gold, except with the concurrence of the Treasurer of the Commonwealth granted after recommendation by the Bank Board. A proclamation in this regard has not been issued.

The face value of coins held by banks in New South Wales at 30th June, 1938, was: Gold £14,801, silver £1,049,669, and copper £46,346. In addition, the Note Issue Department of the Commonwealth Bank held, in Sydney, gold coin to the standard value of £54,400. The corresponding figures as at 30th June, 1937, were: Gold coin £11,096, silver £879,789, copper £46,284, and gold coin in Note Issue Department, Sydney, £54,400.

## COINAGE.

British and Australian coins are legal tender in New South Wales as follow, viz., gold for the payment of any amount, silver up to forty shillings, and bronze up to one shilling. The fineness of British silver coins was reduced on 31st March, 1920, hence subsequent new issues ceased to be legal tender in Australia. Beyond this the depreciation of Australian currency in terms of sterling has caused British coins practically to disappear from circulation. Australian notes, which have replaced gold coins as units of internal currency, are legal tender for any amount.

A branch of the Royal Mint, London, was opened in Sydney on 14th May, 1855, for minting gold, and closed on 18th November, 1926. Branches are in operation in Melbourne (Victoria), and in Perth (Western Australia). The Commonwealth Coinage Act, 1909-1936, empowers the Federal Treasurer to make and issue silver and bronze coins of specified denominations. Crown pieces, in value equivalent to five shillings, were issued for the first time in 1937. A nickel coinage also is authorised, but it has not been issued.

The standard fineness of metal coins as fixed by the Coinage Act, 1906-1936, is as follows; viz., gold coins  $\frac{1}{12}$  fine gold,  $\frac{1}{12}$  alloy; silver coins  $\frac{37}{40}$  fine silver,  $\frac{3}{40}$  alloy; bronze coins are of mixed metal—copper, tin, and zinc. Standard or sovereign gold has a fineness of 22 carats and its nominal value under gold standard conditions is £3 17s. 10½d. (Australian currency), equivalent to £4 4s. 11½d. per oz. fine.



Early in 1930 the price of gold in Australia rose to a premium, and a further advance occurred after the gold standard was suspended in England in September, 1931. Then arrangements were made that the Commonwealth Bank would each week state the price which it was prepared to pay for gold lodged at the mint in Australia during the preceding week. This price is based on the forward open market price abroad, adjusted to the ruling rate of exchange for telegraphic transfers, less a small allowance for realisation charges.

The following table shows the monthly averages of the daily prices per oz. of fine gold in London and Australia, together with the average value of the sovereign at intervals since 1931. London prices are expressed in sterling and Australian prices in local currency:—

TABLE 298.—Gold Prices in London and Australia.

Month.	London.		Australia.		Premium.
	Average Price per Oz. Fine.	Average Value of Sovereign.	Average Price per Oz. Fine.	Average Value of Sovereign.	
	Stg. £ s. d.	Stg. £ s. d.	A £ s. d.	A £ s. d.	
1931—					
January to August ...	4 4 11	1 0 0	5 8 0	1 5 5	28·4
September ...	4 11 3	1 1 6	5 17 2	1 7 7	37·9
December ...	6 2 6	1 8 10	7 11 9	1 15 9	78·5
1932—					
June ...	5 13 4	1 6 8	6 19 11	1 12 11	64·7
December ...	6 5 9	1 9 7	7 15 6	1 16 7	83·1
1933—					
June ...	6 2 3	1 8 9	7 10 7	1 15 6	77·2
December ...	6 6 2	1 9 9	7 15 9	1 16 8	83·4
1934—					
June ...	6 17 9	1 12 5	8 10 0	2 0 0	100·1
December ...	7 0 7	1 13 1	8 13 7	2 0 10	104·3
1935—					
March ...	7 6 9	1 14 7	9 1 1	2 2 8	113·2
June ...	7 1 3	1 13 3	8 14 4	2 1 1	105·2
September ...	7 1 0	1 13 2	8 14 0	2 1 0	104·8
December ...	7 1 1	1 13 3	8 14 2	2 1 0	105·0
1936—					
March ...	7 1 0	1 13 2	8 14 0	2 1 0	104·8
June ...	6 18 8	1 12 8	8 11 2	2 0 4	101·5
September ...	6 18 0	1 12 6	8 10 4	2 0 1	100·5
December ...	7 1 8	1 13 4	8 14 11	2 1 2	105·9
1937—					
March ...	7 2 4	1 13 6	8 15 8	2 1 5	106·8
June ...	7 0 7	1 13 1	8 13 6	2 0 10	104·2
September ...	7 0 4	1 13 1	8 13 3	2 0 9	103·9
December ...	6 19 9	1 12 11	8 12 6	2 0 7	103·1
1938—					
January ...	6 19 8	1 12 11	8 12 4	2 0 7	102·9
February ...	6 19 9	1 12 11	8 12 6	2 0 7	103·1
March ...	6 19 11	1 12 11	8 12 8	2 0 8	103·3
April ...	6 19 9	1 12 11	8 12 6	2 0 7	103·1
May ...	7 0 1	1 13 0	8 12 11	2 0 9	103·5
June ...	7 0 9	1 13 1	8 13 8	2 0 11	104·4
July ...	7 1 3	1 13 3	8 14 4	2 1 1	105·2
August ...	7 2 6	1 13 6	8 15 10	2 1 5	107·0
September ...	7 4 6	1 14 0	8 18 4	2 2 0	109·9
October ...	7 5 9	1 14 4	8 19 11	2 2 4	111·7
November ...	7 7 8	1 14 9	9 2 3	2 2 11	114·5
December ...	7 8 11	1 15 1	9 3 9	2 3 3	116·3

Stg.—Sterling. A.—Australian Currency (see exchange rates, page 403).

Average monthly gold prices for the years since 1930 were published in earlier issues of this Year Book, and current London prices are published in the "Monthly Summary of Business Statistics."

The nominal value of one ounce of standard silver ( $\frac{37}{100}$  fine) is approximately 5s. 6d., and of one pound (avoirdupois) of bronze coined into pence 4s., and into half pence 3s. 4d.

A substantial profit is usually made on the silver and bronze coinage, after the minting and other expenses have been deducted. Under normal conditions, and subject to exchange and incidental costs, the Australian price of silver is determined by transactions in the London market. The average of the London prices (sterling) at intervals since 1911 is shown below:—

TABLE 299.—Silver Prices in London.

Year.	Price of Silver per standard oz. (London.)	Year.	Price of Silver per standard oz. (London.)	Year.	Price of Silver per standard oz. (London.)	Year.	Price of Silver per standard oz. (London.)
	s. d.		s. d.		s. d.		s. d.
1911	2 0·6	1921	3 0·9	1927	2 2·1	1933	1 6·1
1916	2 7·3	1922	2 10·4	1928	2 2·7	1934	1 9·2
1917	3 4·9	1923	2 7·9	1929	2 0·5	1935	2 4·9
1918	3 11·6	1924	2 9·9	1930	1 5·7	1936	1 8·1
1919	4 9·1	1925	2 8·1	1931	1 2·6	1937	1 8·1
1920	5 1·6	1926	2 4·7	1932	1 5·9	1938	1 7·5

In 1918 the price of silver in London was subject to regulation by the Imperial Government. It was decontrolled in May, 1919, and commenced to rise in the latter part of the year. The average price in February, 1920, was 7s. 6d. per oz., but it declined thereafter with considerable degree of variation to 12½d. in February, 1931. It rose to 1s. 8d. in December, 1931, following the depreciation of sterling in September, 1931, and was comparatively steady at slightly lower levels until 1934. In 1934, under authority of the Silver Purchases Act, the Government of the United States commenced to purchase silver to hold as part of its monetary reserves, and the price rose to 2s. 9½d. in May, 1935. Then the policy of the United States was modified, and by January, 1936, the price of silver had declined to 1s. 8½d. Subsequent variations have been small.

By agreement between the principal silver using and producing countries the quantity of silver offered on the market was subject to limitation for a period of four years from 1st January, 1934. The agreement, which was designed to mitigate fluctuations in the price of silver, was not renewed on expiry.

#### PAPER CURRENCY.

##### *Bank Notes.*

Prior to 1910 the right to issue paper currency in New South Wales was vested in private banking institutions which had acquired the right by Royal Charter or by special Act of Parliament, and a tax of 2 per cent. per annum was imposed by the State on the bank notes current. In 1910 the Federal Parliament, having authorised the issue of Australian notes, imposed a tax of 10 per cent. on the notes of the trading banks, with the object of forcing

them out of circulation. Consequently the value of the bank notes current decreased from £2,213,128 in December quarter, 1910, to £400,784 in the following year. In June quarter, 1938, the amount was £51,405.

#### *Australian Notes.*

The Australian Notes Act, 1910, passed by the Commonwealth Parliament, prohibited the circulation of notes by any of the States and authorised the Federal Treasurer to issue Australian notes, in denominations of 10s., £1, £5, £10, and multiples of £10, to be legal tender throughout the Commonwealth, and to be payable on demand at the seat of Federal Government. Five-shilling notes were authorised, but have not been issued. The denominations which had been issued as at the end of June, 1938, were 10s., £1, £5, £10, £20, £50, £100, and £1,000.

In December, 1920, control of the Australian note issue was transferred to the Commonwealth Bank, in which a Note Issue department was established. Since the transfer, the notes have been issued by the Commonwealth Bank. They were payable in gold coin at the head office of the Bank until 21st May, 1932, when an amending Act removed the provision for redemption. The note issue is controlled by the Board of Directors of the Bank, but a decision affecting the issue is not effective unless six of the eight directors vote for it at a meeting at which all the directors are present, or five vote for it when any of the directors is absent.

The Board may issue Australian notes to banks in Australia in exchange for money or securities lodged with the London branch of the Commonwealth Bank. This provision was made to obviate monetary difficulties arising from accumulation of Australian-owned funds in London.

The profits of the note issue, after paying working expenses and commission to the Commonwealth Bank for the purpose of its general business, are payable to the Treasury of the Commonwealth. The money derived from the issue, apart from the reserve, may be invested on deposit with any bank; in securities of the United Kingdom, of the Commonwealth, or of a State; or in trade bills with a currency of not more than 120 days.

The gold reserve in respect of the notes was fixed in 1910 at an amount not less than one-fourth of the notes issued up to £7,000,000, and £ for £ in excess of that amount, but in the following year it was fixed at one-fourth of the issue. In 1931 the statutory limit of gold reserve was reduced to 15 per cent. of the notes on issue during the two years ending 30th June, 1933, 18 per cent. of the notes on issue in 1933-34, 21½ per cent. in 1934-35, and 25 per cent. thereafter.

In May, 1932, the law was amended to provide that the reserve may be held either in gold or in English sterling or partly in both. The part in English sterling must consist of (a) balances with the Bank of England or other banks in London; (b) bills of exchange payable in English sterling maturing in not more than three months; or (c) Treasury bills or other securities of the United Kingdom not exceeding three months' maturity. Any profit accruing by reason of the sale of gold in the reserve must be transferred to a special reserve account for use in stabilising exchange or for the purposes of the Note Issue Department.

The total value of the Australian notes in circulation in New South Wales and elsewhere, and the reserve held against the note issue in various years since 1914, are shown below. The figures for June, 1914, are as at the last Wednesday and those for later years relate to the last Monday of the month:—

TABLE 300.—Australian Note Issue, 1914 to 1938.

End of June.	Australian Notes in Circulation.			†Note Issue Reserve.	
	Held by Banks.	Held by Public.	Total.	Total.	Proportion of Note Circulation.
1914 ...	£ *	£ *	£	£	Per cent.
1921 ...	34,303,896	23,924,174	58,228,070	4,106,767	42·90
1926 ...	30,254,500	23,635,726	53,890,226	28,182,387	40·32
1929 ...	17,805,812	24,452,414	42,258,226	22,151,497	52·30
1930 ...	22,342,161	22,572,165	44,914,326	19,931,102	52·42
1931 ...	25,302,258	25,351,168	50,653,426	15,226,530	44·38
1932 ...	26,504,968	24,798,458	51,303,426	10,500,455	30·06
1933 ...	23,346,413	24,207,013	47,553,426	11,506,949	20·47
1934 ...	21,284,099	25,016,859	46,300,958	15,507,537	24·20
1935 ...	20,202,000	26,848,107	47,050,107	15,994,026	33·49
1936 ...	18,253,277	28,791,659	47,044,936	†15,999,240	33·99
1937 ...	17,536,707	29,502,266	47,038,973	†16,011,663	†34·01
1938 ...	17,630,440	31,403,737	49,034,177	†16,007,349	†34·04

\* Banks held £5,032,149 and public £4,822,774 at 3rd August, 1914 (earliest figures available).

† Consisting solely of gold until July, 1932, thereafter gold and English Sterling.

‡ Australian currency, previously in gold and Sterling currency.

The Australian note issue amounted to £59,676,401 in October, 1918. This is the maximum since the commencement of the issue, though, after a decline in the following year, it almost reached the peak again in March, 1921.

There was a substantial reduction in the note issue between 1926 and 1929, which was due mainly to a change in the method of settling inter-bank clearings, cheques drawn on the Commonwealth Bank being used in place of notes of large denomination. Later it became the policy of the Board of Directors to restrict the note circulation to active requirements and to provide additional currency when required to meet seasonal demands of trade and industry. Consequently, the banks found it unnecessary to hold notes in excess of those required as till money and the surplus notes were cancelled. Normally, the seasonal demand for currency is at a minimum in July and August, increasing during the later months of the year owing to the requirements of the rural industries for shearing, harvesting, etc., and rising to a maximum in December during the Christmas holiday period. A marked reduction in the note issue usually occurs in January, then it declines gradually as the wool, wheat, and other products are sold.

The amount of the note issue was increased temporarily during the depression years, on account of special causes. For instance, in 1930 the Commonwealth Bank (under the authority of legislation passed in December, 1929) acquired gold from the trading banks in exchange for notes and the right to notes on demand; in April, 1931, the Government Savings Bank of New South Wales suspended payments; and in March,

1932, banking transactions by the Government of New South Wales were temporarily suspended. From 1933 to 1937 the amount of notes held by the banks in June declined in each year, and the decline was offset by an increase in the amount held by the public, so that the total issue remained at about £47,000,000, except in 1934, when it was £46,300,000. In 1938 there was a small increase in the amount held by banks and an increase of nearly £2,000,000 in the notes held by the public.

Prior to July, 1932, the amount of the note issue reserve was expressed in terms of gold currency without adjustment for variations in the value of Australian currency, relatively to gold. Following conversion of part of the reserve into sterling assets in 1932, the amount of the reserve represented the sum of the amount held in gold, expressed in gold currency, and the amount of sterling assets expressed in sterling currency. This method was continued until March, 1936, when it became the practice to express the amount of the reserve in Australian currency, the value of gold and sterling assets being converted at current rates of exchange. The profit derived from the sale of gold in the note issue reserve is credited to a special reserve account as required by law. The amount of the special reserve was constant at £3,894,905, as at 30th June, 1933 to 1935. Since assets of the note reserve were revalued in terms of Australian currency the amount of the special reserve has been £7,752,901.

#### *Money Orders and Postal Notes.*

Exchange by means of money orders and postal notes is conducted by the Post Office. The maximum amount which may be transmitted by a single money order is £20, if the place of payment is within the Commonwealth; to places outside the Commonwealth the maximum is £10, £20, £30, or £40, as fixed by arrangement with the country concerned. The following table gives particulars of the money orders issued and paid in New South Wales during the last ten years:—

TABLE 301.—Money Order Business in New South Wales.

Year ended 30th June.	Money Orders issued in New South Wales for payment in—				Money Orders issued elsewhere, paid in New South Wales.		
	New South Wales.	Other Australian States.	Other Countries.	Total.	In other Australian States.	Beyond the Commonwealth.	Total.
	£	£	£	£	£	£	£
1929 ...	6,554,752	878,158	492,359	7,925,269	869,859	294,892	1,164,751
1930 ...	6,791,331	871,723	492,530	8,155,584	831,657	308,171	1,139,828
1931 ...	6,412,620	686,001	394,686	7,493,307	747,655	287,833	1,035,488
1932 ...	6,324,052	618,859	158,137	7,101,048	643,575	208,561	852,136
1933 ...	6,218,797	592,474	166,166	6,977,437	610,047	193,498	803,545
1934 ...	6,303,708	622,772	179,968	7,106,448	623,822	195,338	819,160
1935 ...	6,331,078	661,015	168,872	7,160,965	654,377	201,497	855,874
1936 ...	6,766,723	702,642	173,411	7,642,776	709,030	202,268	911,298
1937 ...	7,222,208	721,913	184,491	8,128,672	744,098	222,976	967,074
1938 ...	7,685,818	733,229	178,291	8,597,338	752,787	215,356	968,143

The amount of money orders issued in other Australian States and overseas countries for payment in New South Wales usually exceeds the amount sent from this State. In the earlier years of the decennium the transfers overseas were largely in excess of the money orders received therefrom.

The maximum amount for which a single postal note is issued is £1, and particulars regarding postal notes are shown below:—

TABLE 302.—Postal Note Business in New South Wales.

Year ended 30th June.	New South Wales Postal Notes paid in—			Postal Notes of other Aus- tralian States paid in New South Wales.
	New South Wales.	Other Australian States.	Total.	
	£	£	£	£
1929 ...	1,804,395	728,291	2,532,686	212,860
1930 ...	1,828,878	724,906	2,553,784	192,140
1931 ...	1,710,193	566,987	2,277,180	182,298
1932 ...	2,306,020	251,264	2,557,284	277,030
1933 ...	2,237,746	309,303	2,547,049	237,899
1934 ...	2,414,599	473,746	2,888,345	253,526
1935 ...	2,438,670	450,260	2,888,930	262,417
1936 ...	2,605,470	537,525	3,142,995	276,900
1937 ..	2,707,088	512,150	3,219,238	287,526
1938 ...	2,862,026	535,133	3,397,159	302,284

The number of New South Wales postal notes paid in the State during the year ended June, 1938, was 7,791,822, and 1,496,229 were paid in other Australian States. The postal notes paid in New South Wales from issues in other States numbered 821,042.

It is probable that the changes in postal note business in New South Wales in 1931-32 were due largely to the commencement of the State Lottery in August, 1931. The value of the intrastate postal business and of the transfers from other States increased substantially in this year, and there was a marked decline in the value of the postal notes sent to other States. Since 1931-32 the intrastate business has increased by 24 per cent. and the inward interstate transfers by 9 per cent., and the outward interstate movement has almost regained the level of 1930-31.

#### BANKS.

Institutions which transact banking business in New South Wales are required under the Banks and Bank Holidays Act to furnish to the Chief Secretary in New South Wales quarterly statements of their assets and liabilities; also, when required, to furnish special statistical returns under the New South Wales Census Act of 1901. Under the Commonwealth Bank Act the banks are required to supply quarterly statements of their Australian business to the Commonwealth Treasurer. The information contained in the following tables has been prepared from these returns, and from the periodical balance-sheets issued by the banking companies.

The banking institutions which transact business in New South Wales were fourteen in number at 30th June, 1938. These include two Government banks, a New Zealand bank and two foreign banks. The bulk of the Australian banking business is done by nine private trading banks, of which six have their head offices in Australia and three in London.

The location of the head offices and the distribution of the branches of the fourteen banks operating in New South Wales, at various balance dates in 1938, are shown in the following table:—

TABLE 303.—Banking Institutions and Branches.

Banks Operating in New South Wales.	Number of Branches (excluding agencies).										Total.	
	AUSTRALIA.							ELSEWHERE.				
	New South Wales.	Victoria.	Queensland.	*South Australia.	Western Australia.	Tasmania.	Australian Capital.	Total.	New Zealand.	London.		Other.
Head Office in N.S.W.—												
Commonwealth of Australia ... ..	195	16	35	(a)6	13	4	1	270	...	2	1	273
Rural ... ..	48	...	...	...	...	...	...	48	...	...	...	48
† New South Wales ... ..	303	93	96	(a)16	93	4	1	606	74	2	10	692
† Commercial of Sydney ... ..	225	118	35	5	...	...	1	384	...	1	...	385
Head Office in Victoria—												
† Commercial of Australia ... ..	71	128	50	(a)43	24	22	1	339	26	1	...	366
† National of Australasia ... ..	41	150	47	47	46	2	...	333	...	2	...	335
Head Office in Queensland—												
† Queensland National ... ..	5	1	96	...	...	...	1	103	...	1	...	104
Head Office in South Australia—												
† Adelaide ... ..	1	1	1	55	2	...	...	60	...	1	...	61
Head Office in London—												
† Australasia ... ..	67	76	21	7	16	11	...	198	46	2	...	246
† Union of Australia... ..	65	57	24	17	22	3	...	188	46	1	...	235
† English, Scottish, and Australian ... ..	67	95	27	(b)33	13	17	...	252	...	1	...	253
Head Office in New Zealand—												
New Zealand ... ..	1	1	...	...	...	...	...	2	140	1	2	145
Head Office in France—												
Comptoir National... ..	1	1	...	...	...	...	...	2	...	2	553	557
Head Office in Japan—												
Yokohama Specie ... ..	1	...	...	...	...	...	...	1	...	1	41	43
<b>Total ... ..</b>	<b>1,091</b>	<b>737</b>	<b>432</b>	<b>229</b>	<b>229</b>	<b>63</b>	<b>5</b>	<b>2,786</b>	<b>332</b>	<b>18</b>	<b>607</b>	<b>3,743</b>

\* Includes branches in Northern Territory; (a) one, (b) three. † Private Trading Banks, Australian.

With the exception of a few small institutions all the banks trading in Australia conduct business in New South Wales, therefore the table shows the approximate number of trading bank branches in Australia, as well as the number in the State. The figures do not include agencies of the banks, which numbered 197 in New South Wales, and 847 in Australia.

The Commonwealth Bank of Australia functions partly as a trading bank and partly as a central bank. It controls the note issue, handles the business of the Federal Government and some State Governments, manages the bulk of the Australian public debt and underwrites Government loans.

#### *Royal Commission on Monetary and Banking Systems.*

A Royal Commission was appointed by the Commonwealth Government in October, 1935, to inquire into the monetary and banking systems of Australia, and to report upon any desirable alterations in the systems and the manner in which they should be effected.

The report of the Commission, issued in July, 1937, embodies a comprehensive review of the Australian financial system and recommendations

relating to banking practice. A brief summary of the contents of the report and extracts from statistical data compiled by the Commission are shown in the 1936-37 issue of this Year Book.

### *Capital and Profits of Private Trading Banks.*

Particulars relating to the aggregate capital and profits of the six private trading banks with head offices in Australia and three with head offices in England, as listed in table 303, are shown in the following statement. The particulars relate to the whole of the business of the banks in New South Wales and elsewhere. They represent in 1928 and subsequent years profit and loss results for periods ending, and balance-sheet figures as at dates within the months of February and October in each calendar year. The New Zealand, French and Japanese banks are not included, as they have only one branch, each with a small business in New South Wales. The Commonwealth and Rural Banks, which are not strictly upon the same trading basis as the private institutions, and the Primary Producers' Bank, which went into liquidation in 1931, after operating on a small scale for eight years, are excluded.

TABLE 304.—Private Trading Banks, Capital, Reserves and Profits.

Year.	Number of Private Trading Banks.	Shareholders' Funds.		Net Profits as Reported.		
		Capital paid up.	Reserve Fund and Balance of Profit and Loss.	Amount.	Ratio to—	
		£	£	£	per cent.	per cent.
1900	12	14,812,686	4,916,784	1,112,383	7.51	5.64
1910-11	14	14,193,550	8,522,829	1,849,733	13.03	8.14
1920-21	12	23,135,782	17,610,317	3,611,902	15.61	8.86
1929	10	37,750,612	33,638,727	4,942,639	13.09	6.92
1930	10	37,987,761	34,360,269	4,409,524	11.61	6.09
1931	10	38,064,362	33,708,566	2,962,926	7.78	4.13
1932	9	37,136,362	32,274,078	1,880,347	5.06	2.71
1933	9	37,136,362	32,373,740	1,953,433	5.26	2.81
1934	9	37,136,362	32,518,752	1,996,468	5.38	2.87
1935	9	37,136,362	32,480,505	1,997,940	5.38	2.87
1936	9	37,136,362	32,682,145	2,110,957	5.68	3.02
1937	9	37,136,362	32,817,435	2,304,512	6.21	3.29
1938	9	37,136,362	32,902,800	2,343,830	6.31	3.35

The reduction in the number of the private trading banks from 14 to 9 was due mainly to a series of amalgamations between 1916 and 1931.

The shareholders' funds comprise both paid-up capital and the amount of disclosed reserves, including the balance standing to the credit of profit and loss account before distribution of the year's final dividend. Reported profits represent the amount stated in the published accounts of the banks, less (where shown by some banks), provision made in respect of employees' provident fund and the writing down of premises. In the case of the banks which do not disclose the amount set aside for provident funds and writing down assets, it would appear that such provision has been made before the ascertainment of profits.

Since 1921 the paid-up capital of the trading banks has increased by £14,000,580, or 60 per cent., and the reserves, etc., by £15,292,483, or 87 per cent. The decrease of capital in 1932 was a result of the amalgamation of the Australian Bank of Commerce with the Bank of New South Wales. Deposits of the banks in all countries in which they operate increased from £237,111,000 in 1921 to £321,024,000 in 1929, and after declining to £296,594,000 in 1931 rose to £359,850,000 in 1938.



The figures for capital, reserves, profits and deposits have been affected in small measure by the amalgamation of local banks with banks which operated in other States, but not in New South Wales.

The capital of the Commonwealth Bank was £4,000,000 in 1938; profits amounted to £364,189 in 1937-38, as compared with £405,451 in 1936-37 and £720,372 in 1930-31. Stock and debentures issued on behalf of the Rural Bank increased from £5,630,277 in 1931 to £14,483,289 in 1932, the pronounced movement being due to an issue to the Commonwealth Bank as consideration when it assumed liability in respect of the Rural Bank deposits; stock and debentures outstanding at 30th June, 1938, amounted to £14,095,095. The profits of the Rural Bank declined from £61,437 in 1930-31 to £19,526 in 1932-33 and rose to £34,957 in 1937-38.

*Average Liabilities and Assets in New South Wales (all Trading Banks).*

The following statements, which include particulars of all the banks listed in table 303, show the average liabilities and assets within New South Wales, exclusive of inter-branch balances and shareholders' funds. Particulars of the Savings Bank Department of the Commonwealth Bank are included under liabilities and assets in the years 1921 to 1926, as the savings and general banking functions were not separated until the end of the year 1927-28.

TABLE 305.—Trading Banks, Average Liabilities in New South Wales.

June Quarter.	Bank Notes.	Deposits.				Total Deposits.	Other Liabilities.	Total Liabilities within New South Wales (exclusive of Shareholders' Funds).
		Bearing Interest.		Not Bearing Interest.				
		Government.	Other.	Government.	Other.			
	£000	£000	£000	£000	£000	£000	£000	£000
1895	1,224	†	20,407	†	10,222	30,629	184	32,037
1900	1,448	†	20,009	†	12,225	32,234	288	33,970
1911	1,819	†	29,342	†	25,985	55,327	609	57,755
1921†	72	†	(a) 54,631	†	53,045	107,676	3,661	111,409
1926‡	65	8,203	(b) 63,098	8,172	51,083	130,556	4,988	135,609
1929	64	5,086	73,247	2,369	53,914	134,616	6,554	141,234
1930	64	4,136	78,269	2,145	46,143	130,693	9,234	139,991
1931	63	1,993	78,380	1,110	40,133	121,616	9,314	130,993
1932	63	710	69,395	1,859	39,208	111,172	4,831	116,066
1933	57	1,043	73,282	605	39,245	114,175	8,162	122,394
1934	55	561	74,939	1,089	46,156	122,745	8,644	131,444
1935	52	4,090	70,774	662	49,584	125,110	8,340	133,502
1936	52	6,323	68,840	645	50,612	126,420	7,478	133,950
1937	52	5,710	76,505	976	57,805	140,996	10,354	151,402
1938	51	7,605	80,402	641	59,163	147,811	6,564	154,426

\* Includes Commonwealth Savings Bank Deposits—(a) £6,309,000, (b) £8,929,000.  
 † Included in "Other Deposits." ‡ Commonwealth Savings Bank included.

The large increase in deposits between 1911 and 1921 was due mainly to the war expenditure and increase in price levels. Since 1921 the rise and fall have been determined mainly by fluctuations in the volume and value of production. The sharp decrease between 1929 and 1932 was a result of a fall in price levels and a diminution in business activity. Special measures were taken in this period and expansion of credit through the issue of Commonwealth treasury bills, which were discounted by the Commonwealth Bank, had the effect of mitigating the decline in deposits.

In December quarter, 1938, deposits amounted to £147,169,089, including interest bearing £89,875,122 and non-interest bearing £57,293,967. Comparative figures for December quarter, 1937, were, total deposits £142,189,455, interest bearing £83,831,901, and non-interest bearing £58,357,554.

The ratio of interest bearing deposits to total deposits increased from 51 per cent. in 1926 (excluding Commonwealth Savings Bank deposits) to 58 per cent. in 1929, and to 66 per cent. in 1931. Thereafter the ratio declined, and was 58 per cent. in 1937 and 59 per cent. in 1938.

TABLE 306.—Trading Banks, Average Assets in New South Wales.

June Quarter.	Coin and Bullion.	Australian Notes.*	Advances, Securities, etc.			Landed Property.	Other Assets.	Total Assets in New South Wales.
			Government and Municipal Securities. † ‡	Other Advances etc. ‡	Total.			
	£000	£000	£000	£000	£000	£000	£000	£000
1895 ...	7,516	...	} Not Available }	} 35,707	35,707	1,919	480	45,622
1900 ...	6,126	...			34,385	1,874	651	43,036
1911 ...	14,525	1,771			42,456	1,872	1,283	61,907
1921¶ ...	10,152	11,812	24,425	99,525	104,709	2,574	3,187	132,434
1926¶ ...	14,659	16,115			24,248	119,575	123,950	3,113
1929 ...	11,984	11,046	22,173	128,851	143,823	3,188	3,788	173,829
1930 ...	2,254	15,767	9,346	127,007	151,024	3,473	5,513	178,031
1931 ...	908	15,922	21,162	117,477	136,353	3,654	3,287	160,124
1932 ...	1,055	12,510	25,838	113,519	138,639	3,876	2,420	158,500
1933 ...	1,008	12,015	21,189	126,282	139,357	3,801	1,600	157,781
1934 ...	929	13,838	19,477	147,471	140,989	3,846	1,429	161,031
1935 ...	881	13,107	23,055	118,030	146,952	4,173	1,301	166,414
1936 ...	963	11,203	130,286	147,471	147,471	4,292	1,419	165,348
1937 ...	1,135	13,629	153,341	147,471	153,341	4,579	1,257	173,941
1938 ...	1,454	10,392	147,158	147,471	166,635	4,840	1,321	184,642

\* Includes cash deposited with the Commonwealth Bank by other banks in 1926 and later years.

† Includes Commonwealth Treasury Bills. ‡ Particulars for 1929 to 1937 revised by transfer of certain Short Term Loans of Commonwealth Bank (mainly Governmental) from "Govt. and Municipal Securities," to "Other Advances, etc." ¶ Commonwealth Savings Bank included.

The cash reserves of the banks consist of coin and bullion, Australian notes and the right to notes. The amount of notes increased very rapidly during the war period when the banks transferred a large amount of gold to the Federal Treasury and rendered assistance to the Government in other ways in connection with war loans, etc., receiving in exchange Australian notes, or the right to obtain notes on demand.

The apparent decline in cash resources between 1926 and 1929 was due to a change in banking practice, described on page 374. The decline did not in any way deplete the cash resources of the banks; it occurred for the most part in notes held by the General Banking Department of the Commonwealth Bank, and was offset by the transfer of securities from the Note Issue Department.

In 1930 and 1931 the trading banks transferred a considerable quantity of gold to the Commonwealth Bank for export, and received in exchange Australian notes or the right to notes on demand. The decline in cash balances in 1932 was due largely to investments in short dated Treasury Bills, of which the banks still hold a large amount.

The proportion of coin, bullion and Australian notes, etc., to liabilities and to deposits has little significance in relation to the banking figures of one State, especially when particulars of the Commonwealth Bank are included. Moreover, since 1931 the investments of banks in Government securities have included substantial amounts of short dated Treasury Bills which are readily convertible into cash. The amount of Treasury Bills held by the banks in New South Wales was £4,970,136 in 1932, £6,074,615 in 1937 and £3,981,154 in 1938. A statement of cash ratios based on Australian figures is shown on page 383.

Under the head of advances are included overdrafts and loans of all kinds, notes and bills discounted, and a small amount of sundry assets. The bulk of the advances represent overdrafts repayable on demand and secured by the mortgage of real estate, or by the deposit of deeds over which the lending institutions acquire a lien. The extent to which trade bills are discounted is not disclosed.

*Average Liabilities and Assets in New South Wales*

*(Private Trading Banks.)*

A statement of the liabilities and assets of the trading banks would indicate more clearly their relation to general business conditions in New South Wales if the particulars of the Commonwealth, Rural and oversea banks were excluded, on account of the special nature of their activities. The Commonwealth Bank conducts Federal Government business, controls the note issue, performs other functions of central banking and, until 1928, was engaged in savings bank business. The Rural Bank gives effect to Government policy in promoting rural industry, and for this reason its capital is large when considered in relation to general banking activities. The New Zealand, French and Japanese banks are engaged mainly in facilitating trade between New South Wales and their respective countries, and each has only one branch in the State.

The following statement has been prepared to show the average liabilities, exclusive of shareholders' funds, and assets within New South Wales of the trading banks, other than the Commonwealth, Rural and oversea banks, in June quarter of the years 1925, and 1929 to 1938:—

TABLE 307.—Private Trading Banks, Liabilities in New South Wales (Ex Commonwealth, Rural and Oversea Banks with one branch in N.S.W.)

June Quarter	Deposits Bearing Interest.		Deposits not Bearing Interest.		Total Deposits.	Bank Notes and Other Liabilities.	Total Liabilities in N.S.W.
	Government.	Other.	Government.	Other.			
	£000	£000	£000	£000	£000	£000	£000
1925	9,388	44,051	680	44,222	98,341	1,926	100,267
1929	5,081	62,937	770	47,382	116,170	2,732	118,902
1930	4,129	64,897	559	40,337	109,922	2,996	112,918
1931	1,815	62,697	585	34,545	99,642	1,597	101,239
1932	452	55,688	514	34,517	91,171	1,155	92,326
1933	799	58,151	468	35,957	95,375	1,052	96,467
1934	323	62,356	449	42,133	105,261	1,351	106,612
1935	755	57,550	514	43,368	102,187	1,291	103,478
1936	629	56,030	460	44,200	101,310	1,433	102,743
1937	2,029	60,607	433	48,768	111,837	1,257	113,094
1938	2,814	62,382	399	49,997	115,592	1,256	116,848

\* Excluding liabilities to shareholders.

There was a steady expansion of non-governmental deposits between 1925 and 1929, especially in deposits at interest. As business activity slackened between 1929 and 1931, non-interest bearing deposits declined but by reason of the transfer of idle business funds deposits at interest were maintained at a high level. As business conditions improved non-interest bearing deposits rose in each year from 1932 to 1938, and deposits at interest rose and fell alternately, regaining the former level after each decline.

TABLE 308.—Private Trading Banks, Assets in New South Wales. (Ex. Commonwealth, Rural and Oversea Banks with one branch in N.S.W.)

June Quarter	Coin, Bullion, Australian Notes, and Cash with Commonwealth Bank.	Advances, etc.			Landed and House Property.	Other Assets.	Total Assets in N.S.W.
		Government and Municipal Securities.*	Other Advances, etc.	Total Advances and Securities.			
	£000	£000	£000	£000	£000	£000	£000
1925	22,240	6,660	77,751	84,411	2,681	1,702	111,034
1929	20,540	10,705	99,119	109,824	2,910	1,727	135,001
1930	15,021	6,778	105,298	112,076	3,234	1,440	131,771
1931	15,111	5,906	95,178	101,084	3,386	1,042	120,623
1932	10,764	a 8,265	90,453	98,718	3,409	723	113,614
1933	11,026	b11,976	90,490	102,466	3,318	800	117,610
1934	12,205	c13,647	90,021	103,668	3,354	990	120,217
1935	11,916	d13,153	96,933	110,086	3,456	1,023	126,481
1936	9,993	e 6,882	100,903	107,785	3,432	1,207	122,417
1937	12,737	f 7,353	102,850	110,203	3,533	1,039	127,512
1938	9,825	g 9,078	116,883	125,961	3,764	1,138	140,688

\*Includes Commonwealth Treasury Bills; (a) £4,250,000; (b) £4,471,000; (c) £4,563,000; (d) £3,829,000; (e) £3,529,000; (f) £3,441,000; (g) £3,360,000.

Advances increased substantially in the initial stages of the depression, then declined by £14,845,000 between 1930 and 1932. Little movement occurred in the next two years, but there was an increase of £26,862,000 between 1934 and 1938. The increase in 1937-38 amounting to £14,033,000, was unusually large, due partly to additional requirements of rural producers in areas affected by drought.

A comparison of deposits and advances in December quarter 1937 and 1938 indicates the trend of banking business during the latter part of these years.

	December Quarter,	
	1937.	1938.
	£	£
Deposits—Interest bearing ... ..	62,167,453	64,426,770
Non-interest bearing ... ..	50,579,244	49,212,314
Total deposits... ..	112,746,697	113,639,084
Advances ... ..	109,921,546	119,730,787

The following statement shows the ratios of advances, securities, etc., to total deposits in New South Wales and Australia, and the ratio of cash, etc., to deposits at call and to total deposits in Australia. The figures have been compiled on the same basis as those shown in the foregoing tables, in that they relate to private trading banks operating in New South Wales.

TABLE 309.—Private Trading Banks, Ratios in New South Wales and Australia. (Ex. Commonwealth, Rural and Oversea Banks with one branch in N.S.W.).

June Quarter.	New South Wales.		Australia.				
	Ratio of Deposits bearing Interest to Total Deposits.	Ratio of Advances, etc. (excluding Government Securities) to Deposits.	Ratio of Deposits bearing Interest to Total Deposits.	Ratio to Deposits.		Ratio of Cash, etc. † in Australia to—	
				Advances, etc. (excluding Government Securities).	Advances, Government and Municipal Securities, etc.*	Deposits at Call.	Total Deposits.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1925 ...	54.34	79.06	56.38	78.47	82.47	46.07	20.09
1929 ...	58.55	85.32	62.60	85.80	92.01	43.70	16.34
1930 ...	62.79	95.79	66.75	96.77	101.39	43.88	14.59
1931 ...	64.74	95.52	69.19	91.29	95.00	74.11	22.83
1932 ...	61.58	99.21	68.95	81.40	84.50	92.49	28.72
1933 ...	61.81	94.88	67.99	83.94	89.51	83.49	26.72
1934 ...	59.55	85.52	66.23	78.76	84.86	81.55	27.54
1935 ...	57.06	94.86	63.84	85.99	93.96	58.80	21.26
1936 ...	55.92	99.60	62.77	89.07	94.15	51.14	19.04
1937 ...	56.01	91.96	62.12	82.55	87.83	53.22	20.16
1938 ...	56.40	101.12	62.60	88.25	95.11	43.94	16.44

\* Excluding Treasury Bills. † Including Treasury Bills.

Deposits and advances fluctuate from year to year with changes of seasonal and industrial conditions. Deposits increased from 1925 to 1929 under the stimulus of bountiful production and high prices. At the same time an active investment market and industrial and commercial expansion caused a heavy demand for advances.

The extent of changes in banking policy to meet the economic crisis is indicated by the ratios in 1930 and 1931. Subsequently the ratios show the extent of readjustment to new conditions and the increasing utilisation of banking resources during the period of economic recovery.

Commonwealth Treasury Bills have been treated as a cash item in calculating ratios appearing in the foregoing table, but London balances held by the banks have been excluded as particulars are not available. London balances held by the banks are normally regarded as equivalent to cash in Australia, and their exclusion renders the position of the banks more liquid than is indicated by the cash ratios shown.



## BANKS EXCHANGE SETTLEMENT.

The Banks' Exchange Settlement Office was established in Sydney on the 18th January, 1894.

Exchanges are effected daily between the metropolitan banks. The results of the operations are notified to the secretary of the Banks' Exchange Settlement, who notifies each institution daily of the amount of its balance. The Commonwealth Bank Act of 1924 provided that, after a date to be proclaimed, the exchange balances between the banks must be settled by cheques drawn on and paid into the Commonwealth Bank. Pending the issue of the proclamation, the banks inaugurated the system voluntarily as from 27th April, 1925, and for this purpose established accounts with the Commonwealth Bank through which settlements are made in full daily. The daily clearances are still made through the Settlement Office, and since 27th April, 1925, the amount of the cheques drawn on the Commonwealth Bank is included in the exchanges.

The following table shows the growth in the volume of exchanges made through the Settlement Office. The figures represent the aggregate value of cheques drawn on one bank and deposited in another in the metropolitan area and the net balances of transactions at country interbank clearings. Abnormal transactions on Government account in respect of Treasury Bills, have been excluded since 1930.

TABLE 312.—Inter-bank Clearings, Sydney, 1896 to 1938.

Year.	Amount of Exchanges.	Year.	Amount of Exchanges.
	£		£
1896	117,718,862	1932	*588,732,343
1901	167,676,707	1933	*541,401,538
1911	304,488,435	1934	*716,086,124
1921	709,734,554	1935	*775,985,112
1926	954,253,166	1936	*842,609,556
1929	1,013,324,614	1937	*937,334,454
1931	*683,175,641	1938	*942,422,514

\* Adjusted by excluding Government Treasury Bill transactions.

The figures are affected by amalgamations of banks which took place from time to time between 1916 and 1931, and the suspension of State Government banking transactions during the months of March to May, 1932.

These exchanges exclude the amount of transactions settled by intra-bank cheques and do not represent the total value of transactions settled by cheque. They are, however, considered an indication of the degree of variation in the volume of business transactions settled by cheque from year to year, provided due allowance is made for changes in price levels and amalgamation of banks.

*Index of Bank Clearings.*

Statistics of bank clearings are used principally in measuring variations in business activity over relatively short periods of time. In this connection due allowance has to be made for the facts that

bank clearings (as indicated above) embrace only a proportion of the cheques drawn, that the amount of clearances is diminished from time to time by banking amalgamations and by changes of banking procedure, and that seasonal influences cause fluctuations from month to month in the amount of recorded clearings. Again, from time to time, occurrences such as large conversion loans or heavy governmental transactions swell the amount of clearings to abnormal proportions. Careful inquiry and due allowances are necessary in respect of all these factors before an index of bank clearings can be compiled, and such an index is necessarily an approximation. Moreover, the data relate substantially to inter-bank clearings in the city and suburbs.

Owing to the change in the method of recording clearing-house transactions, valid comparison is possible only subsequent to May, 1925. In compiling the following index the years 1926 to 1930 (inclusive) are taken as base, and the monthly index represents the ratio per cent. of the actual amount of clearings for each month to the average amount of clearings for that month in the base years, after adjustment of both sets of figures to remove the effects of special factors mentioned above. By this means seasonal fluctuations are virtually eliminated. In order to smooth out casual fluctuations the index as published below for each month represents a three months' moving average. That is, the index number for each month is the average of the actual indexes for that month and the two preceding months. The averages for respective months in the period 1926-1930 are taken as base and represented by 100.

TABLE 313.—Index of Bank Clearings, Sydney.

Month.	Average, 1926-1930.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
January ...	100	107	102	82	63	68	78	75	89	101	97
February ...	100	107	98	82	62	66	77	75	86	101	96
March ...	100	106	95	81	*	63	75	74	85	98	95
April ...	100	104	94	82	*	63	74	78	87	103	102
May ...	100	104	93	77	*	67	74	79	86	100	103
June ...	100	104	90	75	66	68	78	86	87	103	106
July ...	100	106	89	66	62	68	76	83	85	97	101
August ...	100	108	85	65	64	66	73	84	86	98	101
September ...	100	107	82	64	65	69	73	82	87	101	99
October ...	100	106	80	65	66	70	76	85	91	101	101
November ...	100	103	81	66	68	74	80	89	96	103	102
December ...	100	104	82	64	69	74	77	90	99	101	102
Year ...	100	106	89	72	65	68	76	82	89	101	101

\* Index not ascertainable on account of suspension of State Government banking transactions.

It should be noted that no allowance has been made for normal growth nor for changes of price levels.

#### THE COMMONWEALTH BANK OF AUSTRALIA.

The Commonwealth Bank of Australia was established under an Act passed by the Federal Government in 1911. The bank commenced operations on 15th July, 1912, when a savings bank department was opened.



Ordinary banking business was commenced on 20th January, 1913. The head office is in Sydney, and branches have been established in the principal cities and towns of Australia, in London, and in the territory of New Guinea.

The Commonwealth Government is responsible for the payment of all moneys due by the bank, and debts due to the bank by other banks have the same priority as debts due to the Commonwealth. The affairs of the bank are subject to inspection and audit by the Auditor-General of the Commonwealth. The bank is authorised to conduct general banking business, to exercise the functions of an ordinary bank of issue, and, with the approval of the Treasurer of the Commonwealth, it may take over the business of banking corporations. Since 1920 the control of the Australian note issue has been one of the functions of a separate department of the Commonwealth Bank. The Savings Bank Department was separated from the bank in June, 1928, but is still managed by the Commonwealth Bank Board. Further details regarding the Commonwealth Savings Bank are stated on page 393.

#### *Central Reserve Bank.*

An amending Act, passed in 1924, made provision for extending the scope of the bank's operations with the object of facilitating its transition into a central reserve bank.

Following consultations between the Directors of the Commonwealth Bank and the Comptroller of the Bank of England in the early part of 1927 discussions were initiated between the Commonwealth Bank and trading banks on the establishment of a central reserve system. Little practical result ensued until 1930, when the Commonwealth Bank reported that the trading banks were, to a much greater extent, treating the Commonwealth Bank as a central reserve bank and had substantially increased their deposits with it, partly as a result of the acquisition of gold by the Commonwealth Bank from the trading banks to meet the exchange crisis. In March, 1931, the Directors of the bank reported that it was in reality functioning as a central bank, and the function of exchange control was assumed in December, 1931, when the Commonwealth Bank undertook to buy London exchange at a stated price.

#### *Control.*

The Commonwealth Bank is controlled by a Board of Directors, composed of the Governor of the Bank, the Secretary of the Commonwealth Treasury, and six other directors with experience in agriculture, commerce, finance, or industry. The last-mentioned are appointed by the Governor-General for a term of seven years and one retires in each year, but is eligible for reappointment. The Governor of the Bank is its chief executive officer and is appointed for a term of seven years, with eligibility for reappointment. The 1924 amendment to the Bank Act made provision for the appointment of a Board of Advice in London, but this has not yet been set up. A director or officer of any other bank may not be appointed as a director of the bank nor as a member of the London Board.

The Board of Directors may be authorised by proclamation to fix and publish the rate at which it will discount and rediscount bills of exchange.

*Capital and Profits.*

The capital of the Bank is limited to £20,000,000, consisting of £4,000,000 from accumulated profits, a sum not exceeding £6,000,000 which the Federal Treasurer is authorised to borrow, and such sum as may be raised by the sale and issue of debentures up to £10,000,000. The Bank will pay the interest on any loan raised for its purposes. It has not yet exercised its authority to issue debentures.

Of the net profits of the Bank—except those of the Note Issue and the Rural Credits Departments—half is payable to the Bank reserve fund and half to the National Debt Sinking Fund. Profits from the Note Issue Department are paid to the Commonwealth Treasury, though during the period 1925 to 1932, one quarter of the profits, amounting to £2,000,000, was paid to the credit of the capital account of the Rural Credits Department. The aggregate profits to 30th June, 1938, excluding the Note Issue Department, amounted to £14,482,204, which have been distributed as follows:—General Bank, capital account, £4,000,000, and reserve fund, £2,584,187; Rural Credits Department reserve fund, £303,576, and development fund, £303,576; Savings Bank reserve fund, £2,555,332; and National Debt Sinking Fund, £4,735,533.

*Rural Credits Department.*

The Rural Credits Department was established towards the end of 1925 to assist the marketing of products of the rural industries. This department may make advances for a period not exceeding one year upon the security of primary produce, e.g., wool, grain, butter, cheese, fruits, hops, cotton, sugar, and any other produce as may be prescribed. The advances may be made to the general banking section of the Commonwealth Bank, to other banks, to co-operative associations, and to such other bodies as may be specified by proclamation. In lieu of making advances the department may discount bills secured upon primary produce on behalf of any of these institutions.

Capital for the Rural Credits Department amounting to £2,000,000 was provided from the profits of the note issue, as indicated above, and additional capital may be provided by loans from the Federal Government up to a limit of £3,000,000. The Commonwealth Bank may raise further funds for the department by issuing debentures up to an amount not exceeding the greater of the following, viz., (a) advances on primary produce outstanding at the date of the issue of the debentures; or (b) four times the sum of (i) outstanding loans to the department from the Federal Government, (ii) moneys received from the profits of the note issue, (iii) the credit balance of the Rural Credits Department Reserve Fund. The dates for the redemption of the debentures are to coincide, as nearly as practicable, with the dates for the repayment of the advances made. In addition, the general banking department of the Commonwealth Bank may make advances to the Rural Credits Department of such amounts and subject to such terms and conditions as the Board of Directors determines.

The assets of the Rural Credits Department are available, firstly, for meeting liabilities other than loans from the Federal Government and interest thereon; and secondly, for repaying such loans with interest.

One half of the net profits is payable to the reserve fund of the Department and one half to the Development Fund, to be used, at the discretion of the Board of Directors, for the promotion of primary production. At 30th June, 1938, the credit balance of the Reserve Fund was £303,576 and of the Development Fund, £27,881.

The following statement shows the average liabilities and assets of the Commonwealth Bank (the General Bank and Rural Credits Departments) in New South Wales in the June quarter of each of the years 1934 to 1938.

TABLE 314.—Commonwealth Bank, Average Assets and Liabilities in N.S.W.

Particulars.	June Quarter.				
	1934.	1935.	1936.	1937.	1938.
<b>Liabilities—</b>	£	£	£	£	£
Deposits at interest—					
Government ...	...	2,769,231	5,000,000	3,538,461	4,577,726
Other ...	12,018,576	12,734,083	12,054,614	14,795,557	16,810,389
Deposits not bearing interest—					
Government ...	591,705	95,360	20,030	15,220	16,560
Other ...	3,602,011	5,559,663	5,449,059	7,647,843	7,922,487
Total deposits ...	16,212,292	21,158,337	22,523,703	25,997,081	29,327,162
Other liabilities ...	7,100,395	6,794,598	5,594,988	8,263,336	4,635,863
<b>Total Liabilities in New South Wales...</b>	<b>23,312,687</b>	<b>27,952,935</b>	<b>28,118,691</b>	<b>34,260,417</b>	<b>33,963,025</b>
<b>Assets—</b>					
Coin and Bullion ...	271,612	234,071	288,092	238,821	337,951
Australian Notes ...	1,812,297	1,345,449	1,294,914	1,206,198	1,246,989
Advances, etc. ...	†5,542,775	†5,213,270	†9,052,136	†9,635,753	11,683,973
Government Securities* ...	†15,750,741	†14,238,714	†13,082,111	†14,460,063	9,417,073
Landed Property ...	439,741	414,844	378,601	366,744	346,124
Notes, Bills and Balances from other Banks ...	64,635	72,759	87,614	80,081	85,370
<b>Total Assets in New South Wales ...</b>	<b>23,881,801</b>	<b>21,519,107</b>	<b>24,183,468</b>	<b>25,987,660</b>	<b>23,117,480</b>

\* Including municipal securities and Commonwealth Treasury Bills. † Revised by transfer of certain short term loans (mostly Governmental) from "Government Securities" to "Advances, etc."

The liabilities classified as "other" in the table consist for the most part of amounts deposited with the Commonwealth Bank by the trading banks.

The balance sheet totals of the bank in New South Wales and elsewhere at 30th June, 1913, amounted to £5,055,382. At 30th June, 1938 they were £100,631,485 in the General Bank and Rural Credits Departments, £57,840,467 in the Note Issue Department and £152,710,282 in the Savings Bank. The totals have expanded as a result of the development of central banking functions and mergers with State savings banks.

#### THE RURAL BANK OF NEW SOUTH WALES.

Particulars of the foundation and changes in the constitution of the Rural Bank of New South Wales have been stated in earlier issues of the Year Book.

Prior to 1st July, 1933, the bank functioned under the name of the Government Savings Bank of New South Wales, although the Savings Bank Department ceased active business on its amalgamation with the Commonwealth Savings Bank of Australia as from 15th December, 1931. The amalgamation was an outcome of the suspension of payments by the Government Savings Bank on 23rd of April, 1931, and the agreements under which it was effected provided also for the transfer of deposits in the Rural Bank Department to the Commonwealth Bank of Australia.

The business of the Rural Bank is now conducted in two departments, viz., the Rural Bank Department and Advances for Homes Department, and the Bank administers in a Government Agency Department various lending activities on behalf of the Government. Control of the Bank is exercised by three commissioners, of whom one is president, appointed during ability and good behaviour until attainment of the age of sixty-five years.

*Rural Bank Department.*

An account of the origin and operations of the Rural Bank Department is given in the chapter "Rural Settlement" of this Year Book.

Prior to 1931 the Department obtained the bulk of its funds from customers' deposits on both fixed and current account. A substantial sum was obtained also on loan from the Savings Bank Department, and a public issue of approximately £1,000,000 was made in 1923. On 15th December, 1931, Rural Bank stock was issued to the Commonwealth Bank as consideration for the assumption of deposit liabilities by this institution, and a further issue was made to the Commonwealth Savings Bank in place of loans due previously to the Savings Bank Department. As from this date the Rural Bank Department functioned only in so far as loan accounts were concerned until 28th November, 1933, when deposit business was resumed on the opening of a branch in Sydney. At 30th June, 1938, forty-eight branches had been opened in Sydney and important country centres, while in other localities branches of the Commonwealth Bank, acting as agents in certain cases, provide banking facilities for the Department's customers.

The balance sheet of the Rural Bank Department as at 30th June, 1938, was as follows:—

TABLE 315.—Rural Bank of New South Wales, Rural Bank Department Balance Sheet.

<i>Liabilities</i>		<i>Assets.</i>	
	£		£
Rural Bank Department		Cash and Bank Balances ...	330,752
Stock and Debentures ...	14,095,095	Investments—	
Reserve Fund ... ..	761,894	Commonwealth Government	
Special Reserve ... ..	940,170	Securities... ..	246,341
Deposits, Other Liabilities and		Fixed Deposits ... ..	671,197
Reserves for Contingencies	1,959,518	Other Securities ... ..	56,616
Government Agency Dept.—		Reserve Fund Investments—	
Capital Accounts ... ..	118,662	Commonwealth Govern-	
Guarantee and Other Funds	92,582	ment Securities ... ..	658,920
		Metropolitan Water Board	
		Securities ... ..	64,164
		Loans and Advances to	
		Customers ... ..	15,067,427
		Sundry Debtors and other	
		Assets ... ..	203,367
		Due by other Departments	12,277
		Premises ... ..	656,860
<b>Total ... ..</b>	<b>17,967,921</b>	<b>Total ... ..</b>	<b>17,967,921</b>

The assets and liabilities shown above, other than capital items, are included in the particulars of trading banks published on pages 379 and 380.

The net profit for the year 1937-38, amounting to £34,956, was transferred to the reserve fund.

In terms of the agreement under which the savings business of the Bank was amalgamated with the Commonwealth Savings Bank, one-half of the profits earned in New South Wales by the Commonwealth Savings Bank is payable to the Commissioners of the Rural Bank. Amounts received in this manner are credited direct to a special reserve account of the Rural Bank Department, which, at 30th June, 1938, amounted to £940,170. The share of the profits amounted to £169,793 in 1936-37 and to £156,926 in 1937-38.

*Advances for Homes Department.*

An account of the operations of the Advances for Homes Department is published in the chapter "Social Condition," of this Year Book.

Funds for the purposes of the Department were obtained mainly by loan from the Savings Bank Department, but liability in this respect is now owing to the Commonwealth Savings Bank. A public loan of approximately £1,000,000 was floated in 1924, and in the latter part of 1928 arrangements were made to authorise the Commissioners to obtain advances from the Housing Fund constituted by the Commonwealth Government, and the sum of nearly £1,000,000 was made available. In April, 1934, a loan of £1,511,780 was raised by public subscription to provide for the redemption of the £1,000,000 loan floated in 1924, and to enable lending operations to be resumed. Further loans have since been arranged with the Commonwealth Savings Bank.

The balance sheet of the Advances for Homes Department at 30th June, 1938, was as follows:—

TABLE 316.—Rural Bank of New South Wales, Advances for Homes Department Balance Sheet.

Liabilities.		Assets.	
	£		£
Advances for Homes Department Stock and Debentures ... ..	11,839,791	Cash at Bankers ... ..	31,946
Reserve Fund ... ..	790,453	Reserve Fund Investments— Commonwealth Government Securities ...	680,358
Deposits, other Liabilities and Reserves for Contingencies	1,075,448	Metropolitan Water Board Securities ... ..	69,439
Amounts due to Other Departments ... ..	15,083	Commonwealth Government Securities ... ..	24,558
		Metropolitan Water Board Securities ... ..	32,115
		Rural Bank Department Stock ... ..	340,045
		Sundry Debtors ... ..	133
		Loans on Mortgage and Contracts of Sale ... ..	12,542,181
<b>Total ... ..</b>	<b>£13,720,775</b>	<b>Total ... ..</b>	<b>13,720,775</b>

The net profit in 1937-38 was £36,354, which was transferred to the reserve fund.

*Government Agency Department.*

A Government Agency Department was established under the Rural Bank Act, 1932, with the object of co-ordinating under the control of a central authority certain lending activities conducted formerly through Government departments. The scope of the department's functions and powers was not defined until the passage of the Rural Bank (Agency) Act, 1934. In terms of this Act the agencies listed in the following table were created.

In respect of each agency the Rural Bank acts in an administrative capacity as agent for the Government, collecting charges and principal sums owing and making new advances in accordance with Government policy. The cost of administering the agencies is payable to the Bank from Consolidated Revenue Fund and revenue earnings are payable to the State Treasurer. Collections on account of principal sums due by borrowers may be retained for the purpose of making further advances.

The financial operations of the various agencies during the year ended 30th June, 1938, are summarised in the following table. Further particulars of the loans for building purposes are shown in the chapter Social Condition of this Year Book, and details regarding finance for rural industries in the chapters Rural Settlement and Land Legislation and Settlement.

TABLE 317.—Rural Bank of New South Wales, Government Agency Department, 1937-38.

Agency.	Revenue Collections.	Administrative Expenses.	Particulars of Advances.		
			Made during 1937-38.	Repaid during 1937-38.	Outstanding at 30th June, 1938.
	£	£	£	£	£
Building Relief ... ..	12,855	16,062	85,692	140,569	322,301
Government Housing ... ..	20,968	2,199	5,164	21,886	427,122
Home Building Scheme ... ..	11,141	4,844	1,621	36,443	228,223
Advances to Settlers ... ..	20,368	17,065	30,125	91,454	856,378
Farmers' Relief ... ..	26,691	38,625	1,072,818	370,224	1,651,143
Government Guarantee ... ..	...	174	8,064	...	8,246
Irrigation ... ..	225,885	28,881	193,355	144,000	1,805,091
Rural Industries ... ..	9,923	24,249	84,321	45,533	1,036,278
Closer Settlement ... ..	68	1,640	5,580	16	5,630
<b>Total</b> ... ..	<b>327,899</b>	<b>133,739</b>	<b>1,486,740</b>	<b>850,125</b>	<b>6,340,412</b>

Amounts advanced and repaid during the year represent capital sums only, but balances outstanding at 30th June include amounts due for interest and other charges as well as capital.

It is not possible from the figures in the table to calculate the net profit or loss of the various agencies, as a charge is not made for interest on capital resources used in making loans and advances.

## SAVINGS BANKS.

Savings bank business in New South Wales has been conducted solely by the Commonwealth Savings Bank of Australia since 15th December, 1931. On this date the extensive savings bank business of the Government Savings Bank of New South Wales was merged with the Commonwealth Savings Bank and an undertaking was given by the Government of New South Wales not to engage in the conduct of savings bank business in the future.

*The Commonwealth Savings Bank.*

The Savings Bank Department of the Commonwealth Bank was opened on 15th July, 1912, and it was established as a separate institution—the Commonwealth Savings Bank of Australia on 9th June, 1928. It is controlled by the Board of the Commonwealth Bank, but provision has been made for the transfer of control to a separate commission consisting of a chief commissioner and two other commissioners after a resolution has been passed in both Houses of the Federal Parliament. One member of the Savings Bank Commission, when appointed, is to be a director of the Commonwealth Bank nominated by the Board of Directors. This will facilitate co-operation between the two institutions and enable the Commission to obtain the advice of the Board of Directors regarding the investment of the Savings Bank funds. These funds are available for long-term investments, *e.g.*, loans on the security of land, advances for homes or for warehouses and stores for primary products, in debentures of the Rural Credits Department of the Commonwealth Bank and on fixed deposits with the Commonwealth Bank.

The Savings Bank business is transacted at all branches of the Commonwealth Bank and at numerous post offices and agencies, also, since 15th December, 1931, at the former branches and agencies of the Government Savings Bank of New South Wales. Deposits are received in sums of one shilling or more, and interest is allowed on the minimum monthly balances at the rate of 2 per cent. per annum up to £500, and at 1½ per cent. on an additional amount up to £1,300 on personal accounts, and at the rate of 2 per cent. per annum on the whole credit balance of bodies such as friendly societies not operating for profit. Changes in the rates of interest are shown in table 327.

The total liabilities and assets of the Commonwealth Savings Bank at 30th June, 1938, amounted to £152,710,282. The liabilities included reserve fund, £2,555,332, and depositors' balances £143,433,124. The assets consisted largely of Government securities £94,981,018, and securities of municipalities and other public authorities £31,416,917; coin, cash and money at short call amounted to £22,272,855, representing a proportion of 15.5 per cent. of depositors' balances, bank premises to £892,084, and other assets to £3,147,408.

*Deposits in Savings Banks.*

The following statement shows the operations on savings bank accounts and the amount of depositors' balances in New South Wales in various years. The figures for 1910 and earlier years do not include School Savings Bank accounts.

TABLE 318.—Savings Bank Deposits in New South Wales.

Year ended 30th June.	Savings Bank Deposits.					
	Amounts Credited.		Withdrawals.	Increase in Deposits.	Deposits at 30th June.	
	Deposits.	Interest.			Amount. †	Per Head.
	£	£	£	£	£	£ s. d.
1880*	Not Available.			153,594	2,075,856	2 17 0
1890*	Not Available.			450,380	4,730,469	4 5 10
1900*	5,035,006	304,882	4,507,940	831,948	10,901,382	8 2 8
1910*	15,343,561	619,263	13,658,533	2,304,291	22,453,924	13 14 2
1920	54,660,882	1,597,050	53,394,739	2,862,745	49,951,362	24 3 0
1925	67,573,577	2,337,636	66,973,535	2,975,316	69,149,433	30 3 2
1929	81,941,134	3,051,191	80,847,878	4,099,847	85,727,514	34 5 1
1930	76,703,875	3,125,247	83,082,889	(-) 3,262,084	82,463,430	32 12 0
1931	58,179,625	2,799,637	73,652,380	(-) 12,654,661	69,810,769	27 6 6
1932	53,097,349	2,033,398	53,285,025	1,837,100	71,647,869	27 15 9
1933	41,631,943	1,720,183	42,819,614	659,816	72,307,685	27 16 0
1934	46,456,174	1,694,079	44,845,248	3,406,385	75,714,070	23 17 7
1935	48,940,461	1,512,914	48,461,611	2,192,332	77,906,402	29 9 2
1936	54,145,162	1,470,625	53,790,145	2,093,546	79,999,948	30 0 3
1937	57,144,148	1,490,459	57,151,507	1,952,451	81,952,399	30 8 9
1938	63,468,063	1,550,814	61,433,382	4,063,286	86,016,685	31 12 9

\* Year ended 31st December. † Includes amount of deposits in Schools Savings Banks in 1920 and later years. (—) Decrease in Deposits.

Deposits have exceeded withdrawals in nearly every year since 1919-20, except in the four years 1929-30 to 1932-33. There was an excess of withdrawals amounting to £473,239 in 1923-24 and to £7,359 in 1936-37. Heavy withdrawals in 1929-30 and 1930-31 led to the closure of the State Savings Bank.

The amount of interest credited annually to depositors increased until 1930, under the influence of growing deposits, and higher rates of interest introduced in 1928. Successive reductions of interest rates between July, 1931, and January, 1935, are reflected in the smaller amounts added to depositors' balances. The interest in 1937-38 was the highest in any year since 1933-34.

Accounts in active operation as at 30th June, 1932, and each succeeding year are shown below, together with the average amount of deposits per account. Comparable figures in respect of earlier years are not available.

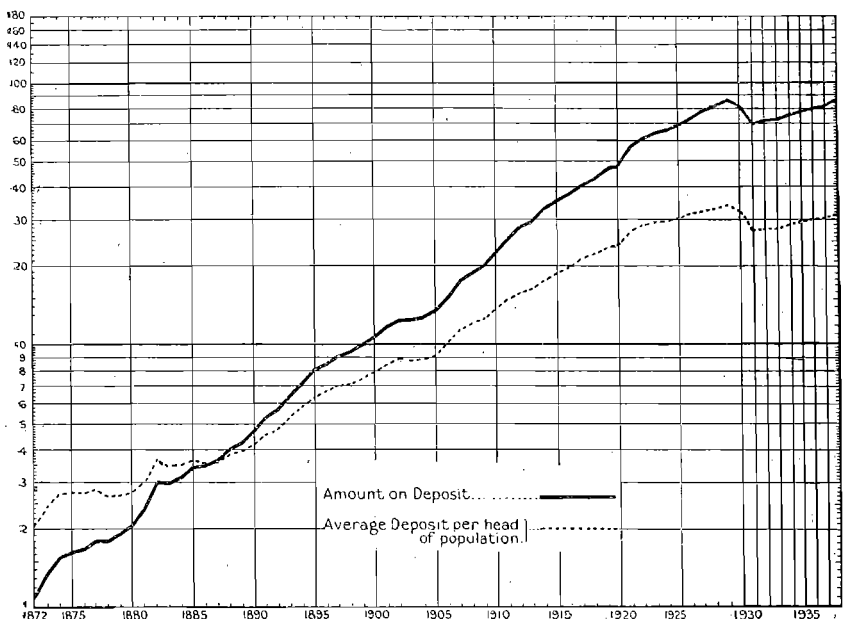
TABLE 319.—Savings Bank Accounts in New South Wales.

30th June.	No. of Active Accounts.	Average Deposit per Account.	30th June.	No. of Active Accounts.	Average Deposit per Account.
		£ s. d.			£ s. d.
1932	1,013,017	70 14 6	1936	1,163,713	68 14 11
1933	1,038,338	69 12 9	1937	1,218,245	67 5 5
1934	1,082,016	69 19 6	1938	1,288,515	66 15 1
1935	1,118,537	69 13 0			

The number of accounts does not represent individual depositors, as many of the accounts are joint accounts and accounts of societies, trusts, etc., whose members have personal accounts also. It is apparent, however, that a large proportion of the people practise thrift through the medium of the savings bank.



SAVINGS BANKS, 1872 to 1938.  
(Ratio Graph.)



The numbers at the side of the graph represent £1,000,000 of deposits, and of £1 average deposit per head of population. The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

DEPOSITS IN ALL BANKS IN NEW SOUTH WALES.

In June, 1938, the net amount of deposits at credit of private and public accounts in the savings and the trading banks in New South Wales was £230,469,892 or £84 15s. 4d. per head of population. These amounts are exclusive of deposits lodged with trading banks by savings banks. The figures for the savings banks in the following table represents the deposits as at 30th June in each year, and those for the trading banks are the averages of the June quarter:—

TABLE 320.—Deposits in all Banks in New South Wales.

June.	Net Deposits bearing Interest.			Net Deposits not bearing Interest.*	All Deposits.*	
	Savings Banks.	Trading Banks.*	Total.		Total.	Per head of Population.
	£	£	£	£	£	£ s. d.
1925	69,149,433	48,628,465	117,777,898	54,446,766	172,224,664	75 2 3
1929	85,727,514	67,211,856	152,939,370	55,099,134	208,038,504	83 2 5
1930	82,465,430	73,509,636	155,975,066	47,161,221	203,136,287	80 6 0
1931	69,810,769	77,794,555	147,605,324	40,880,879	188,486,203	73 15 7
1932	71,647,869	70,105,231	141,753,100	41,066,823	182,819,923	70 18 1
1933	72,307,685	73,100,353	145,408,038	39,849,683	185,257,721	71 4 5
1934	75,714,070	75,127,564	150,841,634	46,426,456	197,268,090	75 4 9
1935	77,906,402	74,864,308	152,770,710	49,941,189	202,711,899	76 12 11
1936	79,999,948	73,175,165	153,175,113	49,436,328	202,611,441	76 0 3
1937	81,952,399	82,005,668	163,958,067	57,838,407	221,796,474	82 7 5
1938	86,015,685	86,837,612	172,853,297	57,616,595	230,469,892	84 15 4

\* Excluding deposits lodged by Savings Banks in Trading Banks.

## INTEREST RATES.

The effective interest rates in the various financial fields are of fundamental importance, as interest charges represent an important factor of cost in certain major industries, and, considered in conjunction with returns from industry, they exercise an influence on the flow of funds into the various channels of investment.

*Yield on Government Securities.*

The yield on Government securities sold on the Stock Exchanges is an important determinant of interest rates in other spheres. Particulars of the average yield are shown below for periods before and after the general conversion of Australian Government securities payable in Australia, to which reference is made on page 357 of this Year Book.

The yield prior to conversion, as indicated in the following table, represented the average return to investors, including redemption, at current market price of all Commonwealth securities maturing in Australia. Interest on these stocks was subject to Federal, but not State, income taxes, and the former included a special tax levied at the rate of  $7\frac{1}{2}$  per cent. on income derived from property in 1929-30 and 10 per cent. on income derived in 1930-31 and 1931-32.

TABLE 321.—Commonwealth Securities, Average Yield Prior to Conversion, 1928 to 1931.

Date.	Redemption Yield per cent.	Date.	Redemption Yield per cent.
	£ s. d.		£ s. d.
1928—		1930—	
29th March... ..	5 10 1	3rd April ... ..	6 0 7
28th June ... ..	5 10 4	3rd July ... ..	6 1 2
28th September ... ..	5 9 0	2nd October ... ..	7 0 6
20th December ... ..	5 5 6		
1929—		1931—	
27th March... ..	5 6 4	8th January ... ..	7 1 5
27th June ... ..	5 5 2	12th March ... ..	7 14 4
3rd October ... ..	5 10 4	4th June ... ..	12 19 11
19th December ... ..	5 13 11		

Under the general conversion of all internal loans in accordance with the Premiers' Plan, interest payable on Government loans was reduced by  $22\frac{1}{2}$  per cent., and steps were taken, partly by legislation, to procure a corresponding decrease in interest rates generally. Following conversion, yields on Government securities declined with minor fluctuations to approximate parity with the nominal interest rate of 4 per cent. payable on the bulk of converted securities. This level was reached towards the end of 1932 and the lowest point, following further decline, in November, 1934.

The monthly averages of weekly statements of yields, including redemption, on the Melbourne Stock Exchange are shown in the following table at intervals since October, 1931, following conversion, to March, 1939.

TABLE 322.—Commonwealth Securities, Average Yield Subsequent to Conversion, 1931 to 1939.

Month.	Redemption Yield Per cent. on Stock with unexpired currency of—				Month.	Redemption Yield Per cent. on Stock with unexpired currency of—			
	Over 5 to 10 years.	Over 10 to 15 years.	Over 15 years.	Overall.		Over 5 to 10 years.	Over 10 to 15 years.	Over 15 years.	Overall.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.
1931—					1936—				
October ...	6 5 0	6 12 11	5 4 3	5 9 3	March ...	3 16 10	3 16 10	3 18 10	3 17 5
November ...	5 18 0	5 5 7	4 19 3	5 3 7	June ...	3 18 2	3 18 3	3 19 7	3 18 7
December... 4 16 8	4 13 11	4 10 8	4 12 3		September...	3 17 0	3 18 9	3 19 10	3 18 7
1932—					December... 3 19 4	4 0 0	4 0 0	4 0 0	4 0 0
March ...	5 2 0	5 1 4	4 15 5	4 17 4	1937—				
June ...	5 0 3	4 18 10	4 14 5	4 16 1	March ...	4 0 10	4 1 5	4 0 7	4 1 0
September...	4 1 8	4 2 2	4 1 11	4 1 11	June ...	3 13 0	3 15 6	3 16 11	3 15 4
December... 3 18 11	3 19 1	3 19 3	3 19 1		September...	3 16 4	3 16 3	3 17 6	3 16 8
1933—					December... 3 13 4	3 14 9	3 15 2	3 14 5	
March ...	3 14 10	3 17 4	3 17 8	3 16 9	1938—				
June ...	3 12 8	3 15 2	3 16 4	3 15 0	January ...	3 11 2	3 12 11	3 14 3	3 12 9
September...	3 12 2	3 13 10	3 14 11	3 13 10	February ...	3 10 4	3 12 1	3 14 6	3 12 3
December... 3 9 8	3 11 1	3 13 6	3 12 1		March ...	3 11 6	3 12 8	3 14 4	3 12 10
1934—					April ...	3 13 6	3 13 8	3 15 0	3 14 0
March ...	3 7 11	3 9 1	3 12 5	3 10 4	May ...	3 15 0	3 15 1	3 15 7	3 15 3
June ...	3 4 6	3 4 7	3 9 2	3 6 8	June ...	3 16 1	3 15 6	3 16 1	3 15 10
September...	3 4 0	3 4 0	3 8 8	3 6 0	July ...	3 14 9	3 14 11	3 15 8	3 15 1
October ...	3 1 9	3 2 6	3 6 1	3 3 9	August ...	3 14 10	3 14 9	3 15 7	3 15 0
November ...	3 1 2	3 2 6	3 6 4	3 3 5	September...	3 16 1	3 15 9	3 16 7	3 16 1
December... 3 2 1	3 3 1	3 7 7	3 4 3		October ...	3 16 3	3 17 0	3 17 2	3 16 9
1935—					November ...	3 16 2	3 17 1	3 17 4	3 16 9
March ...	3 4 11	3 6 6	3 11 11	3 7 9	December... 3 17 3	3 18 5	3 18 5	3 17 11	
June ...	3 8 8	3 9 6	3 13 6	3 10 7	1939—				
September...	3 16 6	3 15 3	3 18 2	3 16 7	January ...	3 16 6	3 17 4	3 17 7	3 17 1
December... 3 14 11	3 14 8	3 16 11	3 15 6		February ...	3 16 8	3 16 9	3 16 7	3 16 8
					March ...	3 17 3	3 17 9	3 17 8	3 17 6

Yields quoted in the table relate to all Commonwealth loans with an unexpired currency of more than five years at the various dates shown, including those converted and all issues since conversion. Where repayment is optional between certain dates, the latest date has been adopted in determining maturity for the purposes of grouping and calculation of yields. The nominal rates of interest payable range between 3 per cent. and 4 per cent., though the bulk of the loans carry interest at the latter rate. A large proportion of the loans is acceptable by the Commonwealth Treasury at par-value for payment of Federal Estate Duty; loans not acceptable include recent issues which have been incorporated in the table as from initial quotations on the Stock Exchange.

Interest on converted stocks and stocks issued subsequently is free of State income tax but is subject to Federal income tax to the limit of rates existing at the date of conversion. It was free also of the special Federal property tax for the duration of that tax, which was levied at the rate of 7½ per cent. on income from property earned in 1929-30, increased to 10 per cent. on incomes in 1930-31 and 1931-32, reduced to 6 per cent. in 1932-33 and 1933-34, and to 5 per cent. in 1934-35, then abolished. A short review of the rates of income tax appears on page 322 *et seq.*

*Commonwealth Treasury Bills.*

Commonwealth Treasury Bills were first issued in 1927 to provide cash to retire the unconverted portion of a maturing Commonwealth loan. These Bills and a further issue of £1,000,000 in 1928 were paid on maturity. In 1929 there was another issue of Treasury Bills to provide finance for Governments, and since that date there has always been a considerable volume of Bills outstanding. They are discounted exclusively by the

Commonwealth Bank and the trading banks, although on 16th March, 1936, a single issue of small amount was made available for discount by the public.

In 1931 the Commonwealth Bank guaranteed that the bills taken up by the trading banks would be redeemed on maturity, and undertook to re-discount them on demand during currency at the rate of interest at which they were issued. In respect of new issues or re-issues of Treasury Bills after 30th June, 1934, the guarantee of repayment was withdrawn, and re-discounting is undertaken by the Commonwealth Bank at a rate to be fixed at the time of the transaction. Variations in the rates of discount since June, 1927, are as follows:—

TABLE 323.—Rate of Discount on Commonwealth Treasury Bills, 1927 to 1939.

Treasury Bills.					Rate of Discount.
					Per cent.
1927—June	...	...	...	...	4
1928—February	...	...	...	...	4½
1929—October	...	...	...	...	5½
1930—October	...	...	...	...	6
1931—July	...	...	...	...	4
1932—November	...	...	...	...	3½
1933—January	...	...	...	...	3½
February	...	...	...	...	2½
June	...	...	...	...	2½
1934—April	...	...	...	...	2½
October	...	...	...	...	2
1935—January *	...	...	...	...	1¾

\* Rate unchanged, June, 1939.

#### Fixed Deposit Rates.

The trading banks provide a large part of the temporary financial accommodation needed in various business activities. The funds for this purpose are obtained partly as fixed deposits from customers. The rates of interest paid by trading banks to such customers in New South Wales have varied as follow in recent years:—

TABLE 324.—Trading Banks, Fixed Deposit Rates, 1920 to 1939.

Month of Change.	Fixed Deposit Rates—Period of Deposit.			
	3 months.	6 months.	12 months.	24 months.
	Per cent.	Per cent.	Per cent.	Per cent.
July, 1920 ...	3½	4	4½	5
August, 1927 ...	4	4	4½	5
January, 1930 ...	4½	4½	5	5½
June, 1931 ...	3½	3½	4	4½
November, 1931 ...	3	3½	3½	4
March, 1932 ...	2½	3	3½	4
May—June, 1932 ...	2½	3	3½	3½
August, 1932 ...	2½	2½	3	3½
November, 1932 ...	2½	2½	3	3½
February, 1933 ...	2	2½	2½	3
April, 1934 ...	2	2½	2½	2½
August, 1934 ...	1½	2½	2½	2½
October, 1934 ...	1½	2	2½	2½
March, 1936 *	2	2½	2½	3

\* Rates unchanged, June, 1939.

Rates of interest paid by the Commonwealth Bank have been similar to those of private banking institutions, though they differed somewhat prior to January, 1924. A divergence in rates existed in the period dating from 17th December, 1934, to 23rd March, 1936, when the Commonwealth Bank rates for deposits at three and six months were 1 per cent. and  $1\frac{1}{2}$  per cent. respectively.

The comparatively high level of interest rates ruling during the period 1920-1929 was due to a steady demand for accommodation to finance investment. The increase in January, 1930, synchronised with the onset of the depression when banking deposits began to decrease while advances increased pending the slower liquidation of stocks and adjustment to lower price levels. As a result fixed deposits remained at a high level, though deposits on current account declined very heavily. The reductions in rates of interest in June, 1931, followed upon arrangements made at the Premiers' Conference in that month, and were facilitated by the existence of a high proportion of fixed deposits and a small volume of investment activity. The rates were raised in March, 1936, following upon recovery in business and investment activity, with consequent growth of bank advances and relative diminution of fixed deposits.

It should be noted that the alterations in rates apply to deposits lodged or renewed after the date of change and not to deposits accepted at previous rates.

#### *Overdraft and Discount Rates.*

According to information supplied by trading banks, the dates of change and the altered rates of interest on overdrafts and discounts charged by certain trading banks were as follows:—

TABLE 325.—Trading Banks, Overdraft and Discount Rates, 1920 to 1939.

Date.	Overdraft Rates.	Rates of Discount on Bills at—	
		Three months.	Over three months.
July, 1920 ... ..	Per cent. 6 to 8	Per cent. 5 to 6	Per cent. 6 to 7
January, 1924 ... ..	6 to 8	$5\frac{1}{2}$ to 7	$5\frac{1}{2}$ to 7
January, 1925 ... ..	6 to 8	$5\frac{1}{2}$ to 7	6 to 7
August, 1927 ... ..	$6\frac{1}{2}$ to 8	6 to 7	$6\frac{1}{2}$ to 7
March, 1930 ... ..	7 to $8\frac{1}{2}$	$6\frac{1}{2}$ to $7\frac{1}{2}$	7 to $7\frac{1}{2}$
July, 1931 ... ..	5 to 7	5 to 7	5 to 7
July, 1932 ... ..	5 to 6	5 to 6	5 to 6
June, 1934 ... ..	$4\frac{1}{2}$ to $5\frac{1}{2}$	$4\frac{1}{2}$ to $5\frac{1}{2}$	$4\frac{1}{2}$ to $5\frac{1}{2}$
July, 1934 ... ..	$4\frac{1}{2}$ to 5	$4\frac{1}{2}$ to 5	$4\frac{1}{2}$ to 5
April to August, 1936 ...	$4\frac{1}{2}$ to $5\frac{1}{2}$	$4\frac{1}{2}$ to $5\frac{1}{2}$	$4\frac{1}{2}$ to $5\frac{1}{2}$
October 1936 * ... ..	$4\frac{1}{2}$ to $5\frac{3}{4}$	$4\frac{1}{2}$ to $5\frac{3}{4}$	$4\frac{1}{2}$ to $5\frac{3}{4}$

\* Rates unchanged, May, 1939.

The foregoing rates, quoted as a range between the minimum and maximum rates charged, are subject to influences similar to those affecting rates of interest on fixed deposits during the same period.

Rates of interest charged on various types of advances by the Commonwealth Bank of Australia and the Rural Bank of New South Wales are indicated below, quotations in each instance representing maximum rates charged as at the various dates of change shown. Where a rate is not shown against any month the next preceding quotation was operative.

TABLE 326.—Rates of Interest Charged by Commonwealth Bank and Rural Bank of New South Wales.

Date of Change.	Commonwealth Bank—Overdrafts.		Rural Bank of New South Wales.		
	General Banking Department.	Rural Credit Department.	Rural Bank Department.		Advances for Homes Department.
			Long Term Loans.	Overdrafts.	
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
January, 1930 ... ..	*6½	*5½	6½	6½	*6½
July, 1930 ... ..	...	6	...	...	...
July, 1931 ... ..	5½	5	...	...	...
October, 1931 ... ..	...	...	†	5 <sup>7</sup> / <sub>50</sub>	†
July, 1932 ... ..	5	4½	...	...	...
December, 1932 ... ..	...	...	5	5	5
January, 1933 ... ..	4½	4½	...	...	...
July, 1933 ... ..	...	4	...	...	...
April, 1934 ... ..	4½	...	...	...	...
July, 1934 ... ..	...	3½	...	4½	...
September, 1934 ... ..	...	...	...	...	4½
October, 1934 ... ..	...	...	4½	...	...
November, 1934 ... ..	4½	...	...	...	...
January, 1935 ... ..	...	...	...	4½	...
April, 1935 ... ..	...	...	4½	...	4½
January, 1937 † ... ..	...	...	4½	4½	4½

\* Rates prevailing prior to January, 1930.

† Rates reduced in terms of Interest Reduction Act, 1931.

‡ Rates unchanged, June, 1939.

The increased Rural Bank rate of 4½ per cent. in January, 1937, was charged in respect of overdrafts to the general body of borrowers. For long term advances in both Rural Bank and Advances for Homes Departments the higher rate was charged to new borrowers only, until extended to existing borrowers in April, 1937. As from February, 1937, the nominal rate of interest arranged in respect of new long term loans was increased to 5 per cent., but the rate actually charged was 4½ per cent.

#### Savings Bank Deposit Rates.

Variations since 1928 in the rates of interest paid by the Commonwealth Savings Bank of Australia on the minimum monthly balances at the credit of depositors are shown below:—

TABLE 327.—Rates of Interest on Deposits in Commonwealth Savings Bank.

Month of Change.	Rate of Interest on Balances.			
	Under £500.	£500 to £1,000.	£1,000 to £1,300.	Societies not Operating for Profit.*
	Per cent.	Per cent.	Per cent.	Per cent.
Prior to October, 1928 ...	3½	3½	3	3½
October, 1928 ...	4	3½	3	4
July, 1931 ...	3	2½	2	3
July, 1932 ...	2¾	2¼	2	2¾
November, 1932 ...	2½	2	2	2½
June, 1934 ...	2¼	1¾	1¾	2¼
January, 1935 † ...	2	1¾	1¾	2

\* Whole amount of balance. † Rates unchanged, June, 1939.

*Mortgage Interest Rates.*

The trend of interest rates charged on loans secured by mortgage since August, 1933 (the first month for which information was collected) is indicated in the following table. The rates of interest are the actual (as distinct from the penal) rates recorded in first mortgages registered in the names of mortgagees who were private individuals or private corporations during the three months ended in the month shown. Where identifiable, renewals and collateral mortgages are omitted, as also are mortgages taken by banks and Governmental agencies.

TABLE 328.—Interest Rates on Mortgages, 1933 to 1938.

* Period.	Weighted Average *Rate of Interest on First Mortgages Registered.		* Period.	Weighted Average *Rate of Interest on First Mortgages Registered.	
	Rural Securities.	Urban Securities.		Rural Securities.	Urban Securities.
	Per cent. per annum.	Per cent. per annum.		Per cent. per annum.	Per cent. per annum.
1933—			1937—		
October ...	5.5	5.9	March ...	4.9	5.2
November ...	5.4	5.8	June ...	4.9	5.3
December ...	5.4	5.7	September ...	5.1	5.4
			December ...	5.0	5.3
1934—			1938—		
March ...			January ...	5.1	5.3
June ...	5.2	5.4	February ...	5.1	5.3
September ...	5.1	5.4	March ...	5.0	5.3
December ...	5.0	5.2	April ...	4.9	5.3
			May ...	5.0	5.4
1935—			June ...	5.0	5.4
March ...	4.8	5.2	July ...	5.0	5.5
June ...	4.6	5.2	August ...	4.9	5.5
September ...	4.8	5.2	September ...	5.0	5.6
December ...	4.9	5.3	October ..	5.0	5.5
			November ...	5.1	5.4
1936—			December ...	5.1	5.4
March ...	4.9	5.2	1939—		
June ...	4.9	5.2	January ...	5.1	5.4
September ...	4.8	5.3	February ...	5.1	5.5
December ...	4.9	5.2	March ...	5.1	5.6
			April ...	5.2	5.5
			May ...	5.0	5.6
			June ...	5.1	5.6

\* Three monthly moving average ended month shown.

Interest on mortgages chargeable by the trading banks is usually stated as being at "prevalent rate," corresponding with the overdraft rates shown in table 325. Particulars of rates of interest charged by the Rural Bank are shown in table 326. Advances by the Government of New South Wales, mainly to primary producers, are made usually at lower rates than advances from other sources. No data are available to indicate the general level of interest rates on the large amount of mortgage indebtedness existing at the introduction of the moratorium in 1930, which was, however, subject to the provisions of the Interest Reduction Act.

*Interest Reduction Act, 1931.*

As one of the financial measures arranged by the Premiers of the States and the Commonwealth for rehabilitating the economic position of Australia, the Interest Reduction Act, 1931, was passed by the Parliament of New South Wales to effect a reduction of  $22\frac{1}{2}$  per cent. in rates of interest on private debts created prior to the commencement of the Act. The Act applied to the Crown where the debtor was the Crown, but did not apply where the Crown was entitled to receive interest. It was provided that the Act might not have the effect of reducing the rate of interest on mortgages or hire purchase agreements below 5 per cent., the rate on mortgages to the Government Savings Bank on advances for homes from funds made available by the Commonwealth Savings Bank below  $5\frac{1}{2}$  per cent., or the rate payable under any debenture below 4 per cent. Where the rate of interest had been already reduced under the Moratorium Act, the reduction was taken into account in applying the provisions of the Act, and provision was made whereby creditors might apply to a court within three months of the commencement of the Act for an order modifying or excluding the operation of the reduction. Every reduction of interest made by the Act continues in force during the continuance of the obligation affected.

Parallel action was taken to reduce interest rates payable on indebtedness to the Crown. From 1st January, 1933, a maximum rate of 4 per cent. was established in respect of a large body of debt and further reductions were made on occasions in respect of certain classes of debt.

## OVERSEA EXCHANGE.

The relationship of Australian currency to that of the rest of the world is determined substantially by its value in relation to British currency and by the value of British currency relative to the currencies of the respective nations of the world. These relationships in turn are determined largely by the balance of international payments and by purchasing power parity, although, within limits, policy and other factors may have a modifying effect.

On 29th April, 1925, the Commonwealth Government withdrew the war time embargo on the export of gold, thus restoring the gold standard of exchange concurrently with Great Britain, and the exchange rates quoted by the Australian Banks were revised. The discount on English currency was substantially reduced, and in August, 1926, it went to par. Early in April, 1927, it went to a small premium, and rose steadily until towards the end of 1929, when a steep rise commenced, culminating in a premium of £30 per cent. in the telegraphic transfer buying rate at the end of January, 1931. The movement was due to the influence of a sudden shrinkage in the value of export commodities, a cessation of oversea borrowing and restrictions on the export of gold.

Toward the end of 1930 a scheme was formulated for the pooling of the London funds of the Australian banks for the purpose of meeting national interest obligations, and it was arranged by the trading banks and the Loan Council that the Governments should have first call upon the funds. Formerly it had been the practice of the Australian Governments to use loan moneys to pay interest accruing abroad and to apply an equivalent amount of revenue to loan expenditure in Australia.

Early in December, 1931, the Commonwealth Bank assumed the function of exchange control by undertaking to buy London exchanges at rates to be fixed by itself, without restriction so far as the public are concerned, and subject to certain conditions as regards surpluses accumulated by banking institutions. The premium was then reduced by £5 per cent.



The variations in the rates of exchange, Australia on London, since October, 1924, are shown below. The rates are quoted on the basis of £100 in British currency in London.

TABLE 329.—Rates of Exchange, Australia on London.

Date.	Buying.						Selling.					
	T.T.		O.D.		30 days.		T.T.		O.D.		30 days.	
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1924—15 Oct. ...	96	10	0	96	2	6	95	15	0	97	10	0
1925— 6 May ...	99	5	0	98	10	0	98	0	0	99	10	0
10 June ...	99	15	0	99	2	6	98	12	6	100	0	0
4 Dec. ...	99	15	0	99	0	0	98	10	0	100	0	0
1926— 9 June ...	99	15	0	99	2	6	98	12	6	100	2	6
12 July ...	99	17	6	99	5	0	98	15	0	100	5	0
5 Aug. ...	100	0	0	99	7	6	98	17	6	100	7	6
1 Oct. ...	99	15	0	99	2	6	98	12	6	100	2	6
1927—20 April ...	100	2	6	99	10	0	99	0	0	100	10	0
27 June ...	100	5	0	99	12	6	99	2	6	100	12	6
25 July ...	100	7	6	99	15	0	99	5	0	100	15	0
7 Nov. ...	100	7	6	99	12	6	99	2	6	100	15	0
1928—19 Mar. ...	100	10	0	99	15	0	99	5	0	101	0	0
4 Oct. ...	100	10	0	99	15	0	99	3	9	101	0	0
1929—22 July ...	100	15	0	100	0	0	99	8	9	101	5	0
3 Sept. ...	101	0	0	100	5	0	99	13	9	101	10	0
10 Oct. ...	101	5	0	100	10	0	99	17	6	101	15	0
18 Dec. ...	101	12	6	100	17	6	100	5	0	102	2	6
1930—28 Jan. ...	102	0	0	101	5	0	100	12	6	102	12	6
17 Feb. ...	102	10	0	101	15	0	101	2	6	103	2	6
10 Mar. ...	103	10	0	102	15	0	102	2	6	104	2	6
24 Mar. ...	106	2	6	105	7	6	104	15	0	106	10	0
9 Oct. ...	108	10	0	107	17	6	107	8	9	109	0	0
1931— 6 Jan. ...	115	2	6	114	10	0	114	1	3	115	10	0
13 Jan. ...	118	0	0	117	7	6	116	18	9	118	7	6
17 Jan. ...	125	0	0	124	7	6	123	18	9	125	10	0
28 Jan. ...	130	0	0	129	7	6	128	18	9	130	10	0
3 Dec. ...	125	0	0	124	7	6	123	15	0	125	10	0
1932—12 Mar. ...	125	0	0	124	10	0	124	0	0	125	10	0
19 Mar. ...	125	0	0	124	11	3	124	2	6	125	10	0
23 April ...	125	0	0	124	12	6	124	5	0	125	10	0
14 May ...	125	0	0	124	13	9	124	7	6	125	10	0
2 July ...	125	0	0	124	15	0	124	10	0	125	10	0
1934—18 Aug. ...	125	0	0	124	13	9	124	7	6	125	10	0
1935—12 Jan. ...	125	0	0	124	13	9	124	7	6	125	10	0
1938— 8 Aug. ...	125	0	0	124	13	9	124	7	6	125	10	0

\* Rates unchanged, June, 1939.

The margin between the buying and selling rates for a telegraphic transfer. (10s. per £100) represents the bankers' commission. The margins for other usances include allowances for interest which were affected by the inauguration of the air mail service between Australia and London. Selling rates were raised on this account on 12th January, 1935, and in August, 1938. The banks quote special buying rates for settlement by air mail.

#### INCORPORATED COMPANIES.

The legislation affecting the formation and conduct of companies in New South Wales is contained in the Companies Act, 1936.

The formation of a company, association, or partnership of more than ten persons in a banking business, or of twenty in any other business trading for profit, is prohibited, unless it is registered under the Companies Act, or incorporated under some other enactment, by royal charter or by letters patent.

Not less than seven persons may associate to form an incorporated company except a proprietary company for which the minimum number is two.

Companies may be of four kinds according to the liability of members to contribute to capital or to assets in the event of winding-up. They may be limited liability companies with the liability of members limited (1) to the amount unpaid on shares or (2) by guarantee; or they may be (3) unlimited companies, in which the liability of members is unlimited, or (4) no-liability companies in which calls made on shares are not enforceable against members. No-liability companies may be formed only in connection with mining operations and shares on which calls are unpaid for twenty-one days are forfeited automatically. Companies with liability limited by shares, not being no-liability companies, may be registered as proprietary companies under conditions which restrict the rights of members to transfer shares, limit membership and prohibit the sale of shares and raising of loans by public subscription.

All companies are required to appoint auditors and to prepare in every year accounts and a balance-sheet showing prescribed information. Annual returns must be filed with the Registrar-General, including a copy of the balance-sheet and auditor's report (except of a proprietary company) and, in the case of a company with capital divided into shares, a list of shareholders and a summary of capital.

Particulars relating to the registration of new companies in New South Wales and of increases of capital are shown below; the figures for the quinquennial periods represent the annual average:—

TABLE 330.—Company Registrations in New South Wales.

Period.	Limited Companies.				No-Liability Mining Companies.			
	New Companies.		Increases of Capital.		New Companies.		Increases of Capital.	
	No. *	Nominal Capital.	No.	Nominal Amount.	No.	Nominal Capital.	No.	Nominal Amount.
		£	£		£		£	
†1901-05 ...	113	3,104,766	13	483,990	25	301,766	5	24,175
†1906-10 ...	231	5,184,658	23	1,010,710	45	430,112	7	29,634
†1911-15 ...	383	10,263,455	58	3,468,139	20	308,017	3	31,395
†1916-20 ...	321	17,465,293	93	3,624,272	14	284,271	1	11,400
†1921-25 ...	523	16,940,799	94	5,585,987	16	273,350	3	16,691
†1926-30 ...	709	33,316,333	96	9,164,442	21	677,630	1	3,200
†1931-35 ...	604	12,618,552	46	3,822,380	28	840,915	1	25,700
1929 ...	737	36,063,240	90	7,038,800	33	1,599,650	3	9,000
1931 ...	†447	†10,678,450	29	1,208,700	11	93,800	1	50,000
1932 ...	502	12,315,906	20	701,658	24	871,800	...	...
1933 ...	622	9,004,350	37	1,178,500	25	546,000	1	25,000
1934 ...	715	13,745,084	63	10,502,934	61	2,303,475	4	41,000
1935 ...	734	17,338,471	78	5,520,109	19	389,500	1	12,500
1936 ...	795	16,933,290	85	6,289,926	6	27,000	3	28,750
1937 ...	1,023	19,582,415	136	9,106,000	2	251,000	3	60,425
1938 ...	860	19,056,403	105	9,009,014	4	12,500	5	142,000

\* Includes companies limited by guarantee.

† Average per annum.

‡ Excluding two ephemeral companies, capital £112,000,000.

There were numerous registrations involving a large amount of capital in the years 1926 to 1929, then industrial and commercial depression caused a marked decrease in registrations until 1934. Registrations and nominal capital were at a high level during each of the last five years. The registration of no-liability companies has been fostered by the high premium payable on gold.

A large number of new companies were registered in 1937. This was due to some extent to the provisions of the new Companies Act, which permitted, for the first time in New South Wales, the incorporation of proprietary companies, so that the proportion of established firms seeking registration was larger than usual. Registrations of proprietary companies numbered 925 in 1937 and 786 in 1938, the nominal capital being £15,678,415 and £11,746,903, respectively.

During the period 1911 to 1920 the number of registrations of foreign companies (*i.e.*, those with original registration outside New South Wales) was, on an average, about 56 per annum. The number registered in each of the past twelve years was as follows:—

TABLE 331.—Foreign Companies, Annual Registrations.

Year	No.	Year	No.	Year	No.
1927	69	1931	38	1935	61
1928	81	1932	55	1936	77
1929	74	1933	58	1937	158
1930	54	1934	55	1938	79

The total number of limited companies which appeared to be in active existence in New South Wales at the end of various years since 1925 was as follows:—

TABLE 332.—Companies Operating in New South Wales.

End of Year.	Companies.		End of Year.	Companies.	
	Local.	Foreign.		Local.	Foreign.
	No.	No.		No.	No.
1925	4,967	842	1934	6,295	947
1929	6,044	935	1935	6,589	978
1931	5,587	900	1936	7,234	974
1932	5,750	902	1937	7,867	1,035
1933	6,029	922	1938	8,204	1,090

STOCK EXCHANGE INDEX.

The following index of prices of company shares on the Sydney Stock Exchange is based on the ratio of prices to par value of ordinary shares. The prices represent the average values for the respective months, and are based on records of actual sales or, where no sales have taken place, on a valuation determined from previous sales and current quotations. In addition to the indexes for component groups and the total index for 75 companies, an index has been compiled in respect of 34 companies in whose shares there is a considerable volume of business. The indexes

are unweighted, the par value of shares being taken as base (100). Adjustments have been made to provide for the effects of capital reductions and capitalisations of reserves.

TABLE 333.—Stock Exchange Index (Sydney).

Average for year or month.	23 Manufacturing and Distributing Companies.	10 Retail Companies.	8 Public Utility Companies.	5 Pastoral and Finance Companies.	5 Insurance Companies.	Total, 75 Companies.	34 Active Shares included in foregoing.
1928 ...	158·6	176·6	126·6	172·9	218·8	163·8	160·7
1929 ...	174·0	172·0	127·7	158·4	229·6	166·6	164·5
1930 ...	113·7	103·2	107·6	85·8	167·5	112·2	111·6
1931 ...	81·0	67·6	90·6	79·1	130·4	81·9	87·0
1932 ...	102·7	81·7	116·2	98·6	155·4	98·3	105·6
1933 ...	127·8	102·5	137·2	121·0	179·0	119·3	127·2
1934 ...	153·2	138·5	161·0	147·1	226·8	146·1	152·4
1935 ...	173·8	162·4	178·5	137·4	269·1	163·6	169·2
1936 ...	194·0	188·2	180·1	148·5	278·5	177·1	185·5
1937 ...	212·1	196·2	182·1	166·5	276·5	187·1	196·7
1938 ...	208·0	181·9	177·5	135·1	257·5	178·0	184·5
1937—							
January ...	210·1	202·4	179·6	166·2	285·0	188·7	197·5
February ...	213·8	203·4	182·1	168·8	284·6	190·4	200·1
March ...	213·8	203·8	181·0	169·2	281·2	190·4	200·5
April ...	211·1	199·7	179·7	171·9	280·4	188·7	198·5
May ...	210·8	197·5	180·1	173·2	279·8	187·8	198·1
June ...	211·4	193·0	180·2	170·7	278·4	186·6	196·8
July ...	215·0	198·0	181·4	169·0	277·4	188·4	198·7
August ...	217·8	197·2	184·7	171·6	277·6	189·7	200·4
September...	213·4	196·0	186·0	166·6	275·4	187·3	195·9
October ...	210·2	191·1	185·1	160·8	267·9	184·1	192·4
November ..	209·3	187·3	183·5	155·8	264·7	182·3	190·6
December...	208·3	184·5	181·9	153·9	265·3	181·2	190·4
1938—							
January ...	211·9	187·3	182·4	152·8	263·8	182·8	192·6
February ...	212·4	187·0	184·6	149·7	259·6	182·4	191·1
March ...	209·1	186·8	178·5	146·7	253·2	180·1	188·0
April ...	206·1	183·8	177·8	143·8	249·0	177·7	184·8
May ...	209·1	186·8	179·2	137·8	254·0	179·2	186·0
June ...	206·7	185·0	177·0	128·2	256·6	177·3	181·9
July ...	210·2	182·9	176·9	130·8	256·7	178·8	183·7
August ...	210·5	184·2	176·2	130·0	262·3	179·3	184·0
September..	200·4	176·2	173·8	123·1	257·1	172·3	176·1
October ...	203·9	174·0	175·5	126·0	256·8	174·0	180·2
November...	208·6	174·8	174·3	126·9	257·7	176·6	183·2
December...	206·7	173·4	173·9	124·8	263·5	175·6	181·8
1939—							
January ...	208·9	172·8	177·3	121·8	263·0	176·5	183·7
February ...	209·3	173·8	171·0	119·6	260·5	175·8	183·6
March ...	206·9	173·0	163·8	120·6	257·6	174·1	181·1

The highest point of the index prior to the depression was in April, 1929, when the index for the 75 companies was 174·4, and the lowest point during the depression was in September, 1931, when this index was 74·4. In February and March, 1937, the peak of the post-depression period was reached, and the index for the 75 companies was 190·4.

Monthly averages, from July, 1929, to December, 1936, were published in earlier issues of the Year Book, and the index for each month is published in the "Monthly Summary of Business Statistics."

## CO-OPERATIVE SOCIETIES.

The laws relating to co-operation in New South Wales are embodied in the Co-operation Act, 1923-1938, and additional provisions relating to co-operative building societies are contained in the Housing (Further Provisions) Act, 1937.

The Co-operation Act is a comprehensive measure, affording ample scope for co-operative development. It authorises co-operative societies to engage in all forms of economic activity except banking and insurance.

Societies may be of various kinds, viz.: (a) rural societies to assist producers in conducting their operations and in marketing products; (b) trading societies to carry on business, trade, or industry; (c) community settlement societies to acquire land and settle or retain persons thereon and to provide any common service or benefits; (d) community advancement societies to provide any community service, *e.g.*, water, gas, electricity, transport, recreation, etc.; (e) building societies—terminating or permanent—to assist members to acquire homes or other property; (f) rural credit societies to make or arrange loans to members for the purpose of assisting rural production; (g) urban credit societies to assist members to acquire plant, furniture, etc., or to commence business or trade; (h) investment societies to enable members to combine to secure shares in a company or business or to invest in securities. Societies of the same kind may combine into co-operative associations, and such associations of all kinds may form unions.

Societies are corporate bodies with limited liability except that a rural credit society may be formed with unlimited liability. Co-operative companies registered as limited companies under the Companies Act are permitted to transfer their registration to the Co-operation Act, without winding up or loss of identity, and societies registered under the Co-operation Act similarly may transfer their registration to the Companies Act. The use of the words "building society" or "co-operative" by any company not specially authorised in that regard or by any person or firm as part of a trade or business name is prohibited, and such bodies may not in any manner hold out that their trade or business is co-operative.

Adequate provision is made to safeguard the funds and financial interests of the societies, the issue of shares and the disposition of the funds are regulated, the power to raise loans and to receive deposits is limited, reserve funds must be established, and the accounts of the societies are subject to inspection and audit. A member may not hold more than one-fifth of the shares in any society. No dividend may be paid in respect of shares in a rural credit society with unlimited liability, and in other cases the maximum rate of dividend is 8 per cent, per annum. Powers of supervision are vested in the Registrar, who registers the societies and their rules, adjudicates upon matters in dispute, and may inspect accounts if necessary.

An Advisory Council has been appointed to submit recommendations to the Minister with respect to regulations and model rules of co-operative societies, the appointment of committees, and other action for promoting co-operation. The Council consists of the Registrar and of persons appointed by the Governor to represent different forms of co-operative enterprise. There is also a Co-operative Building Advisory Committee to foster the formation of building societies.

Co-operative effort for production is a prominent feature of the dairying industry, most of the butter factories being organised on a co-operative basis.

The following table shows particulars relating to various classes of co-operative societies, other than building societies and two community settlement societies, in the year 1936-37:—

TABLE 334.—Co-operative Societies.

Type of Society.	Number at 30th June, 1937.	Number of Members.	Amount of Share Capital Paid-up.	Surplus and Reserves.
			£	£
Rural ... ..	143	52,330	1,003,876	951,558
Trading ... ..	78	36,885	510,791	382,328
Community Advancement ... ..	24	1,194	4,283	5,777
Investment ... ..	3	739	16,118	1,493
Total ... ..	248	91,148	1,535,068	1,341,156

There were also at 30th June, 1937, six associations of co-operative societies, including an association of co-operative building societies, newly formed, from which a return was not due in 1936-37. There was one union of co-operative associations. One association was comprised by twenty-four co-operative trading societies, with a share capital of £85,384, and reserves and undistributed surplus amounting to £62,673. Two acted as marketing agents for groups of five rural societies engaged in the fruit-growing industry, and one of the groups had formed a separate association, consisting of four members, to operate a wine distillery. There was an association of Starr-Bowkett societies consisting of forty-six members.

The union of associations was engaged in marketing prunes on behalf of two associations.

The co-operative societies on the register at 30th June, 1938, included 154 rural, 79 trading, 24 community advancement, and 3 investment societies, 7 associations of societies, and 1 union of associations.

Further details regarding the co-operative movement are set forth in the chapters of this Year Book relating to agriculture and the dairying industry.

#### Trading Societies.

The transactions of co-operative trading societies during the six years 1931-32 to 1936-37 are given in the following table:—

TABLE 335.—Co-operative Trading Societies.

Particulars.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36	1936-37
Number of Societies	70	76	72	74	76	78
„ Returns	48	53	53	49	46	46
Number of Members	41,845	40,511	39,992	38,909	34,909	36,885
Liabilities—	£	£	£	£	£	£
Share Capital ..	630,820	627,242	612,693	545,551	491,272	510,791
Reserves and Net Profits ... ..	325,867	311,945	305,715	313,308	361,888	382,328
Other Liabilities...	448,547	419,557	365,667	363,066	305,834	325,919
Total Liabilities £	1,405,234	1,358,744	1,284,075	1,221,865	1,158,994	1,219,038
Assets—						
Freehold, Plant, etc. ... ..	546,482	529,650	480,588	476,126	435,883	459,150
Stock ... ..	337,034	305,616	283,208	294,617	297,617	323,615
Other Assets ...	521,718	523,478	520,279	451,122	425,494	436,273
Total Assets £	1,405,234	1,358,744	1,284,075	1,221,865	1,158,994	1,219,038
Sales, etc. ... ..	2,055,464	1,799,499	1,738,603	1,884,002	1,953,585	2,243,530

The majority of the trading societies in active operation are consumers' distributive societies organised on the Rochdale plan of "dividend upon purchase," conducting retail stores. They buy their supplies largely from a wholesale co-operative society with which a considerable number of them are affiliated. The societies have met with success in the Newcastle and other mining districts, and to a limited extent in other centres where large numbers of industrial workers reside.

#### *Rural Societies.*

There were 143 rural societies at 30th June, 1937. Their objects covered a variety of activities, including the manufacture and distribution of butter, cheese and bacon, the packing and marketing of fruit, and the purchase of poultry feed or general requisites.

A statement of the liabilities, assets and sales of these societies in each year since 1931-32 is shown below.

TABLE 336.—Co-operative Rural Societies.

Particulars.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
<b>Societies—</b>						
Number at 30th June	119	125	132	136	138	143
Returns received ...	102	103	112	110	108	115
Members ...	44,904	46,970	47,420	49,063	50,565	52,330
<b>Liabilities—</b>						
	£	£	£	£	£	£
Share Capital ...	906,029	925,473	956,091	967,008	980,346	1,003,876
Surplus and Reserves	718,380	730,134	781,612	829,420	869,141	951,558
Other Liabilities ...	1,483,682	1,422,924	1,586,788	1,511,718	1,992,981	2,019,852
Total Liabilities ...	3,108,091	3,078,531	3,324,491	3,308,146	3,842,468	3,975,286
<b>Assets—</b>						
Land, Buildings, Plant, etc. ...	1,716,488	1,728,245	1,759,247	1,826,186	1,865,465	2,008,334
Stock ...	390,346	383,070	421,631	421,081	647,564	603,074
Other Assets ...	1,001,257	967,216	1,143,613	1,060,879	1,329,439	1,363,878
Total Assets ...	3,108,091	3,078,531	3,324,491	3,308,146	3,842,468	3,975,286
Sales, etc. ...	12,636,524	11,679,129	12,353,961	12,672,791	12,980,739	13,826,488

#### *Investment Societies.*

There are three investment societies, formed by the employees of each of the following bodies, viz., Australian Gas Light Company, North Shore Gas Company, and the Taronga Park Trust. Share capital amounted to £16,118, and other funds to £1,493. Shares in companies and Government securities were valued at £16,676.

*Permanent Building Societies.*

The aggregate liabilities and assets of permanent building societies in the last five years are shown in the following statement:—

TABLE 337.—Permanent Building Societies.

Particulars.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of Societies ...	7	7	7	7	7
Liabilities—	£	£	£	£	£
Share Capital ...	495,418	485,889	479,434	490,915	531,974
Reserves and net profits ...	330,251	332,469	345,413	351,215	358,739
Deposits ...	558,496	558,165	544,251	565,648	596,420
Other Liabilities ...	25,699	19,131	20,106	23,964	30,773
Total Liabilities ...	1,409,864	1,395,654	1,389,204	1,434,742	1,517,906
Assets—					
Advances ...	1,106,993	1,051,074	1,034,960	1,096,923	1,188,258
Other Assets ...	302,871	344,580	354,244	337,819	329,648
Total Assets ...	1,409,864	1,395,654	1,389,204	1,434,742	1,517,906

The income amounted to £95,579 in 1936-37, expenditure was £48,520, and net income £47,059.

*Starr-Bowkett Building Societies*

Starr-Bowkett building societies are terminating societies, in which loans free of interest are made to members as subscriptions accumulate, the rights of members to appropriation being determined by ballot or by sale. The usual procedure is that the member pays a subscription of 6d. per share per week for 15 years, or in some cases until the last appropriation is made, and is entitled to a loan of £50 in respect of each share held by him. Loans are repayable by instalments spread over 10 to 12½ years. The duration of societies varies, but frequently over 20 years elapse before the last loan is made. When an advance has been made to all members remaining in the society the process of winding-up commences and share capital is repaid as repayments in respect of loans accumulate. The lifetime of a society of this type often extends to about 28 years. Particulars relating to their operations during the last five years are shown below:—

TABLE 338.—Starr-Bowkett Building Societies.

Particulars	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Number of Societies ...	145	142	135	135	132
Number of Returns ...	117	112	105	89	85
Liabilities—	£	£	£	£	£
To Members ...	2,064,070	1,926,718	1,803,458	1,699,011	1,668,079
Surplus ...	357,010	316,989	296,296	279,292	276,629
Other Liabilities ...	44,143	42,623	45,551	44,564	50,476
Total ...	2,465,223	2,285,430	2,145,305	2,022,867	1,994,784
Assets—					
Advances ...	2,095,111	1,971,925	1,872,531	1,769,899	1,732,834
Other Assets ...	370,112	313,505	272,774	252,968	261,950
Total ...	2,465,223	2,285,430	2,145,305	2,022,867	1,994,784

Subscriptions received from shareholders in 1936-37 amounted to £108,300, and the withdrawals to £110,642; the advances on mortgage amounted to £306,828, and repayments to £316,971, and the sum due on account of advances at the end of the year was £1,732,834. The income during the year amounted to £37,752, and the expenses to £23,605.



*Other Terminating Building Societies.*

There is another class of terminating building societies which obtain funds from banks and other financial institutions and make advances to members as they apply for them. A description of these societies and details as to membership and advances are contained in the chapter Social Condition of this Volume.

The following table shows particulars of the finances of the societies for the five years ended, 1936-37. There were 75 societies on the register at 30th June, 1937, but most of them were of recent formation and returns were due from only a small number.

TABLE 339.—Terminating Building (other than Starr-Bowkett) Societies.

Particulars.	1932-33	1933-34.	1934-35.	1935-36.	1936-37.
Number of Societies ... ..	7	6	7	10	75
Number of Returns ... ..	6	5	4	8	10
Receipts—					
Subscriptions from Members ... £	19,874	16,814	20,363	24,904	30,049
Fines and other Charges ... £	676	411	729	1,086	1,088
Interest received from Borrowers £	1,429	560	*13,501	*10,281	*18,129
Expenditure—					
Advances to Members ... .. £	21,020	20,740	21,300	89,146	123,796
Withdrawals of Share Capital ... £	5,842	1,347	2,123	2,076	1,973
Interest paid by Society ... .. £	2,687	2,954	1,434	2,041	5,490
Management Expenses ... .. £	1,839	1,488	1,628	2,449	2,706
Number of Shares at End of Year ... ..	8,248	7,421	8,370	12,335	16,520

\* Repayments and Premiums.

The rapid expansion in the formation of these terminating building societies, indicated by the increase from 10 to 75 during 1936-37, has continued. There were 169 in operation at 31st December, 1938, and the aggregate amount of advances made to that date was in excess of £5,500,000.

## FRIENDLY SOCIETIES.

The affairs of the friendly societies in New South Wales are conducted in accordance with the Friendly Societies Act of 1912 and its amendments. The societies are required to register, and to furnish periodical returns to the Registrar, giving details relating to membership, sickness, mortality, benefits, and finances. In this chapter finances only are discussed, and the figures in the following tables relate to the societies which provide benefits such as medical attendance, sick pay, and funeral donations, and are exclusive of the particulars of miscellaneous societies registered under the Friendly Societies Act, such as dispensaries, medical institutes, and accident societies. Other matters relating to friendly societies are discussed in the chapter entitled "Social Condition."

The affairs of the friendly societies are subject to State supervision and provision has been made for the actuarial certification of tables of contributions, for valuations at least once within five years, the investigation of accounts, and other measures for safeguarding the funds. A society is not entitled to registration unless tables of contribution in respect of sickness and death benefits and policies of endowment are supported by an actuarial certificate.

As a general rule, the moneys received or paid on account of a particular benefit must be kept in a separate account and be used only for the specific purpose. It is provided, however, that where the sickness and funeral funds of a society are administered by one central body for the whole society they may be treated as one fund, and after valuation the Registrar may authorise surplus moneys belonging to a fund to be used for the purposes of any other fund.

#### Actuarial Valuations.

In the quinquennial valuations between 1904 and 1919 all the societies were valued as at the same date, and particulars of the results were published in earlier issues of this Year Book. Under more recent arrangements the societies are valued in groups in successive years.

Particulars of the last complete valuation—made at various dates between 1930 and 1934—are summarised below, together with the progress valuations of corresponding groups of societies made in 1935 and 1936.

TABLE 340.—Friendly Societies Actuarial Valuations.

Valued as at—	Number.	Liabilities.	Assets.			Surplus or Deficiency (—)
			Accumulated Funds.	Future contributions.	Total.	
<b>Affiliated Societies.</b>						
		£	£	£	£	£
0th June, 1930 ...	4	408,677	183,702	230,797	414,499	5,822
do 1931 ..	3	314,308	123,573	159,260	282,833	(-) 31,475
do 1932 ...	3	3,196,148	1,348,346	1,718,724	3,067,070	(-) 129,078
do 1933 ...	2	1,899,850	799,434	1,061,586	1,861,020	21,170
do 1934 ...	3	2,058,068	921,439	1,195,078	2,116,517	58,449
Total ...	15	7,817,051	3,376,494	4,365,445	7,741,939	(-) 75,112
do 1935 ...	4	377,135	200,266	206,912	407,178	30,043
do 1936 ...	3	287,251	126,483	166,293	292,776	5,525
<b>Single Societies.</b>						
30th June, 1930 ...	11	54,743	46,676	20,063	66,739	11,996
do 1935 ...	11	57,554	42,595	24,819	67,414	9,860

#### Accumulated Funds.

The following statement illustrates the growth of the funds of the Friendly Societies since 1911:—

TABLE 341.—Friendly Societies, Balance of Funds.

At 30th June.	Sickness and Funeral Funds.	Medical and Management Fund.	Other Funds.	All Funds.	
				Total.	Per Member.
	£	£	£	£	£
1911*	1,378,722	78,264	49,852	1,506,838	9·14
1916*	1,820,708	101,092	48,471	1,970,271	11·02
1921	2,134,339	194,358	83,065	2,411,762	12·08
1926	2,866,486	237,296	111,688	3,215,470	13·70
1931	3,640,368	261,663	117,209	4,019,240	16·58
1932	3,725,954	278,985	130,129	4,135,068	18·35
1933	3,806,347	280,808	138,638	4,225,793	19·97
1934	3,836,444	298,208	147,607	4,282,259	20·88
1935	3,899,572	304,228	149,057	4,352,857	21·27
1936	4,039,557	336,755	110,191	4,486,503	21·69
1937	4,160,635	351,531	119,335	4,631,501	22·16

\* At 31st December.

The funds have increased steadily throughout the period. A statement showing the investment of funds in revenue-producing assets is prepared at five-yearly intervals. At 30th June, 1934—the date of the last statement—approximately 68 per cent. of accumulated funds were invested in mortgages, 14 per cent. in public securities, 10 per cent. in buildings and other freehold property, and 6 per cent. in interest-bearing bank deposits. These percentages reflect a marked change in the disposition of investment since 1929, when mortgages represented 80 per cent. of total investments and public securities only 1.5 per cent.

### *Receipts and Expenditure.*

The receipts and expenditure of the friendly societies in various years since 1906 are shown in the following statement:—

TABLE 342.—Friendly Societies, Receipts and Expenditure.

Year. ended 30th June.	Receipts.				Expenditure.					
	Contributions.	Interest.	Other.	Total.	Sick Pay.	Funeral Donations.	Medical Attendance and Medicine.	Expenses of Management.	Other.	Total.
*1906	£ 301,076	£ 36,152	£ 22,168	£ 359,396	£ 84,189	£ 23,871	£ 90,698	£ 42,528	£ 21,282	£ 262,508
*1916	508,033	95,103	28,645	631,781	172,497	61,566	178,926	89,030	35,718	538,337
1929	766,772	172,039	61,850	1,000,661	269,768	65,913	307,380	148,808	35,376	827,245
1931	765,113	210,104	49,250	1,024,567	307,979	75,747	298,299	171,320	76,076	929,921
1932	753,229	163,321	106,244	1,026,794	299,508	78,144	292,065	153,500	87,749	910,906
1933	706,755	154,759	77,862	939,366	259,851	83,648	278,515	157,175	71,952	848,041
1934	717,738	167,992	56,226	942,026	251,796	87,961	271,779	148,742	125,282	885,560
1935	712,140	176,254	30,676	919,070	251,803	85,853	277,997	147,455	85,364	848,472
1936	731,637	187,867	94,807	1,014,311	260,745	91,672	285,891	153,636	88,721	880,665
1937	750,764	194,192	45,544	990,500	251,279	86,406	295,600	157,976	54,241	845,502

\* Year ended 31st December.

Disbursements on account of benefits increased from £198,758 in 1906 to a maximum amount of £741,096 in 1928-29, then declined in each year to £611,536 in 1933-34. The amount was £638,308 in 1935-36 and £633,285 in 1936-37. The decreased payments after 1928-29 resulted largely from adjustment of benefits and the growth of unfinancial membership. The cost of medical attendance and medicine has increased, as additional charges were made by medical practitioners and pharmacists, and the average cost per adult member rose from 18s. 2d. in 1906 to 19s. in 1911, and to 30s. 10d. in 1928-29. Then it fell to 26s. 9d. in 1930-31, but has since risen to 31s. 6d.

After allowing for interfund transfers and payments from one branch to another, expenses of management amounted to £157,160 in 1936-37, representing 15s. 1d. per head of mean membership, as compared with 13s. 6d. in 1921-22 and 13s. 2d. in 1928-29. Management expenses represented 21.1 per cent. of contributions in 1936-37 and 16.2 per cent. of total income. The corresponding ratios were 20.9 per cent. and 16.1 in 1921-22, and 19.4 per cent. and 14.5 per cent. in 1928-29.

## INSURANCE.

Insurance in New South Wales, apart from Government pension funds, is mainly the province of private organisations. Legislation for the establishment of a national insurance system in Australia to provide health and pensions benefits was passed by the Commonwealth Parliament in July, 1938. It was intended to commence the scheme in January, 1939, but it has been postponed pending amendment. The main provisions of the scheme are described in the chapter "Social Condition" of this Year Book.

*Legislation.*

In New South Wales there is no legislation dealing specifically with the conduct of insurance business, and the insurance companies are subject to the Companies Acts. The Life, Fire and Marine Insurance Acts of 1902 and 1917 were enacted in the State Parliament to provide for the protection of life insurance policies and annuities against creditors, and for the issue of special policies in substitution for those lost or destroyed. The section of the 1902 Act relating to marine insurance was superseded by the Commonwealth Marine Insurance Act of 1909, which defines the limit of marine insurance and regulates the terms of the contracts, the liability of the insurers, etc.

A Commonwealth Act passed in 1905 limits the amount of assurance payable on the death of children. The maximum amount ranges from £5 in respect of children under 1 year to £45 in the case of children between the ages of 9 and 10 years, the sums being payable only to parents or their personal representatives. The provisions of the Act do not apply, however, to any insurance effected by persons having an insurable interest in the lives insured or to insurances, *e.g.*, industrial assurances, effected by parents in which the amount payable on the death of a child does not exceed the total amount of premiums actually paid, plus interest up to 4 per cent. per annum.

A Federal Act passed in March, 1932, provides for the lodgment by insurance companies of deposits with the Commonwealth Treasurer.

## LIFE ASSURANCE.

The volume of life assurance business transacted in New South Wales is expanding rapidly, both absolutely and in proportion to the population.

There are eighteen institutions accepting new business in New South Wales, of which sixteen are Australian, one is English and one New Zealand. In addition, four institutions (*viz.*, two Australian, one English and one American) carry a small amount of business contracted in earlier years.

Particulars relating to life assurance are obtained from the reports published by the companies and from official returns collected under the Census Act of 1901.

Life assurance business in New South Wales is conducted generally on the principle of premiums which remain constant throughout the term for which they are payable.

*New South Wales Business—Ordinary Branch.*

The following tables relate only to assurances effected in New South Wales, and the extent of the business in force in the ordinary branch, exclusive of annuities, during the years 1936-37 and 1937-38 is shown below.

The business may be classified broadly in three categories—(1), whole-life assurance payable at death only; (2), endowment assurance payable at the end of a specified period or at death prior to the expiration of the period; (3), pure endowment payable only in case of survival for a specified period.

TABLE 343.—Life Assurances, Ordinary Business in Force in New South Wales, Classification.

Classification.	1936-37.				1937-38.			
	Policies in Force.	Amount Assured, exclusive of Bonuses and Re-assurances.	Bonus Additions.	Annual Premiums Payable.	Policies in Force.	Amount Assured, exclusive of Bonuses and Re-assurances.	Bonus Additions.	Annual Premiums Payable.
	No.	£	£	£	No.	£	£	£
Assurance... Endowment Assurance Pure Endowment.	136,788	75,005,119	17,004,578	2,152,509	146,089	80,226,078	17,599,387	2,288,283
	187,512	45,697,131	6,336,822	1,789,769	208,088	50,879,017	6,572,487	2,007,944
	14,869	2,681,493	54,547	99,383	15,872	3,102,340	92,700	113,222
Total...	339,169	123,383,743	23,395,947	4,041,661	370,049	134,207,435	24,264,574	4,409,449

In 1937-38 the majority of the policies, viz., 56.2 per cent., represented endowment assurances; whole-life policies were 39.5 per cent. and endowments 4.3 per cent. of the total number. The amount assured under the whole-life policies represented 59.8 per cent. of the total (exclusive of bonus additions), the average per policy being £549; endowment assurance policies, with an average of £244 per policy, covered 37.9 per cent. of the total amount assured, and endowment policies, with an average of £195 per policy, 2.3 per cent.

*Industrial Assurance.*

A large business in industrial assurance has developed in New South Wales. The policies in this class are for small amounts, and the premiums in most cases are payable weekly or monthly. Industrial business in the State is transacted only by the Australian companies and a New Zealand company.

A classification of the industrial business in force in New South Wales is shown below:—

TABLE 344.—Life Assurances, Industrial Business in Force in New South Wales, Classification.

Classification.	1936-37.				1937-38.			
	Policies in Force.	Amount Assured, exclusive of Bonus Additions	Bonus Additions. *	Annual Premiums Payable.	Policies in Force.	Amount Assured, exclusive of Bonus Additions.	Bonus Additions. *	Annual Premiums Payable.
	No.	£	£	£	No.	£	£	£
Assurance ... ..	66,962	1,661,897	59,245	89,886	66,326	1,633,321	61,486	90,520
Endowment Assurance ... ..	674,755	30,948,023	1,343,125	1,856,984	742,067	34,415,622	1,426,082	2,063,017
Pure Endowment ... ..	43,850	1,551,495	3,673	97,440	46,111	1,600,498	3,673	100,377
Total ... ..	785,467	34,161,415	1,406,043	2,044,260	854,504	37,649,441	1,491,241	2,253,914

\* Partly estimated.

In the industrial branch endowment assurance policies constituted 87 per cent. of the number of policies in 1937-38 and 91 per cent. of the total amount assured. The average amount assured per policy, excluding bonuses, was £25 for assurance, £46 for endowment assurance, and £35 for pure endowment.

### *Annuities.*

Transactions in annuities are not numerous, the business in force in New South Wales in 1937-38 being 1,072 policies for an aggregate amount of £126,658 per annum in the ordinary branch, and one policy representing £22 per annum in the industrial department.

### *New Business.*

The new life assurance business, ordinary and industrial, effected in New South Wales during the last ten years, is compared in the following table:—

TABLE 345.—Life Assurances, New Business in New South Wales, 1929 to 1938.

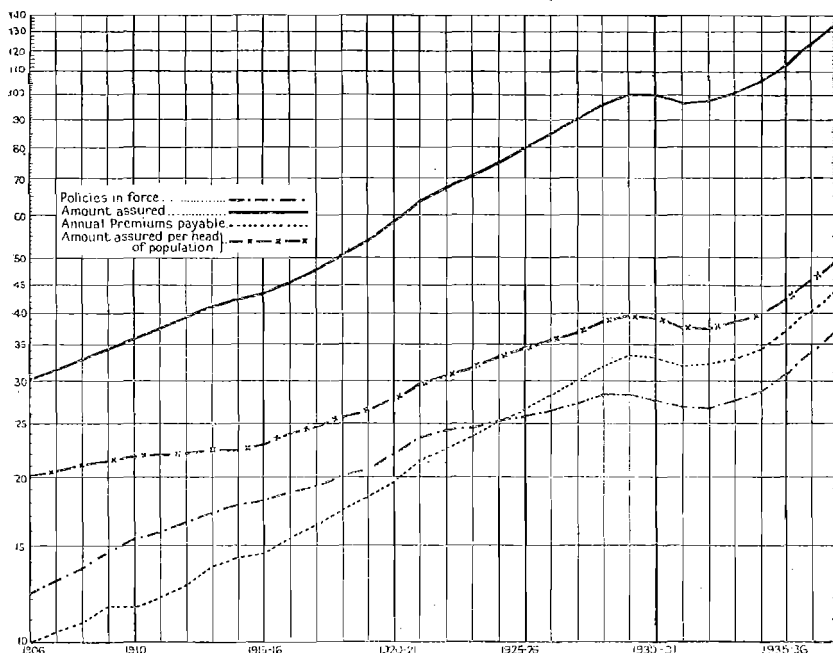
Year.	Ordinary Branch.			Industrial Branch.		
	Number of Policies.	Amount Assured.	Annual Premiums Payable.	Number of Policies.	Amount Assured.	Annual Premiums Payable.
		£	£		£	£
1928-29	33,298	12,984,604	453,724	131,498	6,987,127	417,364
1929-30	26,422	11,650,396	405,031	124,013	6,821,670	405,139
1930-31	19,515	9,058,478	320,555	97,970	5,102,788	307,401
1931-32	18,784	7,460,863	263,102	89,736	4,203,452	252,045
1932-33	22,981	9,089,545	317,006	105,702	4,682,305	285,570
1933-34	27,670	10,398,379	352,936	119,322	4,923,894	314,942
1934-35	35,002	11,838,720	410,348	139,066	5,643,830	358,603
1935-36	43,845	14,432,258	493,699	151,067	6,322,427	402,424
1936-37	51,073	16,802,436	572,551	158,681	6,892,344	436,237
1937-38	51,933	18,251,496	625,795	168,996	7,810,204	484,746

The amount assured under new policies, with few exceptions, increased in each year up to 1928-29. There was a sharp decline in the next three years, but the amount commenced to increase again in 1932-33. The 1928-29 figures were surpassed in the ordinary branch in 1935-36, and in the industrial branch in 1937-38.

The amount of new business of the combined departments in 1937-38 was 10 per cent. greater than in 1936-37 and 30.5 per cent. greater than in 1928-29.

LIFE ASSURANCE—ORDINARY BUSINESS, 1903 to 1938.

(Ratio Graph.)



The numbers at the side of the graph represent 10,000 policies, £1,000,000 of Assurances £100,000 of premiums, and £1 of assurances per head of population. The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. In this it differs from the natural scale graph, in which the curves rise and fall according to the actual increase or decrease. Actual values are shown by means of the numbers at the side of the graph.

A comparative statement of the amount of ordinary and industrial business, excluding bonuses and annuities, in force in New South Wales at the end of each of the last ten years is shown below:—

TABLE 346.—Life Assurances in Force in New South Wales, 1929 to 1938.

Year.	Ordinary Branch.			Industrial Branch.		
	Policies.	Amount Assured, excluding Bonus Additions.	Annual Premiums Payable.	Policies.	Amount Assured, excluding Bonus Additions.	Annual Premiums Payable.
	No.	£	£	No.	£	£
1928-29	283,416	96,368,198	3,199,603	604,275	26,186,916	1,604,964
1929-30	283,516	100,129,679	3,323,428	620,027	27,801,127	1,695,877
1930-31	277,610	100,057,680	3,302,965	604,161	27,025,257	1,646,149
1931-32	269,653	97,240,267	3,197,987	576,053	25,490,126	1,517,663
1932-33	268,665	97,851,881	3,210,089	587,296	25,682,806	1,526,890
1933-34	274,183	100,680,443	3,290,882	617,216	26,739,753	1,589,992
1934-35	288,000	105,596,582	3,453,556	666,433	28,765,669	1,712,838
1935-36	309,197	113,050,294	3,698,220	722,602	31,282,712	1,868,115
1936-37	339,169	123,383,743	4,041,661	785,467	34,161,475	2,044,260
1937-38	370,049	134,207,435	4,409,449	854,504	37,649,441	2,253,914

The bonus additions effective in 1937-38 amounted to £24,264,574 in the ordinary branch, and those in the industrial branch were estimated at £1,491,241.

The net increase in the amount assured during the five years ended 30th June, 1929, was approximately £25,000,000 in the ordinary branch and £11,000,000 in the industrial branch, and the average annual increase was 6.2 per cent. and 11.5 per cent. in the respective branches. The amount assured per head of population increased during the period from £31 15s. 10d. to £38 10s. 1d. in the ordinary branch and from £6 15s. 2d. to £10 9s. 3d. in the industrial branch. In 1929-30 the rate of growth declined appreciably, and this was followed by recession in 1930-31 and 1931-32, when the amount assured decreased by 2.9 per cent. and 8.3 per cent. in the respective branches. In 1932-33 recovery commenced and the proportionate increase in the amount of ordinary assurance in force, 7.1 per cent. in 1935-36, 9.1 per cent. in 1936-37 and 8.8 per cent. in 1937-38, exceeded the average annual rate of increase in the five years ended 1928-29. The increases in industrial assurances in the last three years were 8.7 per cent., 9.2 per cent., and 10.2 per cent., respectively. The amount assured per head of population at the end of 1937-38 was £49 7s. 3d. under ordinary policies and £13 16s. 11d. under industrial policies.

The development of life assurance in relation to the population is shown in the following statement, which illustrates also the increase in the average amount per policy and in the premium payable. Bonus additions are not included.

TABLE 347.—Life Assurance in New South Wales, Average per Head and per Policy, 1929 to 1938.

Year.	Policies per 1,000 of Population.		Amount Assured per Head of Population.		Average Amount Assured per Policy.		Average Annual Premium payable per Policy.	
	Ordinary.	Industrial.	Ordinary.	Industrial.	Ordinary.	Industrial.	Ordinary.	Industrial.
	No.	No.	£ s. d.	£ s. d.	£	£	£ s. d.	£ s. d.
1928-29	113	241	38 10 1	10 9 3	340	43	11 5 9	2 13 1
1929-30	112	245	39 11 8	10 19 10	353	45	11 14 5	2 14 8
1930-31	109	236	39 3 4	10 11 7	360	45	11 17 11	2 14 6
1931-32	105	223	37 14 3	9 17 9	361	44	11 17 2	2 12 8
1932-33	103	226	37 12 5	9 17 6	361	44	11 19 0	2 12 0
1933-34	104	235	38 8 0	10 4 0	367	43	12 0 1	2 11 6
1934-35	109	252	39 18 6	10 17 6	367	43	11 19 10	2 11 5
1935-36	116	271	42 8 3	11 14 9	366	43	11 19 3	2 11 9
1936-37	126	291	45 16 5	12 13 9	364	43	11 18 4	2 12 1
1937-38	136	314	49 7 3	13 16 11	363	44	11 18 4	2 12 9

As a result of a sharp decline in the volume of new business and a steep rise in the surrender of existing policies in the years 1930-31 to 1932-33, the amount of assurances in force per head of population, which had been increasing for more than 25 years, declined from £39 11s. 8d. to £37 12s. 5d. in ordinary and from £10 19s. 10d. to £9 17s. 6d. in industrial assurances. Since 1932-33 there has been an increase of 31 per cent. to £49 7s. 3d. per head in ordinary assurances and an increase of 40 per cent. to £13 16s. 11d. per head in the industrial branch.



Variations in the value of new business effected annually are shown in table 345 and fluctuations in the surrender and maturity of existing policies since 1928-29 are indicated below.

TABLE 348.—Life Assurances, Surrender and Maturities in New South Wales, 1929 to 1938.

Year.	Payment of Policies, including bonus additions.			
	Surrenders.		Claims-Deaths, Maturity etc.	
	Ordinary.	Industrial.	Ordinary.	Industrial.
	£	£	£	£
1928-29 ... ..	342,871	36,965	1,771,062	497,346
1929-30 ... ..	381,961	54,815	1,886,874	522,910
1930-31 ... ..	623,013	119,959	1,781,727	588,522
1931-32 ... ..	900,772	147,582	1,972,678	596,406
1932-33 ... ..	839,579	75,655	2,045,840	627,957
1933-34 ... ..	749,148	75,368	2,052,799	656,746
1934-35 ... ..	715,878	59,542	2,171,608	627,475
1935-36 ... ..	575,504	57,916	2,312,116	647,843
1936-37 ... ..	557,914	70,175	2,581,420	805,179
1937-38 ... ..	562,914	56,897	2,591,822	948,802

The gradual growth of payments under maturing policies is a natural outcome of the increasing age of societies and business in force. The extensive cancellation of policies by surrender after 1929-30 was, however, a direct result of the depression, and the diminution after 1931-32 an accompaniment of economic recovery. As payments made under surrenders are based upon premiums actually paid on policies, the decrease, by reason of surrenders, of amounts assured as shown in tables 343 and 344 would be considerably greater than is indicated above.

#### *Assurance Societies—Total Business.*

The majority of the assurance societies operating in New South Wales transact a large amount of business outside the State, and it is not practicable to present statements of their finances in relation to New South Wales business alone. For this reason the following tables 349 to 354, prepared to show the nature and composition of revenues and expenditures, accumulated funds and the manner of their investment, relate to the aggregate finances of Australian societies and one New Zealand society operating in New South Wales.

In respect of the other overseas societies, particulars of the Australian business only are included. The assurance business transacted in New South Wales by the Australian societies and the New Zealand society represents in the aggregate about one-quarter of their total business, while the Australian business of the overseas societies is insignificant in comparison with their total business.

A summary of the combined ordinary and industrial business on the above-mentioned basis, at intervals since 1895, is shown below:—

TABLE 349.—Life Assurance Societies, Summary of Total Business, 1896 to 1938.

Year.	Societies Accepting New Business (Local and Oversea).	Policies in Force.	Revenue.	Expenditure.	Accumulated Funds, including Paid-up Capital and Reserves.	Interest and Rents.	
						Amount Received.	Average Rate Realised on Mean Funds.
	No.	No.	£ 000	£ 000	£ 000	£ 000	per cent.
1895-96	13	268,242	3,392	2,334	20,299*	1,037	5.21
1900-01	14	331,868	4,093	2,648	26,491*	1,162	4.51
1905-06	19	756,585	5,437	3,834	34,916	1,528	4.48
1910-11	14	1,056,173	7,131	4,619	45,668	1,963	4.46
1915-16	16	1,424,196	9,442	6,085	61,572	2,836	4.74
1920-21	16	1,944,845	14,009	7,944	83,029	4,116	5.16
1925-26	33	2,678,790	22,031	12,768	124,361	6,595	5.52
1930-31	23	3,190,768	29,577	19,711	178,307	9,802	5.67
1935-36	18	3,676,412	32,390	20,961	223,218	9,476	4.36
1936-37	19	3,971,590	35,422	22,478	236,455	10,124	4.41
1937-38	18	4,272,338	37,477	23,521	250,349	10,604	4.36

\* Exclusive of capital and reserve funds, etc.

The annual additions to the funds have shown a considerable increase since 1911, and there was gradual increase in earning power of funds from 1910-11, when 4.46 per cent. was realised, until a rate equal to 5.67 per cent. was reached in 1930-31. Then the rate declined to 4.36 per cent. in 1935-36, the lowest since 1907.

The following table shows details of the total revenue and expenditure of the societies operating in New South Wales during 1937-38:—

TABLE 350.—Revenue and Expenditure of Life Assurance Societies, 1937-38.

Particulars.	Ordinary Branch.	Industrial Branch.	Total.
Revenue—	£	£	£
Premiums (New and Renewal) ... ..	19,431,874	6,875,114	26,306,988
Consideration for Annuities... ..	430,252	.....	430,252
Interest, Dividends and Rents ... ..	8,767,351	1,836,876	10,604,227
Other Receipts ... ..	83,447	51,914	135,361
Total Receipts ... ..	28,712,924	8,763,904	37,476,828
Expenditure—			
Claims and Policies matured ... ..	10,830,414	2,978,888	13,809,402
Surrenders ... ..	2,240,031	226, (8)	2,466,711
Annuities ... ..	311,976	36	312,012
Cash Bonuses and Dividends ... ..	444,966	80,799	525,765
Expenses, incl. commission and brokerage	3,118,784	2,245,654	5,364,438
Taxes ... ..	439,053	90,995	530,048
Other ... ..	376,520	135,977	512,497
Total Expenditure ... ..	17,761,744	5,759,129	23,520,873

The receipts of the societies consist mainly of premiums on policies and of interest and rents arising from investments. The former, including consideration for annuities, represented 69.2 per cent. of the receipts in 1937-38, and the latter 30.5 per cent., in the ordinary branch; corresponding figures for the industrial branch were 78.4 per cent., and 21.0 per cent. respectively. Payments on account of death claims, policies matured and surrendered, and cash bonuses and dividends amounted in 1937-38 to £13,827,387, or 77.8 per cent., of the total expenditure in the ordinary branch, and to £3,286,503 or 57.1 per cent. in the industrial branch. Expenses of management and taxation constituted 20.0 per cent., of the expenditure in the ordinary branch and 40.6 per cent. in the industrial.

The excess of revenue over expenditure, carried to assurance and other funds, amounted to £10,951,180 and £3,004,775 in the respective departments, representing 38 per cent. and 34 per cent. of total revenue.

#### *Expenses of Management.*

The ratio between management expenses and premium income must necessarily vary with the volume of new business transacted, and with the age of the society, quite apart from the competition for new business. The following figures show in respect of the ordinary and industrial departments of the Australasian societies the cost of management, including commission and taxes, and its proportion to premium income and gross receipts.

TABLE 351.—Life Assurance Societies, Expenses and Premium Income, Total Business.

Year.	Management Expenses, Taxes, etc.	Premium Income.	Gross Revenue.	Management Expenses etc.	
				Per cent. of—	
				Premium Income.	Gross Revenue.
	£	£	£		
1895-96	438,524	2,380,167	3,392,423	18.42	12.93
1900-01	565,380	2,799,512	4,093,376	20.19	13.81
1905-06	858,741	3,500,448	5,437,589	24.53	15.79
1910-11	1,016,153	5,074,204	7,131,250	20.03	14.25
1915-16	1,252,439	6,591,572	9,442,131	19.00	13.26
1920-21	2,222,218	9,870,814	14,009,157	22.51	15.86
1925-26	3,727,350	14,641,970	22,031,257	25.46	16.92
1930-31	4,897,622	19,557,848	29,577,303	25.04	16.56
1935-36	5,351,166	22,274,739	32,390,461	24.02	16.52
1936-37	5,890,373	24,439,590	35,422,573	24.10	16.63
1937-38	5,894,486	26,306,988	37,476,828	22.41	15.73

The expenses of management in 1937-38 included an amount of £530,048 for income and land taxes, stamp duty, etc.

The ratio of expenses has been declining since 1932-33, when it represented 29.72 per cent. of premiums and 20.09 per cent. of gross revenue. These high ratios and the subsequent decline are attributable largely to the increases and reductions in the taxation paid by the societies, the amount in 1932-33 being £1,780,824.

Particulars regarding the management expenses of the ordinary and industrial branches are stated separately in the following table for 1928-29 and for each of the past five years:—

TABLE 352.—Life Assurance Societies, Expense Ratios, Total Business.

Year.	Ordinary Branch.		Industrial Branch.	
	Proportion of Management Expenses (including Taxes) to—			
	Premium Income.	Total Receipts.	Premium Income.	Total Receipts.
	per cent.	per cent.	per cent.	per cent.
1928-29	18·45	12·06	37·36	30·11
1932-33	26·57	17·11	38·69	30·43
1933-34	24·93	15·98	38·48	30·14
1934-35	19·99	12·59	35·55	27·45
1935-36	20·19	13·30	34·82	27·30
1936-37	20·48	13·56	34·45	27·01
1937-38	18·31	12·39	33·98	26·66

The expenses of the industrial branch are necessarily very high in proportion to the receipts, on account of the house-to-house method of collection, which is an essential feature of the system.

#### *Liabilities and Assets.*

The following table gives a summary of the total liabilities and assets of the Australasian societies at the various balance dates in 1937-38:—

TABLE 353.—Life Assurance Societies' Liabilities and Assets, 1937-38.

Liabilities.		Assets.	
Assurance Funds—	£	Loans—	£
Participating and not participating in Profits ...	226,337,545	On Mortgage ...	56,250,504
Claims Investment Fund ...	13,225	„ Municipal and Other Local Rates ...	45,054,478
Other Assurance Funds ...	16,920,759	„ Reversionary, Life, and Other Interests ...	467,590
Total ...	243,271,529	„ Policies ...	29,134,457
Other Funds—		„ Personal Security ...	13,463
Guarantee Funds* ...	677,642	„ Government Securities..	37,960
Investment Fluctuation Fund* ...	3,315,509	„ Other Debentures and Bonds ...	1,818,798
Paid-up Capital ...	1,633,081	Miscellaneous Loans ...	1,186,989
Reserve Funds* ...	1,451,599	Total ...	133,664,239
Total Funds ...	250,349,360	Government Securities ...	79,671,640
Other Liabilities—		Other Securities and Shares ...	17,276,086
Claims admitted but not paid ..	2,312,483	Real Estate ...	14,624,742
Outstanding Accounts ...	774,951	Cash, Fixed and Current Bank Accounts ...	3,387,361
Miscellaneous ...	2,185,106	Establishment and Goodwill	1,022,777
Total Liabilities ...	£255,621,900	Other Assets ...	5,635,055
		Total Assets ...	£255,621,900

\* Contingency Funds in part under three heads.

The rapid growth of funds of life assurance companies is shown in table 349.

The following table indicates the main classes of assets in which accumulated funds have been invested over the past twenty-two years:—

TABLE 354.—Life Assurance Societies, Investments, 1916 to 1938.

Year.	Loans on—				Government Securities.	Other Securities and Shares.	Real Estate.	Total Investments.
	Mortgage.	Municipal and Other Local Rates.	Policies.	Other.				
	£000	£000	£000	£000	£000	£000	£000	£000
1915-16 ...	25,648	10,467	8,035	1,387	11,046	3,041	59,624	
1920-21 ...	19,371	10,663	8,427	1,667	42,462	3,474	86,064	
1925-26 ...	25,995	18,673	13,918	3,802	53,585	4,944	120,917	
1930-31 ...	41,716	37,018	24,359	3,003	48,443	10,028	172,803	
1931-32 ...	41,169	37,769	26,807	3,098	50,628	10,585	178,594	
1932-33 ...	40,437	37,806	27,977	3,016	56,423	11,410	186,317	
1933-34 ...	40,454	38,250	28,524	2,905	61,810	12,549	194,128	
1934-35 ...	42,655	39,415	28,791	3,078	66,829	13,405	204,820	
1935-36 ...	45,500	40,688	28,837	3,220	72,848	14,256	217,230	
1936-37 ...	51,087	42,375	29,038	3,498	75,507	16,248	231,126	
1937-38	56,251	45,054	29,134	3,525	79,672	17,276	245,537	

In early years loans on mortgage constituted the chief avenue for the investment of assurance funds, but these declined as the societies subscribed large sums to war loans. During the ten years ended 1930-31 investments became more widely diffused and a large proportion of the funds was devoted to loans to municipalities and on policies as well as mortgages, with a corresponding decline in the proportion invested in Government securities. As a result of the depression the range of investments was somewhat restricted; the proportion of Government securities began to rise again and there was a tendency to reduction in other kinds of investments except loans on policies, which increased temporarily. During the last five years, the growth of investments in Government securities has continued and there has been a substantial increase in mortgage loans and loans to municipalities.

Large sums are held on fixed deposit with banks; the amount was £2,074,737 in 1937-38. Current bank balances amounted in the aggregate to £1,155,892.

In 1937-38 Government securities represented 32½ per cent. of the total investments, other securities and shares 7 per cent., mortgage loans 23 per cent., loans to municipalities 18 per cent., and loans on policies 12 per cent.

*Fire Marine and General Insurance.*

The nature of the general insurances effected in New South Wales during the year 1937-38 is indicated by the following summary of the returns furnished under the Census Act, 1901, by 156 companies with offices situated within the State.

The amounts shown as premium income represent the aggregate gross premiums as disclosed by the individual companies less amounts paid to re-insurers in Australia and New Zealand. Similarly losses on claims are shown as the aggregate gross amount returned by individual companies less recoveries under re-insurances in Australia and New Zealand.

Other income, consisting of interest, rents, etc., accrues largely from the investment of capital funds and reserves accumulated in past years, and it is not practicable to distribute the amount over the various classes of insurance. Moreover, the head offices of many of the companies are situated in other States and countries and in many instances only a small part of their total business is done in New South Wales. It is not possible to ascertain what amount of interest, etc., is derived from reserve funds accumulated from past surpluses on New South Wales business. For this reason the amount of interest, rents, etc., recorded in New South Wales, and shown below does not necessarily represent the amount attributable to general insurance business in New South Wales.

TABLE 355.—General Insurances in New South Wales, Classes of Risk, Revenue and Expenditure, 1937-38.

Nature of Insurance.	Premiums in New South Wales,	Expenditure in New South Wales.					Proportion of Premium Income.		
		Losses.	Expenses of Management.		Total.	Losses	Com-mission and Agents' Charges	Other Management Expenses.	
			Com-mission and Agents' Charges	Other.					per cent.
	£	£	£	£	£	per cent.	per cent.	per cent.	
Fire .. .. .	2,161,684	736,622	352,531	573,029	1,662,182	35.05	16.77	27.27	
Marine .. .. .	459,626	176,347	36,635	103,027	316,009	38.37	7.97	22.42	
Personal Accident .. .. .	210,786	91,317	47,919	35,963	175,229	43.34	22.73	17.06	
Employers' Liability and Workers' Compensation .. .. .	1,842,866	1,374,852	77,191	260,525	1,712,568	74.60	4.19	14.14	
Public Risk, Third Party .. .. .	61,731	19,395	9,463	12,477	41,335	31.42	15.33	20.21	
Plate-glass .. .. .	67,558	20,427	12,173	14,353	46,953	39.24	18.02	21.25	
Motor Car .. .. .	1,358,283	908,702	189,119	199,653	1,297,674	66.90	13.92	14.71	
Motor Cycle .. .. .	20,842	21,246	1,443	3,257	25,946	101.94	6.92	15.63	
Hailstone .. .. .	117,164	49,240	19,341	29,856	98,437	42.03	16.51	25.48	
Boiler Explosion .. .. .	12,813	3,780	1,240	2,267	7,287	29.50	9.68	17.69	
Live Stock .. .. .	19,820	10,015	3,078	5,387	18,480	50.53	15.53	27.18	
Burglary .. .. .	76,723	22,688	12,555	14,532	49,775	29.57	16.30	18.94	
Guarantee .. .. .	27,798	5,913	4,552	5,355	15,820	21.27	10.38	19.26	
Loss of Profits .. .. .	55,088	15,161	9,838	14,419	39,418	27.52	17.86	20.17	
Elevator .. .. .	3,184	169	464	726	1,359	5.31	14.57	22.80	
Sprinkler .. .. .	3,554	596	580	854	2,030	16.32	16.32	24.03	
Pluvius .. .. .	13,029	8,083	969	2,737	11,789	62.04	7.42	21.00	
Householders' Comprehensive .. .. .	99,501	29,215	13,693	20,905	63,813	29.36	13.76	21.01	
Aviation .. .. .	3,278	3,322	821	223	4,366	62.94	15.56	4.23	
Other .. .. .	33,011	20,039	4,673	5,575	30,237	60.70	14.16	16.89	
Total Premiums .. .. .	6,590,333								
Total Interest, etc. .. .. .	281,656								
Total .. .. .	6,871,989	3,517,159	798,278	1,305,320	5,620,757	53.37	12.11	19.81	

The total losses amounted to 53 per cent. of the premiums. The expenses for commission and agents' charges were £798,278, and for general management £1,305,320, making a total of £2,103,598 or 32 per cent. of the premium income. In 1936-37 losses amounted to £3,149,006, or 53 per cent. of premium income, and expenses, £1,946,325, represented 33 per cent.

Fire, employers' liability and workers' compensation, motor vehicles and marine are the principal classes of insurance. They yielded 88 per cent. of the premiums in 1937-38.

Premium income declined from £6,229,699 in 1928-29 to £4,335,485 in 1932-33, then increased gradually to £6,590,333 in 1937-38, when it was £360,640, or 5.8 per cent., more than in 1928-29. The increase, as compared with 1936-37, was £645,033.

A summary of the revenue and expenditure in respect of general insurance transactions in New South Wales at intervals since 1928-29 is shown below:—

TABLE 356.—General Insurance in New South Wales, Revenue and Expenditure, 1929 to 1938.

Particulars,	1928-29.	1932-33.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue—						
Premiums ... ..	£ 6,229,699	£ 4,335,485	£ 4,746,471	£ 5,235,811	£ 5,945,300	£ 6,590,333
Interest, etc. ... ..	329,369	258,703	266,947	271,676	279,466	281,656
Total ... ..	6,559,068	4,594,188	5,013,418	5,507,487	6,224,766	6,871,989
Expenditure—						
Losses ... ..	3,804,141	1,882,944	2,248,190	3,144,718	3,149,006	3,517,159
Management— Commission and Agents' Charges ...	838,496	571,655	605,864	666,876	740,386	798,278
Other Expenses ...	1,396,078	1,223,163	1,181,388	1,215,629	1,205,939	1,305,320
Total ... ..	6,038,715	3,677,762	4,035,442	5,027,223	5,095,331	5,620,757
Proportion to Premium Income—	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Losses ... ..	61.06	43.43	47.37	60.06	52.97	53.37
Expenses—						
Commission, etc. ...	13.46	13.19	12.76	12.74	12.45	12.11
Other ... ..	22.41	28.21	24.89	23.22	20.28	19.81

During the past five years more than 50 per cent. of the premiums were repaid to insurers to cover losses.

In proportion to premium income the losses vary greatly in the different classes of insurance, and from year to year. The following table shows a comparison of the losses in relation to premiums for the last ten years:—

TABLE 357.—General Insurance in New South Wales, Classes of Risk, Ratio of Losses.

Class.	Proportion per cent. of Losses to Premiums.									
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Fire ... ..	67.5	54.4	49.3	38.8	29.3	27.3	28.4	56.1	36.4	35.4
Marine ... ..	51.6	43.1	40.8	95.4	36.5	49.5	51.9	48.9	36.7	38.4
Personal Accident ... ..	50.0	48.5	45.4	48.6	41.9	43.0	41.6	41.1	44.2	40.2
Employers' Liability and Workers' Compensation ... ..	69.8	62.8	73.2	83.4	79.5	78.8	77.5	79.6	77.7	74.6
Public Risk, Third Party Plate Glass ... ..	28.1	29.4	26.3	21.4	26.7	20.2	20.6	27.0	32.0	31.4
Motor Car and Motor Cycle ... ..	52.0	58.4	62.0	52.3	49.4	50.0	55.9	61.5	65.0	67.4
Hailstone ... ..	18.1	32.4	32.3	42.3	35.2	84.2	90.5	66.5	23.3	42.0
Boiler Explosion ... ..	24.6	37.8	62.7	32.2	31.4	42.8	28.1	37.0	26.8	29.5
Live Stock ... ..	53.1	48.7	39.1	196.4	71.0	37.7	37.8	33.7	56.6	50.5
Burglary ... ..	44.1	45.0	46.3	46.8	42.8	35.5	36.4	31.5	34.1	29.6
Guarantee ... ..	54.5	69.7	39.2	22.2	27.0	20.0	32.8	37.8	33.5	21.3
Loss of Profits ... ..	8.5	25.7	19.4	7.7	4.8	6.0	12.1	32.3	26.5	27.5
Elevator ... ..	...	...	14.4	0.3	1.6	1.3	1.6	2.7	4.4	5.3
Sprinkler ... ..	30.1	33.1	13.9	131.6	12.4	13.9	21.5	10.6	40.7	16.8
Other ... ..	29.1	32.4	90.0	48.5	53.5	54.9	43.4	34.2	51.2	40.2
Total ... ..	61.1	55.1	55.2	53.4	43.4	45.0	47.4	60.1	53.0	53.4

Fire premiums increased by small amounts annually to £2,390,917 in 1928-29 and then declined to £1,946,387 in 1934-35. The decline was small in comparison with that experienced by other classes of insurance during the depression period. There were increases amounting to £41,464 in 1935-36, £66,812 in 1936-37, and £47,021 in 1937-38, when the total amount of the premiums was £2,101,684. The total amount of the fire insurance written in New South Wales was £632,831,000 in 1929-30, £599,740,000 in 1936-37, £608,706,000 in 1937-38. The measures taken for the prevention of fire are described in the chapter "Local Government."

Insurance relating to the liability of employers grew rapidly while wages were rising and as the scope of workers' compensation was extended by legislation. An amended Workers' Compensation Act, which commenced on 1st July, 1926, increased the amount of compensation payable, extended the benefits to a large body of workers previously excluded, and placed upon employers the obligation of insuring against liability in respect of practically all classes of employees. Insurance charges were raised on this account, but were revised later, following some restriction of benefits and the accumulation of experience regarding new risks. Premium income increased from £645,991 in 1924-25 to £1,749,775 in 1927-28, and, after declining to £775,088 in 1931-32, on account of widespread unemployment, rose to £1,842,866 in 1937-38. Increases amounted to £214,608 in 1935-36, £276,151 in 1936-37, and £285,350 in 1937-38. The increase was due partly to a higher scale of charges in respect of certain classes of risks, introduced at the beginning of 1936. Details regarding the workers' compensation law and its operation are shown in chapter "Employment" of this Year Book.



The insurance of motor vehicles increased rapidly with the development of road transport, premium income increasing from £127,427 in 1920-21 to £1,144,608 in 1928-29. Between 1928-29 and 1932-33 premiums declined to £630,537, but they rose subsequently to £1,379,125 in 1937-38. Increases during the past three years were £135,105 in 1935-36, £198,778 in 1936-37, and £230,758 in 1937-38. Premium rates were increased substantially as from 1st August, 1937.

For marine insurance, the premium receipts declined from £552,202 in 1925-26 to £426,548 in 1929-30 and to £295,887 in 1930-31. Following small increases in subsequent years premiums amounted to £459,620 in 1937-38.

#### *Government Insurance Office.*

The Government Insurance Office of New South Wales was constituted by the Government Insurance (Enabling and Validating) Act, 1927, deemed to have commenced on 30th June, 1926. Its establishment was the outcome of the extension of workers' compensation benefits in 1926 in order that employers might be able to fulfil at the lowest cost their compulsory obligations to insure employees. An internal insurance fund, which had been created under the Treasury Insurance Board in 1911 for the insurance of Government buildings against fire risks, was taken over by the office.

At its inception the Government Insurance Office was empowered to transact workers' compensation insurance without limitation in respect of both private and public employers. Power to operate in other branches of general insurance business, such as fire, marine, motor, etc., was limited to insurances effected with Government departments and instrumentalities, Government contractors, public servants, and insurance in respect of other matters in which the Government was interested. These powers were exercised until the middle of 1933, when the activities of the office were restricted to risks of which the Crown is the direct owner or employer. In 1933-34 the Government ceased to pay to the State office premiums on departmental insurances which would form a charge on the Consolidated Revenue Fund of the State. These unpaid premiums have been shown as income in the annual accounts since presented, but, as an offset, a corresponding amount has been transferred from profits to a special reserve account.

In the case of workers' compensation, the office must, as a licensed insurer, accept insurances when required to do so by private employers.

A summary of the revenue account of the Government Insurance Office for the year 1937-38 is shown below:—

TABLE 358.—Government Insurance Office, Revenue and Expenditure.

Particulars.	Workers' Compensation.	Fire and Marine.	Motor Vehicles.	Other.	Total.
	£	£	£	£	£
Premiums <i>less</i> Reinsurances, etc. ...	167,565	19,352	12,247	2,392	201,556
Interest, etc. ... ..	11,142	14,018	1,774	2,165	29,099
<b>Total Revenue</b> ...	<b>£ 178,707</b>	<b>33,370</b>	<b>14,021</b>	<b>4,557</b>	<b>230,655</b>
Claims <i>less</i> Reinsurances, etc. ... ..	138,903	5,692	10,212	2,391	157,198
Expenses (and Taxation) ... ..	11,672	2,668	1,222	513	16,075
<b>Total Expenditure</b> ...	<b>£ 150,575</b>	<b>8,360</b>	<b>11,434</b>	<b>2,904</b>	<b>173,273</b>
<b>Surplus</b> ... ..	<b>28,132</b>	<b>25,010</b>	<b>2,587</b>	<b>1,653</b>	<b>57,382</b>

\* Including Treasury Guarantee Fund.

Of the trading surplus £42,887 was appropriated to a contingent liability reserve in respect of premiums unpaid by Government departments and the balance, £14,495, was added to general reserve. Premiums unpaid by Government departments amounted in 1937-38 to £27,677 in respect of workers' compensation insurance, £10,075 for fire and marine, £4,213 for motor vehicles, and £922 for other. The total amount unpaid up to 30th June, 1938, was £168,220.

Assets at 30th June, 1938, included funds at Treasury £195,962, and Government securities £601,137.

#### BANKRUPTCY.

The Bankruptcy Act, 1924-1933, of the Commonwealth superseded the bankruptcy laws of the States as from 1st August, 1928. Under the Federal law sequestration orders may be made by the Bankruptcy Court on a bankruptcy petition presented either by a debtor or by a creditor, provided that the aggregate amount of indebtedness exceeds £50. Upon sequestration the property of the bankrupt vests in an official receiver for division amongst the creditors. Provision is made also for compositions and assignments without sequestration and for deeds of arrangement. Details regarding bankruptcy law are contained in the chapter "Law Courts" of this Year Book.

The following statement shows particulars of the bankruptcies (sequestrations, compositions, assignments, and deeds of arrangement) in New South Wales under the Bankruptcy Act of the Commonwealth in each of the past seven years. The records are inclusive of cases in the Australian Capital Territory which for the purposes of the Act is included in the Bankruptcy district of New South Wales:—

TABLE 359.—Bankruptcies in New South Wales, 1932 to 1938.

Particulars.	Year ended 31st July—						
	1932.	1933.	1934.	1935.	1936.	1937.	1938.
<b>Sequestration Orders:*</b>							
Number ... ..	387	302	346	251	247	256	268
Liabilities ... .. £	897,497	434,059	362,264	269,103	372,566	326,344	270,720
Assets... .. £	595,307	159,408	166,859	107,832	162,986	173,780	92,932
<b>Composition and Assignments without Sequestration—</b>							
Number ... ..	11	12	14	9	5	4	2
Liabilities ... .. £	583,189	27,301	24,263	7,158	3,402	1,757	1,072
Assets ... .. £	267,122	7,961	7,611	2,628	1,218	1,094	358
<b>Deeds of Arrangement—</b>							
Number ... ..	443	313	266	167	173	193	172
Liabilities ... .. £	860,049	602,799	493,342	349,711	275,690	331,239	258,564
Assets... .. £	822,079	650,000	510,932	309,676	226,976	283,255	230,078
<b>Total—Number ...</b>	<b>841</b>	<b>627</b>	<b>626</b>	<b>427</b>	<b>425</b>	<b>453</b>	<b>442</b>
Liabilities £	2,340,735	1,064,159	879,869	625,972	651,658	659,340	530,356
Assets £	1,684,508	817,369	685,403	420,136	391,180	458,129	323,368

\* Excluding orders for administration of deceased debtors' estates.

Particulars of orders for the administration of estates of deceased persons are not available for all years. Such orders numbered 18 in 1934-35, 14 in 1935-36, 11 in 1936-37, and 12 in 1937-38, while liabilities amounted to £29,104, £27,054, £9,491, and £9,074, and assets to £15,773, £18,295, £12,248, and £5,901 respectively.

In cases in which sequestration orders were granted assets amounted to 34.3 per cent. of liabilities in 1937-38, and the average over the past seven years was 49.8 per cent. Corresponding ratios under compositions and assignments without sequestration were 33.4 per cent., and 44.4 per cent. respectively.

Under deeds of arrangement the deficiency of assets is generally of small amount and surpluses are not infrequent.

At any time after he has been publicly examined, or at such times as are prescribed, a bankrupt may apply for an order of discharge releasing him from his debts, and he must apply when the Court orders him to do so. The Court may either grant or refuse an absolute order of discharge, or may suspend its operation for a specified time or may grant an order subject to conditions with respect to future income or property acquired subsequently. During the year ended 31st July, 1938, 190 applications were made for orders of discharge; 158 orders were granted—10 unconditionally, 8 with conditions, 117 subject to suspension for periods under two years and 23 subject to conditions and suspensions—and 33 cases were pending at the end of the year.

#### TRANSACTIONS IN REAL ESTATE.

The procedure in regard to land transfers is regulated under the Real Property Act, 1900, and its amendments. The title under this Act first conferred under the Real Property Act, 1862, is known as "Torrens" title. The main features of the system are transfer of real property by registration of title instead of by deeds, absolute indefeasibility of the title when registered, and protection afforded to owners against possessory claims, as the title under the Act stands good notwithstanding any length of adverse possession. Lands may be placed under the Real Property Act only when the titles are unexceptional. All lands alienated by the Crown since the commencement of the Act are subject to the provisions of the Real Property Act, but transactions in respect of earlier grants are governed by the Registration of Deeds Act unless the land has been brought under the operation of the Real Property Act.

The area of Crown grants registered under the Real Property Act and the total consideration expressed in grants in each of the past ten years are shown below, also the area and value of private lands brought under the Act:—

TABLE 360.—Titles Granted under Real Property Act, 1929 to 1938.

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1929	549,746	38,986	588,732	436,572	2,417,367	2,853,879
1930	550,461	32,130	582,591	493,781	1,899,281	2,393,062
1931	442,681	8,728	451,409	473,718	801,903	1,275,621
1932	399,790	10,689	410,479	445,610	2,359,856	2,805,466
1933	490,368	20,529	510,897	575,187	524,857	1,100,044
1934	655,342	7,173	662,515	884,846	733,146	1,617,992
1935	711,485	4,735	716,220	826,734	1,022,792	1,849,526
1936	693,337	26,054	719,391	846,636	1,346,058	2,192,694
1937	791,894	5,989	797,883	946,638	933,160	1,929,848
1938	939,876	14,739	1,004,615	1,406,651	1,371,574	2,778,225

At the close of 1938 lands of a total area of 53,566,763 acres were registered under the Act, the declared value as at date of registration being £130,180,777. The great part of this land consists of Crown grants issued since 1863, and it includes 2,937,801 acres of land originally under the Registration of Deeds Act, but now under the Real Property Act.

The following table shows for each of the past ten years the amount paid as money consideration on sales of private real estate, that is, of lands absolutely alienated, together with buildings thereon, with titles registered under the statutes shown. Transfers of conditional purchases and of leases from the Crown are excluded:—

TABLE 361.—Real Estate, Conveyances and Transfers, 1929 to 1938.

Year.	Conveyances or Transfers.			Year.	Conveyances or Transfers.		
	Under Registration of Deeds Act.	Under Real Property (Torrens) Act	Total.		Under Registration of Deeds Act.	Under Real Property (Torrens) Act.	Total.
	£000	£000	£000		£000	£000	£000
1929	9,500	45,100	54,600	1934	5,174	18,316	23,490
1930	5,123	20,987	26,110	1935	4,880	21,210	26,090
1931	3,213	10,473	13,686	1936	6,486	27,060	33,546
1932	2,255	9,987	12,242	1937	7,671	29,682	37,353
1933	2,989	12,206	15,195	1938	6,159	31,260	37,419

Monthly statistics of sales of real estate are published in the "Monthly Summary of Business Statistics."

As already mentioned, the Real Property Act provides that on the issue of a certificate the title of the person named in the certificate is indefeasible. If a transfer has been made in error, the holder of a certificate cannot be dispossessed of the property concerned unless he has acted fraudulently, therefore provision has been made to enable the Government to compensate persons erroneously deprived of property. An assurance fund was created by means of a contribution of one halfpenny in the pound on the declared capital value of property when first brought under the Act and upon transmission of titles of estates of deceased persons. In 1907 the fund, amounting to £255,059, was amalgamated with the Closer Settlement Fund, to which subsequent contributions have been paid.

#### REGISTRATION OF MONEY-LENDERS.

Under the Money-lenders and Infants Loans Act, 1905, money-lenders must be registered at the Registrar-General's Office, and they must conduct their business only under their own or their firms' names, and at their registered offices. The term "money-lender" includes every person or company transacting the business of money-lending, but it excludes licensed pawn-brokers, registered friendly societies, institutions incorporated by special Act of Parliament to lend money, and banking and insurance companies. The number of registrations and renewals during the year 1938 was 127.

#### MORTGAGES OF REALTY AND PERSONALTY.

Mortgages, except those regulated by the Merchant Shipping Act, may be registered at the Registrar-General's Office, but there is a large number of unregistered mortgages of which records are not obtainable.

Mortgages of real estate are registered under the Registration of Deeds Act or the Real Property Act, according to the title of the property at the date of mortgage. The consideration given generally represents the principal owing, but in some cases it stands for the limit within which clients of banks and of other loan institutions are entitled to draw.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under a special Act. Mortgages on live stock are current till discharge, and liens on wool mature at the end of each season, terminating without formal discharge. The duration of liens on agricultural and horticultural produce may not exceed one year.

Mortgages on personalty (other than ships and shipping appliances), wool, live stock, and growing crops are registered at the office of the Registrar-General in terms of the Transfer of Records Act, 1923, which was proclaimed on 18th October, 1925. Previously they had been filed at the Supreme Court. To be effective a trader's bill of sale must be lodged with the Registrar-General within fifteen days after it is made or given and may not be registered or filed until the expiration of a further fourteen days; other bills of sale must be registered within thirty days. The registration of a bill of sale must be renewed every five years, and in order to prevent fraud and imposition the records are open to the inspection of the public. Information is not readily available to show the total amount of advances made annually on bills of sale.

Mortgages of registered British vessels are arranged under the Imperial Merchant Shipping Act of 1894.

Particulars of the mortgages of real estate, crops, wool, and live stock effected during each of the last ten years, are shown below.

TABLE 362.—Mortgages Registered, 1929 to 1938.

Year.	Mortgages of Real Estate.		Mortgages on Crops, Wool, and Live Stock.			
	Number.	Consideration.	Number.			Consideration.
			Crops.	Wool.	Live Stock.	
		£				£
1929	50,841	48,420,657	7,211	3,709	4,481	6,451,596
1930	36,402	35,037,786	13,542	4,508	4,453	9,842,668
1931	18,959	18,790,164	12,377	5,565	6,437	10,739,592
1932	14,557	8,642,026	10,346	4,773	5,578	8,474,237
1933	20,503	9,605,499	8,501	4,763	4,789	7,420,574
1934	23,314	15,488,239	6,045	4,807	6,601	6,161,688
1935	27,078	16,531,251	5,385	4,749	5,692	5,607,912
1936	27,538	20,510,665	4,434	4,541	5,207	5,736,568
1937	29,169	23,810,674	3,892	4,392	4,817	5,843,664
1938	35,341	26,966,988	4,238	4,571	4,517	6,201,060

The amounts shown under the heading "Consideration" include only the cases in which a specific amount is stated in the deeds, whether the amount was actually advanced or not. Where the sum advanced is liable to fluctuation, it is usual to insert the words "valuable consideration" or "cash credit," etc., instead of a definite sum. In view of the number of mortgages in which the amount is omitted, it is probable that the totals are understated. Complete records of discharges and foreclosures are not available.

Many mortgages of real estate are of comparatively short duration, and until the introduction of the moratorium at the end of 1930 were renewed at maturity. For this reason amounts stated in the table for 1929 and

1930 do not represent new advances. The figures for the next three years related substantially to new mortgages and the sharp decline which occurred was due in large measure to the absence of renewals. It is apparent, however, that with the effluxion of time since the moratorium was first imposed renewals are being registered on an increasing scale.

The amount of mortgage registrations as shown in table 362 comprises first and second mortgages and the registration of collateral securities in respect of subsisting mortgages. A distribution under these headings of mortgages registered during the last five years is shown below:—

TABLE 363.—Mortgages of Real Estate, 1934 to 1938.

Mortgages of Real Estate.	Year ended 31st December.				
	1934.	1935	1936.	1937.	1938.
First Mortgages—	£000	£000	£000	£000	£000
Urban Securities ...	6,113	8,149	10,269	10,847	14,966
Rural ... ..	4,675	4,332	4,958	5,764	5,044
Unspecified ... ..	898	298	506	985	1,831
<b>Total First</b>	<b>11,686</b>	<b>12,779</b>	<b>15,733</b>	<b>17,596</b>	<b>21,841</b>
Collaterals ... ..	2,432	2,312	3,289	4,507	3,126
Second & Other Mortgages	1,371	1,440	1,489	1,708	2,000
<b>Total ... ..</b>	<b>15,489</b>	<b>16,531</b>	<b>20,511</b>	<b>23,811</b>	<b>26,967</b>

The chief sources of the funds invested on the security of real estate are indicated by the following table in which the first mortgages registered during the four years 1935 to 1938 are grouped according to certain classes of mortgagees, viz., "Government," including State and Federal departments and the Rural Bank; "banks," including private trading banks, the Commonwealth Bank and Commonwealth Savings Bank; "institutions," embracing all other incorporated companies and bodies such as pastoral finance companies, trustee companies, assurance societies, friendly societies and building societies, etc.; and private and other investors.

TABLE 364.—First Mortgages of Real Estate, Classification of Mortgagees, 1935 to 1938.

Year ended 31st December.	Mortgagees under Registered First Mortgages.				
	Government.	Banks. *	Institutions. *	Private and Other.	Total.
	£000	£000	£000	£000	£000
1935 ... ..	1,538	1,951	4,829	4,461	12,779
1936 ... ..	1,712	1,618	7,139	5,264	15,733
1937 ... ..	1,483	1,777	9,145	5,191	17,596
1938 ... ..	1,758	1,987	13,054	5,042	21,841

\* These do not represent the total amount lent, as many of the mortgages are fluctuating overdrafts.

Institutions constitute the most important class of lenders on first mortgage, and the amount in this group represented 38 per cent. of the total first mortgages in 1935 and 45 per cent. in 1936. The proportion rose to 52 per cent. in 1937 and 60 per cent. in 1938, the increases being due partly to a rapid expansion in the activities of the co-operative building societies,

which obtained a considerable amount of loans from the banks. Each of the other classes has declined in relative importance; private and other from 35 per cent. of the total in 1935 to 23 per cent. in 1938, banks from 15 per cent. to 9 per cent., and Government from 12 per cent. to 8 per cent.

The trend of interest rates on loans secured by the mortgage of real estate is shown in table 328.

The rights of mortgagees have been restricted since December, 1930, by the operation of a moratorium. Bankers' liens and liens on crops and wool do not come within its scope, nor do mortgages executed in favour of a building society or the Crown, except those under the Returned Soldiers Settlement Act or in favour of the Commissioners of the Rural Bank of New South Wales. Hire purchase agreements and judgment debts are subject to special provisions. The moratorium extends to mortgages executed both before and after the commencement of the moratorium, unless specially excluded by agreement in the prescribed form.

Without leave of the Court, a mortgagee may not exercise any of his rights for the recovery of money, or for the enforcement or realisation of the security. The mortgagee is not precluded from entering into possession without an order of the Court, if interest or rates and taxes are in arrears for at least two years, or if there has been default in insurance or maintenance, or if the mortgagor abandons possession or comes under the influence of the bankruptcy laws or their equivalent; but in any such case the mortgagor may apply within three months to the Court for an order directing the mortgagee to vacate possession.

In the case of mortgages of real estate, the moratorium extends to interest payments, and the mortgagee can only exercise his right to sue if the mortgagor relinquishes his right to protection or comes within the influence of the laws relating to bankruptcy.

The due date for payment of principal moneys was extended to 1933 by an Act passed in 1930 and further extended in 1932 to the day of the month in 1936 corresponding to the day of the month specified in the mortgage, or to 28th February, 1936, if payable on demand. Later, the due date was extended to 1940. The court may grant a further extension upon the application of a mortgagor.

PRIVATE WEALTH.

Estimates of the wealth of New South Wales at intervals since 1891 were reviewed in detail in the 1921 issue of the Year Book, and the following statement supplies a summary of the estimates relating to private wealth at ten-year intervals since 1901 and in 1925.

TABLE 365.—Private Wealth, New South Wales, 1901 to 1925.

Year.	Estimated Value.	
	Total.	Per Head.
	£	£
1901 ... ..	368,568,000	270
1911 ... ..	553,816,000	333
1921 ... ..	947,930,000	450
1925 ... ..	1,132,000,000	498

*Estates of Deceased Persons.*

Some information relating to the distribution of wealth may be gleaned from returns relating to the estates of deceased persons which are valued for the purpose of assessing death duties. In accordance with the provisions of the Stamp Duties Act the estates are deemed to include all the property of the deceased persons which is situated in New South Wales, including property which, within three years prior to death, was transferred as a gift, or vested in a private company or trust in consideration of shares or other interest, and moneys payable under life assurance policies, etc.

The following table shows the number of estates and the value as assessed for probate duty during the ten years ended 30th June, 1938, including intestate and other estates administered by the Public Trustee:—

TABLE 366.—Estates of Deceased Persons.

Year ended 30th June.	Estates.	Amount.	Year ended 30th June.	Estates.	Amount.
	No.	£		No.	£
1929	7,494	24,548,457	1934	8,636	20,096,120
1930	8,406	25,002,546	1935	8,544	20,300,912
1931	7,332	20,562,001	1936	9,644	22,263,665
1932	8,089	17,504,038	1937	9,420	23,194,706
1933	8,010	19,292,817	1938	9,904	25,776,575

A rough test of the diffusion of wealth may be made by relating the number of people who died possessed of property to the total number of deaths, as in the following statement. The figures in this and in the succeeding table are exclusive of estates administered by the Curator of Intestate Estates for the years prior to 1911. The ratios up to 1918 are based on the number of deaths and the number of estates in calendar years; and those for later periods are calculated by relating the number of deaths in each calendar year and the number of estates for which probate was granted in the twelve months ended six months later.

TABLE 367.—Ratio of Deceased Estates to Deaths.

Period.	Proportion of Deceased Persons with Estates per 100 Deaths.	Period.	Proportion of Deceased Persons with Estates per 100 Deaths.
1880-84	11·0	1920-24	29·0
1885-89	11·6	1925-29	33·3
1890-94	13·2	1930-34	37·0
1895-99	14·9	1932-37	38·5
1900-04	17·0	1934	36·4
1905-09	19·1	1935	39·3
1910-14	22·9	1936	38·6
1915-19	30·1	1937	39·2



The figures indicate a wide diffusion of property, though the deaths include those of a large number of minors at ages when the proportion of property owners is small. The next table shows the proportion of estates per 100 deaths of adult males, and, as a large number of women are possessors of property in their own right, the ratio of estates to the deaths of adults of both sexes.

TABLE 368.—Ratio of Deceased Estates to Deaths of Adults.

Period.	Ratio of Estates per 100 Deaths of Adult Males.	Ratio of Estates per 100 Deaths of Adult Males and Females.	Period.	Ratio of Estates per 100 Deaths of Adult Males.	Ratio of Estates per 100 Deaths of Adult Males and Females.
1880-84	34·6	22·3	1920-24	68·1	39·3
1885-89	37·5	23·8	1925-29	75·6	43·3
1890-94	41·2	25·8	1930-34	79·7	45·0
1895-99	42·7	26·2	1933-37	80·2	45·3
1900-04	46·0	27·8	1934	77·8	43·6
1905-09	48·8	29·2	1935	81·0	45·8
1910-14	56·6	34·0	1936	81·7	45·7
1915-19	71·3	42·1	1937	80·4	45·7

In the foregoing figures are included the estates of persons who died abroad, but not their deaths. Usually the number of such estates is not sufficient to cause an appreciable degree of error. During the war period, however, the proportions were increased considerably by reason of the inclusion of estates left by members of the naval and military forces whose deaths occurred abroad. Making due allowance for the deaths of absentees, it is apparent that the proportion of property-owners in the State has increased steadily throughout the period under review.

An indication of the proportionate distribution of wealth may be gained from an analysis of the value of the estates of deceased persons, and in the following statement the estates on which probate was granted during the ten years ended 30th June, 1938, have been graded according to value:—

TABLE 369.—Estates of Deceased Persons, Ten Years ended June, 1938, Classified according to Value.

Value of Estate.	Number of Deceased Persons leaving Property.	Value of Estates of Deceased Persons.	Proportion in each Group.	
			Number.	Value.
		£	Per cent.	Per cent.
Under £1001	52,671	17,824,650	61·62	8·16
£1001 to £5,000	24,099	52,063,074	28·09	23·82
£5001 to £12,000	5,525	42,107,173	6·46	19·27
£12,001 to £25,000	2,112	35,548,710	2·47	16·27
£25,001 to £50,000	768	26,727,023	0·90	12·23
Over £50,000	394	44,271,207	0·46	20·25
Total	85,479	218,541,837	100·00	100·00

The average value per estate during the period was £2,537, but of the property-owners who died 61 per cent. possessed less than £1,000, the total value of their property being 8 per cent. of the aggregate. Nearly half of the property devised was contained in 3.8 per cent. of the estates.

#### PRIVATE INCOMES.

Formerly the narrow scope of the State income-tax and latterly the inadequacy of statistical data made available concerning incomes assessed for purposes of State income tax rendered it impossible to formulate estimates of the national income, and, for various reasons, the information published by the Commissioner of Federal Taxation has been of very limited assistance. However, satisfactory results were obtained for the year 1920-21 by using the returns of occupations and breadwinners obtained at the census of 3rd April, 1921, in conjunction with statistics relating to income derived during the year ended 30th June, 1921, published by the Federal Commissioner of Taxation. An estimate based on these data was set forth in detail in the 1924 issue of this Year Book.

A comparative statement of estimates of the incomes in various years from 1892 to 1926 is shown below:—

TABLE 370.—Estimates of Private Incomes, New South Wales, 1892 to 1926.

Year.	Net Income of Resident Individuals.	Undistributed Income of Local Companies, etc.	Income accruing to absentees.		Private Income derived in New South Wales.
			From Private Investments and Property.	From investment in Government Loans †	
1892	£ *	£ *	£ 3,050,000	£ 1,870,000	£ 68,270,000
1898	57,649,000	2,250,000	2,530,000	1,975,000	64,404,000
1901	*	*	2,832,000	1,976,000	66,912,000
1914-15	102,100,000	*	*	3,100,000	114,100,000
1920-21	187,800,000	10,300,000	3,400,000	6,700,000	208,200,000
1925-26	234,000,000	16,500,000	3,500,000	8,100,000	262,100,000

\* Not available.

† Commonwealth and State.

The estimate of 1892 relates to a year in which the financial boom had reached its highest point and the income of that year was consequently inflated. In 1898 and 1901 the State was slowly recovering from an industrial depression consequent on the financial crisis of 1893 and a succession of adverse seasons. The income of the year 1914-15 was affected by the dislocation caused by the outbreak of war and by the occurrence of a very bad season.

The decrease in the amount of income derived in the years 1898 and 1901 as compared with 1892 may be readily understood. The subsequent increase has been partly nominal owing to depreciation in the purchasing power of money, though it is certain that the growing prosperity of the community has had a very favourable influence.

The following table shows the number of persons deriving income, their proportion to the total population of the State, and the average amount of income derived per inhabitant and per person deriving income:—

TABLE 371.—Private Incomes, Recipients and Average Income.

Year.	Resident Persons receiving Income.	Proportion of Persons receiving Income to Total Population.	Average amount of Income per person receiving Income. †	Average amount of Income per Inhabitant. †	Proportion of Total Income received by Absentees.
	No.	Per cent.	£	£	Per cent.
1892	446,190	37·4	139·8	53·8	7·2
1898	534,315	40·4	112·1	45·6	7·0
1901	*	*	*	45·4	7·2
1914-15†	788,600	41·7	138·2	57·3	*
1920-21	902,400	42·9	219·5	94·8	4·9
1925-26	995,200	42·5	251·7	108·0	4·4

\* Not available. † Excluding absentees and their income. ‡ The figures for 1914-15 relate to the incomes of persons resident in, and companies with head offices in, New South Wales.

With the growth of population the number of persons receiving income has shown a very pronounced increase and its proportion to the total population has risen steadily. This is probably due, in part, to the increase in the employment of women in commercial and industrial occupations, but it is also a consequence, in part, of the increase in the proportion of adults in the population.

Existing data as to price levels are insufficient to enable a satisfactory measure of comparison to be made between the real income of post-war and earlier years, because of the difficulty of properly assessing the effect of the inflation of prices, which reached a maximum in 1920.

The foregoing estimates represent, as nearly as may be, the sum of the net incomes derived by private individuals and by companies from sources within New South Wales. As such they contain some duplication in respect of amounts paid from the proceeds of taxation to old-age, invalid and war pensioners and to bondholders in war and other Government loans. On the other hand, appreciable amounts of income derived by the various Governments from State lands, forests and mines and from governmental business enterprises are excluded from account.

## LOCAL GOVERNMENT

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### GROWTH OF LOCAL GOVERNMENT.

THE first step towards Local Government in New South Wales may be said to have been taken in 1840, when the Parish Roads Act was passed, authorising proprietors of lands adjacent to or within 3 miles of parish roads to elect trustees, who were empowered to levy rates, establish tolls, and borrow money for making or repairing such roads and the bridges thereon.

The first area to be incorporated for local government purposes was the City of Sydney, constituted in terms of an Act passed by the Legislative Council of New South Wales in July, 1842. In this year an Act was passed by the Imperial Parliament to authorise the Governor to incorporate districts to be administered by local councils; but only a few were established prior to the enactment of the Municipalities Act, 1858.

The Municipalities Act repealed the provisions of the Imperial Act of 1842 relating to local government, and provided for the proclamation of municipalities upon the petition of the residents. This principle of voluntary incorporation was retained in subsequent legislation until the Local Government (Shires) Act was passed in 1905 and a general system of local government was introduced. By this law provision was made for the compulsory division of the State into shires—the City of Sydney and existing municipalities and the Western Division being excluded from its operation.

Subsequently the enactments relating to the local government of municipalities (except the City of Sydney) and shires were consolidated by the Local Government Act. The law relating to the City of Sydney is contained in the Sydney Corporation Act; other laws concerned with local government are the Main Roads and Gas and Electricity Acts and those relating to certain water supply and sewerage services.

Details of the development of local government in New South Wales are contained in the Year Book for 1922.

The existing system of local government extends over the whole of the Eastern and Central Land Divisions of the State, with the exception of the Australian Capital Territory. The sparsely-populated Western Division, embracing two-fifths of the area of the State, is unincorporated, with the exception of the portions included in the municipalities of Bourke, Brewarrina, Broken Hill, Cobar, Wentworth, and Wilcannia, and parts of the municipalities of Balranald and Hillston which lie within its boundaries.

Local governing areas are of two main kinds, viz., municipalities and shires. At the end of 1937 there were 170 municipalities, including the City of Sydney, and their aggregate area was 1,367,278 acres; there were 139 shires, extending over an area of about 181,874 square miles. The smallest municipality is Darlington, a suburb of Sydney, with 54 acres, and the largest is Campbelltown, 64,526 acres. The smallest shire is Woy Woy, 49 square miles, and the largest is Lachlan, with headquarters at Condobolin, 5,883 square miles. Some of the municipalities and shires have combined to form county councils for the administration of special services of common benefit. There were six county councils in existence at the end of 1937.

In this chapter the particulars relating to the City of Sydney, municipalities and shires are shown conjointly in a summarised form and separately in greater detail. In making a distinction between the metropolitan and country districts, the metropolitan district, unless otherwise specified, is the area defined by Schedule IV of the Local Government Act of 1919. It embraces the municipalities of Auburn, Bankstown, Dundas, Ermington and Rydalmere, Granville, Lidcombe, and Parramatta, and the shires of Hornsby, Sutherland, and Warringah, in addition to the City of Sydney and forty-one suburban municipalities.

### *Sydney Corporation Act.*

In terms of the Sydney Corporation Act of 1932-1934, the local government of the City of Sydney is vested in the City Council, which is composed of twenty aldermen, four for each of five wards. The aldermen are elected triennially, and the Lord Mayor is selected annually by the aldermen from their own number.

The functions of the Council include the maintenance of the streets and other public ways of the city, though the traffic is regulated by the police. The Council is empowered to levy general, special, and street watering rates; to establish public markets; to regulate street selling, the erection of hoardings, matters relating to public health and sanitation, and the inspection of food; to resume land for the purpose of remodelling or improving areas and for widening streets, etc.; to erect and let dwellings; to maintain free lending libraries; to control parks; and generally to make by-laws for the good government of the city.

The Council exercises authority to vote as a constituent council for one candidate at the election of members of the Board which administers the metropolitan water supply and sewerage services; and, at the triennial elections of members of the Board of Fire Commissioners of New South Wales, to vote at the election of one member to represent the City of Sydney and the councils of the suburban municipalities.

Authority to generate and supply electricity for public and private uses, which was exercised since 1904, was transferred on 1st January, 1936, to the Sydney Council Council, of which two members are elected by the City Council.

The right to be enrolled as a voter at elections of the City Council extends to adult British subjects by reason of (a) the ownership or (b) the occupation of property. The qualification of ownership is held by persons who own a freehold interest in possession of property of a yearly value of £5 and upwards in any ward, or a leasehold interest in property of a yearly value of £25 and upwards. A person with this qualification may be placed on the roll for every ward in which he is so qualified, but may not then be enrolled in any ward by virtue of any other qualification.

The qualification by reason of occupation is held in respect of a ward by those who have occupied continuously for a period of twelve months a house, shop, or other building of a yearly value of £26 in that ward, also by lodgers who have occupied lodgings of a yearly value of £26 for a period of twelve months continuously in the same dwelling-house in the ward. The period of residence in a ward is three months for a person who, in the war, served outside Australia with the Commonwealth forces. In the case

of joint occupation as lodger or otherwise, only one occupier may be placed on the roll for every £26 of the annual value of the premises. Any such person may be placed on the roll for one ward only, and if he has more than one such qualification he may choose the roll on which his name shall be placed.

Yearly value, in respect of qualification by occupancy, as stated above, means unfurnished value of property and lodgings. Where property or lodgings are let furnished, the unfurnished value is reckoned at four-fifths of amounts paid for the lodgings calculated on an annual basis. The proportion is three-fifths of the amounts paid for lodgings, whether furnished or unfurnished, and partial board, and two-fifths of amounts paid for lodgings and full board.

Enrolment entitles the elector to one vote in each ward in which he is enrolled. Any person qualified to vote is eligible for election as an alderman unless disqualified under the provisions of the Sydney Corporation Act.

#### *System under Local Government Act.*

The Local Government Act of 1919 and its amendments, with ordinances thereunder, are administered by the Minister for Works and Local Government, who is in charge of a State Department. Each municipality or shire is governed by a council, which is elected for a term of three years.

A municipal council must consist of not less than six nor more than fifteen aldermen, and a shire council of not less than six nor more than nine councillors, each riding being represented by an equal number of councillors. Each municipal council elects a mayor annually from amongst its members, and each shire council a president. A council may pay to its members reasonable out-of-pocket expenses for travelling, and may pay an allowance to its mayor or president, but otherwise the services of aldermen and councillors are gratuitous.

Every adult natural-born or naturalised British subject of either sex is qualified to be enrolled as an elector, provided he or she is either a land-owner, a rate-paying lessee, or has been continuously for the three months preceding the day prescribed for enrolment an occupier of ratable land of the yearly value of £5 or upwards, or of land by virtue of a miner's right or business license, or is in occupation of Crown land and pays rent. By the Local Government (Amendment) Act, 1927, the franchise was extended to all adult residents of a ward or riding who had been residing there continuously for a period of six months, but in terms of a further amending Act, passed in 1934, the period of residence was extended to twelve months.

Persons may be enrolled and may vote in respect of each ward or riding in which they are qualified as owners or as rate-paying lessees, but not more than once in respect of the same ward or riding. A person qualified as owner or as rate-paying lessee in a ward or riding who is qualified also as an occupier in another ward or riding of the same municipality or shire may not be enrolled under both qualifications. He may choose the ward or riding in which he desires to be enrolled, and failing due notice of his choice he is enrolled where he is qualified as owner or lessee. A person qualified as occupier in more than one ward or riding may be enrolled in one only.

Unless disqualified by the Act, every elector is qualified for a civic office. The councils exercise extensive powers for the care of public health and sanitation, the supervision of roads and streets, and places of public recreation, etc.; they were described in detail in the 1922 issue of the Year Book at page 332.

A new municipality may not be constituted unless its proposed area contains a population of 3,000 people with a density of one person per acre, and has an unimproved capital value which, when levied at the rate of 3d. in the £, would yield a sum of £3,000. The union of existing municipalities or shires is not prevented by non-compliance with these requirements.

A municipality may be proclaimed under the Local Government Act as a city if it is an independent centre of population with an average population of at least 15,000 people, and has an average annual income of at least £20,000. Broken Hill (in 1907) and Parramatta (in 1938) were proclaimed under the Local Government Act. Sydney, Armidale, Bathurst, Goulburn, Grafton, and Newcastle were proclaimed as cities under earlier Acts.

In the shires, urban areas may be established upon proclamation by the Governor if the majority of the electors in the locality favour the project. In such cases the council of the shire exercises within each urban area the powers of the council of a municipality. Except in the shires of Hornsby, Sutherland, and Warringah, urban committees may be appointed to exercise within the urban areas certain powers of the council, and to expend money raised by a local rate levied by the council upon the request of the urban committee. In March, 1938, there were 31 such committees.

In some cases boards or trusts have been constituted under special Acts to conduct operations which are regarded usually as belonging to the sphere of local government. A brief description of their activities is given later.

Provision is made for joint action by local governing bodies in regard to undertakings of magnitude or those which benefit more than one area. For such purposes county councils may be constituted in terms of the Local Government Act, or joint committees may be arranged under the ordinances.

Any group of local areas or of parts thereof may be constituted by proclamation as a county district, in which a county council, consisting of delegates from the areas concerned, exercises such powers as may be delegated to it. At the end of 1937 six county councils were in existence. Of these, four conducted electricity undertakings, viz., Sydney, St. George, Clarence River and Bega Valley.

The Richmond River County Council was established for the eradication of the water hyacinth pest, and the Eastern Riverina County Council for the destruction of noxious weeds.

#### *Greater Newcastle Area.*

The City of Greater Newcastle was formed on 2nd April, 1938, by the union of the City of Newcastle with ten suburban municipalities and portions of two shires. The affairs of the city are governed by the Greater Newcastle Council, which is composed of twenty-one aldermen. The city is divided into seven wards and each ward is represented by three aldermen.

In addition to functions under the Local Government Act performed previously by the uniting councils, the Greater Newcastle Council assumed control of the Newcastle District Abattoirs as from 1st April, 1939. Formerly this undertaking was under the management of a special board.

Provision is made also whereby the Governor, by proclamation, may vest in the council the Government transport services conducted in the Newcastle Transport District and the control and regulation of privately-owned motor omnibus services and vehicles plying for hire. The power of the Governor to issue a proclamation in this respect may be exercised only in response to a proposal submitted by the Greater Newcastle Council.

The council may delegate its powers and duties to standing or special committees, except its power to borrow, levy rates, execute deeds or contracts or institute legal proceedings. Persons who are not aldermen may be appointed to committees, and may take part in deliberations, but they are not entitled to vote.

#### EXTENT OF LOCAL GOVERNMENT.

Prior to 1906, when the shires were constituted, the extent of the local governing areas was only 2,830 square miles. At the end of 1937 the incorporated area was about 184,000 square miles, or nearly 60 per cent. of the total area of the State (309,432 square miles). The population in municipalities and shires as at 31st December, 1937, was 2,686,210, or 99 per cent. of the total population.

The area, population, and unimproved capital value of ratable property in the incorporated areas as at 31st December, 1937, are stated below:—

TABLE 372.—Municipalities and Shires, Area, Population and Unimproved Value of Ratable Property, 1937.

Local Areas.	Area.	Population.	Unimproved Capital Value. †
Metropolitan Area—	acres.	No.	£
City of Sydney ... ..	3,220	88,270	47,822,749
Other Municipalities ... ..	152,073	1,181,860	91,731,130
Shires ... ..	283,700	56,430	7,401,122
Total, Metropolitan* ... ..	438,993	1,326,560	146,955,001
Country—			
Municipalities... ..	1,211,985	591,710	32,117,399
Shires ... ..	116,115,840	767,940	131,985,760
Total, Country ... ..	117,327,825	1,359,650	164,103,159
Grand Total ... ..	117,766,818	2,686,210	311,058,160

\* Schedule IV, Local Government Act, 1919. † Excluding non-ratable properties (see page 445).

The area of the country shires as shown above is exclusive of 28 square miles of Federal Territory at Jervis Bay, and the Australian Capital Territory, containing an area of 912 square miles.

The improved capital value of ratable property in the City of Sydney, as at 31st December, 1937, was £150,839,540, and the assessed annual value £6,787,727. In the other municipalities included in the metropolitan area,



as defined by Schedule IV of the Local Government Act, the improved capital value was £275,906,008 and the assessed annual value £20,745,753. In the three shires in the metropolitan area the corresponding values were improved £17,800,503, and assessed annual £1,106,152, so that the improved capital value of the metropolitan area was £444,546,051 and the assessed annual value £28,639,632. In the country municipalities the improved value was £110,424,971, and the assessed annual value £8,612,979. Similar particulars are not available for the country shires.

The financial position of the municipalities, shires and county councils in 1937 was as follows:—

TABLE 373.—Municipalities, Shires and County Councils, Finances, 1937.

Local Areas.	Total Revenue.			Total Expenditure.	Total Liabilities.	Total Assets.
	Rates Levied.	Other.	Total.			
Municipalities and Shires—	£	£	£	£	£	£
City of Sydney ...	1,000,608	311,613	1,312,221	1,349,739	12,270,900	13,603,512
Suburban Municipalities...	1,999,867	1,335,131	3,334,998	3,568,918	6,636,710	4,439,807
Metropolitan Shires ...	153,293	278,872	432,165	405,967	1,031,622	904,813
Total, Metropolitan*	3,153,768	1,925,616	5,079,384	5,324,624	19,939,232	19,038,132
Country Municipalities ...	1,168,020	2,841,713	4,010,333	3,804,560	8,770,183	13,524,600
Country Shires ...	1,227,044	2,751,850	3,979,494	4,120,925	2,622,853	3,828,322
Total, Country ...	2,396,264	5,593,563	7,989,827	7,925,485	11,393,036	17,352,922
Total, Municipalities and Shires ...	5,550,032	7,519,179	13,069,211	13,250,109	31,332,268	36,391,054
County Councils† ...	6,415	3,045,354	3,051,769	2,967,356	16,220,482	19,107,691
Grand Total ...	5,556,447	10,564,533	16,120,980	16,217,465	47,552,750	55,498,745

\* Schedule IV, Local Government Act, 1919. † Including Grafton and South Grafton Water Board.

The revenue classified under the heading "Other" is derived largely from business undertakings, such as electricity services, etc., and includes substantial sums received from the State Government. Particulars of these and of the operations of individual councils are published annually in the Statistical Register of New South Wales, and further data in summarised form are quoted on later pages of this chapter. The revenue and expenditure shown above include the main roads and harbour bridge rates, collected by the councils for the authorities administering the main roads and the Harbour Bridge.

#### VALUATION OF PROPERTY IN LOCAL AREAS.

Local governing bodies obtain a large amount of revenue from the taxation which they are empowered to levy upon unimproved or improved values of land. Because the values are subject to continuous change it is necessary that periodic valuations be made of all ratable property.

The valuations are made at intervals not exceeding three years. They were made by valuers appointed by the councils until the system was changed by the Valuation of Land Act, 1916. This Act provides for the centralisation of valuations, and a Valuer-General was appointed by the Governor with power to assess values within the municipalities, the shires situated wholly or partly within the county of Cumberland and the Blue

Mountains shire. In other shires the council may decide whether the valuation is to be made by the Valuer-General or by its own valuers. When the Valuer-General has delivered a valuation list all rates and taxes must be based thereon, but a council may ask him to revalue any land. Valuations either by the Valuer-General or the councils' valuers are subject to appeal to the Land and Valuation Court, described in the chapter of this Year Book relating to "Law Courts."

At 30th June, 1938, the valuations in force in 119 municipalities, 49 shires and portion of Lyndhurst shire were made by the Valuer-General, and in 51 municipalities, 89 shires, and the balance of Lyndhurst shire by valuers appointed by the councils. All districts in the county of Cumberland except the City of Sydney have been valued by the Valuer-General.

In municipalities the valuation must show the unimproved capital value, the improved capital value, and the assessed annual value of ratable property. In the shires the law requires the valuation of the unimproved capital value only, the determination of the improved capital value and of the assessed annual value being optional, except in urban areas, in which the assessed annual value must be determined. The Valuer-General usually determines such values for shires within his jurisdiction.

The unimproved capital value is defined, in both the Local Government Act and the Valuation of Land Act, as the amount for which the *fee-simple* estate in land could be sold under such reasonable conditions as a *bona-fide* seller would require assuming that the actual improvements had not been made.

The Valuer-General's valuations cover all land except Commonwealth properties, reserves, parks, etc., and unoccupied Crown lands; and the values are on a freehold basis. For purposes of rating, however, the unimproved capital value of Crown lands occupied as pastoral or agricultural holdings is twenty times the rent payable to the Crown during the year preceding the assessment. After the expiry of ten years of the term of leases, lands leased from the Crown with right of conversion to freehold are rated on thirty times the annual rental paid.

As an alternative method of valuation a council, at its discretion, may direct that the unimproved capital value of mines be ascertained upon the basis of output, as follows:—

- (1) *Coal and Shale Mines*.—A sum equal to 3s. per ton of large coal and shale, and 1s. 6d. per ton of small coal, on the average annual output during the preceding three years.
- (2) *Other Mines*.—A sum equal to 20 per cent. of average annual value of ore or mineral won during the preceding three years.

In the case of idle or undeveloped mines the unimproved capital value may be calculated by multiplying the annual rental, if any, by twenty.

The improved capital value is the amount for which the *fee-simple* estate of the land, with all improvements and buildings thereon, could be sold.

The assessed annual value is nine-tenths of the fair average rental of land, with improvements thereon, but must not be less than 5 per cent. of the improved capital value.

All lands in the City of Sydney and in the municipalities and shires under the Local Government Act are ratable except the following, viz., lands belonging to the Commonwealth Government; lands belonging to the State Government and statutory bodies, unless leased for private purposes or used in connection with a State industrial undertaking; lands vested in the Crown or public body or trustees and used for public cemeteries, commons, reserves or free libraries; lands vested in and used by the University of Sydney or any of its colleges; lands belonging to and used for public hospitals, benevolent institutions or charities; lands belonging to and used by religious bodies for public worship, religious teaching or training, or solely for the residences of the official heads or clergymen; lands belonging to and used for schools registered under the Bursary Endowment Act, 1912, or certified under the Public Instruction (Amendment) Act, 1916, including playgrounds and residences occupied by caretakers, servants and teachers.

Where water is supplied or sewerage or drainage services are rendered, a charge or fee may be imposed in respect of properties thus exempted from rating. The underground mains of the gas and hydraulic power companies are ratable, and in respect of some of its properties the Commonwealth Government makes a contribution to councils' funds in lieu of rates.

In the following table are shown the aggregate valuations used for assessing rates on ratable property and the value of improvements in local government areas in the year 1937. Complete data as to the value of improvements in shires are not available because only a few of the country shires record the improved capital or assessed annual value, but for the purpose of completing the table, it has been assumed that, in the aggregate, improvements in country shires are equal to the unimproved value.

TABLE 374.—Municipalities and Shires, Ratable Property, Unimproved Value, and Value of Improvements, 1937.

Division.	Unimproved Value of Ratable Land.			Value of Improvements on Ratable Land.		
	Total. †	Average Per Head.	Average Per Acre.	Total. †	Average Per Head.	Average Per Acre.
Metropolitan—	£000	£	£ s.	£000	£	£ s.
City of Sydney ...	47,823	542	14,851 16	103,017	1,167	31,992 16
Other Municipalities	91,731	78	603 4	184,175	156	1,211 2
Shires ...	7,401	131	26 2	10,399	184	36 13
Total, Metropolitan	146,955	111	334 15	297,591	224	677 18
Country—Municipalities	32,117	54	26 10	78,308	132	64 12
Shires ...	131,986	172	1 3	*131,986	172	1 3
Total Incorporated Areas ...	311,058	116	2 13	*507,885	189	4 6

\* Estimated.

Lands leased from the Crown and assessed on a capitalised rental basis are included above at such capitalised value.

The unincorporated portion of the Western Division contains about 80,000,000 acres, of which 78,000,000 acres are pastoral or agricultural lands held under lease from the Crown at annual rentals. The unimproved capital value of these leaseholds assessed at twenty times the annual rent payable to the Crown would not exceed £3,000,000.

A comparative summary of the unimproved and improved capital values, and the assessed annual value of ratable property, excluding lands coming within the exemptions noted above, is shown in the following statement.

TABLE 375.—Municipalities and Shires, Valuations of Ratable Property, 1921 to 1937.

At 31st December.	Metropolitan.				Country.		Total.
	City of Sydney.	Other Municipalities.	Shires.	Total.	Municipalities.	Shires.	
	£000.	£000.	£000.	£000.	£000.	£000.	£000.
Unimproved Capital Value.							
1921	35,887	57,291	4,875	98,053	27,005	123,398	248,456
1925	45,056	80,253	6,840	132,749	31,894	137,585	302,228
1929	60,983	110,157	9,089	180,229	40,214	157,569	378,012
1930	60,896	118,852	10,218	189,966	40,673	158,636	389,275
1931	56,961	118,250	10,224	185,435	40,786	152,516	378,737
1932	48,910	100,580	8,713	158,209	34,766	140,136	333,111
1933	48,930	94,174	7,848	150,952	32,213	135,852	319,017
1934	45,979	91,681	7,689	145,349	30,699	134,100	310,148
1935	45,891	90,946	7,314	144,151	30,216	131,705	306,072
1936	45,799	90,367	7,389	143,555	31,037	131,824	306,416
1937	47,823	91,731	7,401	146,955	32,117	131,986	311,058
Improved Capital Value.							
1921	99,647	156,849	*9,760	266,246	74,565	†	†
1925	151,367	233,013	*13,412	398,692	96,327	†	†
1929	193,989	309,864	*17,908	521,851	123,653	†	†
1930	221,857	330,381	20,484	572,722	128,768	†	†
1931	192,194	334,391	20,659	547,244	131,553	†	†
1932	154,595	294,576	18,913	468,084	114,959	†	†
1933	143,791	280,854	17,826	442,471	109,026	†	†
1934	137,272	275,461	17,788	430,521	104,911	†	†
1935	139,587	271,062	17,353	428,002	104,049	†	†
1936	139,818	275,031	17,642	432,491	106,806	†	†
1937	150,840	275,906	17,800	444,546	110,425	†	†
Assessed Annual Value.							
1921	4,484	10,718	*614	15,816	5,355	†	†
1925	6,811	17,535	*845	25,191	7,324	†	†
1929	8,344	23,676	*1,134	33,154	9,690	†	†
1930	9,554	25,246	1,300	36,100	10,310	†	†
1931	8,253	25,690	1,306	35,249	10,278	†	†
1932	6,464	21,868	1,176	29,508	8,942	†	†
1933	6,471	20,400	1,090	27,961	8,362	†	†
1934	6,146	19,909	1,090	27,145	7,982	†	†
1935	6,204	19,805	1,067	27,166	8,026	†	†
1936	6,292	19,873	1,088	27,253	8,260	†	†
1937	6,788	20,746	1,106	28,640	8,613	†	†

\* Partly estimated.

† Not available.

There was a marked increase in values between 1921 and 1930. The increase, except in the City of Sydney, was due in part to the change in the basis of valuation, as the Valuer-General extended his operations to more and more areas formerly assessed by the councils' valuers. It is apparent, however, that there was a rapid appreciation in the value of property due to industrial development, high prices realised for rural products, and active investment. The proportionate increase in unimproved values was 70 per cent. in the City of Sydney, 108 per cent. in other metropolitan areas and 33 per cent. in the country. There was even greater relative growth in improved values, viz., 123 per cent. in the City of Sydney and 111 per cent. in the other metropolitan areas.

In 1932 a large number of Crown and other properties were exempted from rating and were excluded from the valuation lists of that year. Therefore the decline in 1932 was not as great as indicated by the figures in the table. Valuations are made usually at triennial intervals, and the values shown above do not indicate the actual changes in the value of real property in each year, but rather the trend over a longer period.

The ratio of assessed annual value to improved capital value in 1937 was 4.5 per cent. in the City of Sydney, 7.4 per cent. in other metropolitan areas, and 7.8 per cent. in country municipalities. As the assessed annual value is nine-tenths of the actual annual value, the proportions per cent. of annual value to improved value were 5 per cent., 8.2 per cent., and 8.7 per cent., respectively.

It is the practice in the City of Sydney to derive the aggregate improved capital value of properties by capitalising the fair average rental at 5 per cent. For this reason the ratio of the assessed annual to the capital values of city properties is lower than the ratios for properties in suburban and country municipalities.

Variations in value of improvements, ascertained by deducting the unimproved from the improved values, are indicated hereunder at intervals since 1921:—

TABLE 376.—Municipalities and Shires, Ratable Property, Value of Improvements, 1921 to 1937.

Areas.	Value of Improvements on Ratable Lands.						
	1921.	1930.	1931.	1932.	1935.	1936.	1937.
Metropolitan—	£000	£000	£000	£000	£000	£000	£000
City of Sydney ...	63,760	160,961†	135,233	105,685	93,696	94,019	103,017
Other Municipalities	99,558	211,529	216,141	193,990	180,116	184,664	184,175
Shires*... ..	4,875	10,266	10,435	10,200	10,039	10,253	10,399
Total, Metropolitan	168,193	382,756	361,809	309,875	283,851	288,936	297,591
Country							
Municipalities ...	47,560	88,095	90,767	80,193	73,832	75,769	78,308
Total Municipalities and Metropolitan Shires ... ..	215,753	470,851	452,576	390,068	357,683	364,705	375,899

\* Hornsby, Sutherland, and Warringah Shires.

† Based on unimproved values assessed in 1927, and improved values assessed in 1930.

#### RATING BY LOCAL GOVERNING BODIES.

The City of Sydney, the municipalities and shires operating under the Local Government Act, and special boards constituted to administer water, sewerage and drainage works, levy rates within the areas served by them. The amount of rates levied by the councils and the boards during each of the past five years is shown in tables 252 and 253 of this Year Book, where local rating is considered conjointly with other forms of taxation imposed in the State.

Levies by councils include rates for general, special and local purposes, for the payment of interest and instalments of principal on loans and contributions to the Government on account of the Harbour Bridge and

main roads. The following table shows the total amount of such rates levied by the City of Sydney and other municipalities and the shires in various years since 1921 according to the purposes for which the rates were levied; *i.e.*, ordinary services, trading, and water and sewerage undertakings. In the rates for ordinary services are included rates levied for the purposes of the general fund, and special and local rates imposed in relation to functions which are similar to those of the general fund; *e.g.*, roads, health, street lighting, etc.

TABLE 377.—Municipalities and Shires, Rates Levied, 1921 to 1927.

Year ended 31st December.	Rates Levied.					Total.
	Ordinary Services.	Electricity Fund.	Gas Works Fund.	Water Supply Fund.	Sewerage Fund.	
	£	£	£	£	£	£
1921	3,461,477	23,535	4,698	111,767	36,305	3,637,782
1926	4,795,417	88,781	5,126	156,646	46,529	5,092,499
1929	6,127,780	95,078	5,386	222,425	68,103	6,518,775
1930	6,416,196	92,669	4,354	238,037	80,866	6,832,122
1931	5,829,864	86,326	4,631	251,904	81,955	6,254,680
1932	5,238,107	70,917	4,137	242,505	87,964	5,643,630
1933	4,994,470	64,894	3,135	249,438	83,691	5,395,628
1934	4,917,642	54,425	2,016	256,925	95,139	5,326,147
1935	4,920,632	51,154	2,292	248,828	100,280	5,323,186
1936	4,987,600	47,732	2,526	260,318	109,786	5,407,962
1937	5,106,716	44,851	2,864	269,802	125,799	5,550,032

The amount of rates levied in various groups of local areas, *viz.*, the City of Sydney, the suburban and country municipalities and the shires is shown in later tables. The amount per head of population within the whole of the incorporated area was £1 14s. 5d. in 1921, £2 14s. 11d. in 1930 and £2 1s. 4d. in 1937. The amount per head of population in 1921 was £1 18s. 8d. in the metropolitan municipalities (including the City of Sydney), £1 11s. 1d. in the country municipalities and £1 10s. 7d. in the shires. Corresponding amounts per head were £3 0s. 1d., £2 9s. 9d. and £2 9s. 6d., respectively, in 1930; and £2 7s. 3d., £1 19s. 6d. and £1 13s. 6d. in 1937.

#### *City of Sydney—Rating.*

In 1916 the City Council adopted the principle, embodied in the Local Government Act of 1906, of levying rates for general expenditure upon the unimproved value. Formerly the rates had been levied on the annual rental, with an additional rate since 1909 on the improved capital value. The Sydney Corporation Act prescribes that the Council must levy in each year a general rate of not less than one penny in the £ on the unimproved capital value. The Council may levy also a city rate not exceeding 2s. in the £ on the assessed annual value. The limit of rating is fixed by the amount which would be yielded by a rate of 3d. in the £ on the unimproved capital value and a rate of 2s. in the £ on the assessed annual value. Where a city rate is not levied, the maximum rate is 6d. in the £ on the unimproved capital value. In 1916 the council was authorised to collect rents in respect of gas and hydraulic mains, etc., in the streets, which cannot be assessed on the basis of unimproved value.

Rates in respect of the Sydney Harbour Bridge were first levied in 1923 and rates on account of contributions to the funds of the Main Roads Department in 1925. The Harbour Bridge rate was  $\frac{1}{2}$ d. in the £ of unimproved capital value in the years 1923 to 1932 inclusive. It was reduced

to  $\frac{1}{3}$ d. in 1933 and to  $\frac{2}{3}$ d. in 1936, and was finally abolished at the end of 1937. The main roads levy in the City of Sydney was at the rate of  $\frac{1}{4}$ d. in the £ from 1925 to 1932 and at the rate of  $\frac{7}{32}$ d. from 1933 until discontinued at the end of 1937.

The following table shows the rates struck and the total amounts levied by the City Council annually in 1925 and each of the last nine years:—

TABLE 378.—City of Sydney, Rates Levied, 1925 to 1937.

Year.	City Fund.		Main Roads Rates.	Harbour Bridge Rates.	Total Rates Levied.
	Rate struck in the £ on U.C.V.	Total Amount Levied.			
	pence.	£	£	£	£
1925 ... ..	3½	652,397	*46,600	93,199	792,196
1929 ... ..	†3½	†896,005	63,107	126,270	1,085,382
1930 ... ..	†3½	†959,400	63,068	126,310	1,148,778
1931 ... ..	3¾	904,769	59,273	118,888	1,082,930
1932 ... ..	4½	906,628	48,920	98,990	1,054,538
1933 ... ..	4½	911,381	43,010	66,048	1,020,439
1934 ... ..	4½	880,885	41,640	63,387	985,912
1935 ... ..	4½	878,500	41,593	63,358	983,451
1936 ... ..	4½	874,415	41,636	42,278	958,329
1937 ... ..	4½	912,885	43,516	44,207	1,000,608

\* Approximate. † Exclusive of  $\frac{1}{4}$ d. for Main Roads; covered by the City Fund Rate which was  $3\frac{1}{4}$ d. in 1929 and 4d. in 1930.

The City Fund rate struck in 1937 was  $4\frac{1}{2}$ d. in the £, which, with levies in respect of the Harbour Bridge and main roads, as indicated above, made a total of  $4\frac{2}{2}\frac{7}{8}\frac{1}{8}$ d in the £. In 1938 the Harbour Bridge and Main Roads rates were discontinued, but the City Fund rate was increased to  $4\frac{2}{2}\frac{7}{8}$ d. in the £. This rate was levied also in 1939.

#### Suburban and Country Ratings.

Suburban and country municipalities may levy rates of four kinds, viz., general, special, local, and loan rates, and some of them may be required to levy special rates in respect of main roads. In a few suburban municipalities the Sydney Harbour Bridge rate was levied in the years 1923 to 1937.

A general rate of not less than 1d. in the £ must be levied on the unimproved capital value, but if this minimum rate is more than sufficient to meet the requirements of the area the Government may allow the council to levy a lower rate. The maximum amount leviable in a municipality is limited as follows:—(a) For the general rate alone—the amount yielded by a rate of 2d. in the £ on the unimproved capital value and 1s. 6d. on the assessed annual value taken together; (b) the total of all rates (except water local and sewerage local rates) the yields of 2d. on the unimproved capital value and 2s. on the assessed annual value; (c) water local rate alone or sewerage local rate alone, the yield of 2s. in the £ on assessed annual value of land ratable to the local fund. A general rate exceeding 3d. in the £ on unimproved capital value may not be levied in municipal areas upon a mine worked for minerals other than coal or shale. In special cases where the rate as stated above would yield less than the amount required for the purposes of the rate, the Governor may alter the limit by proclamation.

In municipalities situate wholly outside the county of Cumberland differential general rates are leviable in respect of urban farm lands and other lands. Urban farm land is ratable land which is valued as one assessment, exceeds 5 acres in area and is used by the occupier for pastoral, dairying, fruit-growing, agricultural, or similar purposes. The maximum general rate which may be levied thereon may not exceed (a) one-half of the general rate levied on other lands in the municipality, or (b) the general rate levied by an adjoining shire, whichever is the greater. The minimum general rate may not be less than one penny on the unimproved value. The Governor may by proclamation extend the operation of this provision to municipalities situate wholly or partly within the county of Cumberland.

The general rate has been levied on the unimproved capital value since 1908, and, with few minor exceptions, the unimproved capital value forms the basis on which special, local and loan rates are levied.

The following table shows for various years since 1908 the unimproved capital value, rates levied and rates and extra charges on overdue rates collected in metropolitan (except the City of Sydney) and country municipalities:—

TABLE 379.—Suburban and Country Municipalities, Rates Levied and Collected, 1908 to 1937.

Year.	Unimproved Capital Value. (Ratable.)	Rates Levied.		Rates and Extra Charges Collected.		
		Amount.	Average per £ of U.C.V.	Amount.	Ratio to—	
					Rates and Charges Levied.	Rates and Charges Collectable.
<b>METROPOLITAN MUNICIPALITIES (Except Sydney).</b>						
	£000.	£	d.	£	Per cent.	Per cent.
1908...	25,210	350,324	3-34	346,766	98-55	85-25
1916...	37,331	685,625	4-41	682,323	99-00	90-73
1921...	54,730	1,140,720	5-00	1,148,855	99-81	91-45
1926...	80,942	1,834,838	5-44	1,838,125	99-39	92-17
1929...	110,157	2,483,550	5-41	2,500,345	99-84	91-95
1930...	118,852	2,641,953	5-34	2,501,113	93-59	86-51
1931...	118,250	2,497,057	5-07	2,131,131	83-60	72-51
1932...	100,586	2,132,553	5-09	2,009,476	92-03	67-17
1933...	94,174	2,016,141	5-14	1,969,055	95-02	64-47
1934...	91,681	1,970,006	5-16	2,058,392	101-59	66-16
1935...	90,946	1,963,988	5-18	2,071,590	102-80	67-52
1936...	90,367	1,994,540	5-30	2,108,951	103-28	69-41
1937...	91,731	1,599,867	5-23	2,107,611	103-12	70-88
<b>COUNTRY MUNICIPALITIES.</b>						
	£990.	£	d.	£	Per cent.	Per cent.
1908...	18,695	268,736	3-45	267,495	99-12	71-25
1916...	20,767	432,929	5-00	428,954	98-37	80-77
1921...	27,005	715,261	6-36	717,871	98-89	83-28
1926...	34,028	987,436	6-96	988,320	98-90	85-95
1929...	40,215	1,270,305	7-58	1,245,238	96-72	83-76
1930...	40,673	1,321,861	7-80	1,236,658	91-93	77-94
1931...	40,786	1,254,632	7-38	1,093,373	85-01	66-82
1932...	34,766	1,149,247	7-93	1,072,892	90-85	62-24
1933...	32,213	1,094,224	8-15	1,058,248	93-81	59-49
1934...	30,699	1,088,795	8-51	1,112,446	99-09	60-35
1935...	30,216	1,081,321	8-59	1,128,399	101-72	61-47
1936...	31,037	1,124,673	8-70	1,163,658	100-63	62-46
1937...	32,117	1,168,620	8-72	1,219,119	101-71	63-96



The amount of rates levied increased in both suburban and country municipalities until 1930, and declined in the next five years. There were small increases in 1936 and 1937. The increase up to 1930 was due partly to higher rating, and partly to a rapid appreciation of unimproved capital values, especially in the metropolitan area. The shrinkage of unimproved value of ratable property in the suburban municipalities after 1931 was accompanied by a slight decline in the average rate levied. In the country municipalities the average rate declined in 1931, but it regained its former level in 1932 and has risen in each subsequent year.

The rates levied in the suburban municipalities in 1937 consisted of general rates £1,740,884, or 87 per cent. of total rates, and special, local and loan rates £253,983, or 13 per cent. The special, local and loan rates have been declining absolutely and relatively for some years, as they have been merged with the general rate. In the country municipalities the councils frequently undertake the supply of electricity and water and sewerage services, which are provided by special bodies in the metropolitan area. Consequently the proportion of special, local and loan rates is much greater in the country, where general rates amounted to £670,161, or 57.4 per cent. of the total in 1937, and special, local and loan rates to £498,459, or 42.6 per cent.

The amount of rates levied represents the amount taken to account by councils as revenue, after deductions from current assessments in respect of reductions of valuations on appeals and amounts written off as irrecoverable. Prior to the depression all but a small proportion of the rates levied and extra charges in the form of interest on overdue rates were collected in each year. The proportion declined sharply between 1929 and 1931, but increased as economic conditions improved.

The expansion in arrears of rates in suburban municipalities between 1929 and 1933 and the subsequent reduction are reflected in the changes in the ratio of rates and charges collected to those collectable. The total amount outstanding in these areas was £218,935 in 1929, £1,085,113 in 1933, and £865,688 in 1937. Similarly arrears in country municipalities increased from £241,487 to £730,959 between 1929 and 1934 and declined to £687,004 in 1937. A small amount of the decline was due to the amalgamation of municipalities with shires.

#### *Shire Ratings.*

In the shires the rates which may be levied are similar to those in municipalities. They are levied upon the unimproved capital value except in a few cases where a small special rate has been imposed on the improved value. The minimum general rate is the same as in the municipalities and the maximum amounts leviable are as follow:—(a) For the total of the general rate only—the sum yielded by a rate of 2d. in the £ on the unimproved capital value of all ratable land in the shire; (b) for the total of all rates in urban areas (other than general, water local, and sewerage local) the yield of 2s. in the £ on the assessed annual value of ratable land in the urban area; (c) the total of water local alone or sewerage local alone, the yield of 2s. in the £ on assessed annual value. As in municipalities the limit may be altered by proclamation if after inquiry it appears necessary for the purposes of the rate.

Particulars relating to rates levied and collected in the shires in various years since 1907, the first year the shires were in operation, are shown in the following table:—

TABLE 380.—Shires, Rates Levied and Collected, 1907 to 1937.

Year.	Unimproved Capital Value. (Ratable).	Rates Levied.		Rates and Extra Charges Collected.		
		Amount.	Average per £ of U.C.V.	Amount.	Ratio to—	
					Rates and Charges Levied.	Rates and Charges Collectable.
	£000.	£	d.	£	Per cent.	Per cent.
1907	81,527	287,635	0·85	226,678	78·81	78·81
1916	105,698	651,437	1·48	654,434	100·10	92·30
1921	130,834	1,034,147	1·90	1,031,688	98·86	90·58
1926	154,614	1,474,857	2·29	1,476,534	99·11	88·38
1929	166,658	1,679,538	2·42	1,664,788	98·01	85·98
1930	168,854	1,719,530	2·44	1,585,702	90·69	78·50
1931	162,740	1,420,061	2·09	1,241,198	85·02	65·53
1932	148,849	1,307,292	2·11	1,250,147	93·10	62·64
1933	143,700	1,264,824	2·11	1,255,304	96·41	61·30
1934	141,789	1,281,434	2·17	1,277,324	96·79	60·48
1935	139,018	1,294,426	2·23	1,335,431	99·82	61·34
1936	139,213	1,330,420	2·29	1,394,729	101·96	63·10
1937	139,387	1,380,937	2·38	1,438,320	101·55	64·68

The level of rating increased until 1930, by reason of higher valuations and an increase in the average rate per £ of unimproved capital value. Then the yield of rates began to decline owing to a shrinkage in unimproved values and a slight reduction in the average rate levied. Since 1933 there have been small increases in the average rate and the yield.

The rates levied by the shires in 1937 consisted of general rates £1,131,476 and special, local and loan rates £249,461, the respective proportions being 81·9 per cent. and 18·1 per cent. Arrears of rates and extra charges increased from £237,612 at the end of 1928 to £841,730 in 1935, and declined to £785,509 in 1937. The movement has been affected to a small extent by amalgamations of municipalities with existing shires.

#### *Main Roads and Harbour Bridge Rates.*

In terms of the Main Roads Act the municipal and shire councils, except the Council of the City of Sydney, which was exempted at the end of the year 1937, may be required to contribute towards the cost of the main roads which are under the control of the Department of Main Roads. For the purpose of the contributions the councils in the metropolitan road district levy a rate and pay the proceeds to the Department. The contribution by each council is calculated at a uniform rate on the unimproved capital

value of ratable property in their areas, as fixed by the Department of Main Roads. The rate may not exceed  $\frac{1}{2}$ d. in the £ on ratable property and the rate on farming lands may be reduced to one-half of the rate on other lands. During the years 1925 to 1932 the ordinary rate was  $\frac{3}{4}$ d. in the £ and the rate on farming lands was  $\frac{1}{4}$ d., and these were reduced in 1933 to  $\frac{7}{16}$ d. and  $\frac{7}{32}$ d., respectively. While the City Council was required to contribute to the main roads funds, viz., from 1925 to 1937, the rate levied in Sydney was half the foregoing ordinary rates. Contributions by country councils are based upon the amount actually expended on main roads and are allocated to the individual councils according to the benefit each derives from the road works. The amount which a country council may be required to contribute in any year is limited to the sum which would be produced by a rate of  $\frac{1}{2}$ d. in the £ on the unimproved capital value of ratable lands. Usually the contributions by country councils are not paid to the department, but are applied directly in meeting the cost of road works which as a general rule are carried out by the councils.

Under the Sydney Harbour Bridge Act, 1922, the City of Sydney and seven municipalities and one shire on the northern side of the harbour were required to contribute to the cost of the Harbour Bridge. The rate of contribution was fixed at  $\frac{1}{2}$ d. in the £ of unimproved capital value of ratable lands in the years 1923 to 1932,  $\frac{3}{4}$ d. in 1933 to 1935 and  $\frac{2}{3}$ d. in 1936 and 1937. The contribution was abolished at the end of 1937.

Revenue to meet these contributions is derived by councils either by the levy of a special rate or by provision in the general rate and is included in the particulars of rates shown in preceding pages. The amounts shown in the following table represent the contributions actually payable to the main roads and Harbour Bridge funds; those for main roads relate substantially to metropolitan councils and include only a very small amount in respect of country councils..

TABLE 381.—Municipalities and Shires, Contributions to Main Roads and Harbour Bridge, 1928 to 1937.

Year.	Contributions by Municipalities and Shires for—		
	Main Roads.	Sydney Harbour Bridge.	Total.
	£	£	£
1928 ... ..	308,447	191,056	490,503
1929 ... ..	328,252	192,543	520,795
1930 ... ..	348,692	194,054	542,746
1931 ... ..	344,187	186,639	530,826
1932 ... ..	287,781	156,332	444,113
1933 ... ..	239,519	101,587	341,106
1934 ... ..	233,719	99,261	332,980
1935 ... ..	232,170	98,234	330,404
1936 ... ..	231,870	64,644	296,514
1937 ... ..	230,834	62,705	302,539

## CITY OF SYDNEY FINANCES.

The City Council conducts its affairs under the Sydney Corporation Act and is not bound by the provisions of the Local Government Acts. Its accounts are kept on a revenue and expenditure basis, and show the income accrued and expenditure incurred during the period to which they relate. There are, however, vital differences between the form of its accounts and those of other local bodies, which make it desirable that the particulars of financial operations in the City Council be shown separately. The differences relate chiefly to the charging of expenditure to revenue and capital, and reference should be made to the description on page 457 of the procedure adopted by councils operating under the Local Government Act.

In the accounts of the City Council contributions to sinking funds for the repayment of loans are charged against ordinary revenue, and expenditure from loan funds on works, such as roads, streets, bridges, etc., is capitalised.

The rates and other city revenues are paid into, and the expenses not otherwise provided for, are defrayed out of the City Fund. Receipts and disbursements relating to the public markets, and to resummptions of land, etc., are recorded separately, though these accounts form part of the City Fund.

The following is a statement of the income and expenditure of the City Fund during 1937 in comparison with the figures for 1936. Main roads and Harbour Bridge rates, though not usually regarded as forming part of the City Council's finances, are included in the table.

TABLE 382.—City of Sydney, Income and Expenditure, 1936 and 1937.

Particulars.	Year ended 31st December, 1937.				Year ended
	Public Markets.	Resummptions.	Other.	Total.	31st Decr. 1936.
<b>INCOME.</b>	£	£	£	£	£
City Fund—					
Rates ... ..	...	...	912,885	912,885	874,415
Rents and hire ... ..	75,888	75,768	10,666	162,322	182,310
Licenses, fees, dues, fines and proceeds ... ..	60,005	...	53,094	113,099	112,057
Sundries ... ..	125	...	36,067	36,192	47,621
Total, City Fund ...	136,018	75,768	1,012,712	1,224,498	1,216,403
Main Roads and Harbour Bridge Rates ... ..	...	...	...	87,723	83,914
Total, Income ... ..	...	...	...	1,312,221	1,300,317
<b>EXPENDITURE.</b>	£	£	£	£	£
City Fund—					
Salaries and wages ... ..	28,684	8,334	350,664	387,682	371,085
Stores and sundries ... ..	21,955	9,516	153,014	184,485	179,109
Insurance and rates ... ..	26,854	31,985	17,880	76,719	75,603
Electricity ... ..	3,197	567	32,287	36,051	35,441
Interest ... ..	44,141	284,771	107,456	436,368	479,888
Sinking Fund ... ..	25,103	69,955	45,653	140,711	135,699
Total, City Fund ...	149,934	405,128	706,954	1,262,016	1,276,825
Main Roads and Harbour Bridge Rates ... ..	...	...	...	87,723	83,914
Total, Expenditure ... ..	...	...	...	1,349,739	1,360,739

In the City Fund the cost of debt service, including interest and provision for redemption, amounted to £577,079, and absorbed 47 per cent. of the income. Of this amount, £354,726, or 61 per cent., was incurred in respect of resummptions, and £69,244, or 12 per cent. in respect of public

markets. There was a deficiency of £37,518 on the operations of the City Fund after the deficiencies on subsidiary accounts, viz., Resumptions £329,360 and Public Markets £13,916, had been charged to rate and other general revenues. The accumulated deficiency at 31st December, 1937, amounted to £261,481.

*City of Sydney—Liabilities and Assets.*

The following is a summary of liabilities and assets of all funds of the City of Sydney as at 31st December, 1937:—

TABLE 383.—City of Sydney, Liabilities and Assets, 31st December, 1937.

Liabilities.			Assets.		
£			£		
Debentures ...	11,065,231		Land and Buildings, Machinery, Plant, and Stores ...	8,999,687	
Sundry Creditors ...	700,825		Less Depreciation Reserve ...	569,242	
Overdrafts ...	504,844				
<b>Total Liabilities to Creditors ...</b>	<b>12,270,900</b>			<b>8,430,445</b>	
			Sundry Debtors ...	193,916	
			Cash and Bank Balances ...	778,171	
			Investments—Sinking Funds ...	2,601,524	
			Other ...	1,599,456	
Reserves ...	3,603,706		<b>Total Tangible Assets</b>	<b>13,603,512</b>	
			Loan Discounts and Flotation Ex- penses ...	223,952	
			Revenue Accounts—Deficits	261,481	
			Expenditure on Streets, etc.—Capital- ised ...	1,785,661	
			<b>Total Intangible Assets</b>	<b>£2,271,094</b>	
<b>Total Liabilities</b>	<b>£15,874,606</b>		<b>Total Assets</b>	<b>£15,874,606</b>	

The liabilities at 31st December, 1937, excluding reserves, amounted to £12,270,900, and the tangible assets, as reduced by provision for depreciation amounted to £13,603,512. The excess of assets over liabilities on this basis was £1,332,612.

The total amount of debentures outstanding at the end of 1937 was £11,065,231, against which there were sinking fund reserve accounts amounting to £2,654,995 and proceeds from the sales of residue resumption lands £1,344,599, leaving a net indebtedness on capital account of £7,065,637. The amount of £3,999,594 held against the debenture debt was invested in Commonwealth Government securities £515,400, City Council debentures and stock £3,427,060, and £36,342 was uninvested and £20,792 represented accrued interest.

The debentures included £7,497,146 borrowed in connection with resumptions, and £1,343,043 for public markets.

Land, buildings, plant, etc., include such large items as public markets, £1,841,272; resumptions, £5,695,779, and town hall and offices, £837,890. The depreciation reserve existing in respect of public markets amounted to £285,376 and of town hall and other assets of the City Fund to £283,866. The value of land, buildings, etc., for resumptions, £5,695,779, is inclusive of resumptions used for roads, as separate details are not available as to those used for roads and those retained as assets in the form of land and buildings.

*City of Sydney—Financial Summary.*

A summary of the finances of the City of Sydney during the past five years is shown below:—

TABLE 384.—City of Sydney, Summary of Finances, 1933 to 1937.

Particulars.	1933.	1934.	1935.	1936.	1937.
Area ... .. Acres	3,220	3,220	3,220	3,220	3,220
Population ... .. No.	88,400	88,470	87,570	87,770	88,270
Value*—	£	£	£	£	£
Unimproved Capital ...	48,929,602	45,979,009	45,891,051	45,798,993	47,822,749
Improved Capital ...	143,791,020	137,272,220	139,586,700	139,817,600	150,839,540
Assessed Annual ...	6,470,596	6,146,262	6,293,552	6,291,792	6,787,727
City Fund†—					
Income—Rates† ...	911,381	880,885	878,500	874,415	912,885
Other sources	351,202	373,999	342,283	341,988	311,613
Total ...	1,262,583	1,254,884	1,220,783	1,216,403	1,224,498
Expenditure ... ..	1,324,214	1,305,124	1,230,419	1,276,825	1,262,016
Electricity Works Fund—					
Income ... ..	2,514,686	2,523,282	2,539,189	¶	¶
Expenditure ... ..	2,305,980	2,324,912	2,467,079	¶	¶
All Funds—					
Total Income† ... ..	3,896,327	3,883,193	3,864,923	1,300,317	1,312,221
Total Expenditure† ...	3,740,252	3,735,063	3,802,449	1,360,739	1,349,739
Excess of Income ...	146,075	148,130	62,474	(-) 60,422	(-) 37,518
All Funds—					
Liabilities ... ..	27,889,999	27,984,235	27,418,739	12,417,480	12,270,900
Assets ... ..	30,213,180	30,805,071	30,730,796	13,572,325	13,603,512
Excess of Assets ...	2,323,181	2,820,836	3,312,057	1,154,845	1,332,612
Loans outstanding ...	25,025,072	25,251,621	25,081,064	10,920,654	11,065,231
Sinking Fund Reserve ...	4,556,688	5,044,324	5,559,046	3,591,449	3,999,594

(-) Denotes excess of Expenditure. \* Excluding properties not ratable. † See context below.

‡ Including Subsidiary Accounts, Public Markets and Resumptions.

¶ The electricity works were transferred to Sydney County Council on 1st January, 1936. See pages 473 and 475.

The value of Federal Government and other non-ratable properties in the City of Sydney is not included in the figures shown above. The unimproved capital values of non-ratable properties in 1937 were Federal £1,852,461 and other £8,702,324. Including these amounts the unimproved capital value of all property within the city was £58,377,534 in 1937.

The total income and expenditure of all funds as shown in the foregoing table include rates collected on behalf of authorities controlling the Harbour Bridge and the main roads, but corresponding particulars are not included in the operations of the City Fund. Details as to the amount of Harbour Bridge and main roads rates levied annually are shown in table 378.

The total liabilities, as shown above, are exclusive of reserves and balances of revenue accounts. The total assets refer to tangible assets only, less depreciation reserve in respect of them, and intangible assets have been omitted. Sinking fund reserves £2,654,995, and proceeds from the sale of residue resumption lands £1,344,599, represented in the aggregate 36.1 per cent. of the debenture loan debt outstanding at the end of 1937.

#### FINANCES OF SUBURBAN AND COUNTRY MUNICIPALITIES AND OF SHIRES.

The Local Government Act prescribes that there must be a general fund in each area, to which must be credited all moneys receivable in respect of the general rate, loans raised for any general purpose and loan rates levied in respect thereof, and moneys receivable in respect of any matter not appertaining to another fund. The resources of the general fund may be applied to any general purposes, such as administration, health, roads and services, etc., and the payment of interest and principal of loans.

There must be a special fund or a local fund for each special or each local rate levied. The principles prescribed for these funds are similar to those of the general fund, but the resources of each special or local fund may be applied only to the special purposes or in the specified area in respect of which the rate is levied.

A separate trading fund must be kept for each trading undertaking conducted by the council.

All loans must be used for the specific purpose for which they were obtained, and may not be transferred from one fund to another, except by authority of the Minister.

In addition to the above-mentioned funds, there must be a trust fund, which consists of receipts from the Government pending transfer to appropriate funds, deposits from contractors, etc., and any other amounts held in trust by the council.

According to the ordinances under the Act, accounts must be "Income and Expenditure Accounts," kept by double entry, and each "fund" must have a separate banking account. Thus there is compiled for the general fund and for each special, local, or trading fund a revenue account, showing details of the total expenditure chargeable for the period, whether paid or unpaid, and the total income for the same period, whether received or outstanding. A balance sheet also is required for each fund with appropriate liabilities and assets, and aggregate balance sheets and revenue accounts must be published. Only "realisable" assets such as plant, buildings, etc., to be used in rendering the services of the council may be shown, so that roads, bridges, drains, and other constructive works are excluded.

The tables which follow have been compiled from the annual statements of accounts of municipal and shire councils operating under the Local Government Act, 1919, and its amendments.

For the purpose of performing works and providing services and utilities it is the object of each council to arrange sufficient finance to meet commitments incurred during the year. For this there are available in each year accumulated balances from earlier periods, represented by the credit balances of the Available Funds Account, and revenue accruals. When any large expenditures are incurred for the purpose of constructing roads,

bridges, etc., or acquiring assets, there are available also special means of finance such as the raising of loans and deferment of payment of principal sums under deferred payment contracts, in respect of which obligations must be liquidated during the period of usefulness of the works constructed or assets acquired.

In the table 385 of "income and expenditure" there are shown items of annual income, comprising rates levied, Government grants and endowment, charges for services, and miscellaneous forms of licenses, fees, fines, etc., and expenditure chargeable thereto. Expenditure chargeable to income includes, in addition to normal recurring items, costs incurred in respect of construction works, such as roads and bridges and other objects having long life not being "realisable assets" or for use in performing works or in rendering services, even though financed by long-term borrowing. Payments made in redemption of indebtedness are excluded from expenditure chargeable to income, notwithstanding that funds for the purpose are provided from income collections.

The table 386 relating to capital transactions or Invested Funds Account, i.e., that section of the balance-sheet which embraces assets of a permanent or fixed nature and long-term liabilities, is designed to indicate the nature of financial transactions other than those appearing under the heads of income and expenditure. On the credit side are shown capital expenditure and payments on redemption of indebtedness, the former item being paid partly from income collections and accumulations and partly from borrowed funds. Debit entries show the extent to which borrowing has been resorted to in financing the year's expenditures, both revenue and capital, and the amount by which asset values have been reduced by reason of provision for depreciation and obsolescence and of sales.

The net result on current finances of the year's financial operations, both on account of revenue and capital transactions is shown in table 386 under the head of "Net Transactions on Available Funds Account" by combining the excess of income over expenditure chargeable thereto, or *vice versa*, and the credit or debit balance on Invested Funds transactions. A revenue surplus has the effect of increasing current finances; i.e., the balance of Available Funds Account. A credit balance on Invested Funds transactions indicates, after allowing for depreciation written off asset values, the utilisation of current finances in the purchase of assets, redemption of indebtedness, etc.

The finances of the City of Sydney, which are discussed on page 454 *et seq.*, have been excluded from the statements presented below because differences in the form in which accounts are compiled preclude even approximations of comparable data.

#### *Income and Expenditure—Suburban and Country Areas.*

A summary of the income and expenditure of all municipalities (except Sydney) and shires in the years 1936 and 1937 in accordance with the foregoing description is shown below. The operations of general, special and local funds have been combined under the head of "Ordinary Services,"



the nature of which is indicated by the sub-heads of functional classifications. Trading, water and sewerage funds in separate groups are further analysed on later pages.

TABLE 385.—Suburban and Country Municipalities and Shires, Income and Expenditure, 1936 and 1937.

Particulars.	Year ended 31st December, 1937.				Total Municipalities and Shires, 1936 *
	Suburban Municipalities.	Country Municipalities.	Shires.	Total.	
	INCOME.				
Ordinary Services—	£	£	£	£	£
Rates and Extra Charges ... ..	2,042,067	819,053	1,354,359	4,215,479	4,146,005
Government Grants—					
Endowment ... ..	...	...	175,425	175,425	149,875
Main Roads Department ... ..	146,618	75,002	1,092,292	1,313,912	1,064,365
Emergency Relief Works ... ..	133,474	298,948	500,772	933,194	2,990,339
Loan Instalments and Interest ... ..	32,634	2,366	2,671	37,671	...
Other ... ..	368,958	320,062	552,082	1,241,102	447,725
Total ... ..	681,684	696,378	2,323,242	3,701,304	4,652,304
Works—					
Contributions ... ..	178,591	81,793	32,637	293,021	184,229
Other ... ..	38,460	3,164	45,417	92,041	90,654
Total ... ..	217,051	89,957	78,054	385,062	274,883
Health—					
Sanitary and Garbage ... ..	115,305	180,023	128,012	432,340	437,855
Parks and Reserves ... ..	37,635	16,259	6,359	60,253	57,051
Other ... ..	7,909	12,269	14,173	34,351	28,666
Total ... ..	160,849	217,551	148,544	526,944	523,572
Services—					
Baths and Beaches ... ..	30,842	15,993	3,196	50,031	39,807
Markets ... ..	317	18,823	3,087	22,227	23,276
Cemeteries ... ..	9,626	698	88	10,412	10,131
Other ... ..	3,906	12,602	8,736	25,244	23,742
Total ... ..	44,691	48,116	15,107	107,914	96,956
Property ... ..	34,138	68,561	41,150	143,849	130,956
Sundries ... ..	46,021	30,740	31,273	108,034	92,634
Total, Ordinary Services ... ..	3,226,501	1,970,356	3,991,729	9,188,586	9,917,310
Trading Accounts ... ..	108,497	1,445,051	336,565	1,890,113	1,692,297
Water and Sewerage Accounts ... ..	...	594,926	83,365	678,231	540,505
Aggregate Income ... ..	3,334,998	4,010,333	4,411,659	11,756,990	12,150,112
	EXPENDITURE.				
Ordinary Services—					
Administration ... ..	203,293	151,038	261,005	615,336	550,997
Works ... ..	2,015,923	1,223,950	3,454,238	6,694,111	6,433,350
Health—					
Sanitary and Garbage ... ..	210,973	169,176	109,642	489,791	490,178
Parks and Reserves ... ..	223,160	175,706	61,020	459,886	628,153
Other ... ..	43,341	37,298	27,578	108,217	92,064
Total ... ..	477,474	382,180	198,240	1,057,894	1,210,395
Services—					
Street Lighting ... ..	145,274	97,594	55,205	298,073	235,599
Fire Prevention ... ..	52,533	20,545	7,065	80,143	76,904
Baths and Beaches ... ..	30,666	27,981	15,221	73,868	65,613
Markets ... ..	...	12,254	1,390	13,644	13,677
Hospitals, Ambulances and Charities ... ..	10,257	11,532	3,209	24,998	16,790
Cemeteries ... ..	7,102	890	173	8,165	11,210
Aerodromes ... ..	...	8,775	465	9,240	†
Noxious Animals and Weeds ... ..	937	3,466	24,417	28,820	31,176
Other ... ..	17,976	30,230	17,159	65,365	107,560
Total ... ..	264,745	213,267	124,304	602,316	605,529
Property ... ..	63,313	41,157	26,516	130,986	128,537
Interest on Loans, Overdrafts, etc. ... ..	234,204	72,118	71,827	378,149	355,729
Contributions to Main Roads Department and Harbour Bridge Fund ... ..	185,294	7,318	22,204	214,816	212,600
Other ... ..	32,922	12,481	39,996	85,399	64,337
Total, Ordinary Services ... ..	3,477,168	2,103,509	4,198,330	9,779,007	9,561,474
Trading Accounts ... ..	91,750	1,286,230	283,476	1,661,456	1,439,614
Water and Sewerage Accounts ... ..	...	414,821	45,086	459,907	429,702
Aggregate Expenditure ... ..	3,568,918	3,804,560	4,526,892	11,900,370	11,430,790
Excess of Income over Expenditure chargeable thereto—					
Ordinary Services ... ..	(-) 250,667	(-) 133,153	(-) 206,601	(-) 590,421	355,836
† Aggregate ... ..	(-) 233,920	205,773	(-) 115,233	(-) 143,380	719,322

\* Exclusive of City of Sydney.

† Balance transferred to following table of Capital Transactions, included in "Other Services."

Rates levied in 1937 amounted to £4,549,424 and interest charged on overdue rates to £109,371. Of these levies and charges £4,215,479 was for ordinary services, £47,715 for trading undertakings and £395,601 for water and sewerage accounts.

Government grants to councils are paid into a trust fund and transferred to revenue only as required to meet expenditure actually incurred in respect of works and services for which the grants were made. The total Government assistance in 1937 amounted to £3,856,493, consisting of £3,701,304 credited to ordinary services, £2,949 to trading undertakings and £152,240 to water and sewerage accounts. The amount paid to suburban municipalities was £681,684, to country municipalities £825,226, and to shires £2,349,583. The total amount of Government assistance was lower by £847,996 than in 1936. Grants for emergency relief work were reduced, but there was an increase in other grants. Further details regarding Government grants to councils for the relief of unemployment are contained in chapter "Employment" of this volume.

The revenue of municipalities (except Sydney) and shires was derived from various sources in the following proportions, viz.: Rates and extra charges (including £443,316 credited to trading, water and sewerage accounts), 39.6 per cent.; Government assistance under all heads, 32.8 per cent.; contributions, etc., to works, 2.5 per cent.; health, 4.5 per cent.; services, 0.9 per cent.; property, 1.2 per cent.; trading and water and sewerage accounts (other than rates and a small amount of Government grants included above), 16.8 per cent.; and other 1.7 per cent.

The revenue per head of population was £2 16s. 8d. in suburban municipalities, £6 16s. 3d. in country municipalities, and £5 7s. 9d. in shires.

The expenditure on administration represents the total administrative expenses of the councils, less administrative expenses relating to trading concerns and water and sewerage services. Interest on loans, overdrafts, etc., in respect of ordinary services amounted to £378,149 in 1937, and there were additional amounts on account of trading undertakings £68,463, and water and sewerage works, £179,282. Thus the total interest in 1937 amounted to £625,894; the amount in suburban municipalities being £237,235, in country municipalities £279,689 and in shires £108,970.

The aggregate expenditure in 1937 amounted to £11,900,370, an increase of £469,580 as compared with 1936. The increase in respect of ordinary services was £217,533, trading accounts £221,842 and water and sewerage £30,205. In expenditure on ordinary services there were increases in administration £64,339 and works £260,761, and a decrease in parks and reserves £168,267.

The following statement of capital transactions, or operations on Invested Funds Account, during 1936 and 1937, should be considered in conjunction with figures of income and expenditure:—

TABLE 386.—Suburban and Country Municipalities and Shires, Capital Transactions, 1936 and 1937.

Particulars.	Year ended 31st December, 1937.				Total Municipalities and Shires 1936.
	Municipalities.		Shires.	Total.	
	Suburban.	Country.			
	£	£	£	£	£
<i>Debit—</i>					
Loan Expenditure ... ..	808,406	872,390	685,544	2,366,340	575,248
Expenditure from Government Advances ...	28,566	27,446	11,883	67,895	321,413
Balances owing on Deferred Debts incurred during year ... ..	17,456	15,427	29,303	62,186	51,429
Fixed assets written off—					
Depreciation and Obsolescence ... ..	68,796	228,130	136,298	433,224	412,131
Sale ... ..	24,121	51,667	36,566	106,351	38,093
Other ... ..	6,422	20,042	6,659	42,123	38,153
Total ... ..	953,767	1,224,102	960,253	3,078,122	1,436,467
<i>Credit—</i>					
Assets Purchased ... ..	291,947	1,041,546	573,287	1,906,780	1,197,827
Loan Repayments (including Sinking Fund)	447,626	203,684	135,859	792,169	706,520
Payment of Deferred Debts and Government Advances ... ..	60,197	112,975	81,235	254,407	264,183
Other ... ..	9,737	47,677	11,263	68,677	52,821
Total ... ..	809,507	1,410,882	801,644	3,022,033	2,221,351
Credit Balance representing net transactions on Invested Funds Account ... ..	(-)144,260	186,780	(-) 98,609	(-) 56,089	784,884
Net transactions on Available Funds Account—					
Excess of Income over Expenditure chargeable thereto † ... ..	(-)233,020	205,773	(-)115,233	(-) 143,380	719,322
Less Credit Balance from Invested Funds Acct. ... ..	(-)144,260	186,780	(-) 98,609	(-) 56,089	784,884
Surplus ... ..	(-) 89,660	18,993	(-) 16,624	(-) 87,291	(-)65,562

\* Exclusive of City of Sydney.

† Transferred from preceding table of Income and Expenditure.

Loan expenditure incurred during 1937 amounted to £2,366,340, as compared with £575,248 in 1936. In 1937, loan expenditure amounting to £1,659,886 was for ordinary services, £176,493 for trading undertakings and £529,961 for water and sewerage works. Expenditure from repayable Government advances amounted to £67,895, viz.: ordinary services, £46,784, and water and sewerage funds, £21,111, and balances outstanding in respect of deferred debts incurred during the year were £62,186, viz., ordinary services, £56,320, trading undertakings, £1,732, and water and sewerage funds, £4,134.

A distribution of the credit items (as in Table 386) according to the various types of funds is as follows:—

	Assets Purchased.	Loan Repayments.	Repayment of Government Advances.	Payment of Deferred Debts.
	£	£	£	£
Ordinary Services ... ..	727,637	647,487	130,751	56,104
Trading ... ..	469,410	139,875	2,698	1,603
Water and Sewerage ... ..	709,733	4,807	62,751	500
Total ... ..	1,906,780	792,169	196,200	58,207

The net deficiency of income as compared with expenditure payable from income amounted to £87,291 in 1937. The deficiency amounted to £89,660 in the suburban municipalities and £16,624 in the shires, and in the country municipalities there was a surplus of income of £18,993.

The aggregate revenue and capital expenditure in 1937 was £14,922,403, consisting of expenditure chargeable against revenue, £11,900,370 (Table 385), and assets purchased, loan and debt repayments, etc., £3,022,033 (Table 386). Of this expenditure a sum of £2,366,340 was provided from loans, £67,895 from repayable Government advances, and £62,186 from deferred payment debts. Thus the expenditure incurred during the year which was not financed by borrowing on fixed terms amounted to £12,425,982.

The following table shows approximately the manner in which income was disbursed during 1937. Component items of expenditure under ordinary services have been related to income within that sphere, and total expenditure on ordinary services and trading and water and sewerage accounts to income from all sources.

TABLE 387.—Suburban and Country Municipalities and Shires, Expenditure per £ of Income, 1937.

Head of Service.	Disbursements per £ of Income.			
	Municipalities.		Shires.	Total. *
	Suburban.	Country.		
<b>Ordinary Services.</b>				
	s. d.	s. d.	s. d.	s. d.
Expenditure chargeable to Income not financed by Loans or other forms of fixed borrowing—				
Ordinary Services—				
Administration ... ..	1 3	1 6	1 4	1 4
Public Works ... ..	7 11	9 3	14 11	11 3
Health ... ..	2 11	3 8	1 1	2 3
Public Services ... ..	1 8	2 4	0 8	1 4
Property and Plant ... ..	1 0	0 11	0 7	0 10
Interest on Loans, Overdrafts, etc. ...	1 5	0 9	0 4	0 10
Other ... ..	1 4	0 2	0 3	0 7
Total ... ..	17 6	18 7	19 2	18 5
<b>All Services.</b>				
Ordinary Services ... ..	16 10	8 9	17 3	14 2
Trading Accounts ... ..	0 6	5 11	1 3	2 8
Water and Sewerage Accounts ... ..	...	1 11	0 2	0 9
Total, Revenue Expenditure	17 4	16 7	18 8	17 7
<b>Capital Expenditure, not financed by Loans, etc.—</b>				
Purchase of Assets† ... ..	0 2	1 7	0 5	0 9
Loan Repayments ... ..	2 7	1 0	0 7	1 3
Payments off Government Advances and Deferred Debts ... ..	0 4	0 6	0 4	0 5
Other ... ..	0 1	0 3	0 1	0 2
Total Expenditure ... ..	20 6	19 11	20 1	20 2

\* Exclusive of City of Sydney.

† Trading and water and sewerage funds only.

The cost of servicing the debt under the head of ordinary services, including both interest and redemption, was heaviest in the suburban municipalities, being 4s. 5d. per £ of revenue from ordinary services as compared with 2s. 5d. in country municipalities and 1s. 2d. in shires. These differences are due mainly to the fact that costly road and street construction has been carried out in the suburbs more extensively than in country districts. On the other hand, however, country councils have incurred substantial debts

for the establishment of trading undertakings and water and sewerage services, so that a large proportion of their expenditure for debt charges relates to these activities. Expenditure per £ of revenue from all sources on interest and debt redemption was 4s. 4d. in suburban municipalities, 2s. 10d. in country municipalities, 1s. 5d. in shires and 2s. 9d. for all councils.

*Liabilities and Assets of Suburban and Country Areas.*

The liabilities and assets of the City of Sydney as at 31st December, 1937, are shown on page 455, and the following statement indicates the nature of the liabilities and assets at book value as at that date of the suburban and country municipalities and the shires, amounts due from one fund to another being excluded. Assets do not include the capital value of roads and bridges, on which expenditure is charged to revenue, even though many such works are financed by borrowing.

TABLE 388.—Suburban and Country Municipalities and Shires, Liabilities and Assets, 1936 and 1937.

Particulars.	As at 31st December, 1937.				Total, Municipalities and Shires, 1936. *
	Municipalities.		Shires.	Total. *	
	Suburban.	Country.			
<b>Liabilities—</b>	£	£	£	£	£
<b>Long Term—</b>					
Loans and Deferred Debts ... ..	5,172,582	3,092,838	2,077,924	10,343,344	8,202,898
Due to Government ... ..	373,498	4,789,224	682,888	5,795,610	5,840,333
<b>Current—</b>					
Creditors, including Interest, etc., due to Government ... ..	290,029	294,016	222,597	815,642	736,116
Bank Overdraft ... ..	696,994	421,043	444,410	1,562,447	1,388,373
Other (including Deposits on Contracts, unexpended Government Grants and other Trust moneys) ... ..	94,607	223,062	226,656	544,325	412,708
<b>Total Liabilities ... ..</b>	<b>6,636,710</b>	<b>8,770,183</b>	<b>3,654,475</b>	<b>19,061,368</b>	<b>16,580,428</b>
<b>Assets—</b>					
Cash in hand and bank ... ..	531,600	1,240,049	760,786	2,532,525	1,740,572
Investments in Stocks and Bonds ... ..	2,902	103,075	125,085	231,062	192,130
Outstanding Rates and Interest ... ..	865,688	687,061	785,509	2,338,261	2,444,516
Debtors ... ..	335,175	590,409	311,284	1,245,868	1,087,240
Stores and Materials ... ..	67,914	197,846	100,365	366,125	292,939
Land, Buildings, Plant and Machinery ... ..	2,636,438	10,697,157	2,740,106	16,073,701	14,749,627
<b>Total Assets ... ..</b>	<b>4,439,807</b>	<b>13,524,600</b>	<b>4,823,135</b>	<b>22,787,542</b>	<b>20,507,024</b>
<b>Balance—</b>					
Available Funds ... ..	385,348	1,113,394	704,524	2,203,266	2,287,225
Invested Funds ... ..	(-) 2,582,251	3,641,023	404,136	1,522,908	1,639,371
<b>Net ... ..</b>	<b>(-) 2,196,903</b>	<b>4,754,417</b>	<b>1,168,660</b>	<b>3,726,174</b>	<b>3,926,596</b>

\* Exclusive of City of Sydney.

(-) Indicates excess of liabilities.

Balance sheets of local governing bodies, except the City of Sydney, are divided into two sections, viz., Available Funds and Invested Funds. Liquid assets and current liabilities are included in the former section, and fixed assets, investments, debts on extended terms and long-term liabilities in the latter.

Items comprising the Available and Invested Funds sections of the balance sheet are combined in the foregoing statement, the balance only of each section being shown.

The substantial credit balances of the Available Funds Account, representing excesses of liquid assets over current liabilities carried forward and available for expenditure in 1938, indicate a satisfactory financial position, which, however, is dependent upon collection of outstanding rates. The amount of overdue rates increased very rapidly from £651,902 in 1928 to £2,618,586 at the end of 1934, and declined to £2,338,261 between 1934 and 1937.

The items "overdrafts" and "cash in hand and bank balances" are the respective totals of the debit and credit bank balances of the separate funds of individual councils, and not the net balance of all accounts. Thus an overdraft of, say, street lighting fund has been so treated and not used to diminish or extinguish a credit bank balance of general fund.

At 31st December, 1937, there were 31 suburban municipalities with net overdrafts on all funds, the aggregate amount being £307,947, and 17 with net credit bank balances on all accounts, the amount being £142,643. Of the country municipalities there were 33 with net overdrafts £51,601, and 88 with net credit balances £870,607. In 49 shires the net overdrafts were £90,376, and in 90 the net credit balances were £406,752.

Assets, mainly in suburban municipalities, consisting of undertakings or agreements by the Main Roads Department to repay loans, or to subsidise councils in the repayment of loans and deferred debts incurred for main roads, have been excluded from table 388, though corresponding liabilities have been included. The approximate amount of these assets was £295,000. Annual payments by the Main Roads Department of interest and instalments of principal amounting to about £85,000 are included in Government grants in table 385.

The policy of constructing roads and other major works from loan moneys has been followed more extensively in the suburban area—where development has been rapid—than in the country districts, and this is the cause of the heavy adverse balance on Invested Funds Account. In the country districts large outlays of borrowed funds have been more generally applied to the establishment of electricity, gas, water and sewerage services, and such assets are included in the value of land, buildings, plant, etc.

#### FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT.

The central Government of the State affords financial assistance to the local governing bodies by supplementing general revenues and contributing to the cost of specified works and services. Assistance to general revenues is paid to shires only in the form of endowment in which individual shires participate according to an apportionment made by the Government in every third year. The matters to be taken into account in making the apportionment are specified in the Local Government Act, *e.g.*, the necessity for developing new districts, the extent to which the council and the people of the areas concerned undertake to share in the development by constructing works or paying local rates, the rate levied and its relation to the maximum rate.

The amount of endowment, which for a number of years had been about £150,000 per annum, was increased to £250,000 in 1928. It was reduced to the statutory minimum, £150,000, in 1931, and increased to £177,500 in 1937. The allotment for the three years commencing 1st January, 1937, was as follows:—

19	shires	receive	no	endowment.
13	"	"	less	than £500 per annum.
35	"	"	£500	and under £1,000 per annum.
28	"	"	£1,000	" £1,500 "
17	"	"	£1,500	" £2,000 "
12	"	"	£2,000	" £3,000 "
10	"	"	£3,000	" £4,000 "
4	"	"	£4,000	" £5,000 "
1	"	receives	£5,250.	

The shires which receive the largest endowment are Bellingen, £4,250; Kearsley, £4,250; Manning, £4,750; Tenterfield, £4,000; and Dorrigo, £5,250.

Grants by the State for specific purposes, made to both municipalities and shires, usually form the subject of application by individual councils. Prior to 1925 the State voted annually to municipalities and shires considerable sums for the maintenance of main roads and bridges, and these sums are included below under the heading "Public Works." In 1925, however, the Main Roads Board came into being and part of the increased funds, set aside for main roads construction and maintenance, were disbursed through the councils of municipalities and shires. Annual grants of relatively small amounts are made to recoup revenue lost through the abolition of tolls on road ferries and special assistance is rendered occasionally for repairing damage caused by flood, fire, etc.

The machinery of local government has been applied also to the distribution of money made available by the Government for the relief of unemployment. Under arrangements which are described in the chapter, "Employment," relief works were undertaken by the councils and the Government paid part of the cost. The amount of Government assistance distributed in this way was £1,806,603 in 1933-34, £2,814,202 in 1934-35, £3,343,939 in 1935-36, £2,143,346 in 1936-37, and £333,366 in 1937-38.

Government assistance in another form is given to the municipalities and shires in terms of the Local Government (Further Amendment) Act, 1935, to enable them to undertake the construction of works and the provision of services which would otherwise be beyond their financial resources. By the Act the Treasurer was authorised, until 30th June, 1939, to make agreements with the councils for State contributions towards interest and sinking fund charges in respect of loans raised by them. The Treasurer may agree also to pay interest which is in excess of 3½ per cent. per annum on loans expended by the councils on water supply and sewerage works. Under this arrangement councils are enabled to borrow for water and sewerage services at the same net rate of interest as the rate which the State charges them on similar works constructed by the Department of Public Works in former years. The Government was authorised also to make advances to supplement loans raised by councils for certain purposes.

Moneys granted to the councils of municipalities and shires for any of the abovementioned purposes are included in the following statement of funds provided by the State or Commonwealth Government and expended by councils in the years 1921 to 1937.

TABLE 389.—Municipalities and Shires, Government Grants, 1921 to 1937.

Year.	Municipalities.			Shires.				Total Government Assistance.
	Public Works.	Other.	Total Municipalities.	Endowment.	Public Works.	Other.	Total Shires.	
	£	£	£	£	£	£	£	£
1921 ...	51,466	5,772	57,238	178,420	152,181	572	331,173	388,411
1926 ...	242,051	5,441	247,492	147,525	958,447	7,123	1,113,095	1,360,587
1929 ...	424,732	6,102	430,834	254,948	1,488,334	498	1,743,780	2,174,614
1930 ...	603,857	28,865	632,722	250,303	1,467,358	4,930	1,722,591	2,355,313
1931 ...	342,707	9,073	351,780	149,533	678,980	315	828,828	1,180,608
1932 ...	426,678	53,109	479,787	147,095	693,139	1,319	841,553	1,321,340
1933 ...	796,407	90,433	886,840	148,544	1,147,991	21,052	1,317,587	2,204,427
1934 ...	1,635,987	274,694	1,910,681	150,249	1,815,009	14,839	1,980,097	3,890,778
1935 ...	2,355,510	*	2,355,510	149,250	2,429,812	*	2,579,062	4,934,572
1936 ...	2,305,446	*	2,305,446	149,875	2,249,168	*	2,399,043	4,704,489
1937 ...	1,506,910	*	1,506,910	175,425	2,174,158	*	2,349,583	3,856,493

\* Included under Public Works.

The amounts stated in the table represent transfers to revenue from the Trust Fund, to which Government grants are credited, pending actual expenditure on the works, etc., for which they were granted.

#### LOANS.

Loans obtained by the Council of the City of Sydney prior to 1905 were raised under the provisions of special Acts of Parliament. In 1905 the Sydney Corporation Amendment Act authorised the Council to raise loans, with the approval of the Governor, by the sale of debentures secured upon the corporate rates and revenues of the Council from whatever source arising, and to issue new debentures to repay any such debentures upon maturity. The term of the debentures may not exceed in the aggregate fifty years, and a sinking fund must be established for each loan raised under the Act of 1905, on the basis of 3 per cent. per annum compound interest over the period of fifty years. The maximum rate of interest payable was fixed at 4 per cent. until 1917, when amending legislation provided that the rate of interest be fixed by the Council with the approval of the Governor. The Act of 1917 provided also that, in lieu of issuing debentures subject to the provisions of the Act of 1905, the Council may issue debentures to secure the repayment of its loans, together with interest thereon, by equal yearly or half-yearly instalments. An Act passed in 1928 authorised the City Council to raise loans outside Australia.

In terms of a further amendment, which became operative as from 1st July, 1935, the Council may not exceed by way of overdraft an amount equal to one-half of the income, as certified by the Auditor-General, of the fund to which the overdraft relates. Proposals to raise loans, other than renewal loans, overdrafts and loans for essential services, must be submitted for investigation by the Minister, who may make such recommendations as he thinks fit. Particulars of the proposal must be notified and a poll must be taken if demanded before the expiration of one month by 15 per cent. of the electors enrolled as ratepayers. The Council is empowered to issue inscribed stock and to maintain inscribed stock registries in any countries in which principal sums are payable. On the application of security holders, debentures may be converted to inscribed stock and inscribed stock to debentures.

Loans obtained by the councils of other municipalities and of shires are raised usually under the Local Government Act, 1910, and its amendments.

In respect of municipal loans, the Local Government Act prescribes that a council may not borrow any moneys which, with existing loans, will cause the total indebtedness to exceed 20 per cent. of the unimproved value of ratable land in the area. It is provided, however, that certain loans expended on reproductive works may be excluded in calculating the limit.

Loans under the Local Government Act may be raised by four methods, viz., limited overdraft, and renewal, ordinary, or special loans. The Governor's approval of a loan is required in all instances with the exception of limited overdrafts.

Limited overdrafts may be obtained for any purpose upon which the council is authorised to expend a fund (except a trust fund) or for any purpose for which moneys raised by ordinary loan may be applied. The sum raised may not exceed half the preceding year's income of the fund in respect of which it is obtained.

The purpose of limited overdrafts is to enable the councils to finance a regular programme of works and services and to meet extraordinary expenditure during periods of inequality or fluctuations in the collection of rates. In view of this fact, the Department of Local Government suggests to the councils as a general principle that the amount of the overdraft at the



end of each year, or, at least, at the end of each council's term, should not exceed the amount of outstanding rates in the case of the general or other fund of which rates constitute the principal source of revenue.

Renewal loans are for the purpose of repaying or renewing any other loan, and for paying the expenses incidental thereto.

Ordinary loans are those for such purposes as carrying out orders as to boundary works, discharging liability arising under verdicts or orders of legal tribunals, establishing or extending sanitary and garbage services, acquiring machinery and equipment for the construction of roads and bridges, establishing road punts and road ferries, and meeting liabilities transferred to the council consequent upon alteration of boundaries. An ordinary loan may be obtained notwithstanding that it will raise the total indebtedness of the council above the prescribed limit, but while there is an excess the council may not raise a special loan.

The law governing the borrowing powers of municipalities and shires was revised by an amending Act passed in 1935. In terms of the Act, the definition of an ordinary loan was extended to include loans raised for the purpose of (a) constructing drains, stormwater channels, public baths and works for the development of tourist traffic, the improvement of recreational facilities, bridges and roads of access and the establishment and extension of electricity undertakings; (b) providing water supply and sewerage services; (c) financing the construction of water mains and sewers by the Metropolitan or Hunter District Boards in areas served by them; and (d) purchasing tools and materials required by the councils for unemployment relief works. Ordinary loans for any of these purposes may be raised only with the approval of the Governor, and this may not be granted after 30th June, 1939, and unless the Minister has indicated that the Government will make a supplementary advance towards the capital cost of the project or an annual contribution towards commitments incurred by the council in relation to the loan. Where the purpose of a loan is the provision of water and sewerage services, it is required also that the proposed scheme be investigated by a "Loans and Advances Advisory Committee," or when the extension of water mains and sewers is undertaken by the Metropolitan or Hunter District Board that an agreement be made between the Council and the Board concerned.

A further amendment of the law passed in December, 1937 (to be effective until 30th June, 1939) enables councils to borrow by way of ordinary loan to repay sums due to the Government in relation to capital debts on works of water supply and sewerage. Loans raised for this purpose are not to be taken to account in determining the limits of councils' powers to borrow.

Special loans are those which do not fall within the other three categories. A council must give notice of a proposal to raise a special loan, and the ratepayers have the right, by petition of at least 25 per cent. of those concerned, to demand that a poll be taken as to whether they approve of the loan, and as to whether the loan rate (if any) shall be on the unimproved or the improved capital value. As a general rule shire special loans may not exceed in the aggregate a sum equal to three times the amount of the income, as shown by the last year's accounts.

The councils may accept from ratepayers advances not exceeding £500 for the purpose of carrying out necessary works for which the lenders have applied. Such loans must be free of interest or at a rate not exceeding 4 per cent., and the amount accepted by a council may not exceed one-tenth of the total revenue for the preceding year.

Renewal, ordinary, or special loans under the Local Government Act are secured, firstly upon the income of the fund to which the loans belong, and, secondly, upon the income of the council arising from any source.

Unless the loans are repayable by instalments at intervals of one year or less, there must be a sinking fund for loan repayment in every fund in respect of which a renewal, ordinary, or special loan has been raised, and in each year the council must transfer to the sinking fund a sum of not less than the amounts which were stated in its applications for the approval of the loans. In the case of loans repayable by annual or more frequent instalments, the reserve for repayment is optional.

County councils may raise loans if expressly authorised under the powers delegated by constituent councils. They are not subject to the limitation of borrowing imposed on municipalities and shires, and a poll may not be demanded in respect of such loan proposals.

The fixed loans of the municipalities, shires, and county councils at 31st December, 1937, were as stated hereunder. In addition to these loans, the long-term indebtedness of the councils included £5,925,605 owed to the Government and £163,425 on deferred payment contracts.

TABLE 390.—Municipalities, Shires and County Councils, Fixed Loans, Sinking Funds and Interest, 1937.

Local Bodies.	Loans Outstanding.				Accumulated Sinking Funds.	Interest.
	New South Wales,*	London.	New York.	Total.		
Municipalities and Shires—	£	£	£	£	£	£
Sydney ... ..	9,065,231	2,000,000	...	11,065,231	3,999,594	479,155
Suburban Municipalities ... ..	5,096,332	...	...	5,096,332	5,403	209,695
Country Municipalities... ..	(a)3,072,308	...	...	3,072,308	53,486	112,948
Shires ... ..	(b)1,715,061	305,000	...	2,020,061	104,052	72,343
Total Municipalities and Shires £	18,948,932	2,305,000	...	21,253,932	4,162,535	874,141
County Councils† £	7,641,867	5,171,500	1,913,310	14,726,677	2,148,266	682,154
Grand Total £	26,590,799	7,476,500	1,913,310	35,980,609	6,310,801	1,556,295

\* Includes loans raised in Victoria (a) £121,597, (b) £1,935. † Includes Grafton and South Grafton Water Board.

The net loan debt, after deducting sinking funds, amounted to £29,669,808 at the end of 1937.

The total amount of interest on fixed loans was £1,556,295, distributed according to place of payment as follows:—New South Wales, £1,081,769; Victoria, £5,444; London, £363,850; and New York, £105,232.

During 1937, new loans were arranged as follows:—City of Sydney, £215,850; suburban municipalities, £1,186,005; country municipalities, £1,374,923; shires, £841,667; and county councils, £451,500.

The following table shows the fixed loans at the end of various years since 1921, also the accumulated sinking funds and the net amount of loans outstanding.

The figures published in tables 391 to 393 have been revised since last issue of the Year Book by the inclusion of the loans of the county councils, with which are classified the loans of the Sydney County Council, which used to be combined with those of the City of Sydney.

TABLE 391.—Municipalities, Shires and County Councils, Gross and Net Loan Debt, 1921 to 1937.

At 31st December.	Gross Amount of Fixed Loans Outstanding (excluding bank overdrafts).					Accumulated Sinking Fund.	Net Amount of Loans Outstanding.
	City of Sydney.*	Other Municipalities.	Shires.	County Councils.†	Total.		
	£000.	£000.	£000.	£000.	£000.	£000.	£000.
1921 ...	5,570	1,983	110	3,771	11,434	1,466	9,968
1926 ...	7,619	4,388	1,036	7,013	20,056	2,486	17,570
1929 ...	10,488	8,145	1,398	11,949	31,980	3,156	28,824
1930 ...	10,666	8,591	1,488	14,359	35,104	3,544	31,560
1931 ...	10,878	8,613	1,438	14,428	35,357	3,969	31,388
1932 ...	10,995	8,201	1,361	14,645	35,202	4,269	30,933
1933 ...	11,069	7,736	1,300	14,646	34,751	4,673	30,078
1934 ...	11,166	7,239	1,216	14,834	34,455	5,160	29,295
1935 ...	11,037	6,821	1,150	14,769	33,777	5,703	28,068
1936 ...	10,921	6,714	1,293	14,347	33,275	5,710	27,565
1937 ...	11,035	8,169	2,020	14,727	35,981	6,311	29,670

\* Exclusive of Loans of Electricity Undertaking (now Sydney County Council).

† Includes The Sydney County Council and the Grafton and South Grafton Water Board.

Between 1921 and 1930 the councils expended large sums, chiefly on electricity services and roads, and the net loan liability increased rapidly. Loan projects were drastically curtailed during the depression period and for some years the amounts set aside to provide for redemption exceeded new loans. Under the system of Government subsidies described on page 465, the councils' loan programmes were expanded and the net loan liability increased by £2,105,000 in 1937.

The net loan liability at the end of 1937, was distributed as follows:—Electricity works, £14,001,489, or 47 per cent.; gasworks, £24,248; water supply, £434,241; sewerage, £429,974; and roads, bridges, buildings, parks and reserves, baths, plant, etc., £14,779,856, or 50 per cent.

The place of redemption and the approximate amount of interest payable on the fixed loans of the municipalities, the shires, and county councils in New South Wales, are shown in the following table:—

TABLE 392.—Municipalities, Shires and County Councils, Gross Loan Debt and Interest payable in Australia and Overseas, 1921 to 1937.

Year.	Gross Amount of Fixed Loans Maturing.			Annual Interest.		
	In Australia.	Oversea.	Total.	In Australia.	Oversea.	Total.
	£	£	£	£	£	£
1921 ...	9,922,268	1,512,000	11,434,268	421,185	85,690	506,875
1926 ...	16,823,720	3,232,500	20,056,220	855,326	187,862	1,043,188
1929 ...	24,674,813	7,305,000	31,979,813	1,327,416	401,775	1,729,191
1930 ...	25,755,090	9,348,986	35,104,076	1,418,665	514,194	1,932,859
1931 ...	26,026,351	9,330,633	35,356,984	1,251,709	516,958	1,768,667
1932 ...	25,898,669	9,303,397	35,202,066	1,182,891	490,830	1,673,721
1933 ...	25,466,403	9,285,028	34,751,431	1,168,884	476,889	1,645,773
1934 ...	25,014,389	9,440,988	34,455,377	1,096,751	480,935	1,577,686
1935 ...	24,351,690	9,425,166	33,776,856	1,068,867	480,035	1,548,932
1936 ...	23,866,394	9,408,622	33,275,016	1,024,137	470,102	1,494,239
1937 ...	26,590,799	9,389,810	35,980,609	1,087,213	460,082	1,556,295

\* Years 1921 to 1920 London only; New York included, in 1930 to 1937, viz.: Loan repayable by half yearly instalments, amounted at end of 1937 to £1,913,309 annual interest being £105,232.

The loan expenditure of the municipalities, shires and county councils is shown below for the years 1928 to 1937, also the amount provided annually for the redemption of loan debt during the years 1931 to 1937.

TABLE 393.—Municipalities, Shires, and County Councils, Loan Expenditure and Repayments, 1928 to 1937.

Year ended 31st December.	City of Sydney. *	Municipalities.	Shires.	County Councils. †	Total.
Loan Expenditure.					
	£	£	£	£	£
1928 ... ..	671,433	1,750,146	270,404	1,489,698	4,181,681
1929 ... ..	1,235,256	1,344,810	294,223	2,556,134	5,430,423
1930 ... ..	579,987	1,172,903	196,315	2,439,942	4,389,147
1931 ... ..	184,540	616,136	62,130	58,468	921,274
1932 ... ..	61,997	231,208	23,099	328,287	644,591
1933 ... ..	312,556	135,734	22,323	170,826	641,439
1934 ... ..	157,683	115,268	18,503	246,912	538,366
1935 ... ..	202,594	145,354	18,186	20,222	386,356
1936 ... ..	106,183	415,864	159,384	32,530	713,961
1937 ... ..	138,499	1,680,796	685,544	468,854	2,973,693
Repayment of Loans‡.					
	£	£	£	£	£
1931 ... ..	275,589	582,114	96,985	197,782	1,152,470
1932 ... ..	216,075	581,997	102,807	193,477	1,094,356
1933 ... ..	251,056	583,678	114,508	322,717	1,271,959
1934 ... ..	341,115	608,933	118,083	233,719	1,301,850
1935 ... ..	461,782	597,888	113,937	289,206	1,462,813
1936 ... ..	139,519	597,577	108,943	664,827	1,510,866
1937 ... ..	243,470	656,310	135,859	267,786	1,303,425

\* Exclusive of Electricity Undertaking (now Sydney County Council).

† Includes the Sydney County Council and the Grafton and South Grafton Water Board.

‡ Includes credits to Sinking Fund Reserves.

The municipal, shire and county councils frequently resort to the "instalment payment system" when purchasing road-making and other plant, land for parks, etc., and, in some cases, for works, such as roads and bridges. In this way the councils in country districts incurred a large amount of indebtedness to the State Government for the construction of water and sewerage services. The total amount of "instalment or deferred payment debts" incurred and of principal repaid in each of the seven years, 1931 to 1937, were as follows:—

Year.	Deferred Debts Incurred.	Principal Repaid.	Year.	Deferred Debts Incurred.	Principal Repaid.
	£	£		£	£
1931 ... ..	592,342	236,666	1935 ... ..	528,716	234,984
1932 ... ..	319,212	216,214	1936 ... ..	372,842	265,959
1933 ... ..	453,652	193,709	1937 ... ..	130,081	254,407
1934 ... ..	725,906	195,215			

#### MUNICIPAL GASWORKS.

The Local Government Act authorises the councils of municipalities and shires to construct gasworks, and to supply gas for public lighting and for use by private consumers. In the metropolitan area the supply of coal gas is

controlled by private companies, and in the country private and municipal undertakings provide the service at different centres. Gasworks have not been established by any of the shire councils.

Details of the accounts of the gasworks undertakings of various municipalities are shown in the section "Local Government" of the Statistical Register, 1937-38. A summary of the revenue accounts of the municipal (coal) gasworks in various years since 1921 is shown in the following statement:—

TABLE 394.—Municipal Gasworks, Revenue Account, 1921 to 1937.

Year ended 31st December.	Expenditure.		Income.					Surplus or Deficiency (—).
	Cost of Gas and Residuals.	Total Expenditure.	Sales.		Loan Rates.	Other.	Total.	
			Gas.	Residuals.				
	£	£	£	£	£	£	£	£
1921 ...	139,466	145,261	135,629	12,534	4,698	4,646	157,507	12,246
1926 ...	127,554	128,681	111,852	12,966	5,126	4,377	134,321	5,640
1931 ...	103,814	106,317	90,332	13,419	4,631	3,376	111,758	5,441
1932 ...	100,012	100,606	82,576	13,359	4,137	4,865	104,937	4,331
1933 ...	97,630	98,282	76,807	11,329	3,135	4,504	95,775	(—)2,507
1934 ...	95,477	95,851	74,697	13,538	2,016	5,348	95,599	(—) 252
1935 ...	89,630	97,234	71,537	12,084	2,292	5,570	91,483	(—)5,751
1936 ...	88,493	89,181	71,549	12,954	2,526	4,298	91,327	2,146
1937 ...	91,321	92,087	71,522	13,959	2,864	8,699	97,044	4,957

The activities of municipal gasworks declined with the extension of electricity services in country districts. The number of municipalities conducting coal-gas undertakings decreased from 21 in 1921 to 18 in 1937, and the quantity of gas sold from 375,915,000 cubic feet to 210,387,000 cubic feet.

The gas manufactured in 1937 measured 272,426,000 cubic feet and the average cost, after deducting proceeds from the sale of residuals, was 5s. 8d. per 1,000 cubic feet. Of the gas sold, 209,854,000 cubic feet were for private consumption and 533,000 cubic feet for public lighting. The average price realised was 6s. 10d. per 1,000 cubic feet of gas sold. Provision for depreciation of plant, treated as a manufacturing cost, amounted to £11,556, and £4,112 was provided for the redemption of capital indebtedness. Plant to the value of £10,538 was purchased during the year.

The balance sheet of the gasworks trading undertakings at the end of 1937 is given below:—

TABLE 395.—Municipal Gasworks, Liabilities and Assets, 1937.

Liabilities.			Assets.		
	£			£	
Loans and deferred payment debts	27,910		Buildings, land, stock, plant, etc.	265,106	
Sundry creditors, etc. ...	15,368		Sundry debtors, including amounts due from other funds ...	24,406	
Overdrafts ...	12,469		Outstanding rates ...	1,972	
Total Liabilities ...	55,747		Fixed deposits and investments ...	8,460	
Excess of Assets ...	252,586		Bank balance and cash ...	8,389	
Total ...	£308,333		Total ...	£308,333	

A surplus of assets at the end of 1937 was disclosed by all gasworks undertakings, though ten of them incurred deficiencies in respect of the year's operations.

#### CONTROL OF ELECTRICITY DEVELOPMENT.

Measures for co-ordinating the development of electricity resources in New South Wales are contained in the Gas and Electricity Act, 1935.

The Governor's approval must be obtained for the construction or extension of a generating station or a main transmission line for the supply of electricity to the public, except in the case of a transmission line forming part of a system within an area already supplied with electricity.

By the Act the Electricity Advisory Committee was constituted. Its duties are to report on matters referred to it relating to the generation, transmission, supply and use of electricity, and, in relation to electricity and its supply, to furnish information concerning finance, statistics, standards and testing, to devise schemes of co-ordination, to recommend amendments of the law and to carry out such functions of an advisory character as may be prescribed. Proposals relating to electricity, for which the Governor's approval is required, must be referred to the Committee before approval.

The Committee consists of thirteen members. Four members were appointed under the Act, viz., the Under-Secretary for Local Government, as chairman, the general manager of the Sydney County Council, and the chief electrical engineers of the Public Works Department and the Department of Railways. The remaining nine members were appointed by the Governor to hold office for three years; eight of them were nominated by various representative bodies.

#### MUNICIPAL AND SHIRE ELECTRICITY WORKS.

The supply of electricity for lighting and for power is undertaken directly in many areas by the councils of municipalities and shires and by county councils formed by groups of municipalities and shires for the sole purpose of conducting electricity undertakings. Some councils have established works for the generation of electricity, and other councils purchase it in bulk from another council, from Government works, or from collieries, etc., and distribute to consumers. In addition, councils obtain electricity for street and private lighting and power in defined areas from works which are privately owned and are not included in the statistics relating to the municipal and shire undertakings which follow.

The largest undertaking is that of the Sydney County Council, which in 1937 distributed electricity direct to consumers in the city and thirty-two other municipalities. It also supplied electricity in bulk to the local councils of ten municipalities and four shires for distribution in their respective localities, and to a private company for distribution within a municipality and a shire.

Certain other local government bodies obtain electricity in bulk from the generating stations of the Railway Commissioners of New South Wales, the Victorian State Electricity Commission, or the New South Wales Government power station at Port Kembla. A number of southern localities and the Australian Capital are supplied from the Burrinjuck hydro-electric works.

The St. George County Council purchases from the Railway Commissioners bulk supplies of electricity which are sold for street lighting and to private consumers in its area, and the Clarence River County Council has constructed hydro-electric works on the Nymboida River. The Bega Valley County Council commenced operations in December, 1937, having purchased a small plant from a private company; it is to develop a hydro-electric scheme on the far South Coast.

A statement of the income and expenditure of the electricity concerns of the local governing authorities in 1937 is shown below:—

TABLE 396.—Municipalities, Shires, and County Councils, Electricity Undertakings, Revenue Account, 1937.

Particulars.	County Councils.				Municipalities.	Shires.	Total.
	Sydney.	St. George.	Clarence River.	Bega Valley.			
	£	£	£	£	£	£	£
<i>Income.</i>							
Electricity Sales ...	2,769,148	157,124	86,257	658	1,307,976	279,866	4,601,029
Meter Rent, Installations, etc. ...	8,931	6,843	4,862	67	113,741	27,814	162,258
Trading Income ...	2,778,079	163,967	91,119	725	1,421,717	307,680	4,763,287
Loan Rates ...	...	...	...	...	20,366	24,485	44,851
Interest, etc. ...	...	4,755	1,400	153	14,421	4,400	25,129
Total Income ...	2,778,079	168,722	92,519	878	1,456,504	336,565	4,833,267
<i>Expenditure.</i>							
Cost of Electricity ...	2,615,382	132,451	73,244	639	1,193,960	262,227	4,277,903
Public Lighting, Attendance, etc. ...	127,286	8,890	686	878	91,933	21,249	250,922
Trading Exp. ...	2,742,668	141,341	73,930	1,517	1,285,893	283,476	4,528,825
Net Income ...	35,411	27,381	18,589	(-) 639	170,611	53,089	304,442

In suburban and country municipalities and shires, 79 municipal and 34 shire councils provided electricity services during 1937. Of these 24 municipalities and 10 shires operated generating plants, 53 municipalities and 21 shires distributed current purchased in bulk, and 2 municipalities and 3 shires generated a small quantity of electricity, but purchased the major portion of their supplies from other sources. The ratio of electricity generated by councils to the total quantity generated and purchased was approximately 18 per cent. in municipalities and 9 per cent. in shires.

Deficiencies in respect of the year's operations amounting to £23,504 were incurred by 5 municipalities, while in the shires, some of which conduct more than one electricity fund, the aggregate deficiency of 6 funds amounted to £2,130.

The amount provided in 1937 to meet depreciation and obsolescence of assets was £871,698, distributed as follows: Sydney County Council £657,933, other county councils £21,202, municipalities £154,905, and shires £37,658. Capital expenditure incurred during the year amounted to £1,380,471: viz., £740,296 by the Sydney County Council, £181,303 by other county councils, £314,532 by municipalities and £144,340 by shires.

A summary of the liabilities and assets of the electricity works at 31st December, 1937, is shown below:—

TABLE 397.—Municipalities, Shires and County Councils, Electricity Undertakings, Liabilities and Assets, 1937.

Particulars.	County Councils.				Municipalities.	Shires.	Total.
	Sydney.	St. George.	Clarence River.	Bega Valley.			
<i>Liabilities.</i>							
Loans Debt ... ..	£ 13,878,611	£ 186,634	£ 648,484	£ 19,000	£ 1,028,928	£ 475,991	£ 16,237,648
Overdrafts ... ..	11,401	...	23,100	...	70,440	27,232	132,173
Creditors, etc. ... ..	1,228,431	46,122	41,322	1,301	133,274	52,853	1,503,303
Total Liabilities	£ 15,118,443	232,756	712,906	20,301	1,232,642	556,076	17,873,124
<i>Assets.</i>							
Land, plant, etc. ... ..	14,388,425	400,167	736,845	17,133	2,833,167	875,445	19,251,182
Debtors, etc. ... ..	395,417	48,215	29,963	836	321,187	115,751	911,369
Bank and cash ... ..	*384,812	27,007	63,484	1,694	198,404	78,474	753,875
Fixed deposits and investments ... ..	2,308,248	93,334	...	...	316,764	36,953	2,755,299
Total Assets ... ..	£ 17,476,902	568,723	830,292	19,663	3,669,522	1,106,623	23,671,725
Excess of Assets	£ 2,358,459	335,967	117,386	(-) 638	2,436,880	550,547	5,798,601

\* Includes securities held in Trust Fund.

The liabilities of the Sydney County Council undertaking, as shown above, are exclusive of depreciation and other reserves, and the assets represent the tangible assets less depreciation reserve in respect thereof.

#### *Sales of Electricity.*

A dissection of the sales in 1936 and 1937 by municipalities, shires and the county councils is shown below.

TABLE 398.—Municipalities, Shires and County Councils, Electricity Sales, 1936 and 1937.

Particulars.	1936.			1937.		
	Units.	Amount.	Per unit.	Units.	Amount.	Per unit.
	000	£	d.	000	£	d.
Domestic and Commercial	290,887	2,608,748	2-15	333,004	2,817,705	2-03
Public lighting ... ..	29,549	263,333	2-14	30,735	258,803	2-02
Industrial power and bulk sales.	356,960	1,389,297	0-93	403,849	1,546,896	0-92
Total ... ..	677,396	4,261,378	1-51	767,588	4,623,404	1-45

The value of sales, as stated above, includes £27,858 in 1936 and £38,419 in 1937, representing discounts for prompt payment which are not allocable to the different classes of sales.

The cost of the 677,396,000 units sold in 1936 was £3,978,242, or 1.41d. per unit, and 767,588,000 units sold in 1937 cost £4,277,903, or 1.34d. per unit.



*Sydney County Council Electricity Undertaking.*

The electricity undertaking administered by the Sydney County Council was established by the Municipal Council of Sydney in 1904. It was transferred to the control of the Sydney County Council constituted in 1935 in terms of the Gas and Electricity Act.

Supplies of electricity were obtained from a power station at Pyrmont until the year 1923, when a contract was made for the purchase of additional supplies from the Railway Commissioners. Since January, 1929, supplies have been available from a power station constructed by the Council at Bunnerong, and the contract with the Railway Commissioners was terminated on 30th September, 1929. The cost to the 31st December, 1937, of the Bunnerong generating station, was approximately £3,934,307, of which £1,590,132 represented cost of land, buildings and railway siding, £2,293,836 cost of machinery and equipment, and £50,339 furniture, plant and tools.

The following statement shows the electricity sold during various years from 1929 to 1937, also revenue from sales and the cost of the electricity and the deficit or surplus after the payment of interest and exchange, and providing for depreciation of plant:—

TABLE 399.—Sydney County Council, Electricity Undertaking, 1929 to 1937.

Particulars.	1929.	1931.	1935.	1936.	1937.
Units sold (000's) ...	347,595	319,326	428,615	461,301	514,092
Receipts per unit (d.)...	1.69	1.70	1.42	1.35	1.29
	£	£	£	£	£
Cost of electricity * ...	2,313,434	2,466,719	2,391,816	2,518,128	2,615,382
Other expenditure ...	44,902	57,178	75,263	79,359	127,286
Total expenditure	2,358,336	2,523,897	2,467,079	2,597,487	2,742,668
Sales ... ..	2,494,606	2,288,607	2,532,111	2,603,523	2,769,148
Other income ... ..	55,079	30,971	7,078	6,185	8,931
Total income	2,549,685	2,319,578	2,539,189	2,609,708	2,778,079
Net Profit ... ..	191,349	(—)204,319	72,110	12,221	35,411

\* Including interest, exchange and depreciation.

The electricity sold in 1937 was 514,092,000 units and the average price was 1.29d. per unit. The purposes for which the electricity was used were as follows:—Domestic 130,866,000 units, average price 1.81d.; street lighting, 14,917,000 units; commercial, 89,501,000 units, average price 1.64d.; industrial power, 243,367,000 units, average price 0.93d.; and bulk supplies, 35,441,000 units, average price 0.72d.

## FIRE BRIGADES.

The public services for the prevention and extinguishing of fires are controlled by a Board of Fire Commissioners, constituted under the Fire Brigades Act, 1909-1927. Its jurisdiction extends over certain districts which were defined in the Act or added by proclamation. The areas under the control of the Board are grouped to form fire districts. They include the City of Sydney, nearly all the area comprised by the suburban municipalities, also the City of Greater Newcastle, Broken Hill, and other municipalities, and shires in respect of towns contained in them.

The Board consists of a president, appointed by the Governor for a term of five years, and seven members, elected for a term of three years, viz., one by the councils of the Sydney and suburban municipalities, one by the councils of the other incorporated areas to which the Act applies, three elected by the fire insurance companies, one by the members of volunteer fire brigades, and one by the permanent firemen who are members of the Fire Brigades Association of New South Wales. The votes are apportioned among the councils according to the amount contributed to the fund administered by the Board, viz., £100 or under, one vote; over £100 and not exceeding £500, two votes; over £500 and not exceeding £1,000, three votes; over £1,000, four votes. Each insurance company and each volunteer and permanent fireman is entitled to one vote.

In each year the Board makes an estimate of the amount proposed to be expended in the various fire districts during the ensuing year, and of this sum the councils of the municipalities and shires concerned contribute one-fourth, the insurance companies one-half, and the Government one-fourth. The estimates must be made so that the contribution by the councils in a fire district will not exceed  $\frac{1}{4}$ d. in the £ on the unimproved capital value of ratable land, though the Board may exceed this limit with the consent of the Minister if requested by the councils to do so.

Where a fire district is comprised of more than one municipality or shire, the amount to be paid by each council is apportioned according to the annual value of ratable land within the district. Payments by the insurance companies are based on the amount of premiums payable in respect of fire risks within each district. With the consent of the Governor, the Board may borrow money up to £250,000.

The Board establishes and maintains permanent fire brigades and authorises the constitution of volunteer brigades, which are subsidised out of the funds. In the metropolitan districts in 1938 there were 79 fire brigades comprised by 716 officers and permanent firemen whose services are wholly at the Board's disposal and 284 volunteers. In the country there were brigades at 154 localities, the principal stations being at Newcastle and Broken Hill, and there were 79 officers and permanent firemen and 1,434 volunteers.

The following table shows the revenue account of the Board of Fire Commissioners for the year ended 31st December, 1938:—

TABLE 400.—Fire Brigades, Revenue Account, 1938.

Revenue.		Expenditure.	
	£		£
Balance at 1st January, 1938	18,058	Administration	14,003
Subsidy from Government	100,562	Salaries, including Payments to	
Subsidy from Municipalities and		Volunteers	254,968
Shires	100,562	Repairs to Buildings, Plant, and	
Subsidy from Fire Insurance Com-		other expenses	126,199
panies and Firms	201,124	Equipment and Property Charges	37,892
Other Sources	8,158		
Balance	4,603		
<b>Total</b>	<b>£ 433,067</b>	<b>Total</b>	<b>£433,067</b>

The contributions by the fifty-five municipalities and shires comprising the Sydney fire district in 1938 represented 5s. 3.6d. per £100 of assessed annual value of the ratable land, as compared with 5s. 7d. in 1919.

Contributions amounting to £201,124 were received from 123 insurance companies and 42 firms who insured goods with companies not registered in New South Wales. In the Sydney fire district such contributions represented 15.46 per cent. of the premiums less reinsurances, and in the other districts the proportions ranged from 3.21 per cent.

The estimates of the proposed expenditure by the board for the year 1939 amounted to £474,708, viz., £365,108 for the Sydney fire district and £109,600 for other districts.

The balance sheet of the Board as at 31st December, 1938, is shown in the following statement:—

TABLE 401.—Fire Brigades, Balance Sheet, 1938.

Liabilities.				Assets.			
			£				£
Fund Account	...	...	30,535	Land and Buildings	...	...	435,364
Trust Accounts	...	...	1,526	Plant and Fire Appliances	...	...	361,958
Debentures and Accrued Interest	...	...	181,068	Stocks on Hand	...	...	32,795
Property and Equipment Account	...	...	600,452	Revenue and Expenditure Account	...	...	4,606
Bank Balances	...	...	23,496	Administration Account	...	...	2,172
				Debtors	...	...	182
Total	...	...	£ 837,077	Total	...	...	£ 837,077

## WATER AND SEWERAGE SERVICES.

The water and sewerage services in the Metropolitan and Newcastle (Hunter) districts are administered by statutory boards representative of the State Government and the local councils; three country services, viz.: Junee, South-west Tablelands and Broken Hill, are under the direct control of the State Government; and the other country services are administered by the municipal or shire councils.

The works administered by the Metropolitan and Hunter District Boards were constructed from Government loans, and their accounts used to form part of the Consolidated Revenue Account at the State Treasury. Gradually the Boards have been entrusted with power to manage their own finances and to raise loans, with the Governor's approval, for the construction of new works. Substantial Government assistance has been granted to these bodies in the form of remissions of capital indebtedness to the State. Particulars of the services are shown later in this chapter.

In the areas served by the Junee and South-west Tablelands systems water is delivered into service reservoirs for reticulation by the councils. The works at Broken Hill are to be vested in a statutory board in terms of the Broken Hill Water and Sewerage Act, 1938.

The water and sewerage works in other country towns are vested in municipal and shire councils. Until 1935 the works, as a general rule, were constructed by the State, and transferred on completion to the local councils, which were required to repay the capital cost, with interest, over periods fixed in relation to the durability of the works. In 1935 arrangements were made to enable the councils to undertake the new construction of works for new services, part of the cost to be met by the State. An advisory committee investigates each proposal for new works and apporions the cost between the State and the council concerned. The share to be

borne by the councils is fixed on the basis of the probable excess of annual revenue over working expenses; the revenue of water supply services being calculated at 25s. per head of the population to be served, and the revenue of sewerage services at 21s. per head. Furthermore, the State Treasurer may undertake to pay the interest on loans in excess of  $3\frac{1}{2}$  per cent.

Existing arrangements between the State Government and councils for the repayment of the cost of works constructed by the State were modified when the Country Towns Water Supply and Sewerage (Debts) Act was passed in 1937. By terms of the Act which expired on 30th June, 1939, provision was made for the writing off of part of the indebtedness to the State, and the councils were authorised to raise loans to repay the remainder. Up to 30th June, 1938, the sum of £334,516 had been written off and £1,398,862 accepted by the State in full settlement of the debts of fourteen councils amounting, in the aggregate, to £1,733,378.

At 31st December, 1937, country water supply services were in operation or under construction in eighty municipalities and thirty-three shires, and country sewerage services in forty-three municipalities and seven shires. The capital indebtedness of the water supply services amounted to £3,767,552, including £3,329,248 owing to the State, and of the sewerage services £1,955,830, including £1,522,391 to the State.

The following statement shows the revenue and expenditure of the Metropolitan and Hunter District services for the year ended 30th June, 1938, and similar information regarding the services in other districts for the calendar year 1937. The works classified under the heading "municipalities and shires" include the Grafton and South Grafton water services administered by a board representing both municipalities, and the "other" works are those administered by the State Government, viz., Broken Hill, South-west Tablelands and Junee.

TABLE 402.—Water and Sewerage Services, Revenue Account, 1937.

Particulars.	Water Supply and Sewerage Works.				
	Metropolitan.	Hunter District.	Municipalities and Shires.	Other	Total.
	£	£	£	£	£
	Water Supply.				
Gross Revenue ... ..	1,741,809	240,097	482,276	76,034	2,540,216
Working Expenses ... ..	582,789	83,570	224,086	55,359	946,404
Interest and Exchange ... ..	996,648	113,057	120,491	38,015	1,268,211
Net Revenue ... ..	162,372	43,470	137,099	(-)17,340	325,601
Provision for Debt Redemption	97,005	12,180	52,479	2,265	163,929
Surplus... ..	65,367	31,290	84,620	(-)19,605	161,672
	Sewerage and Drainage.				
Gross Revenue ... ..	1,041,515	129,962	204,859	...	1,376,336
Working Expenses ... ..	317,653	48,940	58,503	...	425,096
Interest and Exchange ... ..	652,577	112,238	61,374	...	826,189
Net Revenue ... ..	71,285	(-) 31,216	84,982	...	125,051
Provision for Debt Redemption	67,481	12,532	17,866	...	97,879
Surplus... ..	3,804	(-) 43,748	67,116	...	27,172

The amount of revenue remaining after providing for working expenses was £2,545,052. Interest in the Metropolitan services amounted to £929,995 for water and £610,153 for sewerage and drainage, and the cost

of exchange was £66,653 and £42,424 respectively. In the Hunter District interest was £100,095 and exchange £12,962 in respect of water supply, and for sewerage and drainage services interest £99,612 and exchange £12,626. The surplus, after meeting sinking fund contributions and instalments in reduction of debt, amounted to £188,844.

A brief statement of the liabilities and assets of the Metropolitan and Hunter District services at 30th June, 1938, and of the other works at 31st December, 1937, is shown below:

TABLE 403.—Water and Sewerage Services, Liabilities and Assets, 1937.

Particulars.	Water Supply and Sewerage Works.				
	Metropolitan	Hunter District.	Municipalities and Shires.	Other.	Total.
	£	£	£	£	£
<b>Liabilities—</b>					
Capital Indebtedness ...	41,329,702	6,158,578	5,723,382	1,130,623	54,342,285
Other Creditors ...	562,259	129,971	139,140	20,190	851,560
<b>Total Liabilities</b> ...	<b>41,891,961</b>	<b>6,288,549</b>	<b>5,862,522</b>	<b>1,150,813</b>	<b>55,193,845</b>
<b>Assets—</b>					
Works, etc. ...	51,635,557	7,192,544	6,734,372	1,682,639	67,245,112
Sundry debtors and outstanding rates ...	133,070	114,905	329,894	10,092	587,961
Cash, investments, etc. ...	344,814	87,018	485,429	51,802	969,063
<b>Total Assets</b> ...	<b>52,113,441</b>	<b>7,394,467</b>	<b>7,549,695</b>	<b>1,744,533</b>	<b>68,802,136</b>
<b>Excess of Assets</b> ...	<b>10,221,480</b>	<b>1,105,918</b>	<b>1,687,173</b>	<b>593,720</b>	<b>13,608,291</b>

The surplus of assets in the Metropolitan works consists of debt remitted by the Government, £7,500,000; a grant by the State Government from unemployment relief funds, spent on construction, £721,810; capital value of old City Council water works transferred to the Board, £98,486; reserves for repayment of capital debt, £1,608,673; reserve for renewals, £328,035; less debit balance of revenue account, £35,524. In the Hunter District the surplus consists of unemployment relief grants spent on construction, £214,664; excess value of assets over loan debt due to the Government consequent upon an adjustment of capital indebtedness in 1928, £673,666; reserves for repayment of capital debt, £142,106; general reserve, £25,600; and credit balance of revenue account £49,882.

#### *Metropolitan Water Supply and Sewerage.*

The Metropolitan Water, Sewerage and Drainage Board was constituted in 1888 to assume control of the water supply and sewerage services in the county of Cumberland, including those under the control of the City Council. The water supply was transferred to the Board's management in May, 1888, and the sewerage in September, 1889. The Board's jurisdiction extends to a large district outside the county of Cumberland and embraces a strip of territory extending along the South Coast beyond Wollongong to Lake Illawarra.

The Board is composed of seven members. Two members, a president and a vice-president, are appointed by the Governor for a period of five years, and five members are elected by the aldermen and councillors of local areas concerned to hold office for four years. For the purposes of the elections, the municipalities and shires have been grouped into five constituencies and one member is elected by each group.

The sources of the metropolitan water supply are the waters of the Nepean, Cataract, and Cordeaux Rivers, draining an area of 347 square miles with a copious rainfall. The supply is stored chiefly in five large reservoirs, viz., Prospect, from which 1,951,000,000 gallons are available by gravitation; Cataract, with a capacity of 20,743,000,000 gallons; Cordeaux, 20,597,000,000 gallons; Nepean, 17,898,000,000 gallons; and Avon, 47,153,000,000 gallons. A reservoir of 15,473,000,000 gallons capacity at Woronora and a weir on the Warragamba River which will provide a storage of 37,000,000 gallons are under construction.

The water is conveyed from the upper storages to the Prospect Dam, thence to Sydney and adjacent areas by means of tunnels, canals, etc., and branch systems supply Camden, Campbelltown, and other townships along the southern railway. Wollongong and several settlements on the South Coast are supplied from two reservoirs on the Upper Cordeaux River which have a combined capacity of 430,000,000 gallons, and water for Richmond is pumped from the Hawkesbury River. There are eighty service reservoirs throughout the area reticulated, with a total capacity of 514,703,000 gallons. The largest has a capacity of 175,750,000 gallons; there is one of 96,110,000 gallons capacity, two of 37,000,000 gallons, and three of about 19,000,000 gallons.

The total length of water mains as at 30th June, 1937, was 4,031 miles.

The first sewerage works in Sydney were begun in 1853, and there were 70½ miles of sewers in existence in 1889, the date of transfer to the Metropolitan Board of Water Supply and Sewerage.

The present system consists of three main outfalls—the Bondi Ocean outfall; the southern and western suburbs outfall, which discharges into the Pacific Ocean at Long Bay; and the northern suburbs outfall, discharging into the ocean at North Point.

The Metropolitan Board also maintains 83 miles of channels for storm-water drainage purposes, and is authorised to levy drainage rates within areas notified by gazettal.

The following statement shows the number of premises supplied with water and those connected with the sewerage system administered by the Metropolitan Board in various years since 1911.

TABLE 404.—Metropolitan Water and Sewerage, Particulars of Services, 1911 to 1938.

Year ended 30th June.	Water Supply.			Sewerage.		
	Premises Supplied.	Total Supply during Year.	Average Daily Supply Per Property.	Premises connected.	Length of Sewers.	Length of Stormwater Drains.
	No.	Thousand gallons.	gallons.	No.	miles.	miles.
1911	139,237	10,587,434	208	108,012	825	49
1916	183,598	14,374,000	214	130,638	1,022	54
1921	221,886	17,701,000	218	148,923	1,197	64
1926	268,558	24,506,739	250	176,388	1,419	67
1931	308,657	30,803,000	273	204,772	1,871	76
1933	315,097	32,337,000	281	210,777	1,936	76
1934	319,607	31,546,000	271	215,013	2,041	77
1935	322,480	33,683,000	287	221,701	2,106	79
1936	326,021	34,372,000	288	228,195	2,179	82
1937	332,941	35,896,000	295	235,992	2,382	83
1938	341,948	38,431,000	308	245,342	2,477	86

General rates for water and sewerage are levied on the assessed annual value of the premises. The rates, which in 1916 were 6d. in the £ for water and 9½d. for sewerage, had risen to 9d. and 12d. respectively in 1921. In recent years the rates have varied as follow, viz.:-

Year.	Water Rate. d.	Sewerage Rate. d.
1931-32	9	8
1932-33	10½	10
1933-34	9½	
1934-35 } to 1938-39 }	9¼	8½

The charge for water supplied by meter for gardens, livestock, and trade purposes in 1932-33 was 1s. 4d. per 1,000 gallons, less a rebate of 2d. where consumption was greater than in the previous year. In subsequent years the rate has been 1s. 2d., with a rebate of 2d. on water used in excess of the previous year's consumption. Water is supplied without a meter to areas, mostly small gardens, not exceeding 1,000 square feet for a special fee of 8s. per annum. The number of gardens registered on 30th June, 1938, was 63,928.

Stormwater drainage rates are fixed in each area, so as to yield the revenue required to meet expenses, interest and sinking fund charges. They vary from ¼d. to 3¼d. in the £ of assessed annual value. In substitution of its power to levy stormwater drainage rates in any area, the Board may arrange that the council pay from its general fund a sum equivalent to the proceeds of a rate.

The capital funds of the Board to 30th June, 1938, were derived from the following sources:-

TABLE 405.—Metropolitan Water, Sewerage and Drainage,  
Capital Funds at 30th June, 1938.

Particulars.	Water.	Sewerage.	Drainage.	Total.
	£	£	£	£
<b>New South Wales Government—</b>				
Loan Funds ... ..	15,063,638	9,890,434	312,885	25,266,957
Less Repayments ... ..	707,852	434,514	15,489	1,157,855
Remission ... ..	2,845,015	4,507,570	147,415	7,500,000
Net ... ..	11,510,771	4,948,350	149,981	16,609,102
Advances ... ..	3,686,879	1,386,379	122,742	5,196,000
Unemployment Relief Fund ... ..	292,218	290,175	...	582,393
<b>Amount due to New South Wales Government ... ..</b>	<b>15,489,868</b>	<b>6,624,904</b>	<b>272,723</b>	<b>22,387,495</b>
Loans raised by Board ... ..	9,626,065	8,595,942	715,686	18,937,693
Unemployment Relief—Commonwealth Savings Bank ... ..	2,862	1,652	...	4,514
*Unemployment Relief Fund (New South Wales)—Grant ... ..	276,685	442,548	2,577	721,810
<b>Total ... ..</b>	<b>£ 25,395,480</b>	<b>15,665,046</b>	<b>990,986</b>	<b>42,051,512</b>

\* Not repayable.

The Metropolitan Water, Sewerage and Drainage (Capital Indebtedness) Act, 1935, provides for the remission of £11,450,000 of debt due by the Board to the Government. The remission is to be made in instalments

over a period of five years commencing on 1st July, 1936, and the Board is to expend £3,000,000 from loan funds in each of the years. An amount of £5,750,000 was remitted in 1936-37 and £1,750,000 in 1937-38.

The Board is required to pay interest on its debt to the State, also a proportion of the exchange and sinking fund charges payable on the public debt of the State. Interest rates on the Board's indebtedness to the State have declined substantially since 1929-30, when the rate on the debt incurred prior to 1925 was 5.17204 per cent.; *i.e.*, the average rate of interest on the State public debt. The rate was 4.37804 in 1932-33, and the rate on Treasury advances was reduced from 5 per cent. to 4½ per cent. as from 1st January, 1933. The rate on both classes of debt was 4 per cent. from 1st July, 1933, to 30th June, 1934, and it was reduced to 3½ per cent. from 1st July, 1934.

The Board, with the approval of the Governor, may raise its own loans, but the debt so incurred in respect of any of its services must not exceed 20 per cent. of the unimproved value of the lands ratable for that service. A sinking fund provision of 10s. per cent. is required in respect of such loans.

The authority to raise loans was granted in 1925, but the Board's first loan was not floated until July, 1928. In the intervening years the Treasury advanced moneys for the construction of works, and these advances amounting to £6,495,000 were to be repaid by annual instalments of £324,750 over a period of twenty years from 1st January, 1930. Four instalments amounting in the aggregate to £1,299,000 had been repaid by 30th June, 1938, from the proceeds of loans floated by the Board, and the amount outstanding at that date was £5,196,000. Then it was arranged that repayment should be spread over 40 years and be made from revenue by annual instalments of £243,314 including principal and interest.

Particulars of the loans floated by the Board, which were current at 30th June, 1938, are shown below:—

TABLE 406.—Metropolitan Water, Sewerage and Drainage,  
Loans Outstanding at 30th June, 1938.

Year floated.	Amount Outstanding.	Price of Issue.	Rate of Interest.*	Term—Years.	Repayable in—
	£		Per cent.		
1928 ... ..	1,000,000	Par.	*5½	20	Australia.
1929 ... ..	1,485,000	£99 10 0	*5½	15	"
1930 ... ..	850,000	£99 10 0	*6½	20	"
1930 ... ..	1,441,899	£87 5 0	5½	20	New York.
1931 ... ..	50,000	£99 10 0	*6½	20	Australia.
1932 ... ..	100,000	Par.	5	15	"
1932 ... ..	1,200,000	£98 0 0	4½	15	"
1933 ... ..	500,000	£98 0 0	4½	15	"
1933 ... ..	500,000	£97 10 0	4½	20	"
1933 ... ..	2,500,000	Par.	4	23	"
1934 ... ..	1,000,000	"	3½	12	"
1935 ... ..	500,000	"	3½	8	"
1936 ... ..	1,000,000	£98 0 0	4	15	"
1936 ... ..	500,000	£98 0 0	4	15	"
1936 ... ..	625,000	£97 5 0	4	15	"
1936 ... ..	1,000,000	£99 0 0	4½	15	"
1937 ... ..	1,375,000	£98 12 6	4½	12	"
1937 ... ..	2,000,000	Par.	4	20	London.
1938 ... ..	824,750	"	4½	15	Australia.

\* Subject to the Interest Reduction Act, 1931.



At 30th June, 1938, the amount outstanding in respect of loans floated by the Board was £18,451,649, and sinking fund investments amounted to £317,640.

The following statement shows particulars of the financial transactions relating to the services controlled by the Metropolitan Board in various years from 1911:—

TABLE 407.—Metropolitan Water, Sewerage and Drainage, Finances, 1911 to 1938.

Year ended 30th June.	Capital Indebtedness.	Gross Revenue.	Working Expenses and Management.	Net Revenue.	Interest on Capital.	Ex-change.	Sinking Fund Contribution.	Surplus.
	£	£	£	£	£	£	£	£
<i>Water Supply.</i>								
1911	5,420,813	299,442	99,355	200,087	192,486	...	...	7,601
1921	10,323,252	855,751	347,298	508,453	473,890	...	...	34,563
1926	16,338,231	1,319,872	492,633	827,239	795,144	...	66,250	(—) 34,255
1931	23,381,090	1,672,954	456,474	1,216,480	1,062,981	93,921	58,010	1,568
1933	23,905,107	1,728,397	413,204	1,315,193	1,013,808	162,313	64,553	74,519
1934	24,476,811	1,516,295	414,101	1,102,194	948,771	93,465	74,841	(—) 14,883
1935	25,369,907	1,499,879	422,981	1,076,898	877,084	85,977	79,473	34,364
1936	26,180,768	1,573,298	428,751	1,144,547	906,450	83,891	83,997	70,209
1937	25,229,515	1,645,552	526,934	1,118,618	887,310	69,123	89,684	72,501
1938	25,670,843	1,741,809	582,789	1,159,020	929,995	66,653	97,005	65,367
<i>Sewerage.</i>								
1911*	4,496,290	234,208	79,636	154,572	159,070	...	...	(—) 4,498
1921*	7,329,632	615,615	229,441	386,174	341,675	...	...	44,499
1926	10,138,844	777,809	293,244	484,565	501,451	...	38,917	(—) 55,803
1931	14,440,475	979,389	247,896	731,493	694,575	63,944	39,674	(—) 66,700
1933	14,976,954	1,031,771	212,184	819,587	617,205	115,180	43,229	43,973
1934	15,150,416	900,875	229,207	671,668	584,723	64,026	49,829	(—) 26,910
1935	15,713,691	875,988	236,722	639,266	539,463	59,234	52,467	(—) 11,898
1936	16,259,059	906,723	237,279	669,444	560,362	57,619	55,014	(—) 3,551
1937	15,026,095	935,747	283,979	651,768	502,782	37,679	54,516	56,791
1938	15,402,163	999,989	301,544	698,445	569,871	40,538	63,319	24,717
<i>Drainage.</i>								
1926	398,796	33,790	15,568	18,222	20,189	...	1,688	(—) 3,655
1931	699,450	51,745	11,516	40,229	33,880	2,624	1,872	1,853
1933	681,932	46,576	10,839	35,737	30,432	6,110	2,051	(—) 2,856
1934	749,042	39,119	10,297	28,822	28,387	2,768	2,209	(—) 4,542
1935	817,152	38,992	9,684	29,308	26,967	2,661	2,368	(—) 2,688
1936	896,950	39,314	9,447	29,867	28,919	2,543	2,585	(—) 4,180
1937	880,513	40,059	11,425	28,634	30,193	1,972	3,349	(—) 6,880
1938	1,006,479	41,526	16,109	25,417	40,282	1,886	4,162	(—) 20,913

\* Includes particulars of Drainage Branch.

The decrease of capital indebtedness in 1937 was due to remission of part of the debt due to the State as described on page 481.

The working expenses shown in the foregoing table do not include expenditure on renewals except in 1925-26, 1936-37 and 1937-38. In 1925-26 expenditure included in respect of renewals was £70,274 for water supply, £3,818 for sewerage and £1,966 for drainage; in 1936-37 it was £80,000, £19,290 and £710, respectively, and in 1937-38 £81,400, £18,000 and £600.

During the period 1906-07 to 31st March, 1925 renewals were met from the Public Works Fund, and the amount expended was £484,589. Between April, 1925, and 30th June, 1938, the amount expended on renewals was £1,486,447, of which £576,585 was charged to revenue, £274,844 to loans, and £635,018 to a renewals reserve fund. Resources of the renewals reserve fund were derived from £160,500 charged against revenue in 1929-30;

£593,680 appropriated from surplus revenues in subsequent years, and £190,209 granted by the Unemployment Relief Council in the period 1932-33 to 1934-35. At 30th June, 1938, the unexpended balance of the renewals reserve fund amounted to £309,371.

No charge was made for sinking funds until the separation of the Board's financial affairs from the Consolidated Revenue Fund on 1st April, 1925, and the Board was first called upon to bear a share of exchange payable in respect of State oversea debt in 1930-31.

Accounts are kept on a revenue and expenditure basis, and the revenue accrued and the expenditure incurred in respect of any year are brought into account in that year. The accumulated loan expenditure is inclusive of works in course of construction. Interest on these works is payable by the Board and until 1927-28 it had been the custom to charge to revenue interest on works during construction. In that year, however, it was decided to capitalise such interest in respect of major works, *i.e.*, those having a life estimated at not less than fifty years.

#### *The Hunter District Water Supply and Sewerage.*

The first water supply works of the Lower Hunter were constructed by the Government under the provisions of the Country Towns Water Supply and Sewerage Act of 1880. In 1892, control of the works was transferred to the Hunter District Water Board.

Water is obtained mainly from a dam of 5,000 million gallons capacity on the Chichester River at a point about 60 miles north from Newcastle. This supply can be supplemented if required by pumping water from the Hunter River.

The sewerage scheme for the Hunter district has its outfall at Merewether Gulf, some distance south from Newcastle. The districts served are Newcastle, Adamstown, Carrington, Hamilton, Lambton, New Lambton, Merewether, Stockton, Waratah, Wickham, Cessnock, and parts of Tarro and Lake Macquarie shires.

Particulars relating to the water supply and sewerage services of the Board at intervals since 1911 are shown below:—

TABLE 408.—Hunter District Water and Sewerage, Particulars of Services, 1911 to 1938.

Year ended 30th June.	Water Supply.			Sewerage.	
	Properties Supplied.	Supply during year.	Average Daily Supply. Per Property.	Properties Connected.	Length of Sewer.
	No.	thousand gallons.	gallons.	No.	miles.
1911 ... ..	17,164	675,214	108	1,465	30
1921 ... ..	25,874	1,711,187	181	12,218	148
1926 ... ..	33,997	2,668,215	215	18,071	177
1931 ... ..	42,631	2,905,391	187	21,471	200
1933 ... ..	42,968	2,961,547	189	21,801	203
1934 ... ..	43,110	3,043,379	193	21,920	246
1935 ... ..	43,811	3,277,373	205	22,548	248
1936 ... ..	44,656	3,670,130	224	24,066	249
1937 ... ..	45,745	3,931,350	235	25,289	277
1938 ... ..	47,089	4,107,500	239	26,932	300

The Hunter District Water Board, as reconstituted in terms of the Hunter District Water, Sewerage and Drainage Act, 1938, consists of seven members. A president and a vice-president are appointed by the Governor for a maximum period of seven years, and five members are elected by the councils of constituent municipalities and shires to hold office for four years.

The Board's accounts formed part of the accounts of the State Treasury until 1st July, 1938.

The capital funds of the Board at 30th June, 1938, consisted of the following items, viz., capital indebtedness repayable to the State Government, £6,303,213, and non-repayable State and Commonwealth grants for unemployment relief works, £214,664. The capital indebtedness to the State was reduced in terms of the Hunter District Water, Sewerage and Drainage Act, 1938, to £5,040,980 as at 30th June, 1938, and further remissions amounting to £1,712,000 are to be made in instalments, viz., £962,000 in 1938-39, £380,000 in 1939-40, and £370,000 in 1940-41. These remissions are conditional upon the Board expending from loan moneys £800,000, £790,000 and £745,000 in the respective years. The indebtedness had already been written down by £1,854,544 in 1928.

The Board is authorised, with the Governor's approval, to obtain bank overdrafts and to raise loans, locally or overseas, for the construction of additional works, the renewal of loans and the repayment of indebtedness to the State or any financial institution. The State Government will guarantee loans raised by the Board and the Board must establish sinking funds to provide for their repayment in accordance with the terms of the Governor's approval.

Water and sewerage rates are levied on the assessed annual value. Since 1st July, 1936, the rates have been as follows, viz., water 12d. and sewerage 15d. in the pound, with a minimum of 15s. on ratable premises: water 9d., and sewerage 12d. in the pound, with a minimum of 5s. on ratable vacant lands. Unless fixed by special agreement the charge for water by meter ranges from 1s. 6d. to 2s. per 1,000 gallons, according to the quantity supplied.

A stormwater drainage rate of 3d. in the pound on assessed annual value was levied for the first time in 1937-38.

The Board is required to pay interest and sinking fund charges on its loans, and to pay interest on its debt to the State at the rate of 3½ per cent. together with a proportion of the exchange and sinking fund charges payable on the public debt of the State. When the Board repays indebtedness to the State from the proceeds of any loan, the Treasurer may reimburse any annual loan charges in excess of the amounts formerly payable to the State.

Particulars of the finances of the Hunter District Water Board in various years since 1910-11 are shown in the following table:—

TABLE 409.—Hunter District Water, Sewerage and Drainage, Finances, 1911 to 1938.

Year ended 30th June.	Capital Debt.	Gross Revenue.	Working Expenses and Manage- ment.	Interest on Loan Capital.	Exchange.	Sinking Fund.	Net Revenue.
	£	£	£	£	£	£	£
<i>Water Supply.</i>							
1911 ... ..	495,747	45,711	17,774	16,970	...	...	10,967
1921 ... ..	1,472,074	116,320	59,895	35,556	...	...	20,869
1926 ... ..	3,733,126	163,807	65,328	55,819	...	...	42,660
1931 ... ..	2,847,998	235,325	77,706	144,720	15,578	8,117	(-) 10,796
1934 ... ..	2,889,654	213,020	68,211	113,930	17,208	9,841	3,830
1935 ... ..	2,898,585	215,696	66,395	99,829	14,477	10,193	24,802
1936 ... ..	2,912,875	226,998	73,587	99,407	14,197	10,530	29,277
1937 ... ..	2,967,348	234,286	74,575	99,582	13,194	11,333	35,602
1938 ... ..	3,034,183	240,097	83,570	100,095	12,962	12,180	31,290
<i>Sewerage.</i>							
1911 ... ..	170,151	8,975	3,177	2,902	...	...	2,896
1921 ... ..	590,790	32,164	16,007	25,328	...	...	(-) 9,171
1926 ... ..	677,912	68,412	22,625	31,932	...	...	13,855
1931 ... ..	1,234,476	91,158	37,630	34,886	9,756	5,083	3,803
1934 ... ..	1,739,024	72,233	33,004	27,583	4,166	5,765	1,715
1935 ... ..	1,849,454	74,578	32,125	24,133	3,500	6,338	8,482
1936 ... ..	1,963,200	77,442	33,706	23,821	3,402	6,945	9,568
1937 ... ..	2,057,480	106,185	39,583	61,398	8,045	7,701	(-) 10,542
1938 ... ..	2,182,903	115,229	45,171	64,052	8,203	8,600	(-) 10,797
<i>Stormwater Drainage.</i>							
1926 ... ..	41,637	...	...	...	...	...	...
1931 ... ..	634,326	...	...	...	...	...	...
1934 ... ..	969,818	...	487	...	...	2,883	(-) 3,370
1935 ... ..	1,040,311	...	511	...	...	3,218	(-) 3,729
1936 ... ..	1,074,415	...	762	...	...	3,418	(-) 4,180
1937 ... ..	1,079,977	...	854	35,366	4,500	3,716	(-) 44,436
1938 ... ..	1,086,127	14,733	3,769	35,560	4,423	3,932	(-) 32,951

The amount of interest on the capital used for water supply increased substantially after 1925-26 as major works were completed and charges, capitalised during construction, became payable from revenue. For a similar reason there were increases in interest in respect of sewerage and drainage works in 1936-37. Interest and exchange in respect of drainage works were capitalised in full until 1931-32 and in part on works under construction in later years. The charges on completed drainage works were paid out of the Consolidated Revenue Fund of the State in the years 1932-33 to 1935-36.

The interest shown in the table in respect of all services in 1936-37 and 1937-38 is subject to adjustment consequent upon the reduction of the capital debt as described on page 485.

## POPULATION.

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### *The Census.*

The number and characteristics of the population of New South Wales have been ascertained at intervals by census enumerations for more than one hundred years past. Although regular musters were held during the first forty years of the existence of the colony, it was not until 1828 that the first actual census was held. This was followed by census enumerations in 1833 and 1836 and then at quinquennial intervals until 1861. Thereafter a census was taken at decennial intervals until 1921. For reasons of economy, that due in 1931 was postponed until 30th June, 1933.

The successive censuses up to 1901 were taken under the authority of the State Government, but upon establishment of the Commonwealth the census became a Federal function and the first Australian census to be taken under Federal control was in 1911.

### *Intercensal Estimates.*

In the periods between census enumerations the population is estimated at quarterly intervals. The factors causing variation in the population therefore require that a careful system of record be maintained whereby natural increase and net migration may be gauged accurately. The compulsory registration of births and deaths ensures reliable information as to the natural increase, and the records of arrivals and departures, although defective in some respects in the past, are now considered to be reliable.

### THE GROWTH OF POPULATION IN NEW SOUTH WALES.

#### *From 1788 to 1856.*

The growth of the population of New South Wales between 1788 and 1856 is traced on page 223 of the Official Year Book for 1922, and the area and population at each territorial readjustment are shown on page 1 of this Year Book.

#### *From 1861 to 1938.*

With the exception of the territory ceded to the Commonwealth Government in 1911 and 1915, New South Wales (including Lord Howe Island) has occupied its present boundaries since 1859. The regular census enumerations furnish a connected summary of the growth of population

since that date as shown in the following table. The latest estimate made subsequent to the census is also shown.

TABLE 410.—Population, 1861 to 1938.

Year.	Population.	Index Number of Population. (Census 1861=100).	Increase in Population since previous Census.			Number of Persons per Square Mile.
			Numerical.	Proportional.	Average Annual Rate.	
CENSUS RECORDS.*						
1861	350,860	100	168,436*	per cent. 92·55*	per cent. 6·76	1·12
1871	502,998	143	152,138	43·36	3·67	1·62
1881	749,825	214	246,827	49·07	4·07	2·42
1891	1,127,137	321	377,312	50·32	4·16	3·63
1901	1,355,355	386	228,218	20·25	1·86	4·37
1911	1,646,734	469	291,379	21·50	1·97	5·32
1921	2,100,371	599	453,637	27·55	2·46	6·79
1933	2,600,847	741	500,476	23·83	1·76	8·41
ESTIMATE.						
31 Dec., 1938.	2,735,695	780	134,848‡	5·18‡	0·92	8·84

\* Since 1851.

† Census dates were between 31st March and 7th April, from 1861 to 1921 and on 30th June, 1933.

‡ Since Census of 1933.

Aboriginals are excluded from the population shown above, but the number of aboriginals enumerated at various dates is shown on page 509 of this Year Book. Aboriginals were included in figures of population appearing in the Year Book prior to the 1932-33 issue, but for uniformity with Commonwealth statistics, it has been deemed advisable to omit them from the general tables of population. The population of the Australian Capital Territory is excluded in 1911 and subsequent years.

A steady growth of population proceeded until 1891. This growth was especially marked between 1851 and 1861, when the gold discoveries were attracting eager fortune-hunters from other parts of the world, many of whom remained as settlers. After the gold rushes had ceased, the growth of population proceeded at a slower rate, but though neither the average annual rate of increase nor the proportionate increase of that period was attained again, the actual numerical expansion in later periods has been greater. Indeed, the lull which occurred in the growth of population during the sixties developed gradually into a period of increasingly rapid expansion after 1871, and the next twenty years were, from a relative point of view, a time of unexcelled development. This expansion, however, came to an end when the trade boom ended in the commercial crisis of the early nineties.

The next twenty years was a period of little progress in the development of population, the reasons being the commercial and industrial stagnation which followed the crisis of 1893, and the heavy decline in the birth-rate which lowered the rate of natural increase. State assisted immigration had been suspended in 1885, except for the families of those already assisted to immigrate, and was not resumed until 1905.

A new period of prosperity began early in the twentieth century, and the full weight of the trade revival was felt in the period 1911 to 1921, when the tide of population turned more definitely in favour of the growth of the State. Despite the serious effects of the Great War in diminishing the birth-rate, in temporarily stopping immigration, and in causing an exodus of men of reproductive ages, many of whom did not return, and despite the losses occasioned by the influenza epidemic of 1919, the period showed a greater relative expansion than either of its two immediate predecessors, and by far

the greatest average annual numerical increase on record. From 1921 to 1923 the volume of immigration was restricted, and the growth of population depended mainly upon natural increase. Immigration, however, was substantial in the five years 1924 to 1928, but in 1929 the decline which began in 1928 was continued, and with the advent of the severe depression there was an appreciable loss of population by emigration in 1930 and 1931. In subsequent years to 1936 there was a small annual gain, increasing in 1937 to the highest figure recorded in any year since 1929. The net increase in the population in the twelve and one-quarter years between the census of 1921 and that of 1933 was 500,476, or 23.83 per cent., equal to an annual rate of 1.76; the corresponding figures for the ten years which elapsed between the censuses of 1911 and 1921 were an increase of 453,637, or 27.55 per cent., equal to an annual rate of 2.46 per cent. In the five and one-half years following the census of 1933 the population has increased by only 134,848 or 5.18 per cent., representing an average annual rate of increase of 0.92 per cent.

The estimated population at the end of each year and the mean population for each year since 1928 are shown in the following table. The figures for the years up to 1932 have been adjusted in accordance with the final results of the census of 1933:—

TABLE 411.—Population, Annual and Means, 1928 to 1938.

Year.	Estimated Population at 31st December.			Mean Population.	
	Males.	Females.	Total.	Year Ended 31st December.	Year Ended 30th June.
1928 ...	1,266,254	1,216,875	2,483,129	2,460,410	2,432,731
1929 ...	1,283,241	1,236,452	2,519,693	2,503,026	2,484,071
1930 ...	1,294,419	1,251,934	2,546,353	2,532,289	2,518,553
1931 ...	1,302,893	1,263,421	2,566,314	2,553,871	2,544,691
1932 ...	1,315,003	1,276,728	2,591,731	2,579,741	2,567,639
1933 ...	1,324,839	1,288,680	2,613,519	2,601,782	2,590,840
1934 ...	1,335,123	1,301,080	2,636,203	2,623,560	2,613,063
1935 ...	1,344,339	1,313,327	2,657,666	2,645,575	2,634,353
1936 ...	1,355,493	1,326,243	2,681,736	2,667,839	2,656,512
1937 ...	1,368,505	1,342,233	2,710,738	2,694,679	2,680,730
1938 ...	1,379,962	1,355,733	2,735,695	2,721,196	2,708,833

## SOURCES OF INCREASE SINCE 1861.

The following statement shows the extent to which natural increase and net immigration have contributed to the growth of the population during each intercensal period since 1861; in calculating the increase from 1901 the population of the Federal Capital Territory has been excluded, and aboriginals are omitted in all cases:—

TABLE 412.—Natural Increase and Immigration, 1861 to 1933.

Period.	Numerical Increase.			Average Annual Rate of Increase.		
	Natural.	Net Immigration.	Total.	Natural.	Net Immigration.	Total.
1861-1871 ...	106,071	46,067	152,138	per cent.	per cent.	per cent.
1871-1881 ...	139,722	107,105	246,827	2.68	1.21	3.67
1881-1891 ...	204,664	172,648	377,312	2.44	2.09	4.16
1891-1901 ...	230,669	(-) 2,451	228,218	1.90	(-) 0.02	1.86
1901-1911 ...	250,140	41,239	291,379	1.71	0.30	1.97
1911-1921 ...	318,945	134,692	453,637	1.79	0.77	2.46
1921-1933 ...	377,321	123,155	500,476	1.36	0.47	1.76
1861-1933 ...	1,627,532	622,455	2,249,987	2.42	1.42	2.81

Natural increase has been by far the greater factor in the growth of population in New South Wales in this period. In spite of the persistent though fluctuating fall in the rate of natural increase the average annual addition from this source, as shown in the last table, increased up to 1921, but in the following period declined. This decline is strikingly apparent in the table shown in the following section covering the period 1921 to 1938. Further details of the natural increase will be found on page 541. Immigration has intermittently provided considerable additions to the population, although over the period of seventy-two years, between the censuses of 1861 and 1933, the net immigration amounts to only 622,455 or about one-quarter of the total increase. Immigration proceeded rapidly until 1886 when it declined heavily, and did not revive until 1905, when the State re-introduced the policy of affording assistance to immigrants. Between 1892 and 1904 the State actually lost more than ten thousand inhabitants by net emigration. The rate of increase due to net immigration has been very variable; considerable improvement was in evidence in the years 1907, 1911 to 1914, and 1924 to 1928, since then the net movement has been of little magnitude. Measured in relation to population the rate of increase from net immigration after the period 1881-91 is much below that of former years. (See graph on page 491.)

*Sources of Increase, 1921-1938.*

The sources of increase in population in New South Wales (exclusive of aboriginals of full blood) during each year since 1921 were as follows. The figures for the years up to 1932 are based upon the final results of the 1933 census:—

TABLE 413.—Natural Increase and Immigration, 1921 to 1938.

Year Ended 31st December—	Numerical Increase.			Annual Rate of Increase.		
	Natural.	Net Immigration.	Total.	Natural.	Net Immigration.	Total.
1921 ... ..	34,610	5,358	39,968	per cent. 1·65	per cent. ·26	per cent. 1·91
1922 ... ..	36,004	13,823	49,827	1·69	·65	2·34
1923 ... ..	33,021	8,341	41,362	1·52	·38	1·90
1924 ... ..	32,870	17,274	50,144	1·48	·78	2·26
1925 ... ..	33,793	15,524	49,317	1·49	·68	2·17
1926 ... ..	30,957	23,381	54,338	1·33	1·01	2·34
1927 ... ..	31,090	25,887	56,977	1·31	1·09	2·40
1928 ... ..	32,134	17,340	49,474	1·32	·71	2·03
1929 ... ..	28,089	8,475	36,564	1·13	·34	1·47
1930 ... ..	30,893	(—) 4,233	26,660	1·23	(—) ·17	1·06
1931 ... ..	26,451	(—) 6,490	19,961	1·04	(—) ·26	·78
1932 ... ..	23,552	1,865	25,417	·92	·07	·99
1933 ... ..	21,873	(—) 85	21,788	·84	(—) ·00	·84
1934 ... ..	19,861	2,823	22,684	·76	·11	·87
1935 ... ..	20,129	1,334	21,463	·76	·05	·81
1936 ... ..	21,817	2,253	24,070	·82	·08	·90
1937 ... ..	22,262	6,740	29,002	·83	·25	1·08
1938 ... ..	21,214	3,743	24,957	·77	·14	·91

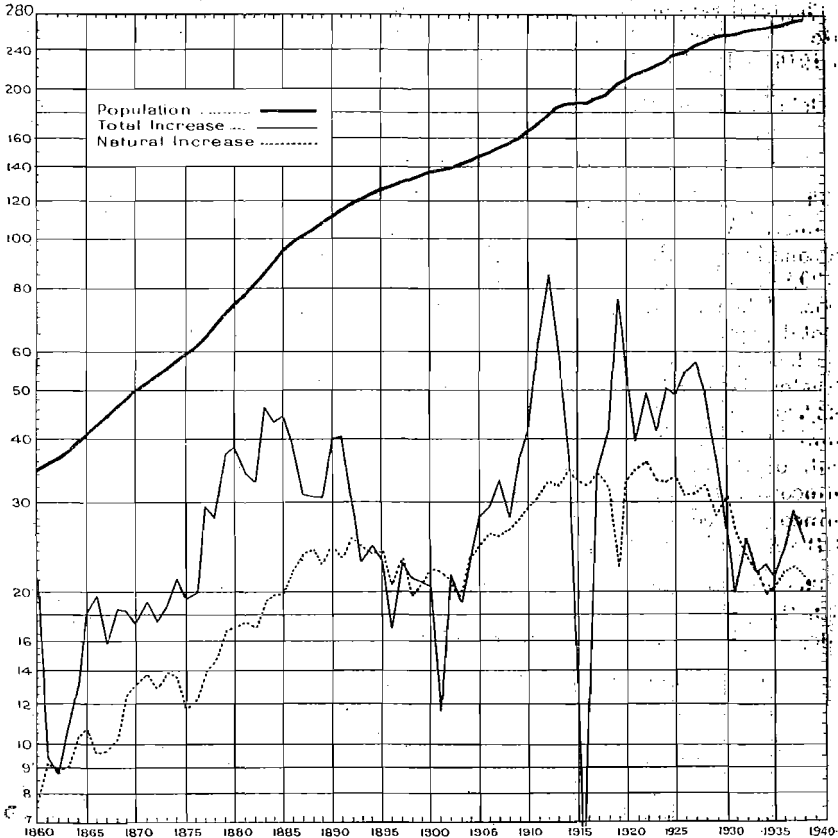
(—) Denotes an excess of Departures over Arrivals.



From 1921 net immigration grew rapidly though irregularly until 1927, but in 1928 a decline set in which culminated in a loss by emigration in 1930 and 1931. This decline was arrested in 1932, but subsequent gains have been relatively small. In 1937 the net immigration showed a considerable increase and was the highest annual figure for eight years, but this high level was not sustained in 1938.

### POPULATION AND ANNUAL INCREASE, 1860 TO 1938.

Ratio Graph.



NOTE.—(i) The numbers at the side of the graph represent 10,000 of population, 1,000 Total Increase and 1,000 Natural Increase.

(ii) In 1916 there was a decrease of 8,711 in the population owing to the departure of troops and the curve fell below the limits of the graph.

The diagram is a ratio graph. The vertical scale is logarithmic, and the curves rise and fall according to the percentage of increase or decrease. Actual numbers are shown by means of the numbers at the side of the graph.

The natural increase in 1922 was numerically the greatest on record, though proportionately it was considerably below that of former years. After 1922 the number began to decline rapidly, mainly as a result of the sharp drop in the number of births, although in several years, notably 1928 and 1929, an increase in the number of deaths contributed to an extremely

low natural increase. The natural increase in 1934 and the slightly higher figure in 1935 were the lowest recorded since 1835 with the exception of 1898 and 1903. The improvement in 1935, 1936 and 1937 was due to a greater increase in the number of births than in the number of deaths, but in 1938 the births declined whilst the deaths increased and the natural increase approached the record low figure of the last fifty years. The rate of natural increase which has been falling for over sixty years, was at a record low figure in each successive year from 1931 to 1934, it increased slightly in the next three years, but the rate in 1938 was the third lowest on record.

The total rate of increase in the population in 1931 was the lowest annual rate since New South Wales has been within its present boundaries, except in 1915 and 1916, when large numbers of troops were transferred overseas.

Details of migration to and from the State will be found on later pages.

#### DISTRIBUTION OF POPULATION.

The population of New South Wales is distributed in a rather remarkable manner. At the 31st December, 1938, the city of Sydney contained 88,870 persons in a small area surrounded by an extensive group of suburbs with 1,199,850 inhabitants, making a total of 1,288,720 dwellers in the metropolis. Then scattered throughout the State are 111 municipalities, with a total population of 596,140; of these, 11 municipalities in the County of Cumberland contained 52,390 persons, and the large mining centres of Greater Newcastle, Broken Hill, Wollongong, Cessnock and Lithgow, 188,530 inhabitants; leaving 355,220 in the 95 rural towns incorporated as municipalities. Distributed over the remainder of the State—99.3 per cent. of its area—are 845,620 persons, of whom about one-third live in unincorporated towns of 500 persons or more. Only 19,400 live in the unincorporated portion of the Western Division, which covers 40.5 per cent. of the area of the State.

The distribution of population at the 31st December, 1938, together with the proportion in each division and the average population per square mile, are shown in the following table:—

TABLE 414.—Distribution of Population in Areas, 1938.

Division.	Area (including Harbours, Rivers and Lakes).	Population (excluding full blood Aborigines).		
		Total.	Proportion in each Division	Average per sq. mile.
	sq. miles.		per cent.	
Sydney ... ..	5	88,870	3.25	17,774.0
Suburbs of Sydney ... ..	241	1,199,850	43.86	4,978.6
Metropolis ... ..	246	1,288,720	47.11	5,238.7
Country Municipalities ... ..	1,896	596,140	21.79	314.4
Country Shires... ..	181,870	826,220	30.20	4.5
Western Division (Part unincorporated) ... ..	125,379	19,400	.71	.2
Lord Howe Island ... ..	5	171	.01	34.2
Migratory* ... ..	...	5,044	.18	...
Harbours and Quarantine † ... ..	36	...	...	...
<b>Total, New South Wales ...</b>	<b>309,432</b>	<b>2,735,695</b>	<b>100.00</b>	<b>8.8</b>

\* Shipping and railway travellers.

† Portions not included within Municipal or Shire boundaries.

If allowance be made for those deriving their livelihood from the city but residing in the extra-metropolitan area, the population of such extended metropolitan area would be approximately one-half of the total. About one-fifth of the people reside in the country municipalities, and less than one-third in the remaining rural districts.

The density of population in the metropolitan area of Sydney is 5,239 persons per square mile, whilst in the similar, though smaller, area of Greater Newcastle the density per square mile is 3,213. Adjacent to Greater Newcastle is the northern coalfield over which the density is 63 per square mile. The balance of the coastal division in which the principal industry is dairying (but including the mining and industrial population of Wollongong-Port Kembla), supports an average of 12 persons per square mile; the most populous portion being the North Coast with an average of over 14. In the tablelands division where mixed farming, mining and industrial activities are carried on, the density averages 6 persons per square mile. This average is influenced by the average of almost 9 in the central tablelands where there are mining and industrial activities. The western slopes (mixed farming) has a density of nearly 6, but in the Plains division, the greater portion of which is beyond the western limit of profitable wheat growing, the density is only 2.3 persons per square mile. The whole of these areas (from coast to plains) constitute the Eastern and Central land divisions of the State and the average density therein is 14.5 persons per square mile.

The extensive Western Division, is likely to remain sparsely settled unless means are found to overcome the natural disability of a low average rainfall. At Broken Hill (near the far western border) rich silver lead deposits support the third largest town in the State. Apart from this the balance of the division is under sparse pastoral occupation, and has an average density of only 1 person to every 5 square miles.

The average density of population is 8.8 persons per square mile for the whole State.

#### *Urban and Rural Population.*

A comparison of the urban and rural population of the State at the last five censuses reveals that the population of New South Wales, in common with that of most other countries of the world, tends to congregate in metropolitan and urban centres. In the following table the population shown represents the total under each classification at each census, and no allowance has been made for changes in boundaries. The shipping and aboriginal elements have been omitted from the four main headings and

shown separately. The number of country municipalities increased considerably between 1891 and 1901, but has since declined. The growth shown is due in part to the inclusion of new settlements and in part to the growth of urban areas existing at earlier censuses.

TABLE 415.—Urban and Rural Population, 1891 to 1933.

Division.	1891.	1901.	1911.	1921.	1933.
1. Metropolis (excluding shipping)	383,333	481,830	629,503	899,059	1,235,267
2. Municipalities outside the Metropolis ... ..	304,905	370,078	421,714	525,708	563,081
3. Quasi-urban localities with population exceeding 500 ...	51,963	81,484	175,303	190,556	273,572
4. Remainder of State (Rural) † ...	379,776§	412,302	412,058	475,582	523,727
5. Total ... ..	1,119,977	1,345,694	1,638,578	2,090,905	2,595,647
6. Federal Capital Territory* ...	1,456	1,535	1,724	2,572	8,947
7. Shipping ... ..	5,649	8,026	8,051	9,355	5,039†
8. Lord Howe Island ... ..	55	100	105	111	161
9. Full Blood Aborigines... ..	5,097	3,778	2,012	1,597	1,034
10. Total, New South Wales and Federal Capital Territory ...	1,132,234	1,359,133	1,650,470	2,104,540	2,610,828
Proportion per cent. to total (5), of—	per cent.	per cent.	per cent.	per cent.	per cent.
1. Metropolis ... ..	34.3	35.7	38.4	43.0	47.6
2. Municipalities outside Metro- polis ... ..	27.3	27.5	25.7	25.1	21.7
3. Quasi-urban ... ..	4.6	6.1	10.7	9.1	10.5
4. Rural ... ..	33.8	30.7	25.2	22.8	20.2
	100.0	100.0	100.0	100.0	100.0

\* Ceded to Commonwealth 1st January, 1911. † Including 1,020 railway travellers. ‡ Includes persons living in portions of municipal towns outside boundaries of municipality (numbering over 40,000 in 1921 and 1933). § Includes 3,133 half-caste aborigines resident in various divisions.

Over the period of forty-two years the total population shown as item 5 in the above table increased by 131.8 per cent. The population of the metropolitan area developed more rapidly than that of any other division—growing by 222.2 per cent.; the municipalities by 84.7 per cent., and rural areas by 86 per cent.

Since most of the larger towns of the State are incorporated as municipalities, the populations of the municipalities, and of the shires with the unincorporated areas, may be considered to indicate respectively, with approximate accuracy, the division of the population into its urban and rural elements. An analysis made on these lines at each of the last two censuses shows the relative development in the past twelve and one quarter years of urban and rural portions of the State in the various territorial

divisions shown on the map in the frontispiece. In the following table the same municipalities and the same shire areas are treated in every division for both years.

TABLE 416.—Urban and Rural Population, 1921 to 1933.

Division.	Population of Municipalities.		Population of Shires.		Increase in Population   1921 to 1933.			
	1921.	1933.	1921.	1933.	Numerical.		Proportional.	
					Municipalities.	Shires.	Municipalities.	Shires.
Cumberland ... ..	1,038,139*	1,334,217*	14,731†	25,359†	296,078	10,628	Per cent. 28.5	Per cent. 72.1
Coast—								
North ... ..	32,674	43,527	89,478	102,980	9,853	13,502	29.3	15.1
Hunter and Manning	114,087	154,068	128,785	147,344	40,581	18,559	35.6	14.4
South ... ..	42,567	53,781	46,183	52,036	11,214	5,853	26.3	12.7
Tableland—								
North ... ..	19,909	22,653	31,371	31,428	2,684	57	13.4	0.2
Central ... ..	55,540	58,521	74,455	82,722	2,981	8,267	5.4	11.1
South ... ..	19,854	24,634	26,315	25,322	4,780	(-) 993	24.1	(-) 3.8
Western Slopes—								
North ... ..	17,865	21,996	33,654	41,064	4,131	7,410	23.1	22.0
Central ... ..	17,329	23,917	34,870	39,804	6,588	4,934	38.0	14.1
South ... ..	37,479	47,364	58,514	68,754	9,885	10,240	26.4	17.5
Central Plains—								
North ... ..	6,302	8,301	17,049	21,380	1,999	4,331	31.7	25.4
Central ... ..	6,197	8,401	13,444	19,324	2,204	5,880	35.6	43.7
Riverina ... ..	11,863	15,140	51,629	69,177	3,277	17,548	27.6	34.0
Western Division	32,541	33,403	14,772†	18,591†	862	3,819	2.6	25.9
Whole State	1,453,406	1,850,523	635,250	745,285	397,117	110,035	27.3	17.3

\* Includes Shires in the Extra-Metropolitan Area. † Non-metropolitan Shires and Lord Howe Island.  
‡ Unincorporated. || Exclusive of Shipping and Railway travellers.

In the foregoing table the migratory population—shipping and railway travellers—has not been included in the population. This, however, accounted for only 0.2 per cent. of the total population in 1933, therefore its omission does not affect the comparison materially.

The incorporated urban districts now contain slightly more than two-thirds of the inhabitants of the State, having increased in population by 397,117 or 27.32 per cent. in the last twelve and one-quarter years, as compared with an increase of 110,035, or 17.32 per cent. in the shires and unincorporated areas. Of the total increase, 58.37 per cent. occurred in the municipal areas of the division of Cumberland, principally in those which compose the metropolitan area; and considerable growth is evident in the municipalities of the Hunter and Manning division, principally in Newcastle and suburbs, in which the growth was 23.84 per cent. In the South Coast, due to progress of the mining and industrial centre about Wollongong, there was also substantial increase in municipal population, whilst agricultural development has tended to build up the towns of the Southern Tableland, all the divisions of the Western Slopes, and the Central Plains.

A feature of the table is an improvement in the growth of shire population throughout the period. Whereas, in the previous intercensal period of ten years the population of the shires and other unincorporated areas increased by only 10.4 per cent., the growth of these in the twelve and one-quarter years between 1921 and 1933 was 17.3 per cent. In the Riverina, due to the development of irrigation farming and closer settlement, shire population increased by 17,548, or about one-third, while in the Hunter and Manning and North Coast divisions the increase in shire population has been substantial—18,559 and 13,502 respectively—though not as great proportionately. Growth was most rapid in the Central Plains, where the shires gained 5,880 inhabitants or about 44 per cent. Nevertheless, the table clearly demonstrates the very definite tendency of population to

concentrate in the metropolis. Although some country division gains have been proportionately larger they also have been concentrated in a small number of the larger towns.

Although in no case was there an actual loss of population in the country divisions of the State during the latest intercensal period, it is apparent that the growth of population in these divisions has been disproportionate to the growth of metropolitan population.

With the mechanisation and increasing efficiency of the rural industries a tendency for fewer persons to be employed in those industries, and therefore, for rural population to be diverted to centres where secondary industries are concentrated, may be regarded as a natural phenomenon. The redistribution of the population of New South Wales which has occurred in recent decades is probably, in large part, attributable to such causes as these, and to the extent that this is so, it is a consequence of the economic development of the State. As a result of the economic depression, the trend toward greater urbanisation of the population has been somewhat disturbed during the last few years by urban dwellers seeking occupation on the land and in other primary pursuits.

The extent to which the movement of population has been responsible for the loss of population in the country districts is seen clearly only when the natural increase in each division is related to the growth of population, and the amount and direction of migration is brought into relief. The analysis made below furnishes evidence that emigration has occurred to a considerable extent from most of the country districts during the past twenty-two and one-quarter years. The table is compiled on the basis of local government areas, and separate account is taken in each division of migration and of natural increase as factors affecting the growth of population. The figures, however, are not entirely accurate, because the births and deaths which occurred before 1st January, 1927, were allocated to the division in which they occurred, and not according to the practice adopted on the date mentioned, i.e., to the place of usual residence of the mother or deceased person as the case may be.

TABLE 417.—Population in Divisions of State 1911 to 1933.

Division;	Population at Census.*			Total Increase in Population.		
	1911.	1921.	1933.	1911 to 1921.	1921 to 1933.	1911 to 1933.
Chamberland† ...	713,857	1,052,870	1,359,576	339,013	306,706	645,719
Coast—						
North ...	101,656	123,152	146,507	21,496	23,355	44,851
Hunter and Manning ...	183,810	242,872	302,012	59,062	59,140	118,202
South ...	79,412	88,750	105,817	9,338	17,067	26,405
Tableland—						
North ...	51,769	51,340	54,081	(-) 429	2,741	2,312
Central ...	119,143	129,995	141,243	10,852	11,248	22,100
South ...	44,201	46,169	49,956	1,968	3,787	5,755
Western Slopes—						
North ...	55,543	51,519	63,060	(-) 4,024	11,541	7,517
Central ...	49,235	52,199	63,721	2,964	11,522	14,486
South ...	88,940	95,993	116,118	7,053	20,125	27,178
Central Plains—						
North ...	22,994	23,351	29,681	357	6,330	6,687
Central ...	20,073	19,641	27,725	(-) 432	8,084	7,652
Riverina ...	48,885	63,492	84,317	14,607	20,825	35,432
Western Division ...	59,165	47,313	51,994	(-) 11,852	4,681	(-) 7,171
Whole State ...	1,638,683	2,088,656	2,595,808	449,073	507,152	957,125

\* Excluding full blood Aborigines and Migratory Population.

† Embracing the Metropolis.

(-) Denotes decrease.

TABLE 418.—Natural Increase and Immigration in Divisions, 1911 to 1933.

Division.	Natural Increase.†		Net Immigration.		Total Net Immigration, 1911 to 1933.	
	1911 to 1921.	1921 to 1933.	1911 to 1921.	1921 to 1933.	Numerical.	As per cent. of Population in 1911.
Cumberland† ...	124,488	149,729	214,525	156,977	371,502	Per cent. 52.04
Coast—						
North ... ..	26,400	31,542	(-) 4,904	(-) 8,187	(-) 13,091	(-) 12.88
Hunter and Manning ...	42,799	53,408	16,263	5,732	21,995	11.97
South ... ..	14,260	14,636	(-) 4,922	2,431	(-) 2,491	(-) 3.14
Tableland—						
North ... ..	12,413	11,592	(-) 12,842	(-) 8,851	(-) 21,693	(-) 41.90
Central ... ..	20,655	23,402	(-) 9,803	(-) 12,154	(-) 21,957	(-) 18.43
South ... ..	7,864	9,242	(-) 5,896	(-) 5,455	(-) 11,351	(-) 25.68
Western Slopes—						
North ... ..	10,663	12,292	(-) 14,687	(-) 751	(-) 15,438	(-) 27.79
Central ... ..	10,479	13,358	(-) 7,515	(-) 1,836	(-) 9,351	(-) 18.99
South ... ..	17,942	23,810	(-) 10,889	(-) 3,685	(-) 14,574	(-) 16.39
Central Plains—						
North ... ..	5,569	6,344	(-) 5,212	(-) 14	(-) 5,226	(-) 22.73
Central ... ..	4,268	4,913	(-) 4,700	3,171	(-) 1,529	(-) 7.62
Riverina ... ..	11,851	15,734	2,756	5,091	7,847	16.05
Western Division ...	8,879	7,319	(-) 20,731	(-) 2,638	(-) 23,369	(-) 39.50
Whole State* ...	318,530	377,321	131,443	129,831	261,274	15.94

\* Excluding full blood Aboriginals and Migratory Population.

† Embracing the Metropolis.

‡ Includes Aboriginals the numbers of which are not sufficiently great to vitiate the comparisons.

(-) Denotes decrease.

A similar comparison for the years 1891 to 1921 was given on page 236 of the Official Year Book of 1922. Since then the statistical boundaries of divisions have been altered from a county basis to conform to the boundaries of local government areas. It is, consequently, impracticable to continue the comparison on that basis, whilst the present tables cannot be extended to an earlier census than 1911.

The table reveals that over the period of twenty-two and one-quarter years under review an excess of emigration occurred in all divisions of the State, with the exception of the Cumberland, Hunter and Manning and Riverina divisions. The Cumberland division, containing the metropolis, absorbed, not only the net immigration from overseas and interstate, but as well, gained a large part of the natural increase in the rural divisions. To some extent the movement toward concentration of population in the metropolis slackened between 1921 and 1933, but, nevertheless, the net loss of population by emigration from all divisions of the State, exclusive of Cumberland, reached a total of 110,074 over that period representing the equivalent of 11.9 per cent. of the population of those divisions in 1911. It is a striking fact that the Western Division not only lost the whole of its natural increase, but actually a proportion of the population it contained in 1911 equal to 13.7 per cent. All the Tableland divisions lost a large proportion of their natural increase, ranging from 49.8 per cent. in the Central to 90.3 per cent. in the Northern, whilst the North Western Plain failed to retain 66.8 per cent. of its natural increase.

Between 1911 and 1933 the Cumberland division gained 371,502 inhabitants by migration, but to only two country divisions was there an excess of immigration; these were the Hunter and Manning division, which gained 21,995, and the Riverina, 7,847, and in each of these cases the increment was due to special factors. Migrants moved freely from nearly every part of the State to the metropolis, but only the new industrial developments at Newcastle and the development of coalfields in the Hunter Valley, and the establishment of settlers on the Murrumbidgee Irrigation Area, attracted effective migrants to ex-metropolitan districts. No less than eleven divisions of the State, covering about 268,210 square miles, lost population by migration during the twenty-two and one-quarter years.

An analysis covering the period from 1891 to 1933, ignoring the differences in statistical boundaries, shows that the Riverina was the only country division to retain, over each census period, the whole of the natural increase in the division, whilst in only two other divisions—Hunter and Manning and Central Western Plains—did the aggregate growth in population exceed the total natural increase. During that period every Tableland Division experienced an excess of emigration in every intercensal period. A similar condition of affairs was also experienced in the South Western Slopes and the Western Division, and the South Coast lost almost the whole of its natural increase. The net immigration to the Cumberland division reached a total of 490,443 over the four intercensal periods during which all other divisions sustained a net emigration of 188,659 inhabitants.

In the final column of the table the net immigration (or emigration) of each division over the period 1911 to 1933 is expressed as a percentage of population in 1911, serving to bring into relief the extent to which changes have taken place in the distribution of the population. The outstanding feature is the marked tendency of the metropolitan population to grow rapidly at the expense of the rural areas of the State.

#### *The Population of the Metropolis.*

Up to 31st December, 1928, the metropolis was taken to include the City of Sydney, forty municipalities, the Ku-ring-gai Shire (proclaimed a municipality 1st November, 1928), and the islands of Port Jackson, embracing an area of 181 square miles. From 1st January, 1929, the municipalities of Auburn, Bankstown, Granville, Lidcombe, and Parramatta were added, and the area embraced by the metropolis was 233 square miles. From the 1st January, 1933, the statistical boundaries of the metropolis were further extended to include the municipalities of Dundas, Ermington and Rydalmere, and the Pitt and Merrylands wards of Holroyd municipality, so that the metropolitan area now embraces all of the municipalities shown in the following table. This is the area to which the population and vital statistics of the metropolis refer, and now has an area of 246 square miles.

A definition of an extended metropolitan area was given in Schedule Four of the Local Government Act, 1919. Apart from some minor variations in boundary it coincides with the metropolis already described except that part of Holroyd municipality is excluded and the shires of Sutherland and Warringah and portion of Hornsby Shire are included. As these shires contain centres of population more or less of a suburban character, since a large proportion of their inhabitants gain their livelihood in the city, they have been taken into account in arriving at the extra-metropolitan population. It is practicable to include only the whole of Hornsby Shire instead of the part. The total area of the extended metropolitan area on this basis is 689 square miles.



The following statement shows the population of each municipality within the present boundaries of the metropolis, together with the extra-metropolitan shires, at the censuses of 1911, 1921, and 1933, and at 31st December, 1938, excluding shipping and full blood aboriginals.

TABLE 419.—Population of Metropolitan Municipalities, 1911 to 1938.

Municipality.	Population at Census—			Proportional Increase 1911 to 1933.	31st December, 1938.	
	1911.	1921.	1933.		Estimated Population.	Average Number of Persons per acre.
City of Sydney ...	112,921	104,153	88,308	per cent. (-) 22	88,870	27.60
<b>Inner Industrial—</b>						
Paddington ...	24,317	26,364	24,674	1	24,200	57.48
Redfern ...	24,427	23,978	18,834	(-) 23	17,800	44.06
Waterloo ...	10,072	11,199	11,659	16	11,420	13.81
Alexandria ...	10,123	9,793	9,018	(-) 11	8,600	8.18
Mascot ...	5,836	10,929	14,363	146	15,480	6.96
Botany ...	4,409	6,214	8,287	88	8,780	4.05
St. Peters ...	8,410	12,700	12,554	49	12,560	13.92
Erskineville ...	7,299	7,553	6,645	(-) 9	6,360	34.19
Newtown ...	26,498	28,168	25,290	(-) 5	24,650	51.35
Darlington ...	3,816	3,651	3,053	(-) 20	2,850	52.78
Glebe ...	21,943	22,754	19,874	(-) 9	19,150	36.97
Anandale ...	11,240	12,648	12,205	9	11,860	34.28
Leichhardt ...	24,254	29,356	30,209	25	30,110	26.07
Balnain ...	32,038	32,104	28,272	(-) 12	27,560	28.21
<b>Total ...</b>	<b>214,682</b>	<b>237,411</b>	<b>224,937</b>	<b>5</b>	<b>221,380</b>	<b>18.90</b>
<b>Illawarra-Bankstown—</b>						
Marrickville ...	30,653	42,240	45,385	48	46,040	24.37
Rockdale ...	14,095	25,189	39,123	178	41,730	8.18
Bexley ...	6,517	14,746	20,539	215	21,890	11.46
Kogarah ...	6,953	18,226	30,646	341	33,100	6.89
Hurstville ...	6,533	13,394	22,663	247	24,760	4.05
Canterbury ...	11,335	37,639	79,050	597	83,270	10.08
Enfield ...	3,444	8,530	14,782	329	15,140	9.04
Bankstown ...	2,039	10,670	25,384	1,145	27,760	1.45
<b>Total ...</b>	<b>81,569</b>	<b>170,634</b>	<b>277,572</b>	<b>240</b>	<b>293,690</b>	<b>6.00</b>
<b>Inner Western—</b>						
Petersham ...	21,712	26,236	26,941	24	27,480	32.33
Ashfield ...	20,431	33,636	39,356	93	40,750	19.96
Drummoyne ...	8,678	18,761	29,215	237	30,700	15.70
Burwood ...	9,380	15,709	19,373	107	20,080	18.16
Strathfield ...	4,046	7,594	12,147	200	12,970	7.06
Homebush ...	676	1,622	3,189	372	3,230	5.05
Concord ...	4,076	11,013	23,213	470	24,230	9.06
<b>Total ...</b>	<b>68,999</b>	<b>114,571</b>	<b>153,434</b>	<b>122</b>	<b>150,440</b>	<b>14.36</b>
<b>Outer Western—</b>						
Lidcombe ...	5,418	10,522	17,379	221	17,750	3.40
Auburn ...	5,559	13,563	20,114	262	20,510	7.92
Granville ...	7,231	13,328	19,718	173	20,620	5.11
Parramatta ...	12,465	14,594	18,076	45	19,250	8.46
Holroyd* ...	†2,082	†4,626	8,426	305	9,050	4.11
<b>Total ...</b>	<b>32,755</b>	<b>56,633</b>	<b>82,713</b>	<b>156</b>	<b>87,180</b>	<b>5.34</b>

\* Pitt and Merrylands Wards only.

† Estimated.

TABLE 419.—Population of Metropolitan Municipalities—*continued.*

Municipality.	Population at Census—			Proportional Increase 1911 to 1933.	31st December, 1933.	
	1911.	1921.	1933.		Estimated Population.	Average Number of Persons per acre.
Northern—				per cent.		
Manly ... ..	10,465	18,507	23,259	122	25,160	8.12
Mosman ... ..	13,243	20,056	23,665	79	24,950	11.59
North Sydney ... ..	34,646	48,438	49,752	44	51,700	20.45
Willoughby ... ..	13,036	28,067	42,511	226	45,280	8.21
Ku-ring-gai ... ..	9,458	19,209	27,931	195	31,760	1.53
Lane Cove ... ..	3,306	7,592	15,138	358	16,130	6.28
Hunter's Hill ... ..	5,013	7,300	8,989	79	9,600	6.78
Ryde ... ..	5,281	14,854	27,861	428	20,350	4.36
Eastwood ... ..	968	2,133	3,025	212	3,230	1.09
Dundas ... ..	1,136	3,523	6,017	431	6,570	2.41
Ermington and Rydalmere... ..	1,716	1,981	2,364	38	2,440	1.20
Total ... ..	98,268	171,660	230,512	135	247,170	4.68
Eastern—						
Vaucluse ... ..	1,672	3,727	7,205	331	7,910	9.94
Woollahra ... ..	16,989	25,439	34,727	104	38,020	20.17
Waverley ... ..	19,831	36,797	55,902	182	60,990	27.91
Randwick ... ..	19,463	50,841	78,957	306	84,070	9.86
Total ... ..	57,955	116,804	176,791	205	190,990	14.26
Total, Metropolis Proper†	667,149	971,866	1,235,267	85	1,288,720	8.18
Hornsby Shire ... ..	8,901	15,287	22,596	154	24,010	.19
Sutherland Shire ... ..	2,896	7,705	13,525	367	15,480	.17
Warringah Shire ... ..	2,823	9,643	16,054	469	17,790	.27
Total, Metropolitan and Extra—Metropolitan	681,769	1,004,501	1,287,442	89	1,346,000	3.05

† 1933 Boundaries—for previous changes see text, page 493.

The population of the metropolis is not distributed evenly. At the 31st December, 1933, the City of Sydney and the inner industrial suburbs although occupying only 9.5 per cent. of the area of the metropolis, nevertheless contained 24.1 per cent. of the inhabitants. Over two-fifths of this area the density of population ranged from 26 to 58 persons per acre. On the other hand, in some of the outlying suburbs the density is little more than one or two persons to the acre, but there has been considerable development in these areas in recent years, and the scattered nature of the population tended to diminish rapidly until progress was halted by the economic depression.

Some of the suburbs nearest the city have attained their maximum development as residential districts and some are even losing population as dwellings are replaced by industrial and commercial establishments. Improved transport facilities have also tended to a movement of population from the more congested areas to the less thickly-populated suburbs. Whereas the population in the City of Sydney and the inner industrial suburbs decreased by 4 per cent. from 1911 to 1933 the percentage increases in the other groups of suburbs were:—Inner western 122, northern 135, outer western 156, eastern 205, Illawarra-Bankstown 240 and extra metropolitan

257. Between the years 1911 and 1921 there was a decrease in population of over 5,000 in the city and eight of the nearest suburbs,† and in the period from 1921 to 1933 the decrease of population in the same area was over 33,000 persons, representing a decrease of nearly 16 per cent. over the twenty-two and one quarter years. On the other hand, the aggregate population of the outlying suburbs of Bankstown, Canterbury, Concord, Dundas, Ryde, Homebush, Lane Cove, Kogarah, Vacluse, Enfield, Randwick, increased from 59,381 in 1911 to 168,237 in 1921 and to 311,442 in 1933 or by 424 per cent. in the twenty-two and one quarter years. Despite this marked growth the density of population in these suburbs in 1933 was but 5.6 persons per acre compared with 28.7 persons per acre in the city and eight adjacent suburbs referred to previously. There is ample room for a very great increase in the metropolitan population within the present boundaries without creating undue congestion. Assuming that the average of about 6 dwellings to the acre existing in the inlying suburbs‡ were reached throughout the area comprised in the metropolitan municipalities and the existing average of about 4.2 persons per dwelling were maintained, a population of about 4,000,000 persons might be attained within the present metropolitan boundaries.

The population of the metropolis proper, excluding aboriginals and shipping, at each census since 1861, is shown in the following table, together with the proportion which the metropolitan population bears to that of the whole State. The latest estimate made subsequent to the census is also shown:—

TABLE 420.—Population of Metropolis, 1861 to 1933.

Date.	Population.			Increase during Interval.		Proportion of Males to Total Population.	Proportion of Population of State.
	Males.	Females.	Total.	Numerical.	Proportional		
CENSUS RECORDS.							
7th April, 1861	46,550	49,239	95,789	41,865*	77.64*	48.60	27.3
2nd " 1871	66,707	70,879	137,586	41,797	43.63	48.50	27.4
3rd " 1881	112,763	112,176	224,939	87,353	63.49	50.13	30.0
5th " 1891	193,753	189,580	383,333	158,304	70.42	50.54	34.0
31st March, 1901	236,018	245,812	481,830	98,497	25.69	48.98	35.6
3rd April, 1911	305,728	323,775	629,503	147,673	30.65	48.57	38.2
4th " 1921	433,492	465,567	899,059	269,556	42.82	48.22	42.8
30th June, 1933 (a)	531,902	585,982	1,117,884	218,825	24.34	47.58	43.0
(b)	591,104	644,163	1,235,267	336,206	37.41	47.85	47.5
ESTIMATE.							
31st December, 1933 (b)	616,410	672,310	1,288,720	53,453¶	4.33¶	47.83	47.1

\* Since 1851. (a) Same area as in 1921. (b) Area as extended on 1st January, 1933.  
 † Since Census of 1933. For details of changes in boundaries, see text, page 498.

To permit of more accurate comparison with previous censuses the figures for the 1933 census have been shown on the basis of the past and present boundaries.

The tendency for population to concentrate in the metropolis was very marked in the period from 1871 to 1921, but between 1921 and 1933 it slackened appreciably.

Since 1891 the proportion of females in the metropolis has increased, so that at the census of 1933 there was an excess of four females in every hundred of the population.

† Annandale, Balmain, Glebe, Erskineville, Newtown, Redfern, Darlington and Alexandria.  
 ‡ Leichhardt, Ashfield, Marrickville, Petersham Balmain and Paddington.

The following comparison of the metropolis, as now constituted, at the census of 1933 and at the 31st December, 1933, with the density of population in the large cities of England as determined at the census of 27th April, 1931, is interesting:—

TABLE 421.—Population of Sydney and Principal Cities of England.

City.	Date.	Area.	Population.	Average Number of Persons per Acre
		Acres.		
London (Registration Area)	27 April, 1921	74,850	4,397,003	58.7
Birmingham ... ..	"	51,147	1,002,603	19.6
Liverpool ... ..	"	24,795	855,539	34.5
Manchester ... ..	"	27,257	766,378	28.1
Sydney Metropolitan Area	{ 30 June, 1933	156,149	1,235,267	7.9
	{ 31 December, 1933	157,508	1,288,720	8.2

The population of the capital cities (including suburbs) of the States of the Commonwealth is shown below:—

TABLE 422.—Population of Capital Cities of Each State, 1911 to 1933.

Metropolis.	Area at 1933 Census.	Population.*						Proportion to Population of Whole State.	Average Number of Persons per Acre.
		Census, 1911.	Census, 1921.	Census, 1933					
		Total.	Total.	Males.	Females.	Total.			
	acres.						per cent.		
Sydney ...	156,149	665,067†	967,240†	591,104	644,163	1,235,267	47.5	7.91	
Melbourne ...	125,926	588,971	766,465	464,775	527,159	991,934	54.5	7.88	
Adelaide ...	102,987	189,646	255,375	147,936	164,683	312,619	53.8	3.04	
Brisbane ...	246,400	139,480	209,946	143,525	156,223	299,748	31.6	1.22	
Perth ...	119,520	106,792	154,873	99,288	108,152	207,440	47.3	1.74	
Hobart ...	54,890	39,937	52,361	28,351	32,055	60,406	26.5	1.10	

\* Excluding aboriginals and Shipping. † Population within the area embraced by the 1933 boundaries.

#### THE TOWNS OF NEW SOUTH WALES.

As might be expected from the nature of the industries of the State there are in New South Wales comparatively few large towns. Outside the metropolitan area, two towns of outstanding magnitude are Newcastle and Broken Hill, and the existence of both is due to the rich mineral deposits in their neighbourhood. Due to the rapid expansion of the heavy steel industry and subsidiary industries at Port Kembla in recent years and to the proximity of the South Coast coal mines, the development of Wollongong and environs, including Port Kembla, has led to an aggregation of population which probably rivals Broken Hill for second place among towns outside the County of Cumberland. Until such time as new boundaries are delineated for this area no satisfactory estimate of population for it, can be given. Cessnock, the fifth and Lithgow the sixth largest towns outside the Division of Cumberland, are also dependent on mining. Apart from the centres in the County of Cumberland dependent upon the city, but including those already mentioned, there were at the census of 1933, only eleven country towns with a population exceeding 10,000; thirteen, including one in a shire, between 5,000 and 10,000; and twenty-eight, including seven in shires, between 3,000 and 5,000.

The following table affords a comparison of the populations at the last five censuses of the towns which at the end of 1938 had more than 3,000 inhabitants, excluding aboriginals and shipping, in the order of numerical importance at that date.

TABLE 423.—Population, Principal Towns of N.S.W., 1891 to 1938.

Municipality.	Population.					
	Census 1891.	Census 1901.	Census 1911.	Census 1921.	Census 1933.	Estimated Dec., 1938.
Sydney and Suburbs*	383,333	481,830	629,503†	899,059	1,235,267‡	1,288,720
Greater Newcastle‡	49,910	53,741	54,603	84,372	104,485	115,660
Broken Hill ...	19,789	27,500	30,972	26,337	26,925	28,100
Wollongong ...	3,041	3,545	4,660	6,708	11,403	16,800
Goulburn ...	10,916	10,612	10,023	12,715	14,849	15,360
Cessnock§	203	165	5,102	9,340	14,385	14,460
Lithgow ...	3,865	5,268	8,196	13,275	13,444	13,510
Lismore ...	2,925	4,378	7,381	8,700	11,762	13,010
Maitland (East and West)	10,214	10,073	11,313	12,008	12,329	12,680
Wagga Wagga ...	4,596	5,108	6,419	7,679	11,631	12,630
Albury ...	5,447	5,821	6,309	7,751	10,543	11,500
Bathurst ...	9,162	9,223	8,575	9,440	10,413	11,050
Tamworth ...	4,602	5,799	7,145	7,264	9,913	10,840
Orange ...	5,064	6,331	6,721	7,398	9,634	10,310
Grafton & Grafton Sth.‡‡	4,445	5,147	5,888	6,077	8,551	10,190
Dubbo ...	3,551	3,409	4,452	5,032	8,344	8,680
Armidale ...	3,826	4,249	4,738	5,407	6,794	7,150
Katoomba...	1,592	2,270	4,923	9,055	6,445	6,990
Parkes ...	2,449	3,181	2,935	3,941	5,846	6,240
Casino ...	1,486	1,926	3,420	3,455	5,287	6,080
Inverell ...	2,534	3,293	4,549	4,360	5,305	6,000
Forbes ...	3,011	4,294	4,436	4,376	5,355	5,700
Glen Innes ...	2,532	2,918	4,089	4,974	5,352	5,480
Cowra ...	1,546	1,811	3,271	3,716	5,056	5,450
Kempsey ...	2,194	2,329	2,862	3,613	4,824	5,320
Taree ...	716	871	1,205	1,765	4,581	5,090
Cootamundra	2,026	2,424	2,967	3,531	4,683	4,870
Moree ...	1,143	2,298	2,931	3,020	4,355	4,810
Murwillumbah¶	492	772	2,206	2,861	3,895	4,540
Wellington ...	1,545	2,984	3,958	3,924	4,320	4,520
Junee ...	1,682	2,190	2,531	3,500	4,213	4,350
Young ...	2,746	2,755	3,139	3,283	4,011	4,310
Narrandera ...	1,815	2,255	2,374	2,985	4,119	4,290
Temora ...	915	1,603	2,784	3,048	3,823	4,280
Queanbeyan ...	1,262	1,219	1,273	1,825	4,019	4,220
Mudgee ...	2,410	2,789	2,942	3,170	3,993	4,160
Penrith*	3,099	3,539	3,682	3,604	3,911	4,100
Gunnedah ...	1,362	1,910	3,005	2,664	3,591	4,100
Singleton ...	2,595	2,872	2,996	3,270	3,668	3,830
Gosford**	685	751	††	††	††	3,700
Deniliquin ...	2,273	2,644	2,494	2,660	3,192	3,470
Windson* ...	2,033	2,039	3,466	3,808	3,247	3,460
Muswellbrook ...	1,298	1,710	1,861	2,152	3,287	3,430
Hay ...	2,741	3,012	2,461	2,572	3,156	3,310
Narrabri ...	1,977	2,286	2,514	2,358	2,911	3,270
Nowra ...	1,705	1,904	1,884	2,202	2,978	3,220
Ballina ...	1,084	1,819	2,061	2,768	3,042	3,190
Bowral ...	2,258	1,752	1,751	2,620	3,005	3,140
Corowa§§	1,171	2,046	2,063	2,387	2,757	3,060
Yass ...	1,770	2,220	2,136	2,502	2,866	3,020

\* In County Cumberland. † Area extended since previous census. ‡ Area slightly extended in 1938. ¶ Incorporated 1902. \*\* Incorporated 1936. †† Previously a municipality from 1886 to 1908. § Incorporated 1926 and district enlarged. ‡‡ Grafton South incorporated 1896. ††† Population of area within present municipal boundary is not available. §§ Incorporated 1903.

In addition to the municipalities shown above, there are a number of relatively large towns not incorporated as municipalities. A number of these, situated in the extra-metropolitan shires of Hornsby, Sutherland and Warringah have populations more or less dependent upon the city. At the census of 30th June, 1933, they were:—Hornsby, 5,068; Cronulla, 3,156; Sutherland, 3,143; Deewhy, 3,030. Those situated in the country were—Kurri Kurri, 6,341; Cardiff, 3,432; Weston, 3,346; Thirroul, 3,151; Portland, 3,082; and Corrimal, 3,042. The foregoing list excludes municipalities with extensive areas or whose boundaries embrace more than one distinct locality.

The population of these larger towns has grown at a fairly uniform rate during the whole of the period covered and some towns have shown rapid increase. Newcastle, after twenty years of slow progress, made rapid headway between 1911 and 1933, largely on account of the growth of its manufacturing industries. The growth of the rural towns of Lismore, Wagga Wagga, Albury, Dubbo, Taree and Queanbeyan, and the mining and industrial town of Wollongong in the last intercensal period has been marked. The other rural towns, on the whole, have maintained a steady growth throughout, but the decline of the silver-lead mining industry—due largely to derangement of the markets of the world—has arrested the growth of Broken Hill, where the population at the census of 1933 was 4,000 less than in 1911. Lithgow, a coal-mining and partly manufacturing town, continued to grow rapidly until 1927, then the population began to decrease owing to slackness in the coal-mining industry and the gradual removal of the ironworks to Port Kembla. This movement has been reflected in a considerable increase in the population of Wollongong. By 1921 Goulburn had developed, after twenty years of stagnation, into the leading town of the interior not dependent on mining, and still occupies that place. Katoomba, a tourist centre 60 miles from Sydney, grew rapidly between 1901 and 1921. As the Census of 1933 was taken in mid-winter, and former censuses in early autumn, absence in the one case, and the presence in the others, of the tourist population vitiates comparison of the figures in the case of this town.

#### SEX DISTRIBUTION.

As is the case in most of the younger countries, the population of New South Wales contains a surplus of males over females, although in older countries females are usually the more numerous.

The distribution of the sexes at each census from 1871 to 1933 was as follows:—

TABLE 424.—Sexes of Population, 1871 to 1933.

Census.	Distribution of Population in Sexes (excluding aboriginals).				Males per 100 Females.
	Number.		Proportion.		
	Males.	Females.	Males.	Females.	
1871	274,842	228,156	54·64	45·36	121
1881	410,211	339,614	54·71	45·29	121
1891	609,666	517,471	54·09	45·91	118
1901	710,264	645,091	52·40	47·60	110
1911	857,698	789,036	52·08	47·92	109
1921	1,071,501	1,028,870	51·01	48·99	104
1933	1,318,471	1,282,376	50·69	49·31	103

The disparity in New South Wales is brought about by the operation of several factors. The development of the colony was first stimulated by the "gold rushes" and later depended on the pastoral and mining industries. This, combined with its remoteness from the Old World, led to

far greater immigration of men than of women. In later years the predominance of males among immigrants tended to increase the disparity between the sexes. On the other hand, the higher rate of mortality among males renders the natural increase of females the greater, despite the excess of male over female births. As a consequence the excess of males diminished, and the diminution was hastened by the war.

The effects of these forces are clearly seen in the following table, which shows the excess of males at each quinquennial age group at each census from 1891 to 1933:—

TABLE 425.—Masculinity of Population at Various Ages, 1891 to 1933.

Age Group.	Excess of Males.					Males per 100 Females.				
	1891.	1901.	1911.	1921.	1933.	1891.	1901.	1911.	1921.	1933.
Years.										
0-4 .....	2,285	1,755	3,140	3,718	4,757	103	102	103	103	104
5-9 .....	1,535	2,243	2,017	3,144	3,759	102	103	102	103	103
10-14 .....	975	1,485	1,138	2,732	3,255	102	102	102	103	103
15-19 .....	(-) 224	(-) 313	1,966	1,774	2,913	100	100	102	102	102
20-24 .....	4,408	(-) 2,370	4,464	(-) 5,420	3,561	108	96	105	94	103
25-29 .....	12,910	230	4,040	(-) 3,794	5,094	128	100	106	96	105
30-34 .....	15,356	5,899	4,332	4,058	1,903	142	112	107	105	102
35-39 .....	13,010	10,742	4,413	3,851	(-) 5,467	148	126	109	105	94
40-44 .....	9,132	11,494	7,485	4,510	1,867	142	134	117	107	102
45-49 .....	8,293	9,337	9,055	3,996	5,025	145	139	124	108	106
50-54 .....	7,858	6,288	9,381	6,648	4,586	154	133	131	116	107
55-59 .....	5,876	4,258	6,639	6,843	1,549	155	128	132	120	103
60-64 .....	4,793	4,541	3,671	5,283	1,054	163	137	122	119	103
65-69 .....	2,030	3,768	2,356	3,606	1,659	142	141	118	120	105
70-74 .....	1,339	2,570	2,026	1,013	1,145	137	149	124	108	105
75-79 .....	934	734	1,416	268	83	149	126	127	104	101
80-84 .....	415	309	496	35	(-) 412	147	120	122	101	93
85 and over.....	199	122	(-) 60	(-) 52	(-) 604	150	118	94	97	80
N.S. ....	898	2,072	687	418	368	...	...	...	...	...
Total .....	92,052*	65,164*	68,662	42,631	36,095	120	110	109	104	103

\* Full blood aborigines are excluded throughout, but in 1891 and 1901 half-caste aborigines in a nomadic state are also excluded.

The censuses of 1861 to 1881 disclose excessive masculinity at ages from the early twenties onwards. This was maintained by the greater net immigration of males than of females, especially in the period up to 1891. At the census of 1891 the excessive masculinity was apparent from age 25, but more especially from age 30, and the higher ages reflected the cumulative effects of earlier migration. After 1891 migration had no appreciable effect on the population for twenty years and when it again became prominent it was on a relatively lower scale than before. As a result the excessive masculinity at age 25 onwards in 1891 is noticeable at the progressively later ages in each succeeding census, while the greater male mortality at higher ages was beginning to assert its influence. By 1921 the masculinity in each age group was assuming a more natural and stable order. The excess of females at ages 20 to 29, in that year, was the result mainly of the loss of men at the war and the excess of male deaths in the influenza epidemic of 1919; a further factor being the immigration of war brides. This disturbance was still apparent in the age group 30-44 at the 1933 census. By 1933 the equalising effect of the greater male mortality after middle age was more apparent.

The numerical increase at the earlier ages is due principally to an increasing annual number of births until about 1928, but the masculinity reflects the average masculinity of births which varies between 105 and 106 males per 100 females. At these early ages migration has little effect and a natural order is observable in ages under 20 throughout the whole period shown in the table.

## AGE CONSTITUTION OF THE POPULATION.

As in many other countries, the average age of the population of New South Wales is increasing. Although variations in the age constitution have been due, in part, to immigration and the loss occasioned by war and epidemics, the greatest factors in this State are the steadily decreasing birth rate and an increase in the average duration of life.

The following table shows the number of persons in quinquennial age groups as recorded at each of the last two censuses, exclusive of full-blood aborigines.

TABLE 426.—Age Constitution of Population, 1921 and 1933.

Age Group	4th April, 1921.			30th June, 1933.			Increase* 1921-1933.
	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Years.							
0-4 ... ..	121,529	117,811	239,340	117,281	112,524	229,805	(-) 9,535
5-9 ... ..	118,284	115,140	233,424	127,800	124,041	251,841	18,417
10-14 ... ..	104,166	101,434	205,600	126,664	123,409	250,073	44,473
15-19 ... ..	88,476	86,702	175,178	123,438	120,525	243,963	68,785
20-24 ... ..	83,333	88,753	172,086	116,312	112,751	229,063	56,977
25-29 ... ..	87,361	91,155	178,516	105,279	100,185	205,464	26,948
30-34 ... ..	92,215	88,157	180,372	93,247	91,341	184,588	4,219
35-39 ... ..	79,737	75,886	155,623	87,130	92,606	179,736	24,122
40-44 ... ..	66,785	62,275	129,060	91,077	89,210	180,287	51,227
45-49 ... ..	54,723	50,727	105,450	85,401	80,376	165,777	60,327
50-54 ... ..	49,235	42,587	91,822	69,000	64,414	133,414	41,592
55-59 ... ..	41,877	35,034	76,911	50,674	49,125	99,799	22,888
60-64 ... ..	33,604	28,411	62,105	42,643	41,589	84,232	22,127
65-69 ... ..	21,737	18,131	39,868	33,452	31,793	65,245	25,377
70-74 ... ..	13,030	12,017	25,047	23,996	22,851	46,847	21,800
75-79 ... ..	7,698	7,430	15,128	13,351	13,268	26,619	11,491
80-84 ... ..	3,402	3,367	6,769	5,511	5,923	11,434	4,665
85 and over ...	1,580	1,632	3,212	2,389	2,093	5,382	2,170
Age not stated ...	2,630	2,221	4,860	3,817	3,449	7,266	2,406
Total ... ..	1,071,501	1,028,870	2,100,371	1,318,471	1,282,376	2,600,847	500,476

\* Minus sign (-) denotes decrease.

To eliminate a tendency to mis-statement at certain ages, and to distribute the unstated ages, the recorded figures have been subjected to a process of graduation or smoothing. The resultant graduated number of persons at each age at the censuses of 1921 and 1933 is shown on pages 371 and 372 of the "Statistical Register" for 1935-36.



An analysis of the sex distribution at various ages is reviewed on page 505.

The changing age constitution of the population is evident from the following table, which shows the proportion of persons recorded in quinquennial age groups at each census since 1861:—

TABLE 427.—Age Distribution of Population, 1861 to 1933.

Age Group.	Proportion per cent. of Total Population at Census.							
	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1933.
Years.								
0-4	16.22	16.30	14.84	14.66	11.75	12.26	11.40	8.86
5-9	12.10	14.02	13.22	12.76	12.29	10.27	11.11	9.71
10-14	10.38	11.47	11.81	10.92	11.95	9.59	9.79	9.64
15-19	9.77	8.48	10.11	9.62	10.44	10.01	8.37	9.41
20-24	9.69	8.41	9.95	9.85	9.41	10.38	8.22	8.83
25-29	10.00	8.67	8.08	9.45	8.31	9.08	8.53	7.92
30-34	7.80	7.55	6.76	7.86	7.34	7.58	8.62	7.12
35-39	5.82	6.56	6.19	5.99	6.95	6.46	7.43	6.93
40-44	5.74	5.15	5.28	4.75	5.80	5.76	6.17	6.95
45-49	4.17	3.61	4.18	4.04	4.24	5.14	5.04	6.39
50-54	3.39	3.54	3.27	3.33	3.33	4.23	4.39	5.14
55-59	1.81	2.26	2.00	2.43	2.59	2.96	3.67	3.85
60-64	1.71	1.85	1.85	1.81	2.14	2.22	2.97	3.25
65-69	.64	.97	1.11	1.06	1.65	1.73	1.90	2.51
70-74	.43	.72	.74	.77	.96	1.17	1.20	1.81
75-79	.18	.25	.35	.42	.48	.73	.72	1.03
80-84	.15	.19	.26	.19	.26	.30	.32	.44
85 and over				.09	.11	.13	.15	.21
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Under 15	38.70	41.79	39.87	38.24	35.99	32.12	32.30	28.21
15-34	59.90	56.08	57.67	59.13	60.55	63.82	63.41	65.79
65 and over	1.40	2.13	2.46	2.53	3.46	4.06	4.29	6.00
21 and over	†	48.06	48.02	49.93	51.62	55.77	57.57	60.55

† Not available.

1861-1911 calculated from total population including aboriginals. 1921 and 1933 excluding aboriginals.

The age constitution of the population in 1861 was rendered abnormal by the large influx of persons in early manhood during the gold rushes of the preceding decade and by the large number of births in the preceding quinquennium, but, thereafter, as the result of a more steady growth of the population, it became more uniform. The birth rate commenced to decline steadily in 1864, and although the effect of this influence was complicated by the arrival of immigrants, its extent is clearly shown in the proportion to the population of children born in the decennium preceding each census and surviving or remaining in the State at the date of the census. These were:—In 1871, 30.32 per cent.; 1881, 28.06 per cent.; 1891, 27.42 per cent.; 1901, 24.04 per cent.; 1911, 22.53 per cent.; 1921, 22.51 per cent.; and in 1933, 18.57 per cent. This decline in the birth rate, accentuated as it was in the years immediately preceding the census of 1933, has culminated in an actual loss of numbers in the age group 0-4 years as shown on page 506. The loss was actually confined to ages under two years, the figure being 12,994, and entirely due to the difference in the number of births in the two years preceding the censuses of 1921 and 1933. The other three single ages in the group show only slight rises, but sufficient to reduce the loss on the whole group to 9,535.

During this period of sixty-two years the proportion of children under 15 years of age to the total population fell from 41.8 per cent. to 28.2 per cent. As a consequence of this development, the proportions both of aged persons (over 65 years of age) and of persons at what may be called the productive ages (15 to 64 years) increased considerably. However, the combined proportions of persons of dependent age (under 15 and 65 years and over) decreased from 43.92 per cent. in 1871 to 34.21 per cent. in 1933.

The proportion per cent. of adults in the population has grown very considerably throughout the period.

#### CONJUGAL CONDITION OF THE POPULATION.

The proportion of married persons living in New South Wales at the census of 1933 was considerably more than one-third of the population, being 39.58 per cent., which represents an increase from 37.4 per cent. in 1921 and 33.5 per cent. in 1911. The actual numbers and proportions of the population (exclusive of aboriginals), arranged in groups according to conjugal condition, at the census of 1933 were as shown in the following table:—

TABLE 428.—Conjugal Condition of Population, 1933.

Conjugal condition.	Number.			Proportion.		
	Males.	Females.	Total.	Males.	Females.	Total.
Never married—				per cent.	per cent.	per cent.
Under age 15 ...	371,745	359,974	731,719	28·29	28·13	28·21
Age 15 and over ...	386,919	311,619	698,538	29·44	24·36	26·93
Married ...	512,888	513,786	1,026,672	39·03	40·16	39·58
Widowed ...	37,483	88,171	125,659	2·85	6·89	4·85
Divorced ...	5,179	5,895	11,074	0·39	0·46	0·43
Not stated ...	4,254	2,931	7,185	...	...	...
Total ...	1,318,471	1,282,376	2,600,847	100·00	100·00	100·00

The persons never married constituted 55.14 per cent. of the total population, but of these 731,719 (or 28.21 per cent. of the population) were under the age of 15 years. The number of males over the age of 15 years who had never been married was 386,919, and of females 311,619. The proportion of married to the number of persons over the age of 15 years rose from 49.2 per cent. in 1911 to 55.1 per cent. in 1921, but declined to 54.9 per cent. in 1933.

The following table affords a comparison of the proportions of each of the principal groups to the total population where the necessary particulars were stated at each census from 1861 to 1933:—

TABLE 429.—Proportionate Conjugal Condition of Population, 1861 to 1933.

Census	Males.				Females.			
	Never married.	Married.	Widowed.	Divorced.	Never married.	Married.	Widowed.	Divorced.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1861	69·34	28·23	2·43	*	61·09	35·14	3·77	*
1871	69·96	27·59	2·45	*	62·89	32·82	4·29	*
1881	70·64	26·94	2·42	*	63·52	31·75	4·73	*
1891	69·78	27·41	2·78	·03	62·87	32·11	5·00	·02
1901	68·46	28·69	2·75	·10	62·43	32·00	5·46	·11
1911	65·00	32·18	2·67	·15	59·30	35·33	5·52	·15
1921	60·51	36·68	2·60	·21	55·70	38·16	5·91	·23
1933	57·73	39·03	2·85	·39	52·49	40·16	6·89	·46

\* Divorce proceedings were first permitted under Matrimonial Causes Act 1873.

There has been a steady decline since 1881 in the proportions of both sexes never married, and a corresponding increase in the proportions married. This has been due in a large measure to the altered age-constitution of the population consequent on the declining birth-rate. The proportion of widowers has shown no appreciable increase during the period, although the proportion of widows has increased constantly, attaining the high proportion of nearly 7 per cent. of the total female population in 1933. The increase in the proportion of divorced persons of both sexes has been relatively very rapid. The numbers and proportions of widowed and divorced persons shown are exclusive of those who had re-married.

#### BIRTHPLACES OF THE POPULATION.

Broadly speaking, nationality is determined in New South Wales by the common law principle of locality of birth, although it is also provided that, irrespective of place of birth, any child whose father was a British subject, or a child born on a British vessel, shall be deemed a British subject.

The nationality of the population of the State at the census of 1933 was preponderantly British, no less than 99.3 per cent. of the inhabitants being of British allegiance. The proportion born in Australia was 86.2 per cent.

#### ABORIGINALS.

The number of aboriginals in New South Wales during the first century after the date of settlement is not accurately known, but it is certain that they have never been numerous.

At the censuses of 1871 and 1881 aboriginals living in a wild or semi-wild state were not enumerated. The first careful enumeration was made in 1891, when it was found that only 5,097 aboriginals of full blood were in existence. Since that date the numbers recorded at successive censuses have declined rapidly. The number of aboriginals of full blood enumerated at censuses since 1871 was as follows:—

TABLE 430.—Aboriginals, 1871 to 1933.

Census.	Males.	Females.	Total.
1871 ... ..	709	274	983*
1881 ... ..	938	705	1,643*
1891 ... ..	2,896	2,201	5,097
1901 ... ..	2,192	1,586	3,778
1911 ... ..	1,152	860	2,012
1921 ... ..	923	674	1,597
1933 ... ..	617	417	1,034

\* Excluding aboriginals in wild or semi-wild state.

Since 1924 the Commonwealth Statistician, through the agency of the 'Aborigines' Protection Board and the police, has taken an annual census of aboriginals, but owing to the difficulty of tracing individuals, it is not considered that a satisfactory enumeration is obtained by this means, and the figures should be regarded as no more than reliable estimates. The number recorded at the annual collection of 30th June, 1933, was 195

greater than the decennial census enumeration. At 30th June, 1938, the number of aboriginals of full blood recorded in this way was 809, of whom 498 were males and 311 were females. Of the total 44 were nomadic, 222 were in regular employment, and there were 543 others. The number living in supervised camps was 497.

The numbers of half-castes enumerated at successive censuses were as follow:—In 1891, 3,183; in 1901, 3,147; in 1911, 4,512; and in 1921, 4,588, of whom 2,367 were males and 2,221 females. There were 8,309 enumerated at the census of 1933, of whom 4,358 were males, and 3,951 females. The number recorded at the annual collection of 30th June, 1938, was 9,611, of whom 5,161 were males and 4,450 females. However, it is considered probable that this number is considerably overstated through the inclusion of full-bloods, for various reasons, and possibly through the inclusion of quadroons and persons of lesser caste.

Of the half-castes recorded in 1938, 485 were nomadic, 2,467 in regular employment, and there were 6,659 others. The number living in supervised camps were 3,859.

#### POPULATION OF AUSTRALIAN STATES.

The following table shows the population of each State of the Commonwealth at the last two censuses, together with the latest estimate, and the proportion of population in each State. Aboriginals of full blood are excluded from account.

TABLE 431.—Population of Each State, 1921, 1933 and 1938.

State or Territory.	Population, Census 1921.	Population, Census 1933.	Estimated Population, 31st Dec. 1938.	Proportion in each State or Territory.		
				Census, 1921.	Census, 1933.	31st Dec., 1938.
New South Wales ...	2,100,371	2,600,847	2,735,695	per cent. 38·67	per cent. 39·23	per cent. 39·48
Victoria ... ..	1,531,280	1,820,261	1,873,760	28·19	27·46	27·04
Queensland ... ..	755,972	947,534	1,004,150	13·92	14·29	14·49
South Australia ...	495,160	580,949	595,109	9·13	8·76	8·59
Western Australia ...	332,732	438,852	462,461	6·06	6·62	6·67
Tasmania ... ..	213,780	227,599	241,407	3·91	3·43	3·48
Northern Territory ..	3,867	4,850	5,645	0·07	0·07	0·08
Australian Capital Ter.	2,572	8,947	11,464	0·05	0·14	0·17
Commonwealth ...	5,435,734	6,629,839	6,929,691	100·00	100·00	100·00

During the inter-censal period 1921 to 1933, the population of New South Wales increased at an average annual rate of 1.76 per cent., which was faster than that of any other State of the Commonwealth, excepting Western Australia and Queensland, in which States population increased at an average annual rate of 2.10 and 1.85 per cent. respectively. The next highest rate was in Victoria, 1.42 per cent.; South Australia, 1.31 per cent., and Tasmania, 0.51 per cent. The average for the whole of Australia was 1.63 per cent.

## POPULATION OF THE WORLD.

The relationship of the population of New South Wales to that of the rest of the world may be gauged by reference to the following table, derived from the Statistical Year Book of the League of Nations, 1937-38. Although based on the latest information available comparisons should not be drawn between totals for continents (and some countries) published from year to year as the figures in some instances fluctuate irregularly, being mere approximations founded on estimates for which little data exists. Apart from such cases, the populations given are estimates founded on the latest available census figures:—

TABLE 432.—Population of World.

Region or Country.	Area in Square Miles.	Estimated Population at 31st December, 1930.	Proportionate Distribution.		Number of Persons per Square Mile.
			Area.	Population.	
Continental Divisions—	000	000	per cent.	per cent.	
Europe§ ... ..	4,411	533,020	8·6	25·2	120·8
Asia§ ... ..	16,208	1,153,300	31·7	54·5	71·2
Africa ... ..	11,545	151,200	22·6	7·1	13·1
North and Central America ... ..	8,661	179,580	16·9	8·5	20·7
South America ... ..	7,054	88,260	13·8	4·2	12·5
Australasia and Oceania ... ..	3,301	10,470	6·4	·5	3·2
World Total* ... ..	51,180	2,115,830	100·0	100·0	41·3
Countries (including Dependencies)†					
British Empire ... ..	11,320	508,498	22·1	24·0	44·9
China‡ ... ..	4,287	450,000	8·4	21·3	105·0
Russia‡ ... ..	8,176	175,500	16·0	8·3	21·5
United States of America ... ..	3,738	144,505	7·3	6·8	38·7
France ... ..	4,537	104,855	8·9	5·0	23·1
Japan ... ..	262	101,230	·5	4·8	386·4
Netherlands ... ..	807	75,217	1·6	3·6	93·2
Germany** ... ..	182	67,587	·4	3·2	371·4
Italy ... ..	1,045	45,338	2·0	2·1	43·4
Brazil ... ..	3,286	42,395	6·4	2·0	12·9
Other Countries ... ..	13,540	400,705	26·4	18·9	29·6
World Total* ... ..	51,180	2,115,830	100·0	100·0	41·3

\* Excluding Arctic and Antarctic Regions. † Excluding Mandated Territories.

‡ Union of Soviet Socialist Republics. § Continental areas only roughly approximated as result of arbitrary distribution of the U.S.S.R. ¶ Including Manchukuo. \*\* Including the Saar Territory.

## MIGRATION.

A large movement of population takes place each year between New South Wales and other Australian States, but is due more to the movement of tourists, business men, and persons following itinerant callings, than to immigration or emigration of a permanent nature.

Such a qualification might also be applied to the overseas movement but in this case the position varies according to the operation of several factors; the principal of which are the arrival of State assisted migrants and the fact that in times of economic stability the State has always attracted a large number of permanent settlers who have arrived unassisted.

The interstate and oversea movement of people to and from New South Wales is shown in the following table:—

TABLE 433.—Interstate and Overseas Migration, 1921 to 1938.

Year.	Arrivals in New South Wales.			Departures from New South Wales.			Excess of Arrivals over Departures.		
	Inter-state. *	From other Countries Direct.	Total.	Inter-state. *	To other Countries Direct.	Total.	Inter-state. *	Other Countries Direct.	Total.
1921	305,037	57,190	362,227	306,116	50,753	356,869	(-) 1,070	6,437	5,368
1922	298,797	53,326	352,123	301,003	37,297	338,300	(-) 2,206	16,029	13,823
1923	302,804	46,084	350,888	307,090	35,457	342,547	(-) 4,286	12,627	8,341
1924	322,024	55,066	377,090	322,320	38,096	360,416	804	16,970	17,274
1925	331,166	55,201	386,367	330,303	40,540	370,843	863	14,661	15,524
1926	298,751	62,395	361,146	295,915	41,850	337,765	2,830	20,545	23,381
1927	244,853	65,485	310,338	240,262	44,189	284,451	4,591	21,206	25,887
1928	251,523	60,786	292,309	228,355	46,614	274,969	3,168	14,172	17,340
1929	212,069	52,406	264,475	200,165	46,835	256,000	2,904	5,571	8,475
1930	172,390	41,987	214,377	172,587	46,023	218,610	(-) 197	(-) 4,036	(-) 4,233
1931	152,171	28,637	160,808	134,804	32,494	167,298	(-) 2,633	(-) 3,857	(-) 6,490
1932	140,866	29,092	169,958	138,700	29,393	168,093	2,166	(-) 301	1,865
1933	144,320	30,991	175,311	143,323	30,073	173,396	(-) 1,003	918	(-) 85
1934	150,370	33,738	184,108	149,509	31,776	181,285	861	1,962	2,823
1935	143,368	34,959	178,327	142,391	34,602	176,993	977	357	1,334
1936	148,479	38,619	187,098	146,496	38,349	184,845	1,983	270	2,253
1937	151,586	45,203	196,789	146,312	43,237	190,549	4,774	1,966	6,740
1938	155,606	50,010	205,616	155,231	46,672	201,903	375	3,368	3,743

(-) Denotes excess of departures.

\* Including movement of population to and from oversea countries *via* other States.

A comparison of the aggregate annual interstate arrivals and departures is affected by a change in the basis of compilation from 1st July, 1926. From this date the rail migration has been based on the single tickets issued in each State instead of the previous method of counting the passengers at the border railway stations. Nevertheless the figures in the table clearly reveal the influence of economic conditions on population movement. The interstate movement commenced to fall rapidly from 1927. The overseas arrivals were sustained until 1929 by the arrival of assisted migrants, but with a curtailment in the latter (as shown in the table on page 519) the number of unassisted migrants declined also. The overseas departures, however, continued at a high level up to 1930, resulting in an excessive loss of population to overseas countries. This loss continued in 1931 and 1932, but to a diminishing extent. With a recovery in economic conditions over the subsequent years the State is now progressively gaining population by migration. The interstate gain in 1937 was the highest since 1920 and the overseas gain the highest since 1929.

It is unlikely that the great decline in the aggregate interstate movement has been due entirely to disturbed economic conditions, as part of the decline is probably attributable to the interstate movement by motor vehicles. Although this traffic is not recorded it has undoubtedly increased considerably in recent years but, apart from affecting the aggregate movement, it is improbable that the annual net movement is affected to any great degree.

#### Oversea Migration.

It is possible to analyse the aggregate overseas movement shown in the last table so as to distinguish between persons migrating for permanent settlement, Australians travelling abroad, and visitors from other countries.

These statistics as to intention in regard to residence of persons arriving and departing overseas have been collected from the 1st July, 1924. The classification is made according to the declared intention at the time of embarkation or disembarkation, but as the intentions of travellers may be subject to subsequent modification, the figures cannot be taken as an exact record of the actual movement of the nature indicated. In the classification, "permanent residence" denotes residence for one year or more. The following summary shows the numbers in the various categories in the years 1935 to 1938, comparing the totals for New South Wales with those for all Australia. The recorded totals are shown without adjustment as such has been rendered unnecessary since 1933 by the reliable nature of the migration records.

TABLE 434.—Migrants—New South Wales and Commonwealth, 1935 to 1938.

Class of Migrant.	1935.		1936.		1937.		1938.	
	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.
Arrivals—								
Permanent New Arrivals ... ..	6,245	12,608	6,284	12,653	7,533	16,291	9,113	19,548
Australians returning ... ..	11,676	20,307	13,099	21,749	15,520	25,198	15,285	24,900
Visitors ... ..	17,038	22,501	19,236	25,492	22,150	28,313	25,642	33,480
Total arrivals	34,959	55,416	38,619	59,894	45,203	69,802	50,040	77,928
Departures—								
Australian residents departing permanently ... ..	5,476	11,357	5,851	11,370	6,055	11,216	6,575	11,403
Australians who intend to return ... ..	11,102	20,323	12,799	22,050	14,231	24,350	13,855	24,163
Visitors ... ..	18,024	24,025	19,699	24,977	22,951	29,033	26,242	33,225
Total departures	34,602	55,705	38,349	58,397	43,237	64,599	46,672	68,791

The New South Wales figures relate to persons leaving overseas ships at New South Wales ports, irrespective of which State is their ultimate destination and persons from other States joining overseas ships at New South Wales ports. As the majority of travellers between Australia and other countries embark or disembark at ports in New South Wales (principally Sydney), this movement is noticeable in the figures, particularly in respect of visitors from abroad.

## Nationality of Oversea Migrants.

The following table shows the nationalities of persons who arrived in or departed from Australia via the ports of New South Wales in 1936, 1937 and 1938:—

TABLE 435.—Nationality of Oversea Migrants, 1936 to 1938.

Nationality.	1936.			1937.			1938.		
	Arrivals.	Departures.	Excess of Arrivals.*	Arrivals.	Departures.	Excess of Arrivals.*	Arrivals.	Departures.	Excess of Arrivals.*
British ... ..	32,780	33,351	(-) 571	37,816	37,007	(-) 01	41,144	40,896	248
French ... ..	574	546	28	534	560	(-) 26	507	493	14
German ... ..	287	228	59	532	313	239	1,554	336	1,218
Greek ... ..	272	102	170	540	100	440	341	120	221
Italian ... ..	551	208	283	839	268	571	835	294	541
Russian ... ..	64	54	10	119	84	35	197	74	123
United States of America ...	1,265	1,226	39	1,545	1,321	224	1,727	1,547	180
Yugoslav ... ..	144	115	29	262	173	89	335	259	96
Other European ... ..	678	542	136	987	557	430	1,191	717	474
Total, European ... ..	36,615	36,432	183	43,194	41,283	1,911	47,831	44,716	3,115
Chinese ... ..	1,272	1,274	(-) 2	1,207	1,225	(-) 18	1,300	1,229	131
Indian ... ..	392	281	111	427	380	47	468	412	56
Japanese ... ..	205	219	(-) 14	213	267	(-) 54	151	173	(-) 22
Syrian ... ..	26	11	15	57	21	36	79	13	66
Other Asiatic ... ..	18	21	(-) 3	37	21	16	43	39	4
Polynesian, Melanesian, etc.	61	91	(-) 30	62	37	25	81	75	6
Other Non-European ... ..	30	20	10	6	3	3	27	15	12
Total, Non-European ... ..	2,004	1,917	87	2,009	1,954	55	2,200	1,956	253
Grand Total ... ..	38,619	38,349	270	45,203	43,237	1,966	50,040	46,672	3,368

\* (—) Denotes excess of departures.

The numbers in the table lose a certain significance because they include, in addition to the permanent movement, visitors from overseas and Australian residents travelling abroad. Analysed according to intention as to residence expressed at the time of arrival or departure the figures become of more interest. The following table shows the net permanent movement of persons of certain nationalities since 1930; the figures representing the gain or loss between those departing permanently and those who intend to reside for one year or more. The figures for individual nationalities up to 1932 have not been revised so that these totals do not agree with those shown elsewhere.

TABLE 436.—Net Permanent Oversea Migration by Nationality, 1930 to 1938.

Nationality.	1930.	1931.	1932.	1933.	1934.	1935.	1937.	1937.	1938.
British ... ..	(-) 5,618	(-) 4,728	(-) 1,761	(-) 846	(-) 210	(-) 51	(-) 407	(-) 581	(-) 762
German ... ..	+ 11	+ 20	+ 20	(-) 7	+ 18	+ 13	+ 51	+ 262	+ 1,211
Greek ... ..	(-) 21	(-) 89	(-) 34	...	+ 56	+ 89	+ 181	+ 443	+ 259
Italian ... ..	+ 134	(-) 156	+ 20	+ 247	+ 548	+ 513	+ 342	+ 645	+ 626
Yugoslav ... ..	(-) 49	(-) 67	+ 5	+ 27	+ 17	+ 47	+ 56	+ 145	+ 158
United States America	(-) 18	(-) 153	40	(-) 20	+ 28	+ 83	+ 43	+ 48	+ 93
Other European ... ..	(-) 43	(-) 265	(-) 112	+ 34	+ 74	+ 26	+ 189	+ 445	+ 617
Total European ... ..	(-) 5,604	(-) 5,438	(-) 1,904	(-) 565	+ 536	+ 720	+ 465	+ 1,407	+ 2,202
Chinese ... ..	(-) 323	(-) 303	(-) 182	(-) 220	(-) 37	(-) 15	(-) 32	+ 1	+ 235
Natives of India, Ceylon	+ 22	+ 21	+ 9	...	+ 22	+ 20	+ 39	+ 15	+ 20
Japanese ... ..	(-) 27	(-) 16	(-) 23	+ 3	+ 13	+ 20	(-) 43	(-) 4	+ 1
Syrian ... ..	(-) 1	...	+ 1	+ 3	+ 17	+ 22	+ 14	+ 40	+ 50
Other Asiatic ... ..	...	+ 1	(-) 7	(-) 10	(-) 7	+ 1	(-) 2	+ 13	+ 17
Other Non-European ... ..	+ 4	(-) 4	(-) 5	...	(-) 8	+ 1	+ 2	+ 6	+ 18
Total Non-European ... ..	(-) 325	(-) 301	(-) 205	(-) 183	...	+ 40	(-) 22	+ 71	+ 336
Grand Total ... ..	(-) 5,929	(-) 5,739	(-) 2,109	(-) 748	+ 530	+ 769	+ 433	+ 1,478	+ 2,538



The salient features of this table are the permanent loss of people of British nationality after 1929 and the apparent influence on the movement of non-British people, of overseas happenings of national import. The effects of post-war economic and political adjustment, the post-war refugee problem, the diversion of European migration by the drastic restrictions imposed in 1924 by the American Government upon immigration into the United States and the appearance of a new refugee problem in Europe, may be traced in the figures presented in this section in this and previous years.

#### *Immigration Restriction.*

At Common Law aliens have no legal right of admission to any British country, and migration to and from New South Wales is regulated principally by statutes of the Federal Parliament, *e.g.*, the Immigration Act, 1901-1933, and the Contract Immigrants Act, 1905.

Any person may be refused admission to Australia who fails to write from dictation by an officer not less than fifty words in any prescribed European language; or any person who has not the prescribed certificate of health; any feeble-minded person; any person suffering from serious transmissible disease or defect, tuberculosis or certain other serious diseases; any person convicted of crime in certain circumstances; any prostitute or person living by prostitution; any advocate of revolution, assassination, or the unlawful destruction of property; any Turk of Ottoman race; or any person 16 years of age or over not possessed of a passport as prescribed. Should such persons gain admission, they may be deported. Usually persons formerly domiciled in the State cannot be excluded from return after temporary absence. For a period of five years from 2nd December, 1920, persons of German, Austro-German, Bulgarian or Hungarian parentage and nationality were excluded, but upon the expiration of that period no further restrictions were imposed.

#### *Registration of Aliens.*

Although the regulations under the immigration laws of the Commonwealth provide effective machinery for checking and regulating the entry of aliens and for collecting comprehensive personal records upon their entry into the Commonwealth, there has in the past been no effective continuous record of their movement within the Commonwealth.

The War Precautions Aliens Regulations, 1916, was the first Commonwealth law for this purpose, and was followed in 1920 by the Aliens Registration Act, 1920, which came into force on the 1st January, 1921, but proved virtually ineffective. The 1920 Act was suspended by the Aliens Registration Act Suspension Act, 1926, and was entirely repealed by the Statute Law Revision Act, 1934.

The Aliens Registration Act, 1939, which will come into force late in 1939, again provides for the continuous registration of aliens. It provides for the keeping of a register and an index of aliens over the age of 16 years with the following exceptions:—

- (a) Official representatives of the Governments of foreign countries and their staffs.
- (b) Wives or dependent relatives of any under (a).
- (c) Master and crew of any public vessel of any Government.
- (d) An alien who does not remain in the Commonwealth for more than sixty days (except in time of war).
- (e) Any alien exempted from registration by the Minister.

Provision is made for all changes of address to be recorded, but this will not apply to temporary absences except in time of war.

Upon registration, an alien receives a certificate of registration which must be produced upon demand by a competent authority.

#### *Contract Migrants.*

The admission of migrants under contract to perform manual labour is regulated by the Contract Immigrants Act, 1905. Such contracts must be made by or on behalf of an Australian resident on the one part. In every case they are subject to Ministerial approval which may be withheld if the fulfilment of the contract is likely to prejudice the public welfare as affecting an industrial dispute or the conditions or standards prevailing in local industry. Except in the cases of contract migrants who are British subjects born in the United Kingdom or descended from a British subject there born, it must be shown that there is difficulty in obtaining workers of equal skill and ability within the Commonwealth. The Act, however, does not apply to domestic servants, nor to personal attendants accompanying their employers.

#### *Assisted Migration.*

Particulars of the history of assisted migration will be found in earlier issues of the Year Book.

Assisted migration throughout the years has been very intermittent. The degree of assistance afforded, types of persons to be admitted, method of choosing them and countries from whence they came have always been matters of Government policy dependent to a very large extent upon local conditions. Since the war, the State and Commonwealth Governments and the Government of Great Britain have co-operated in migration policy.

The principal scheme was the Joint Commonwealth and States Scheme in which the British Government joined under a series of agreements, the final one of which became popularly known as "The £34,000,000 Agreement." The original agreement between the Commonwealth and the States operated from 1st March, 1921. Development and migration under this scheme was interfered with by world-wide economic depression and in December, 1930, all assisted immigration activities thereunder were suspended. Further commitments of the Government of Great Britain under the agreement were cancelled as from 1st May, 1932.

Following an improvement in economic conditions, the Government of New South Wales and of the Commonwealth decided, in the latter part of 1937, to revive assisted migration on a limited scale.

The policies of the two Governments in this matter were announced separately, and up to the present no definite agreement had been entered into between them. They were, however, working in collaboration, with a division of functions similar to that existing under the agreement which operated from 1st March, 1921.

The Commonwealth Government announced in 1938 that assisted passages from the United Kingdom would be granted in favour of the following types of migrants:—

- (a) Persons, relatives or friends, resident in the United Kingdom and nominated by individuals or approved organisations in Australia.
- (b) Persons specially requisitioned by the Government of a State.
- (c) Persons of British stock resident in the United Kingdom and possessed of capital, as specified, on arrival:—
  - Married Man.—Minimum, £300; or pension or other income of £100 per annum.
  - Single Man.—Minimum, £50.
- (d) British Army officers and other ranks and retiring civil servants in India, with their wives and families proceeding to Australia to take up permanent residence.

The Government of New South Wales is prepared to resume assisted migration of persons of British stock who may be nominated by individuals or approved organisations, as follows:—

- (a) Nominations by individuals—
  - (i) Individual nominations involving the reunion of families, including (besides wives and children) parents, brothers, sisters, uncles, aunts, neices, nephews and cousins.
- (b) Nominations by approved organisations—
  - (i) Juveniles.
  - (ii) Youths from 14 to 18 years of age, as farm workers, who are to proceed direct to employment on farms.
  - (iii) Domestic—age limit of 40 years.

As under the joint Commonwealth and State scheme assisted migrants must be under 50 years of age at time of embarkation with the exception of parents who may be accepted up to the age of 60 years. Approved nominees are also to be subject to the requirements of the Commonwealth Migration Officer in London as to medical examination.

The number of assisted migrants received in New South Wales under these schemes was:—

TABLE 437.—Migrants Assisted under Various Schemes, 1938.

	Year 1938.
Commonwealth—	
Nomination by individuals or single nomination by approved organisations	61
Requisition by State ... ..	...
Capital provisions ... ..	17
Retired army officers and civil servants, etc. ... ..	...
State—	
Nomination by individuals or single nomination by approved organisations	146
Group nominations by approved organisations ... ..	178

Details of the approved auxiliary organisations under whose care juvenile migrants and others are introduced are shown on later pages.

*Cost of Passages for Assisted Migrants.*

Under the pre-war schemes, several steamship companies conveyed migrants from the United Kingdom at very low rates; the State Governments contributing part of the fare. Since the war the cost per berth has increased. From the 1st May, 1925, under the Joint Commonwealth and States scheme, contributions were made in equal proportions by the Federal and Imperial Governments towards the subsidy for approved persons from the United Kingdom. The Governments of Eire and the Island of Jersey do not contribute to the cost of assisted passages and migrants from these two countries receive only the benefit of the Federal Government's contribution. Under the revived proposals a similar agreement was made in April, 1938, with a contract passenger migrant rate of £33. From the 1st December, 1938, the contract rate was increased to £37 and the Government subsidy and payment by migrants, in respect of migrants from Great Britain and Northern Ireland, Eire, and the Island of Jersey, are as follows:—

TABLE 438.—Contract Passenger Migrant Rates in force from 1st December, 1938.

Class and Age on Embarkation.	Large Cabin.			
	Great Britain and Northern Ireland.		Eire and Island of Jersey.	
	Subsidy by Federal and Imperial Governments.	Payment by Migrant.	Subsidy by Commonwealth Government.	Payment by Migrant.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1. Adult nominees (over 19 and under 50 years of age, not included in Class 2)	20 10 0	16 10 0	10 5 0	26 15 0
2. Married migrants (with one or more children under 19 years of age) ...	26 0 0	11 0 0	13 0 0	24 0 0
3. Female household workers (up to the age of 40 years) ...	26 0 0	11 0 0	13 0 0	24 0 0
4. Juveniles under 19 but over 12 years of age ...	31 10 0	5 10 0	15 15 0	21 5 0
5. Children under 12 years of age ...	18 10 0	Free.	9 5 0	9 5 0

Children travelling with their parents are charged according to age.

Relatives over the age limit who wish to accompany nominated migrants will be carried by the shipping companies at the contract fare, all of which must be paid by the migrant.

In the case of persons nominated for assisted passages by relatives or friends in the State, nominators are required to guarantee that adequate provision will be made for their maintenance.

Nominees from Great Britain and Northern Ireland are provided with free transport from their homes to the port of embarkation if more than 40 miles distant. Nominees from these places and from Eire and the Island of Jersey are conveyed free by rail or steamer from Sydney to their destination in New South Wales.

*Numbers of Assisted Migrants.*

The following table shows particulars of the manner of choosing and the age and sex of assisted migrants who arrived in New South Wales under post-war schemes. A small number in 1919-21 came under the revived State scheme; there were 10,972 between 1919 and 1925 who were assisted under the Imperial Ex-Service Settlement Scheme and the remainder came under the Joint Commonwealth and States Scheme. The total for 1937 includes the first arrivals under the new proposals.

TABLE 439.—Arrivals of Assisted Migrants, 1919 to 1938.

Period or Year.	Selected.	Nominated.	Adults and Children over 12 years of age.		Children under 12 years of age.		Total Assisted Migrants.
			M.	F.	M.	F.	
1st July 1919 to 31st Dec. 1925	6,623	28,762	14,579	12,698	4,191	3,917	35,385
1926 ... ..	1,572	11,257	5,082	4,539	1,633	1,575	12,829
1927 ... ..	1,542	8,718	3,593	4,174	1,268	1,225	10,260
1928 ... ..	1,628	7,104	3,190	3,726	940	876	8,732
1929 ... ..	1,008	4,423	2,005	2,344	564	518	5,431
1930 ... ..	169	1,005	357	588	106	123	1,174
1931 ... ..	7	67	12	38	13	11	74
1932 ... ..	...	21	1	7	8	5	21
1933 ... ..	...	11	1	6	2	2	11
1934 ... ..	...	11	...	5	4	2	11
1935 ... ..	...	1	...	1	...	...	1
1936 ... ..	...	4	...	1	2	1	4
1937 ... ..	...	60	3	17	26	14	60
1938 ... ..	...	402	156	161	50	35	402

The following statement shows the migration to the State since 1832, and the total number of assisted migrants who arrived in New South Wales under various schemes, inclusive of Victoria and Queensland before their separation. After 1905 the number of migrants nominated by residents of the State and the number selected abroad are shown separately.

TABLE 440.—Arrivals of Assisted Migrants, 1832 to 1938.

Period.	Migrants assisted.				
	Selected.	Nominated.	Total Arrivals.		
			Males.	Females.	Total.
1832-1905 \$ ...	...	...	104,106	107,866	211,972
1905-1909 \$ ...	2,713	6,144	*	*	8,857
1909-1914 \$ ...	12,444	32,406	23,816	21,034	44,850
1914-1919 \$ ...	1,322	4,123	2,067	3,378	5,445
1919-1924**	4,384	22,214	13,927	12,671	26,598
1925-1929 ...	7,989	38,050	23,117	22,922	46,039
1930 ... ..	169	1,005	463	711	1,174
1931 ... ..	7	67	25	49	74
1932 ... ..	...	21	9	12	21
1933 ... ..	...	11	3	8	11
1934 ... ..	...	11	4	7	11
1935 ... ..	...	1	...	1	1
1936 ... ..	...	4	2	2	4
1937 ... ..	...	60	29	31	60
1938 ... ..	...	402	206	196	402
1832-1938 ...	29,028†	104,519†	167,774†	168,888†	345,519

\* Information not available.  
 † To 30th June.

‡ Excluding migrants, 1905-1909. † 1905 to 1938.  
 \*\* 5½ years ended 31st December, 1924.

In October, 1927, the State Government decided to restrict nominations to such classes as were not likely to disturb the labour market, and this system was applied more rigorously as the industrial situation became more acute, until December, 1930, when it was decided that all assisted migration should cease. In March, 1931, approval was granted for the acceptance of wives and children (under the age of 14 years) of men in regular employment in New South Wales. The nominated migrants who arrived in the years 1932 to 1937 were wives and children of persons in the State with the exception of 41 Barnardo children in 1937 who were the first arrivals under the revised proposals.

*Country of Origin of Assisted Migrants.*

Nearly all the assisted migrants in the post-war schemes have come from the United Kingdom; a relatively small number being from other countries as shown in the following statement:—

TABLE 441.—Country of Origin of Assisted Migrants, 1919 to 1938.

Year ended 31st Dec.	Assisted Migrants from—						Total Assisted Migrants.		
	United Kingdom		Other British Possessions.		Foreign Countries.		Nomin-ated.	Selected.	Total.
	Nomin-ated.	Selected.	Nomin-ated.	Selected.	Nomin-ated.	Selected.			
1st July 1919 to 31st Dec. 1925	28,412	6,623	142	...	208	...	28,762	6,623	35,385
1926 ... ..	11,089	1,572	148	...	20	...	11,257	1,572	12,829
1927 ... ..	8,533	1,542	183	...	2	...	8,718	1,542	10,260
1928 ... ..	6,988	1,628	116	...	...	...	7,104	1,628	8,732
1929 ... ..	4,384	1,008	34	...	5	...	4,423	1,008	5,431
1930 ... ..	975	169	29	...	1	...	1,005	169	1,174
1931 ... ..	59	7	8	...	...	...	67	7	74
1932 ... ..	21	...	...	...	...	...	21	...	21
1933 ... ..	11	...	...	...	...	...	11	...	11
1934 ... ..	11	...	...	...	...	...	11	...	11
1935 ... ..	1	...	...	...	...	...	1	...	1
1936 ... ..	4	...	...	...	...	...	4	...	4
1937 ... ..	60	...	...	...	...	...	60	...	60
1938 ... ..	402	...	...	...	...	...	402	...	402

*Group Nomination.*

A number of auxiliary migration organisations have operated in conjunction with the Government schemes for assisting migrants. Their activities are confined mainly to nominating juvenile migrants under the group nomination provisions, and caring for their training and welfare upon arrival. The Dr. Barnardo Homes and the Fairbridge Farm School are referred to below. Other organisations of a similar nature, particulars of some of which have been published in the earlier issues of the Year Book, are the Dreadnought Fund Trust, the Salvation Army, Y.M.C.A. (in conjunction with the churches), the Catholic Immigration League, the Church of England Council of Empire Settlement, the Big Brother Movement, the Boy Scouts' Association, the Presbyterian Church (Burnside Homes) and the Overseas League. The activities of these organisations were suspended in December, 1930, but the Dr. Barnardo Homes brought out parties of juveniles without Government assistance during the period of suspension.

With the reintroduction of assisted migration at the end of 1937 a new departure was made in respect to juvenile migration. Both the State and Commonwealth Governments have approved of a subsidy for maintenance

to the Fairbridge, Barnardo, Salvation Army and Burnside Homes schemes. This will be a contribution from each Government of 3s. 6d. per week per child, up to a certain maximum, payment to continue only until the child reaches the age of 14 years. Subsidies for maintenance will also be paid to some of these organisations by the Imperial Government.

#### *The Dr. Barnardo Homes.*

This organisation in New South Wales is a branch of the English institution of that name, which arranges passages and pays passage money to Australia of boys and girls trained in the organisation's homes and on farms in England. Operations were commenced in New South Wales in 1921 and up to 1929 young people of 15 to 18 years of age were brought out and sent direct to employment. Since the establishment of a farm school and a training home and hostel, younger children have been brought out.

The original Barnardo House at Ashfield was purchased in 1924 and until 1933 was used as a receiving home and hostel, but it was then converted into a training home for girls. In 1929 the Farm School "Mowbray Park," Picton, which comprises 172 acres of land, was acquired for the purpose of training the boys.

The boys and girls, upon arrival, now go direct to the farm school where until they are 14 they attend a public school. Between the ages of 14 and 15 the boys receive intensive instruction in farming and girls are given a finishing course for domestic training at the Barnardo Girls' Hostel, now at Burwood. At age 15 the local organisation places the boys and girls with farmers where the home conditions are found to be satisfactory. The after-care section of the organisation keeps constantly in touch with the young people and banks part of their wages until they reach the age of 21 years, when they receive their savings, plus interest.

The New South Wales branch is the only one operating. The first boys were landed in Sydney in October, 1921, and the first girls in May, 1923. Up to December, 1930, when Government assistance was suspended, 683 Barnardo boys and 404 girls were brought out under the joint Commonwealth and State immigration scheme. Between 1932 and 1936 four parties, comprising in all 129 boys and a further three parties comprising 80 girls, were brought out by the organisation without Government assistance. In December, 1937, a party of 23 boys and 18 girls arrived. These were the first arrivals under the revived assisted migration proposals. Up to the end of 1938 no further children were brought out.

A subsidy for maintenance at the rate of 3s. 6d. per week per child up to the age of 14 years, with a maximum of £1,000 per annum has been granted by both the State and Commonwealth Governments and the New South Wales branch receives indirectly through the parent body a subsidy from the Imperial Government.

#### *Fairbridge Farm Schools.*

A property known as "Narragoon," comprising 1,428 acres situated about four miles from Molong, was purchased to establish the Fairbridge Farm School in New South Wales. This is the third farm to be established under the Fairbridge scheme, the others being at Pinjarra, in Western Australia, and at Vancouver Island, Canada. The establishment of the farm in this State was sponsored by the Rhodes Fellowship of New South Wales, and the proposal was adopted by the parent body.

The farm has its own primary school staffed by the Department of Education. The children are given a home life by a system of cottage homes each with a family of fourteen under a cottage mother. Boys receive special training in farm work and girls in domestic work, and they are found suitable employment at the age of 16 years. Half of their wages go into trust accounts against which they can draw when they become of age. An after-care organisation is also provided.

The British Government has agreed to contribute five shillings per week for each child and the Commonwealth and New South Wales Governments 3s. 6d. per week for each child up to the age of 14 years with a maximum, in respect to the State subsidy, of 300 children and the Commonwealth, £2,000 per annum. A further 5s. per week per child will be met by the movement. The British Government also offered £15,000 towards establishment costs if a similar amount was raised in Australia. In March, 1938, the first party of children arrived comprising 28 boys and in June a further 21 boys and 8 girls arrived.

#### *Migrants Welfare Committees.*

Among the auxiliary migration organisations, some confine their attention to reception, welfare and after-care. The most important is the British Settlers' Welfare Committee.

It was formed to undertake the obligations entered into with the British Government as to the after-care of migrants, and works in close co-operation with the State Government to this end.

Its officers, with the aid of committees in important centres, keep in touch with all lads and other migrants.

Other organisations which engage in reception, welfare and after-care are the Travellers' Aid Society and the Returned Soldiers and Sailors' Imperial League. The latter assists in after-care of Imperial ex-service migrants.

#### *Summary of Activities of Auxiliary Migration Organisations.*

The following table shows the numbers of persons who have arrived in New South Wales, as group nominees under the auspices of various auxiliary migration organisations, in 1937 and 1938:—

TABLE 442.—Migrants Assisted by Organisations, 1937 and 1938.

Organisation.	Year of Inauguration.	Arrivals.	
		1937.	1938.
Dreadnought Fund—Boys	1911	...	...
Dr. Barnardo Homes—Boys	1921	23	...
Girls	1923	18	...
Church of England Migration Council—			
Farm learners	1921	...	47
Household workers	...	...	35
Burnside Homes (Presbyterian Church)—Boys	1922	...	...
Big Brother Movement—Little brothers	1925	...	...
Fairbridge Farm School—Boys	1938	...	49
Girls	1938	...	8
Salvation Army—Farm learners	...	...	19
Household workers	...	...	20

#### NATURALISATION.

Under certain conditions a person of foreign allegiance may be granted a certificate of naturalisation, which entitles him to all the political and other rights, powers, and privileges, and subjects him to all obligations to which



natural-born British subjects are entitled, or subject in the Commonwealth of Australia, except insofar as special distinction is made by law between the prerogatives of natural born and naturalised British subjects. The issue of these certificates is a function of the Commonwealth.

The privileges of naturalisation have not been widely sought in New South Wales on account of the smallness of the non-British element in the population. There were 336 persons naturalised during 1937. The total number of persons naturalised since 1849 was 23,602, of whom 7,019 were of German origin; 1,879 were Swedes; 1,328 Danes; 2,689 Italians; and 953 French. The number classified as Russians was 1,496, and (since 1922) 238 as Poles, 128 as Finns, and 234 as natives of Esthonia, Latvia, or Lithuania. The number of Asiatics was 1,356, of whom 921 were Chinese and 398 Syrians. Nearly 30 per cent. of the persons naturalised obtained their certificates since 1919. The principal nationality affected was that of Greeks, of whom 1,282 changed during the last seventeen years as against 428 previously. Corresponding figures for others were Italians 1,794 and 895; Germans, 633 and 6,386; Syrians 255 and 143; Swedes, 213 and 1,666; Danes, 212 and 1,116; and Russians, 426 and 1,070. Only 13 Chinese have been naturalised in New South Wales since the passage of the Chinese Restriction and Regulation Act of 1888. Certificates of Naturalisation issued under former State laws remain in force under the present Federal statute, the Nationality Act, 1920-1936.

#### PASSPORTS.

The Passports Act, 1920 (Federal) has been entirely repealed by the Passports Act, 1938, which is to come into operation on the 1st July, 1939.

The new legislation will be uniform with similar legislation in other British countries. Under its provisions it is no longer compulsory for persons leaving the Commonwealth to be possessed of a valid passport. As, however, the immigration regulations of most British and foreign countries require the production of a valid passport and as any person who has attained the age of 16 years is required to be in possession of a valid passport before being allowed to land in Australia (even though they may have been only temporarily absent) it is still necessary for practically everybody leaving Australia to be in possession of a valid passport duly visaed where necessary.

Travellers to the Mandated Territory of New Guinea must have passports specially endorsed for travel to the Territory or, in lieu, Permits to enter the Territory.

The fee for a Commonwealth passport is £1, and it is valid for a period of five years. It may be renewed for any consecutive period from one to five years provided the total validity does not exceed ten years, after which a fresh passport must be obtained. A fee of 2s. is charged for each year of renewal desired.

British visas are added to the passports of aliens, the fees being 8s. for an ordinary visa and 2s. for a transit visa.

British subjects travelling to foreign countries must have their passports endorsed for travel to those countries and bearing, where required, the visa of the respective Consular representatives. The necessity for Consular visas has been dispensed with in respect of travel to many foreign countries, principally in Europe.

Under the provisions of the Immigration Act, 1901-1935, all persons over 16 years of age who desire to enter Australia must be in possession of a valid passport or landing permit.

## VITAL STATISTICS.

### REGISTRATION OF BIRTHS, DEATHS, AND MARRIAGES.

Civil registration of births, deaths, and marriages was inaugurated in New South Wales in March, 1856, when a general registry was established, and a Registrar-General appointed by the Governor. The laws relating to registration were consolidated by the Registration of Births, Deaths, and Marriages Act, 1899, amended in 1930 and 1934, and those relating to marriage by the Marriage Act, 1899, amended by the Marriage (Amendment) Acts, 1924, 1925, and 1934. For registration purposes New South Wales is divided into 125 registry districts, each having one registry office in the charge of a district registrar. Some districts have additional registry offices each in charge of an assistant district registrar. On 1st January, 1939, there were 211 registry offices.

The births of all children born alive are required to be registered within sixty days of the birth. After the expiration of sixty days a birth cannot be registered unless some person present at the birth or the parent makes a statutory declaration within six months of the birth. Prior to 1st April, 1935, no birth could be registered after the expiration of six months, but the amending Act, which came into operation on that date, provides for such registrations upon proper authority being obtained. A child is considered to have been born alive if it has breathed and has been wholly born into the world whether it has had an independent circulation or not. As a general rule, births have been registered promptly in order to obtain the benefit of the maternity allowances.

The registration of stillbirths became operative on 1st April, 1935, and the Act requires that registrations shall be made within 21 days. For purposes of registration a stillborn child is one of seven months gestation or over not born alive, and includes any child not born alive which measures at least fourteen inches, but does not include any child which has actually breathed.

Before interment or cremation, notice of the death of any person must be supplied to the District Registrar by a relation of the deceased, or by the householder or tenant of the house or place in which the death occurs. Such notice must be accompanied by a proper certificate as to the cause of death. When a dead body is found, the death is registered by the coroner or by the nearest Justice of the Peace.

Marriages may be celebrated only by a minister of religion registered for that purpose by the Registrar-General, or by the District Registrar of the district in which the intended wife ordinarily resides. In the latter case the parties to be married must sign, before the District Registrar, a declaration that they desire to be married, and affirming the usual place of residence of the intended wife. Marriage of minors is permissible only with the written consent required by law. Marriage with a deceased wife's sister or a deceased brother's widow is valid in law in New South Wales.

At the beginning of 1939 there were 2,376 persons registered as ministers of religion for the celebration of marriages in New South Wales. The distribution amongst the various denominations is shown below, viz.: 602 belonged to the Church of England, 746 were Roman Catholics, 312 Methodist, 296 Presbyterian, 85 Congregational, 94 Baptist, 68 belonged to the Salvation Army, 44 were Seventh Day Adventists, 34 belonged to the Church of Christ, 11 to the Latter Day Saints; and 6 to the Jewish faith. There were 41 other religious bodies, represented by 78 ministers.

## MARRIAGES.

The following table shows the average annual number of marriages and the crude rates per 1,000 of the population since 1880:—

TABLE 443.—Marriages, 1880 to 1938.

Period.	Average Annual Number of Marriages.	Rate per 1,000 of Population.	Period.	Average Annual Number of Marriages.	Rate per 1,000 of Population.
1880-84	6,738	8.39	1920-24	18,374	8.52
1885-89	7,679	7.67	1925-29	19,481	8.11
1890-94	7,954	6.80	1930-34	17,746	6.88
1895-99	8,700	6.74	1934	20,210	7.70
1900-04	10,240	7.37	1935	22,361	8.45
1905-09	12,080	7.97	1936	22,873	8.57
1910-14	15,978	9.17	1937	23,188	8.61
1915-19	15,345	7.96	1938	24,579	9.03

A review of the marriage rates since 1880 shows that the rates declined steadily for ten years prior to 1894, when the rate was only 6.25 per 1,000 of population. After that year an improvement, remarkable for its regularity, was experienced, until in 1912 the rate (9.56 per 1,000) was the highest then recorded. In 1915 the rate was slightly higher, probably due in part to marriages contracted by soldiers prior to their departure for the war. Owing to the absence of many marriageable men the rates for the next three years showed a decline, but coincident with the return of men from active service the rate rose appreciably in 1919 and still more in 1920. The average for the five years 1925-29, though appreciably less than in the quinquennia immediately before and after the war, was greater than for any other similar period since 1880. The low average of the years 1930-1934 was coincident with a period of acute economic depression, and the increase from 1933 onwards synchronised with improved economic conditions.

The following statement shows the marriage rate per 1,000 of the population in each State, the Commonwealth of Australia, and in New Zealand in 1938, compared with the rates of the previous five years:—

TABLE 444.—Marriage Rates, States, 1933 to 1938.

State.	1933.	1934.	1935.	1936.	1937.	1938.
New South Wales...	7.07	7.70	8.45	8.57	8.61	9.03
Victoria ... ..	6.96	7.57	8.38	8.61	8.74	9.16
Queensland ... ..	6.84	7.99	8.57	8.49	8.44	8.85
South Australia ...	6.84	7.39	8.23	8.82	9.06	9.26
Western Australia	7.69	8.34	8.85	9.43	9.18	9.03
Tasmania ... ..	7.13	7.32	8.16	8.98	8.73	8.83
Commonwealth ...	7.03	7.71	8.45	8.66	8.70	9.05
New Zealand ... ..	7.16	7.62	8.20	9.25	9.55	10.09

*Conjugal Condition before Marriage.*

During the year 1938 of the males married, 22,588 were bachelors, 1,198 were widowers, and 793 were divorced. Of the females, 22,962 were spinsters, 784 were widows, and 833 were divorced. The proportion of males remarried was 8.10 per cent., and of females 6.58 per cent.

The following table shows particulars relating to first marriages and re-marriages in quinquennial periods since 1890.

TABLE 445.—Conjugal Condition at Marriage, 1890 to 1938.

Periods..	Males who were—			Females who were—			Rates per 10,000 Married.					
	Bachelors.	Widowers.	Divorced.	Spinsters.	Widows.	Divorced.	Bridegrooms.			Brides.		
							Bachelors.	Widowers.	Divorced.	Spinsters.	Widows.	Divorced.
1890-94	36,010	3,063	97	36,565	3,040	165	9,205	770	25	9,194	764	42
1895-99	39,982	3,246	273	40,081	3,036	434	9,191	740	63	9,202	698	100
1900-04	47,243	3,657	301	47,593	3,122	486	9,227	714	59	9,295	610	96
1905-09	56,322	3,708	370	56,762	3,129	509	9,325	614	61	9,398	518	84
1910-14	75,155	4,193	541	75,227	3,846	816	9,407	625	68	9,416	482	102
1915-19	71,502	4,461	764	71,559	4,255	93	9,319	581	100	9,326	552	122
1920-24	84,834	5,571	1,403	84,723	5,428	1,717	9,234	607	159	9,222	591	187
1925-29	89,794	5,555	2,055	90,022	4,394	2,388	9,219	570	211	9,304	451	245
1930-34	81,899	4,771	2,061	83,203	3,244	2,284	9,230	538	232	9,377	866	257
1934-5	18,710	1,022	478	19,001	666	543	9,253	506	236	9,402	329	269
1935	20,709	1,073	579	21,068	644	649	9,261	480	259	9,422	288	290
1936	21,148	1,116	609	21,434	778	661	9,246	488	266	9,371	340	289
1937	21,319	1,154	715	21,642	807	739	9,194	498	303	9,333	348	319
1938	22,588	1,198	793	22,962	784	833	9,190	487	323	9,342	319	339

Since 1893 the proportion of re-marriages has usually been greater among men than women. During this period the proportion of widowers re-married has always been greater than that of widows except for the three years 1920-22, when the variation was probably due to the re-marriage of war-widows. The noticeable divergence since 1925 is probably partly due to the operation of the provisions of the Widows Pensions Act of 1925.

Since 1893 the proportion of re-marriages of divorced women has always exceeded that of divorced men.

In 1915 the proportion of re-marriages reached its lowest point among both bridegrooms and brides, but has since increased, mainly due to the re-marriage of divorced persons. The increase among brides was not as great as among bridegrooms, the increase in the divorced women among the former being offset by a decrease in the proportion of widows.

#### Age at Marriage.

The number of brides and bridegrooms in age groups in each of the last five years is shown in the following table. The ages recorded are those stated at marriage by the contracting parties, without verification, and they represent age last birthday.

TABLE 446.—Age at Marriage, 1934 to 1938.

Year.	Ages of Bridegrooms.				Ages of Brides.				
	Under 21 years.	21 to 29 years.	30 to 44 years.	45 and over.	Under 21 years.	21 to 29 years.	30 to 44 years.	45 and over.	
1934	1,290	12,885	4,924	1,111	4,926	11,964	2,745	575	
1935	1,251	14,499	5,350	1,261	5,266	13,518	2,932	645	
1936	1,312	14,860	5,367	1,334	5,266	13,932	3,008	667	
1937	1,246	14,777	5,712	1,453	5,151	14,104	3,156	777	
1938	B.	1,263	15,547	5,203	575	S. 5,373	14,770	2,517	302
	W.	...	73	403	722	W. 4	93	297	390
	D.	...	87	489	217	D. 3	249	470	111

B, bachelors; S, spinsters; W, widowed; D, divorced.

Further details of the ages and condition of persons married each year are published in the Statistical Register of New South Wales.

In 1938 approximately 68 per cent. of first marriages among men and 82 per cent. among women were celebrated before attaining age 30, and the majority of marriages of persons over 45 years of age were re-marriages of one or both of the contracting parties, the proportion of such marriages being 62 per cent. among men and 62 per cent among women.

The following statement shows the average age at marriage both of bridegrooms and of brides in various years since 1905. The difference between the ages at marriage of males and females is on the average about 3½ years, the males being the older.

TABLE 447.—Average Age at Marriage, 1905 to 1938.

Year.	Average Age of—		Average Age of—		Year.	Average Age of—		Average Age of—	
	All Bridegrooms.	Bachelors.	All Brides.	Spinsters.		All Bridegrooms.	Bachelors.	All Brides.	Spinsters.
1905	years. 29·1	years. 28·2	years. 25·0	years. 24·4	1933	years. 23·8	years. 27·5	years. 25·1	years. 24·2
1910	29·0	28·2	25·3	24·7	1934	28·9	27·6	25·4	24·4
1915	28·7	28·0	25·5	25·0	1935	28·9	27·6	25·4	24·5
1920	29·5	28·5	26·1	25·2	1936	28·9	27·6	25·5	24·5
1925	29·4	28·0	25·8	24·8	1937	29·2	27·8	25·7	24·6
1930	29·0	27·6	25·3	24·2	1938	29·2	27·8	25·6	24·6

The average age at marriage shows little variation from year to year, but the incidence of marriages delayed by economic depression is evident since 1933.

*Marriages of Minors.*

The number of minors married at each individual age is shown annually in the Statistical Register. The number of brides at each age under 21 in 1938, was 5 at 14, 53 at 15, 285 at 16, 750 at 17, 1,137 at 18, 1,437 at 19, 1,713 at 20. The corresponding numbers of bridegrooms were 1 at 14, 5 at 16, 48 at 17, 155 at 18, 380 at 19, and 674 at 20.

The following are the numbers and proportions of brides and bridegrooms married under the age of 21 years:—

TABLE 448.—Minors Married, 1875 to 1938.

Period.	Minors.		Proportion to Total Marriages.		Period.	Minors.		Proportion to Total Marriages.	
	Bridegrooms.	Brides.	Bridegrooms.	Brides.		Bridegrooms.	Brides.	Bridegrooms.	Brides.
1875-79...	683	7,278	per cent. 2·74	per cent. 29·19	1925-29...	7,000	25,508	per cent. 7·19	per cent. 26·19
1880-84...	827	9,203	2·45	27·32	1930-34...	6,830	24,429	7·70	27·53
1885-89...	939	9,623	2·45	25·06					
1890-94...	847	9,803	2·13	24·65					
1895-99...	1,197	10,475	2·75	24·08	1933 ...	1,333	4,890	7·24	26·58
1900-04...	1,669	11,970	3·26	23·38	1934 ...	1,290	4,926	6·38	24·37
1905-09...	2,609	14,378	4·32	23·80	1935 ...	1,251	5,266	5·59	23·55
1910-14...	3,579	17,821	4·48	22·31	1936 ...	1,312	5,266	5·74	23·02
1915-19...	3,188	15,718	4·15	20·49	1937 ...	1,246	5,151	5·37	22·21
1920-24...	4,712	19,982	5·13	21·75	1938 ...	1,263	5,380	5·14	21·80

The proportion of minors among bridegrooms reached the lowest recorded figure, 1.89 per cent., in 1890. Since then, except for the war years, there was a sustained though fluctuating increase up to 1931, when the proportion was 9.12 per cent. Subsequent years show a continuous decline.

Among brides the proportion of minors has always been much larger than among bridegrooms, but has decreased continuously, with irregular fluctuations until the low level of 20.79 per cent. was reached in 1921. The proportion then increased rapidly to 30.55 per cent. in 1931, when it was at its highest level since 1875. Since 1931 the proportion of female minors has decreased to the same extent as male minors.

#### *Mark Signatures in Marriage Registers.*

In 1860 the proportion of signatures made in the marriage register with marks was as high as 264.7 per 1,000 persons married, but it fell rapidly to 66.7 in 1880, to 14.5 in 1900, 2.0 in 1920, and since 1925 has been around unity. The number of persons who signed in this way was only 33 in 1938 equal to 0.7 per 1,000 persons married in the year.

#### *Marriages according to Denomination.*

Of the marriages performed in New South Wales in 1938, 22,184, equivalent to 90.26 per cent. of the total, were celebrated by ministers of religion licensed under the authority of the Registrar-General. The number contracted before district registrars was 2,395, being 9.74 per cent. of the total.

The following table gives the number and proportion per cent. of marriages registered by the several denominations during 1938 in comparison with the previous ten years:—

TABLE 449.—Denominational and Civil Marriages, 1928 to 1938.

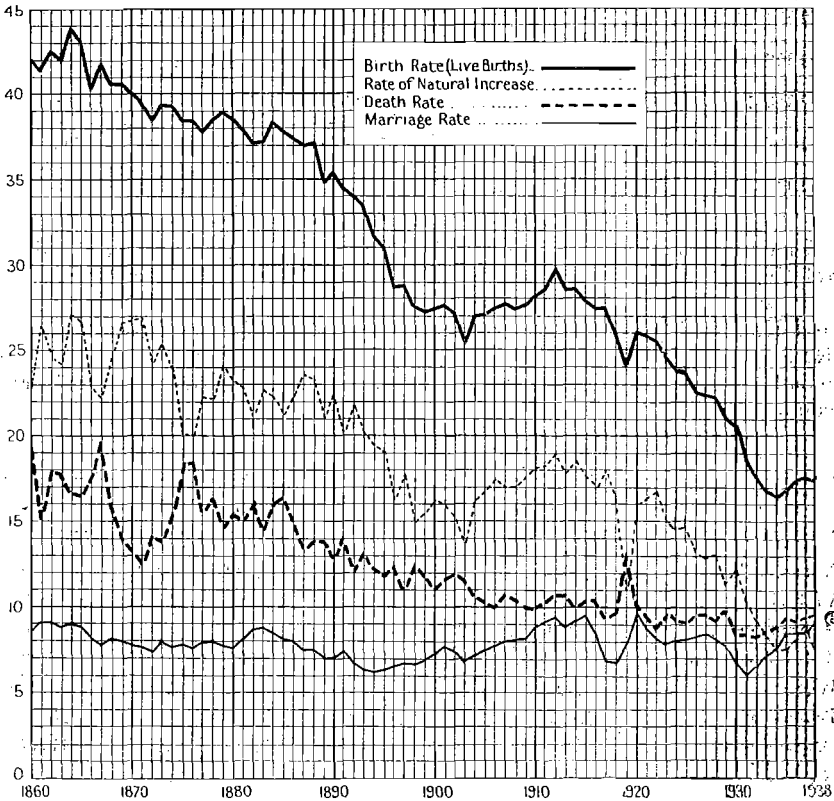
Denomination.	1928-1937.		1938.		1929-1938.	
	Marriages.	Proportion.	Marriages.	Proportion.	Marriages.	Proportion.
Church of England ... ..	80,095	per cent. 40.71	9,903	per cent. 40.29	81,473	per cent. 40.48
Roman Catholic ... ..	41,512	21.10	5,032	20.47	42,248	20.99
Presbyterian ... ..	24,296	12.35	2,837	11.54	24,428	12.14
Methodist ... ..	22,181	11.27	2,826	11.50	22,821	11.34
Congregational ... ..	4,166	2.12	486	1.98	4,182	2.08
Baptist ... ..	3,349	1.70	459	1.87	3,506	1.74
Church of Christ ... ..	1,058	.54	125	.51	1,133	.56
Salvation Army ... ..	890	.45	113	.46	936	.47
Hebrew ... ..	525	.27	72	.29	549	.27
All Other Sects ... ..	2,619	1.33	331	1.35	2,799	1.39
Total Denominational ... ..	180,691	91.84	22,184	90.26	184,075	91.46
Registrar's Offices ... ..	16,049	8.16	2,395	9.74	17,192	8.54
Total Marriages ... ..	196,740	100.00	24,579	100.00	201,267	100.00

*Divorces.*

The number of marriages dissolved annually by divorce and decree for nullity has increased materially during recent years, and they are now of considerable magnitude in relation to the number of marriages celebrated annually. Particulars of the duration of such marriages and number of issue are shown in the chapter, "Law Courts," of this Year Book.

The number of marriages dissolved in New South Wales by decrees for divorce and nullity of marriage made absolute in 1938 was 1,431, being in the proportion of 5.8 per cent. to the number of marriages celebrated during the year.

**RATES OF BIRTHS, DEATHS, MARRIAGES, AND OF NATURAL INCREASE, 1860-1938.**



The numbers at the side of the Graph represent rates per 1,000 of mean population.

**LIVE BIRTHS.**

The crude birth rate showed a steady downward tendency from 1864 to 1888. It fell sharply from 1888 until 1903, but there was then an improvement until 1912. During the war years (1914-1919) coincident with the decline in the marriage rate, there was a very rapid falling-off in the birth rate, with a recovery to normal in 1920. After 1920, despite a temporary revival in the marriage rate until 1927, the birth rate was at a record low figure in each successive year until 1934, but from then on it increased slightly, as a consequence of the rapidly increasing marriage rate since 1931.

The following table shows the average annual number of live births and the crude birth rate per 1,000 of the total population since 1880:—

TABLE 450.—Live Births, 1880 to 1938.

Period.	Average Annual Number of Live Births.	Birth-rate per 1,000 of Population.	Period.	Average Annual Number of Live Births.	Birth-rate per 1,000 of Population.
1880-84	30,417	37·89	1925-29	53,814	22·40
1885-89	36,877	36·85	1930-34	46,459	18·02
1890-94	39,550	33·80			
1895-99	37,042	28·68	1934	43,335	16·52
1900-04	37,498	26·99	1935	44,676	16·89
1905-09	41,788	27·56	1936	46,193	17·31
1910-14	50,190	28·79	1937	47,497	17·63
1915-19	51,331	26·64	1938	47,319	17·39
1920-24	54,321	25·20			

The rates shown above are calculated by the usual "crude" method of relating the births to the total population, which is of limited usefulness.

Rates calculated in the same way for the Commonwealth, each State and New Zealand, for the last six years, are shown in the following table. No allowance is made for differing sex and age constitution of the respective populations so that due allowance should be made for these factors when comparing the figures.

TABLE 451.—Live Births, Comparative Rates, 1933 to 1938.

State.	1933.	1934.	1935.	1936.	1937.	1938.
New South Wales ...	16·99	16·52	16·89	17·31	17·63	17·39
Victoria ...	15·60	15·20	15·16	15·63	16·02	16·25
Queensland ...	18·14	18·17	18·31	19·17	19·36	18·98
South Australia ...	15·32	14·50	14·14	15·17	15·25	15·88
Western Australia ...	17·95	17·66	18·23	18·84	18·95	19·87
Tasmania ...	19·93	19·51	19·41	19·84	20·69	20·82
Commonwealth ...	16·78	16·39	16·55	17·13	17·43	17·46
New Zealand ...	16·59	16·47	16·13	16·64	17·29	17·93

#### Relative Fertility.

Crude birth rates may not be a true indicator of the trend in fertility over a period of time, and they are of limited use in comparisons with other States or countries. To obtain rates suitable for such purposes it is essential to eliminate the effects of changing age and sex constitution of the respective populations and changes in the conjugal condition of population. Fertility rates may be calculated by relating nuptial births to the number of married women; ex-nuptial births to single, widowed and divorced women; and total births to all women; or, for each of these groups, the



specific fertility at each year of age or the general fertility for the whole of the reproductive ages combined (approximately 15-44), may be calculated. Precise calculations are possible only in census years and years immediately preceding or succeeding a census.

Data available in New South Wales permit of any of these methods being followed. But in long-term comparisons it is convenient to relate total births to the number of women (irrespective of conjugal condition) at each age and at the combined reproductive ages.

The birth-rates per 1,000 women living at various groups of reproductive ages, from 15 to 45 years (irrespective of conjugal condition), have been calculated for the census years up to 1933, and are shown in the following table:—

TABLE 452.—Specific and General Fertility of Females, 1891 to 1933.

Age Groups (years).	1891.	1901.	1911.	1921.	1933.	Decrease per cent. in rates 1891 to 1933.
15-19	35.30	30.87	33.75	32.72	29.73	15.8
20-24	170.90	134.65	141.45	146.57	106.05	37.9
25-29	247.48	177.95	187.35	169.99	119.68	51.6
30-34	238.81	168.42	161.20	140.18	94.39	60.5
35-39	196.15	136.60	122.27	101.71	59.23	69.8
40-44	96.61	70.79	54.51	43.78	24.04	75.1
15-44	161.74	117.46	118.50	109.84	72.57	55.1

There has been a decline of 55.1 per cent. in the birth rate since 1891 and the decline has been general in all age-groups. It was more marked at the later than at the earlier ages, and became increasingly pronounced as age advanced. The contrast in experience in regard to the first and last quinquennia of the normal years of child-bearing is particularly striking. Whereas the birth rate for women in the last quinquennium of child bearing years in 1891 was 174 per cent. greater than the rate for those in the first quinquennium of child bearing years, the corresponding proportion in 1921 was only 34 per cent. greater, and in 1933 it was 19 per cent. lower. The rate in age group 20-24 showed a persistent improvement from 1901 to 1921, but in 1933 dropped to the lowest level yet recorded.

An outstanding feature of the comparison is the rapidity with which the downward trend of the birth rate gathered momentum during the last intercensal period, so that the relative decline during this period of twelve years—1921 to 1933—was greater than the decline during the previous thirty years—1891 to 1921. This was most marked in the group 20 to

24 years, the fall being 27.6 per cent. between 1921 and 1933 and 14.2 per cent. between 1891 and 1921. The relative decline in each group is shown below:—

TABLE 453.—Decline in Fertility of Females, 1891 to 1933.

Age Group.	Decrease per cent. in Birth Rates.	
	1891 to 1921.	1921 to 1933.
Years.		
15-19 ... ..	7.3	9.9
20-24 ... ..	14.2	27.6
25-29 ... ..	31.3	29.6
30-34 ... ..	41.3	32.7
35-39 ... ..	48.1	41.8
40-44 ... ..	54.7	45.1
15-44 ... ..	32.1	33.9

The crude birth rate for New South Wales was 34.5 per cent. lower in 1933 than in 1921. The rate, calculated on the basis of the number of women of reproductive age, was 33.9 per cent. lower.

The quinquennial age groupings used in the two preceding tables provide a suitable summary over the period covered, but do not adequately illustrate the differential fertility at each year of reproductive age. The following table shows the average annual number of female births per 1,000 women at each age:—

TABLE 454.—Specific Female Fertility, 1911 to 1933.

(Average annual number of female children born per 1,000 women at each age.)

Age.	1910-12.	1920-22.	1932-34.	Age.	1910-12.	1920-22.	1932-34.
13	.07	.10	...	30	85.64	74.82	50.60
14	.19	.32	.26	31	76.25	72.15	52.00
				32	88.28	67.08	46.26
				33	79.35	65.92	39.07
15	1.36	.96	1.26	34	72.08	62.93	41.47
16	4.91	3.95	4.10				
17	11.96	11.94	11.98	35	68.77	56.91	35.46
18	23.83	23.98	21.52	36	66.23	52.39	32.42
19	39.50	41.33	32.29	37	63.62	49.52	30.01
				38	53.91	45.78	26.03
				39	53.06	39.54	21.64
20	47.20	47.75	39.87				
21	65.41	62.27	48.08	40	40.67	30.59	17.55
22	69.46	74.46	54.83	41	30.72	22.92	15.75
23	82.24	82.70	56.74	42	28.95	21.92	11.99
24	88.75	84.10	59.68	43	21.50	16.27	8.48
				44	12.74	9.92	5.95
25	90.34	86.14	58.81	45	8.36	5.60	3.03
26	93.03	87.13	60.13	46	4.42	2.88	1.75
27	93.59	82.22	59.11	47	2.10	1.25	.84
28	93.58	80.51	55.36	48	.91	.57	.31
29	89.93	81.06	55.91	49	.43	.43	.14

The specific female fertility rates shown above form the basis of gross and net reproduction rates, which may be used to measure the reproductive capacity inherent in birth rates at any time.

The sum of each column of specific female birth rates may be taken as the number of female children born to 1,000 mothers who live right through the child-bearing age.

If these female children were to live through the child-bearing age and were to reproduce female children at the same rate as they themselves were produced, then, on the 1910-12 level, from 1,000 mothers 1,753 female children would result; on the 1920-22 level 1,550, and on the 1932-34 level 1,061. Reduced to unity these represent gross reproduction rates of 1.753, 1.550, and 1.061 respectively.

From the life tables for New South Wales, however, it is possible to ascertain just how many of these females would have survived to each year of the child-bearing age on the levels of mortality prevailing in the periods in question. If, then, the specific female birth rate at each age is applied only to the number, who, from 1,000 females born, would live throughout that age, the actual reproduction which would occur on the level of experience for that period can be measured. The addition of these results and reduction to unity in the manner described above gives the net reproduction rates. For New South Wales, in the periods shown, such rates were: 1910-12, 1.449; 1920-22, 1.349; and 1932-34, .968.

Both the gross and net reproduction rates for New South Wales shown above may be compared with those for the countries shown below, which have been calculated in the same manner. These figures have been taken from the Statistical Year Book of the League of Nations, 1937-38.

TABLE 455.—Gross and Net Reproduction Rates.

Country.	Year.	Gross.	Net.	Country.	Year.	Gross.	Net.
Africa—				Europe— <i>continued.</i>			
Union of South Africa ...	1924-29	1.674	1.424	England and Wales ...	1920-22	1.35	1.11
America—				1930-32	.93	.81	
Canada ... ..	1931	1.555	1.319	1934-36	.87	.76	
United States (whites) ...	1931	1.156	1.031	Estonia ... ..	1933-35	.901	.728
	1935	1.062	.961	Finland ... ..	1921-30	1.402	1.074
Asia—				France ... ..	1920-23	1.233	.977
Japan ... ..	1925	2.599	1.640	1935	1.003	.866	
	1930	2.372	1.571	Hungary ... ..	1932-35	1.251	1.008
Europe—				Italy ... ..	1931	1.570	1.209
Austria ... ..	1928	.969	.782	Netherlands ... ..	1936	1.256	1.097
1935	.64			Poland ... ..	1934	1.50	1.11
Bulgaria ... ..	1921-26	2.502	1.534	Scotland ... ..	1934	1.10	.91
1933-36	1.673	1.192		Oceania—			
Czechoslovakia ... ..	1929-32	1.204	.939	Australia ... ..	1920-22	1.517	1.319
Denmark ... ..	1921-25	1.384	1.186	1932-34	1.047	.955	
	1931-35	1.036	.916	1935-36	1.048	.956	
				New Zealand ... ..	1921-22	1.442	1.291
				1935-36	1.021	.949	

*Live Births to Mothers at Individual Ages.*

The number of live births to married and unmarried mothers in age groups during 1938 is shown in the following table. These figures should be distinguished from the number of confinements shown on page 540. The summary accompanying the latter gives the relationship between the two sets of figures:—

TABLE 456.—Live Births, Age of Mother, 1938.

Age Group.	Nuptial Live Births.			Ex-nuptial Live Births.			All Live Births.		
	Males.	Females.	Total.	M.	F.	Total.	Males.	Females.	Total.
Years.									
Under 15 ... ..	3	...	3	5	8	13	8	8	16
15-19 ... ..	1,392	1,239	2,631	255	252	507	1,647	1,491	3,138
20-24 ... ..	6,619	6,273	12,892	375	347	722	6,994	6,620	13,614
25-29 ... ..	7,084	6,850	13,934	177	162	339	7,261	7,012	14,273
30-34 ... ..	4,619	4,474	9,093	100	104	204	4,719	4,578	9,297
35-39 ... ..	2,490	2,411	4,901	64	54	118	2,554	2,465	5,019
40-44 ... ..	882	833	1,715	39	29	68	921	862	1,783
45-49 ... ..	86	80	166	2	6	8	88	86	174
50 and over ... ..	1	...	1	...	...	...	1	...	1
Not stated ... ..	...	...	...	1	3	4	1	3	4
Total ... ..	23,176	22,160	45,336	1,018	965	1,983	24,194	23,125	47,319

Similar information for single ages will be found in the Statistical Register of New South Wales.

*Birth-Rates—Metropolis and Remainder of the State.*

Data for distinguishing the births in the metropolis from those in other districts are not available on a comparable basis beyond 1st January, 1927, because the births since that date have been allocated according to the usual address of the mother and not according to the district in which the birth occurred as formerly. The municipalities of Auburn, Bankstown, Granville, Lidcombe and Parramatta were added to the metropolitan area in 1929, and the municipalities of Dundas, Ermington and Rydalmere and the Pitt and Merrylands Wards of Holroyd were added in 1933. For the purpose of comparison in the following table the figures for the Metropolis and the remainder of the State prior to 1933 have been adjusted to the present boundaries:—

TABLE 457.—Live Births, Metropolis and Country, 1927 to 1938.

Year.	Number of Live Births.			Live Births per 1,000 of Population.		
	Metropolis.	Remainder of State.	New South Wales.	Metropolis.	Remainder of State.	New South Wales.
1927	22,861	30,997	53,858	20.19	24.37	22.40
1928	23,580	31,220	54,800	20.33	24.01	22.27
1929	22,606	30,066	52,672	19.88	22.01	21.04
1930	22,201	29,985	52,186	18.51	22.46	20.59
1931	19,293	28,431	47,724	15.92	21.15	18.67
1932	17,774	27,131	44,905	14.52	20.01	17.41
1933	17,083	27,112	44,195	13.83	19.84	16.98
1934	16,538	26,797	43,335	13.30	19.41	16.52
1935	16,907	27,769	44,676	13.52	19.91	16.89
1936	17,759	28,434	46,193	14.11	20.18	17.31
1937	18,158	29,339	47,497	14.28	20.62	17.63
1938	18,559	28,760	47,319	14.48	19.98	17.30

The age and sex constitution of the metropolitan population is considerably different from that of the remainder of the State, therefore, comparisons of crude birth-rates are to be taken with reserve. That, on a comparable basis, the birth rate in the remainder of the State is higher than in the metropolis is indicated by the rates per 1,000 of all women aged 15-44. In 1933 this rate was 54.66 in the metropolis and 92.19 in the remainder of the State. These figures, however, are not strictly comparable as the proportion of married women of child-bearing age is greater in the remainder of the State than in the metropolis. In 1921 these proportions were 57 per cent. and 51 per cent. respectively, but data are not yet available from the 1933 census to determine the present position.

*The Sexes of Children.*

Of the 47,319 children born during 1938 (exclusive of those still-born), 24,194 were males and 23,125 were females, the proportion being 104.6 males to 100 females. As far as observation extends, the number of female births has not exceeded that of males in any year, although the difference has sometimes been very small.

The table below shows the number of males born alive to every 100 females born alive, both in nuptial and ex-nuptial births, since 1880:—

TABLE 458.—Live Births, Masculinity, 1880 to 1938.

Years.	Nuptial Live Births.	Ex-Nuptial Live Births.	All Live Births.	Years.	Nuptial Live Births.	Ex-Nuptial Live Births.	All Live Births.
1880-84	104.9	103.9	104.8	1925-29	105.6	106.5	105.7
1885-89	105.4	98.8	105.1	1930-34	105.5	103.1	105.4
1890-94	105.7	105.4	105.7				
1895-99	105.0	105.4	105.1	1934	104.0	105.9	104.1
1900-04	104.3	102.8	104.2	1935	103.9	108.8	104.1
1905-09	105.0	104.9	105.0	1936	105.2	102.7	105.1
1910-14	105.2	105.0	105.2	1937	103.7	109.6	104.0
1915-19	105.3	104.0	105.2	1938	104.6	105.5	104.6
1920-24	104.6	107.3	104.8				

*Ex-Nuptial Live Births.*

The number of ex-nuptial live births in 1938 was 1,983, equal to 4.19 per cent. of the total live births and 0.73 per 1,000 of population. A statement of the ex-nuptial births in New South Wales since 1900 is given below:—

TABLE 459.—Ex-nuptial Live Births, 1900 to 1938.

Period.	Number of Ex-nuptial Live Births.	Ratio per cent. to Total Live Births.	Crude Rate per 1,000 of Population.	Year.	Number of Ex-nuptial Live Births.	Ratio per cent. to Total Live Births.	Crude Rate per 1,000 of Population.
1900-04 ...	2,596	6.92	1.87	1933 ...	2,233	5.05	.86
1905-09 ...	2,915	6.98	1.92	1934 ...	2,069	4.77	.79
1910-14 ...	2,872	5.72	1.65	1935 ...	2,023	4.53	.76
1915-19 ...	2,581	5.03	1.34	1936 ...	2,094	4.53	.78
1920-24 ...	2,657	4.89	1.23	1937 ...	2,106	4.43	.78
1925-29 ...	2,725	5.06	1.13	1938 ...	1,983	4.19	.73
1930-34 ...	2,348	5.05	.91				

Over the whole State the proportion of ex-nuptial to total live births has declined in a marked degree since 1905. It rose gradually to 7.37 per cent. in 1905, after which a rapid decline occurred to 4.80 per cent. in 1916. The ratio rose again during the years 1917 to 1919, when the number of legitimate births declined, and it fell to 4.88 per cent. in 1920. In subsequent years, to 1930 the ratio was fairly constant, but a rise to 5.34 per cent. in 1931 was followed by a continuous decline.

The most accurate test as to the extent of ex-nuptial births is obtained by relating the total number of such births recorded to the number of unmarried women of child-bearing age. This can only be done satisfactorily at census periods, but it indicates that, though the proportion of such births was increasing up to about 1890, it declined considerably in the next forty years, the proportion of ex-nuptial children born, per 1,000 unmarried women aged 15 to 44, having fallen from 18.41 in 1891 to 16.10 in 1901, 14.18 in 1911, 12.49 in 1921, and 8.20 in 1933, a decrease of 55 per cent. since 1891.

#### Order of Birth.

Details of the previous issue of women giving birth to children throughout the year were recorded for the years 1894 to 1907, but were then discontinued until 1938. The summarised figures for the latter year are as follow:—

TABLE 460.—Previous Issue and Age of Mother, 1938.

Age of Mother.	Previous Issue.											Total Mothers
	0	1	2	3	4	5	6	7	8	9	10 & over.	
Under 15	2	...	...	...	...	...	...	...	...	...	...	2
15-19	2,090	468	52	2	...	...	...	...	...	...	...	2,612
20-24	6,913	3,854	1,441	451	111	24	2	...	...	...	...	12,797
25-29	5,064	4,075	2,283	1,296	600	336	92	42	15	2	...	13,805
30-34	1,906	2,308	1,691	1,117	809	508	324	173	85	40	21	8,982
35-39	596	772	771	689	541	471	343	273	171	108	92	4,827
40-44	122	140	198	204	162	178	175	153	140	87	139	1,698
45-49	6	9	10	12	12	23	23	7	8	17	37	164
50 and over	...	...	...	...	...	...	1	...	...	...	...	1
Total	16,639	11,626	6,446	3,771	2,235	1,540	960	648	420	254	289	44,858
Proportion per cent. of Total Mothers	37.20	25.90	14.36	8.40	4.98	3.43	2.14	1.44	.94	.57	.64	100.00

Fuller detail is published in the Statistical Register for 1937-38.

In 1894, 51 per cent. of the children born represented the fourth or later child. In 1938 such proportion was only 23 per cent. Comparison indicates that since 1894 there has been an increase in the proportion of first and second children, the proportion of third children has remained almost constant, but a decrease appears for the fourth child and this becomes greater as the number of previous issue increases.

*First Live Births.*

A record has been kept of the number of first live births in each year commencing from 1893. By first live birth is meant the first child born alive to a mother since her marriage and includes only the first born alive of twins and triplets. The figures are restricted to births to married mothers as no details are shown as to other issue of the mother in registrations of ex-nuptial births.

In the following table are shown details of the first live births related to the total nuptial births in quinquennial periods since 1895:—

TABLE 461.—First Live Births, 1895 to 1938.

Period.	Nuptial Live Births.			Proportion of First Births to Total.
	To Mothers with no Previous Issue.	To Mothers with Previous Issue.	Total.	
1895-99 ...	34,793	137,876	172,669	per cent. 20·2
1900-04 ...	40,956	133,551	174,507	23·5
1905-09 ...	48,856	145,508	194,364	25·1
1910-14 ...	65,413	171,176	236,589	27·6
1915-19 ...	62,990	180,762	243,752	25·8
1920-24 ...	74,022	184,296	258,318	28·7
1925-29 ...	75,531	179,916	255,447	29·6
1930-34 ...	67,874	152,681	220,555	30·8
1934 ...	13,335	27,931	41,266	32·3
1935 ...	14,761	27,892	42,653	34·6
1936 ...	16,057	28,042	44,099	36·4
1937 ...	16,421	28,970	45,391	36·2
1938 ...	16,699	28,637	45,336	36·8

There has been a consistent rise in the proportion of first births, but, as the indications are that the proportion of first births to recent marriages began to fall only in the last decade, this may be conversely stated as a much greater decline in births after the first than in first births. Evidence of this trend is also seen in the table of birth rates in age groups which is shown on page 531. This showed that between 1891 and 1933 the decrease in birth rates in quinquennial age groups became progressively greater as age advanced; the lower ages at which first births are most frequent showing a decline which was relatively small to that at higher ages.

Details of the interval between marriage and first live birth in relation to the age of the mother are published in the "Statistical Register." A summary for 1938 is as follows:—

TABLE 462.—First Live Births, Age of Mother and Interval Since Marriage, 1938.

Interval.	Age of Mother—Years.								Total.
	Under 15.	15-19	20-24	25-29	30-34	35-39	40-44	45 and over.	
Under 1 month	...	36	59	12	7	1	2	...	117
1-2 months	...	53	61	26	10	4	1	2	157
2-3 "	...	73	101	20	9	3	2	...	208
3-4 "	1	131	145	41	7	4	...	1	330
4-5 "	...	200	255	57	19	7	2	...	540
5-6 "	1	257	395	103	35	5	1	...	797
6-7 "	...	396	672	158	33	10	4	...	1,273
7-8 "	...	275	496	124	41	4	2	...	942
8-9 "	...	105	344	141	44	10	3	...	647
9-10 "	...	117	580	302	98	27	3	...	1,127
10-11 "	...	86	457	273	91	29	4	...	940
11-12 "	...	67	384	215	75	25	2	...	768
1-2 years	...	265	2,064	1,619	486	125	28	2	4,580
2-3 "	...	25	627	891	307	89	15	...	1,954
3-4 "	...	3	191	533	199	52	6	...	984
4-5 "	...	1	56	276	118	33	7	...	491
5 years and over	...	...	26	273	327	168	40	1	835
	2	2,090	6,913	5,064	1,906	596	122	6	16,699

#### STILLBIRTHS.

The number of stillbirths registered in the State in 1938 was 1,473. Of these 803 were males and 670 females, the masculinity (120 males to 100 females) being considerably higher than amongst the live births (105 males to 100 females).

Amongst ex-nuptial births the frequency of stillbirth is usually higher than amongst the nuptial births, in 1938 the respective proportions being 36.44 and 29.91 stillbirths to 1,000 of all births (live and still).

Of the total stillbirths 591 were in the metropolis and 882 in the remainder of the State the proportion per 1,000 of all births (live and still) being 30.86 in the former and 29.76 in the latter.

Details of the stillbirths registered since the inception of compulsory registration on the 1st April, 1935, were as follow:—

TABLE 463.—Stillbirths, 1935 to 1938.

Year.	Number of Stillbirths.					Rate per 1,000 of All Births (Live and Still).			Proportion of Ex-nuptial to Total Stillbirths.	Male Stillbirths per 1,000 Female Stillbirths.
	Nuptial.		Ex-nuptial.		Total.	Nuptial.	Ex-nuptial.	Total.		
	Males.	Females	Males.	Females						
1935 (April to December).	532	464	38	28	1,062	29.84	40.99	30.35	Per cent. 6.21	1,159
1936	776	560	44	39	1,419	29.40	38.13	29.80	5.85	1,369
1937	818	571	28	35	1,452	29.69	29.05	29.66	4.34	1,396
1938	765	633	38	37	1,473	29.91	36.44	30.19	5.09	1,199



Prior to the date upon which compulsory registration was introduced the only information available in respect of stillbirths was the notification of such by midwives registered under the Nurses Registration Act. Notifications are made only by registered midwives in private practice, and these figures are of little value for statistical purposes.

## PLURAL BIRTHS.

Prior to 1935 cases of plural births with one child only born alive were often recorded as single births. With the introduction of compulsory registration of stillbirths, as from 1st April, 1935, all cases of plural births are recorded, the consequent increase in the number of cases being reflected in the statement, that, whereas in 1934, only 15 cases of twins with one child stillborn were recorded there were 55 such cases in 1935 and 50 in 1936.

During the year 1938 there were 533 cases of plural births. They consisted of 531 cases of twins and 2 cases of triplets. The live children born as twins numbered 982 (489 males and 493 females), whilst 80 were stillborn and the live children born as triplets numbered 6 (6 males), while none was stillborn.

Of the plural births shown above 20 cases of twins were ex-nuptial.

The following table shows the number of cases of twins and triplets born in New South Wales during the year 1938, distinguishing nuptial and ex-nuptial:—

TABLE 464.—Plural Births, 1938.

	Twins.				Triplets.		
	Both Born Living.	One Born Living, One Stillborn.	Both Still-born.	Total.	All Born Living.	One Still-born.	Total.
Nuptial ...	444	54	13	511	2	...	2
Ex-nuptial ...	20	...	...	20	...	...	...
Total ...	464	54	13	531	2	...	2

The number of cases of plural births recorded in 1938 represented 11.05 cases per 1,000 confinements, while the number of children born at plural births was 2.19 per cent. of all births (both live and still).

It is not possible to make a comparison with more than one year on a similar basis; but excluding the cases of plural births in which all the children were stillborn there were 5,019 cases of twins, 39 cases of triplets and 1 case of quadruplets in the 10 years 1929-1938. In this period the number of confinements (excluding stillbirths) was 465,848, hence the rates per 100,000 confinements were 1,077 cases of twins and 8 cases of triplets. Otherwise stated there were 11 cases of plural births in every 1,000 confinements.

The last case of quadruplets occurred in 1930, previous cases being in 1913, 1897, 1895, 1893, 1888 and 1877.

## SUMMARY OF LIVE BIRTHS AND STILLBIRTHS.

The following table for the year 1938 shows the number of confinements, live births, still births and plural births:—

TABLE 465.—Confinements and Summary of Births, 1938.

Class of Birth.	Confinements.		Children.						
	Married Mothers.	Un-married Mothers.	Born Living.		Stillborn.		All Births.		
			Nuptial.	Ex-nuptial.	Nuptial.	Ex-nuptial.	Nuptial.	Ex-nuptial.	Total.
Single Births ...	45,706	2,018	44,388	1,943	1,318	75	45,706	2,018	47,724
Twins—									
Both Living ...	444	20	888	40	...	...	888	40	928
One living, one stillborn.	54	...	54	...	54	...	108	...	103
Both still born	13	...	...	...	23	...	26	...	26
			942	40	80	...	1,022	40	1,062
Triplets—									
All living ...	2	...	6	...	...	...	6	...	6
One stillborn ...	...	...	...	...	...	...	...	...	...
Two stillborn ...	...	...	...	...	...	...	...	...	...
All stillborn ...	...	...	...	...	...	...	...	...	...
			6	...	...	...	6	...	6
Total	46,219	2,038	45,336	1,983	1,398	75	46,734	2,058	...
	48,257		47,319		1,473		.....		48,792

The number of confinements to married and unmarried mothers in age groups in 1938 is shown below. Detailed figures will be found in the Statistical Register:—

TABLE 466.—Confinements, Age of Mother, 1938.

Age Group.	Number of Confinements.		
	Married Mothers.	Unmarried Mothers.	Total.
Years—			
Under 15 ...	2	13	15
15-19 ...	2,631	524	3,185
20-24 ...	13,055	731	13,786
25-29 ...	14,169	345	14,514
30-34 ...	9,232	210	9,492
35-39 ...	5,053	122	5,175
40-44 ...	1,813	72	1,885
45-49 ...	181	9	190
50 and over ...	2	...	2
Not stated ...	1	12	13
Total ...	46,219	2,038	48,257

THE LEGITIMATION ACT, 1902.

In 1902 an Act was passed to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Act, any child who comes within the scope of its purpose born before or after the passing thereof, is deemed to be legitimised from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The total number of registrations under the Act up to the end of the year 1938 was 14,093. The number in each year of the last ten years is shown in the following table:—

TABLE 467.—Legitimations, 1902 to 1938.

Year	Registrations.	Year.	Registrations.
1902-1928	9,627	1935	507
1929	496	1936	395
1930	385	1937	463
1931	472	1938	371
1932	443		
1933	456	1902-1938	14,093
1934	478		

NATURAL INCREASE.

Figures as to natural increase are intended to show only the rate at which the population of the State has increased by the excess of births over deaths. When used for other purposes consideration should be given to the effect upon the birth and death rates of the changing age distribution of the population. A measure of the reproductive capacity inherent in the birth rates of different periods is given by the Net Reproduction Rates shown on page 533. During 1938 the natural increase was equal to 7.80 per 1,000 of the population.

The following table shows the natural increase of population since 1880:—

TABLE 468.—Natural Increase, 1880 to 1938.

Year.	Natural Increase—Whole State. (Excess of Births over Deaths.)			Annual Rates per 1,000 of Population.		
	Males.	Females.	Total.	Births.	Deaths.	Natural Increase.
1880-84 ... ..	41,405	48,627	90,032	37.89	15.46	22.43
1885-89 ... ..	52,187	59,675	111,862	36.85	14.49	22.36
1890-94 ... ..	57,233	64,413	121,646	33.80	13.01	20.79
1895-99 ... ..	49,885	57,746	107,631	28.68	12.01	16.67
1900-04 ... ..	49,695	58,152	107,847	26.99	11.47	15.52
1905-09 ... ..	61,652	68,993	130,645	27.56	10.33	17.23
1910-14 ... ..	75,648	84,539	160,187	28.79	10.41	18.38
1915-19 ... ..	71,992	82,005	153,997	26.64	10.66	15.98
1920-24 ... ..	80,484	89,075	169,559	25.20	9.47	15.73
1925-29 ... ..	73,812	82,169	155,981	22.40	9.42	12.98
1933 ... ..	10,072	11,801	21,873	16.98	8.58	8.40
1934 ... ..	8,931	10,930	19,861	16.52	8.95	7.57
1935 ... ..	8,899	11,230	20,129	16.89	9.28	7.61
1936 ... ..	10,051	11,766	21,817	17.31	9.14	8.17
1937 ... ..	9,865	12,397	22,262	17.63	9.36	8.27
1938 ... ..	9,446	11,768	21,214	17.39	9.59	7.80

The general decline in the rate of natural increase since 1890 is due to a more rapid decline in the birth rate than in the death rate. The decrease in the birth rate ceased between 1903 and 1917 and this reflected in the rate of natural increase for that period. In 1919 deaths were increased by the influenza epidemic, but from then until 1922 there was a high post-war birth-rate. After 1922 the birth rate declined rapidly; the death rate being relatively steady around 9 per 1,000 of population, whilst the birth-rate continued to fall until 1934. Despite the slight improvement in the years 1935 to 1937 the rate of natural increase in the quinquennium 1934-38 was the lowest on record.

Although the number of males born is more numerous than that of females, the increase of population from the excess of births over deaths is greatly in favour of the latter, since there is a disproportionately large number of deaths among males. During the ten years which closed with 1938, the number of females added to the population by excess of births over deaths, exceeded the males by 19,191 or nearly 18 per cent.

The respective increases from natural and migratory causes are shown in Chapter "Population" of this Year Book.

Analyses of the natural and migratory increases in the population of the State since 1861 and of the various divisions of the State since 1911 are shown on pages 489 and 497 of this Year Book.

In the twelve years up to 1934, despite slight fluctuations, there was a considerable decline in the rates of natural increase in all the Australian States, followed by an almost general rise in subsequent years. In New Zealand the rate declined up to 1936. The table below shows the rates per 1,000 of population since 1933.

TABLE 469.—Natural Increase, States, 1933 to 1938.

State.	1933.	1934.	1935.	1936.	1937.	1938.
<i>New South Wales</i> ...	8.41	7.57	7.61	8.17	8.27	7.80
Victoria ...	6.00	5.01	5.13	5.47	5.99	6.10
Queensland ...	9.30	9.59	9.15	10.39	10.26	9.79
South Australia ...	6.88	5.24	5.31	5.87	6.34	6.53
Western Australia	9.31	8.43	8.98	9.44	10.00	10.67
Tasmania ...	10.33	9.27	9.16	9.50	11.18	11.11
Commonwealth ...	7.86	7.07	7.09	7.70	7.99	7.82
New Zealand ...	8.61	7.99	7.91	7.89	8.21	8.22

#### DEATHS.

Although for purposes of record stillbirths are registered as deaths as well as births, they are excluded from all death tables, both in this Year Book and in the Statistical Register of New South Wales.

The deaths (excluding stillbirths) during 1938 numbered 26,105, equal to a rate of 9.59 per 1,000 of the mean population. Of the total, 14,748 were males and 11,357 females, the rate for the former being 10.74 and

for the latter 8.42 per 1,000 living of each of the sexes. The average annual number of deaths from 1880, with the rate per 1,000 of population, in quinquennial periods, was as follows:—

TABLE 470.—Deaths, 1880 to 1938.

Period.	Average Annual Number of Deaths. (excluding Stillbirths.)			Death-rate per 1,000 of Population.			Proportion per cent. of Male to Female Rate.
	Males.	Females.	Total.	Males.	Females.	Total.	
1880-84	7,286	5,124	12,410	16·55	14·14	15·46	117
1885-89	8,461	6,043	14,504	15·43	13·36	14·49	115
1890-94	8,877	6,344	15,221	14·06	11·77	13·01	119
1895-99	9,002	6,514	15,516	13·11	10·77	12·01	122
1900-04	9,195	6,733	15,928	12·65	10·17	11·47	124
1905-09	9,076	6,553	15,659	11·52	9·04	10·33	127
1910-14	10,598	7,555	18,153	11·59	9·11	10·41	127
1915-19	11,919	8,613	20,532	12·20	9·07	10·66	135
1920-24	11,696	8,713	20,409	10·64	8·25	9·47	129
1925-29	12,836	9,732	22,618	10·52	8·27	9·42	127
1930-34	12,410	9,528	21,938	9·48	7·50	8·51	126
1934	13,173	10,301	23,474	9·91	7·96	8·95	124
1935	13,891	10,656	24,547	11·37	8·16	9·28	127
1936	13,618	10,758	24,376	10·10	8·16	9·14	124
1937	14,347	10,888	25,235	10·54	8·17	9·36	129
1938	14,748	11,357	26,105	10·74	8·42	9·59	128

The death-rate has fallen continuously for both sexes, but faster for females than for males. As shown above, the rate for both sexes combined during the five years 1880-84 was 67 per cent. higher than that experienced during the five years 1934-38. Many causes are responsible for this improvement, such as the enforcement of Health Acts, the advance of science, and the better education of the people. The remarkable effect of these factors on the death-rates of the population in the early years of life is dealt with later in connection with deaths of children under 1 year and under 5 years.

A table of the death-rates per 1,000 of mean population in each of the Australian States and New Zealand from 1933 to 1938 is shown below:—

TABLE 471.—Death-rates, States, 1933 to 1938.

State.	1933.	1934.	1935.	1936.	1937.	1938.
<i>New South Wales</i> ...	8·58	8·95	9·23	9·14	9·36	9·59
Victoria ...	9·59	10·19	10·03	10·16	10·03	10·15
Queensland ...	8·34	8·57	9·16	8·78	9·10	9·19
South Australia ...	8·44	9·26	8·83	9·30	8·91	9·35
Western Australia	8·64	9·23	9·25	9·40	8·95	9·20
Tasmania ...	9·60	10·23	10·25	10·34	9·51	9·71
Commonwealth ...	8·92	9·32	9·46	9·43	9·44	9·64
New Zealand ...	7·98	8·48	8·22	8·75	9·08	9·71

This comparison represents the respective crude death-rates of the States enumerated, but the rates should be used with caution in so far as differences in the age and sex constitution of the individual populations have not been taken into account, therefore the rates are not strictly comparable with each other as showing the true incidence of mortality in the various States.

Such a comparison can be made by applying the rates of mortality in age and sex groups to a standard population embodying a fixed distribution according to age and sex. The resultant rates constitute an index of mortality or weighted average death-rate which, in effect, shows what would have been the death-rate if the age and sex distribution of the population compared each year had been in accordance with the standard adopted. The standard used is identical with that provided by the International Statistical Institute in Part II, p. viii of the *Annuaire International de Statistique*, 1917.

The index of mortality so calculated for each of the Australian States and New Zealand is shown below:—

TABLE 472.—Index of Mortality, States, 1932 to 1937.

State.	1932.	1933.	1934.	1935.	1936.	1937]
New South Wales	9·55	9·75	8·96	9·18	9·12	9·30
Victoria ...	9·72	10·02	9·30	9·08	9·23	9·02
Queensland ...	9·31	10·28	8·84	9·39	9·02	9·32
South Australia ...	8·79	8·76	8·39	7·97	8·36	8·02
Western Australia..	11·15	11·04	9·45	9·47	9·62	9·25
Tasmania ...	9·88	10·39	9·43	9·54	9·60	8·77
Commonwealth ...	9·54	9·86	9·01	9·10	9·12	9·09
New Zealand ...	7·87	7·73	8·10	7·71	8·01	8·03

It is necessary to emphasise that the above rates are hypothetical and are serviceable only for purposes of comparison *inter se* and with death-rates of other countries calculated on the same basis. The age and sex distribution in the standard population is supposititious, being based on an agglomeration of European populations.

#### *Death-rates—Age and Sex.*

The remarks already made regarding the limitations in the use of crude birth-rates apply also to the conclusions to be drawn from tables of crude death-rates published above. The age and sex distribution of a population are most important factors to be considered in comparing death-rates between different States or in the same State over a period of years. This becomes evident in respect to New South Wales if the relative changes in the specific death rates in the various age groups over a period of fifty years, as shown on the next page, are studied in conjunction with the changing age distribution as shown on page 507.

The variation in the proportion of persons in the various age groups will have a considerable bearing on the crude death-rate of the whole population.

Again the death-rate of males is much higher than that of females. Consequently the increase in the proportion of females as shown on page 504 will be reflected in a corresponding decrease in the general rate.

In the following table death-rates are given for each sex in the principal age-groups during the triennial periods around each census since 1881.

TABLE 473.—Specific Death-rates, All Causes, 1880 to 1934.

Age Group (Years).	Death-rate per 1,000 Living—All Causes.						Reduction per cent. 1880-82 to 1932-34.
	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.	
Males.							
0-4 ... ..	47.45	38.70	33.88	24.69	21.49	12.52	74
5-9 ... ..	3.13	3.51	2.16	2.05	1.85	1.41	55
10-14 ... ..	2.45	2.21	2.01	1.70	1.58	1.23	50
15-19 ... ..	3.85	3.33	3.43	2.43	2.17	1.68	56
20-24 ... ..	5.79	4.74	4.71	3.32	2.70	2.28	61
25-34 ... ..	7.64	6.50	5.56	4.31	3.75	2.49	67
35-44 ... ..	12.25	9.92	8.77	6.98	6.02	4.56	63
45-54 ... ..	18.99	16.23	14.56	12.45	10.86	9.56	50
55-64 ... ..	35.50	29.76	27.59	25.13	23.04	21.31	40
65-74 ... ..	67.23	61.89	60.13	55.69	51.61	49.26	27
75 and over ... ..	162.71	146.35	149.50	144.47	142.99	128.48	21
All Ages ... ..	16.72	14.24	12.90	11.59	10.72	9.60	43
Rate in 1880-82 =							
100 ... ..	100	85	77	69	64	57	...
Females.							
0-4 ... ..	42.19	33.45	30.37	20.71	16.94	10.06	76
5-9 ... ..	2.77	3.26	1.99	1.76	1.64	1.18	57
10-14 ... ..	2.22	1.75	1.69	1.37	1.20	.83	63
15-19 ... ..	3.56	3.03	2.49	1.92	1.61	1.34	62
20-24 ... ..	5.31	4.14	3.82	3.17	2.43	2.03	62
25-34 ... ..	7.00	6.07	5.44	4.21	3.65	2.64	67
35-44 ... ..	11.10	8.86	7.53	5.96	4.88	3.99	64
45-54 ... ..	15.09	11.86	10.36	9.06	7.90	7.03	53
55-64 ... ..	26.83	22.56	20.02	17.60	15.73	14.21	47
65-74 ... ..	56.95	52.69	46.18	44.46	39.11	36.45	36
75 and over ... ..	138.58	142.28	134.48	125.29	124.53	107.40	22
All Ages ... ..	14.07	11.82	10.23	9.09	8.23	7.57	46
Rate in 1880-82 =							
100 ... ..	100	84	73	65	58	54	...
Persons.							
0-4 ... ..	44.86	36.12	32.15	22.74	19.25	11.31	75
5-9 ... ..	2.95	3.39	2.08	1.91	1.75	1.30	56
10-14 ... ..	2.33	1.98	1.85	1.54	1.39	1.03	56
15-19 ... ..	3.70	3.18	2.96	2.18	1.90	1.51	59
20-24 ... ..	5.57	4.45	4.26	3.24	2.56	2.16	61
25-34 ... ..	7.75	6.32	5.50	4.26	3.70	2.56	67
35-44 ... ..	11.79	9.49	8.23	6.50	5.47	4.27	63
45-54 ... ..	17.54	14.48	12.79	10.97	9.46	8.33	52
55-64 ... ..	32.07	26.98	24.34	21.84	19.71	17.81	44
65-74 ... ..	63.37	58.07	54.43	50.61	45.81	43.02	32
75 and over ... ..	154.09	144.72	142.78	135.86	133.86	117.72	24
All Ages ... ..	15.52	13.13	11.63	10.40	9.50	8.60	45
Rate in 1880-82 =							
100 ... ..	100	85	75	67	61	55	...

There was a steady reduction in the death-rates throughout the period, the improvement being greatest at ages under 5 years, then in the group 25 to 34 years. The rates for females were reduced to a greater extent than the rates for males in every age group up to 75 years, except at ages

25 to 34 years. It is noticeable that the reduction at ages 10 to 14 years was 63 per cent. amongst females and only 50 per cent. amongst males, the difference in rate of reduction amongst males and females being greatest in this group and at ages 65 to 74 years. Above that age improved conditions naturally had less effect.

The ages at which death-rates are most favourable are between 10 and 14 years; and between the ages of 5 and 45 years they are generally considerably below the average.

#### *Expectation of Life.*

The effect of the improvement in death-rates in increasing the duration of life in Australia is indicated in the following statement, which shows the average expectation of life at specified ages according to the Australian mortality experience of the decades from 1881 to 1910 and the three years around the censuses of 1921 and 1933.

TABLE 474.—Expectation of Life, 1881 to 1934.

Age.	Males.					Females.				
	1881-90.	1891-1900.	1901-10.	1920-22.	1932-34.	1881-90.	1891-1900.	1901-10.	1920-22.	1932-34.
	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.	Years.
0	47.20	51.08	55.20	59.15	63.48	50.84	54.76	58.84	63.31	67.14
10	48.86	51.43	53.53	56.01	58.01	51.95	54.46	56.39	59.20	61.02
20	40.58	42.81	44.74	46.99	48.81	43.43	45.72	47.52	50.03	51.67
30	33.64	35.11	36.52	38.44	39.90	36.13	37.86	39.33	41.48	42.77
40	26.50	27.65	28.56	30.05	31.11	29.08	30.49	31.47	33.14	34.04
50	19.74	20.45	21.16	22.20	22.83	22.06	22.93	23.69	24.90	25.58
60	13.77	13.99	14.35	15.08	15.57	15.39	15.86	16.20	17.17	17.74
70	8.82	8.90	8.67	9.26	9.59	9.70	9.89	9.96	10.41	10.97
80	5.11	5.00	4.96	5.00	5.22	5.27	5.49	5.73	5.61	6.01
90	2.91	2.91	2.64	2.60	2.98	2.98	3.07	2.99	2.91	3.05
100	1.32	1.29	1.18	1.17	1.10	1.37	1.23	1.24	1.24	1.02

#### *Deaths—Metropolis and Remainder of the State.*

A summary of the annual deaths and death rates in the metropolis and in the remainder of the State during the last ten years is shown below. Data for comparison with earlier years are not available owing to a change in the method of classification introduced at the beginning of the year 1927 by which the deaths are grouped according to the usual residence of the deceased persons, whereas they were allocated formerly to the district in which death occurred. The area included in the metropolis was extended in January, 1929, by the addition of the municipalities of Auburn, Bankstown, Granville, Lidcombe and Parramatta, and in January, 1933, by the addition of the municipalities of Dundas, Ermington and Rydalmere and



the Pitt and Merrylands wards of Holroyd, and for the purposes of the comparison shown below the metropolitan figures for years prior to 1933 have been adjusted to the present boundaries.

TABLE 475.—Deaths, Metropolis and Country, 1928 to 1938.

Year.	Metropolis.		Remainder of the State.		New South Wales.	
	Number of Deaths (excluding stillbirths.)	Rate per 1,000 Living.	Number of Deaths (excluding stillbirths.)	Rate per 1,000 Living.	Number of Deaths (excluding stillbirths.)	Rate per 1,000 Living.
1928	11,611	10·01	11,083	8·52	22,694	9·22
1929	12,585	11·07	12,030	8·81	24,615	9·83
1930	10,976	9·15	10,276	7·71	21,252	8·39
1931	11,020	9·09	10,264	7·63	21,284	8·33
1932	10,981	8·97	10,376	7·56	21,357	8·23
1933	11,580	9·37	10,742	7·86	22,322	8·58
1934	11,847	9·53	11,627	8·42	23,474	8·95
1935	12,552	10·04	11,895	8·60	24,547	9·28
1936	12,435	9·88	11,941	8·48	24,376	9·14
1937	13,168	10·36	12,067	8·48	25,235	9·36
1938	13,461	10·50	12,644	8·74	26,105	9·59

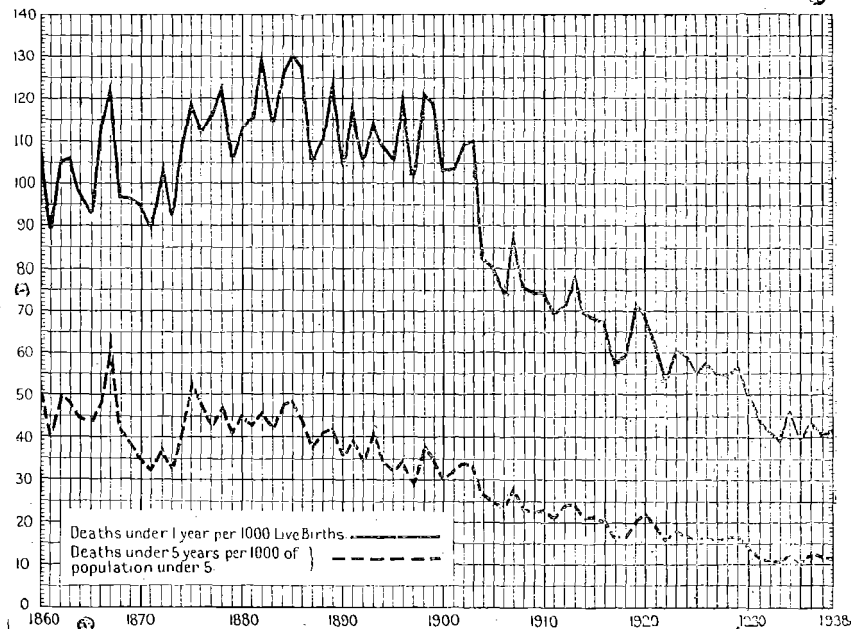
The death rate appears to be higher in the metropolis than in the country, but crude rates should be used with caution, owing to differences in the proportions of each sex and in the age composition of the populations of these divisions.

THE MORTALITY OF INFANTS.

*Deaths of Children under 1 Year of Age (excluding Stillbirths).*

During the year 1938 the children who died before completing the first year of life (excluding stillbirths) numbered 1,980, equivalent to a rate of 41.84 per 1,000 live births.

INFANTILE MORTALITY, 1860-1938.



The death-rate is higher for male infants than for females, the rates in 1938 being 48.5 and 34.9 per 1,000 live births, respectively. The rates for each sex are shown in the following table in quinquennial periods since the year 1880.

TABLE 476.—Infantile Mortality, 1880 to 1938.

Period.	Males.		Females.		Total.	
	Annual Average Deaths under 1.	Rate per 1,000 Live Births.	Annual Average Deaths under 1.	Rate per 1,000 Live Births.	Annual Average Deaths under 1.	Rate per 1,000 Live Births.
1880-84	1,992	127.9	1,671	112.5	3,663	120.4
1885-89	2,405	127.2	2,019	112.3	4,424	120.0
1890-94	2,413	118.7	1,966	102.3	4,379	110.7
1895-99	2,304	121.4	1,914	105.9	4,218	113.9
1900-04	2,677	108.5	1,738	94.6	3,315	101.7
1905-09	1,832	85.6	1,458	71.5	3,290	78.7
1910-14	2,038	79.2	1,610	65.8	3,648	72.7
1915-19	1,892	71.9	1,440	57.6	3,332	64.9
1920-24	1,900	68.4	1,436	54.1	3,336	61.4
1925-29	1,682	60.8	1,319	50.4	3,001	55.8
1930-34	1,176	49.3	877	38.8	2,053	44.2
1934	1,123	50.8	886	41.7	2,009	46.4
1935	1,002	44.0	760	34.7	1,762	39.4
1936	1,100	46.5	908	40.3	2,008	43.5
1937	1,081	44.6	851	36.5	1,932	40.7
1938	1,173	48.5	807	34.9	1,980	41.8

During the period reviewed not only has the excess of the male rate over the female rate always been pronounced, but it has grown greater with the passing of time. Whereas in the first ten years of the table above the excess was between 13 and 14 per cent., in the last few years it has been double that figure.

The remarkable improvement which has taken place in the infantile mortality rate in the period covered by the above table is due in a large degree to the measures adopted to combat preventable diseases by health laws and by education. The first important step was taken in 1881, when the Infectious Diseases Supervision Act became law. In 1896 the Public Health Act was passed, and in 1902 the acts relating to Public Health were consolidated. About this time a world-wide movement drew attention to the benefit of breast-feeding and the dangers attending the methods of artificial feeding then in vogue. A scheme for the preservation of infant health was formulated by the Sydney Municipal Council in 1903, and instructional pamphlets were circulated for the guidance of mothers in the care and feeding of young children. In the following year trained women inspectors were appointed to visit mothers in the populous parts of the city and in the surrounding suburbs.

During the year 1904 infantile mortality showed a marked improvement on the rates experienced for about thirty years. A reference to the principal causes of death during the years immediately prior to and after the year in question will show that a decrease was experienced in all causes in which care and knowledge could have effect. Thus the mortality from diarrhoea and enteritis dropped from 36.90 per 1,000 live births in 1903 to 21.31 in 1904; tubercular diseases from 3.06 to 1.58; and congenital debility from 15.54 to 12.98.

Further efforts to reduce the rate of infantile mortality have been made since 1914 through the establishment in Sydney and in various country localities of baby health centres, and through the formation of a number of public bodies which are affiliated with the Royal Society for the Welfare of Mothers and Babies. Particulars relating to these institutions will be found in chapter "Social Condition" of this Year Book.

In 1926 a Division of Maternal and Baby Welfare was created in the office of the Director-General of Public Health to supervise public activities relating to the health of women and children.

The decline in infantile mortality, especially in diarrhoeal diseases, is illustrated by the following table, which gives the mortality rate per 1,000 live births since 1900 from diarrhoeal diseases, and from all other causes:—

TABLE 477.—Infantile Mortality, Diarrhoeal Diseases, 1900 to 1938.

Period.	Deaths under 1 year of age per 1,000 Live Births.			Year.	Deaths under 1 year of age per 1,000 Live Births.		
	Diarrhoeal Diseases.	All other Diseases.	All causes.		Diarrhoeal Diseases.	All other Diseases.	All causes.
1900-04	29·62	72·21	101·73	1932	2·81	38·25	41·06
1905-09	21·06	57·66	78·72	1933	2·24	37·11	39·35
1910-14	20·64	52·04	72·68	1934	2·54	43·82	46·36
1915-19	13·94	50·97	64·91	1935	2·06	37·38	39·44
1920-24	13·77	47·64	61·41	1936	2·38	41·09	43·47
1925-29	8·94	46·83	55·77	1937	2·53	38·15	40·68
1930-34	4·14	40·05	44·19	1938	2·43	39·41	41·84

The work of the baby health centres has been instrumental in bringing about a reduction in the death rate from diarrhoeal diseases. Seasonal conditions, however, tend to cause a fluctuation in the rate as in 1926 when the rainfall was below normal during several months and diarrhoeal diseases caused 20 per cent. of the deaths of infants under one year of age.

*Infantile Mortality by Age.*

Of the total number of deaths of infants under 1 year of age in 1938 56 per cent. occurred within a week of birth; within the first month the proportion was 67 per cent., and within three months 76 per cent. The following statement shows the number and proportion of deaths at various ages under 1 year in the metropolis and in the whole State:—

TABLE 478.—Infantile Mortality, Metropolis and State, Age, 1937 and 1938.

Age at Death.	1937.				1938.			
	Metropolis.		State.		Metropolis.		State.	
	Number of Deaths.	Deaths per 1,000 Live Births.	Number of Deaths.	Deaths per 1,000 Live Births.	Number of Deaths.	Deaths per 1,000 Live Births.	Number of Deaths.	Deaths per 1,000 Live Births.
Under 1 week ...	393	21·64	1,083	22·80	390	21·01	1,108	23·42
1 week ...	66	3·64	149	3·14	41	2·21	118	2·49
2 weeks ...	33	1·82	69	1·45	20	1·08	51	1·08
3 " ...	14	·77	47	·99	14	·76	43	·91
Under 1 month, Total	506	27·87	1,348	28·38	465	25·06	1,320	27·90
1 month ...	39	2·15	94	1·98	41	2·21	114	2·41
2 months ...	17	·94	53	1·12	29	1·56	66	1·40
3 " ...	16	·88	52	1·10	20	1·08	56	1·18
4 " ...	16	·88	48	1·01	22	1·18	55	1·16
5 " ...	19	1·05	45	·95	19	1·02	53	1·12
6 " ...	14	·77	68	1·43	29	1·56	65	1·37
7 " ...	15	·83	54	1·14	15	·81	55	1·16
8 " ...	15	·82	42	·88	16	·86	51	1·08
9 " ...	18	·99	49	1·03	15	·81	38	·80
10 " ...	12	·66	32	·67	25	1·35	47	·99
11 " ...	16	·88	47	·99	18	·97	60	1·27
Under 1 year, Total	703	38·72	1,932	40·68	714	38·47	1,980	41·84

Despite the marked decline in infantile mortality, the proportion of deaths of children under 1 week old is higher now than it was thirty years ago, while at all other ages under one year there has been a sustained

improvement. This may be illustrated strikingly by the statement that, whereas the rate of mortality among children within one week of birth was 21.84 per 1,000 live births in the five years 1901-05 and 23.36 per 1,000 live births in the five years 1934-38, the corresponding rates among children over one week and under twelve months old were 75.18 per 1,000 in 1901-05, and 18.96 per 1,000 in 1934-38—a decline of 75 per cent.

It is shown on a later page that the principal causes of death among children in their first week of life were malformations and the diseases of early infancy, embracing congenital debility, premature birth, injury at birth, and others of early infancy, which in 1938 were responsible for 96 per cent. of the deaths of children during the first week of life, causing 22.45 deaths per 1,000 live births out of the total rate of 23.42. These causes are not generally connected with post-natal care of children, and they tend, when considered as an integral part of the rate of mortality, to obscure the remarkable improvement which has been effected by the dissemination of knowledge and the promotion of health measures for the care of infants. Although more skilful attention after birth may decrease the number of infants who died from pre-natal causes, it is recognised that a general improvement in the rate of mortality among infants in the first week of life will not be attained except through increased pre-natal care, and considerable attention is being given to the care and instruction of expectant mothers.

The following table shows the rates of mortality among infants in age groups during the first year of life in quinquennial periods since 1901. Details for each year from 1901 to 1930 inclusive are published in the 1930-31 issue of this Year Book.

TABLE 479.—Infantile Mortality, Age, 1901 to 1938.

Period.	Rate of Mortality per 1,000 Live Births among Children aged—						
	Under 1 week.	1 week and under 1 month.	1 month and under 3 months.	Total under 3 months.	3 months and under 6.	6 months and under 12.	Total under 1 year.
1901-01*	21.19	11.37	19.65	52.21	22.26	26.88	101.35
1905-09	22.36	10.12	13.21	45.69	15.34	17.69	78.72
1910-14	22.28	9.14	11.53	42.95	13.07	16.66	72.68
1915-19	24.53	8.02	9.15	41.70	9.22	13.99	64.91
1920-24	23.10	7.64	8.95	39.69	9.08	12.64	61.41
1925-29	23.37	6.76	6.90	37.03	7.35	11.30	55.77
1930-34	22.64	5.29	4.28	32.21	4.33	7.65	44.19
1934	24.02	5.12	4.94	34.08	4.76	7.52	46.36
1935	22.99	4.77	3.44	31.20	2.87	5.37	39.44
1936	23.64	5.93	4.07	33.64	3.66	6.17	43.47
1937	22.80	5.58	3.10	31.48	3.05	6.15	40.68
1938	23.42	4.48	3.81	31.71	3.46	6.67	41.84

\* Four year period.

Allowing for the operation of pre-natal causes upon the mortality in the first week of life, it is evident that pronounced improvement took place in the rates of infantile mortality immediately after the adoption of special educative measures in 1904 and 1914, and that, although special factors have operated to increase infantile mortality in certain years there has been a steady and sustained improvement. It is particularly noteworthy that the improvement is greatest among children aged one month and over. Up to that age the operation of pre-natal causes produces the majority of deaths.

In 1930 the rate was below 50 deaths per 1,000 live births for the first time on record, and in 1933 and 1935 it was less than 40 per 1,000. The rates in these two latter years constitute record low figures.

*Infantile Mortality in Metropolis and Remainder of State.*

The number of deaths of children under one year of age in the metropolis in 1938 was 714 or 38.47 per 1,000 live births, and in the remainder of the State 1,266, or 44.02 per 1,000 live births.

The following table shows the number of deaths of children under 1 year of age in the metropolis and in the remainder of the State, and the proportion per 1,000 live births, in 1938 and the previous ten years. The basis of the classification as to locality is the usual residence of the mother:—

TABLE 480.—Infantile Mortality, Metropolis and Country, 1928 to 1938.

Period.	Metropolis.		Remainder of State.		New South Wales.	
	Deaths under 1.	Rate per 1,000 Live Births.	Deaths under 1.	Rate per 1,000 Live Births.	Deaths under 1.	Rate per 1,000 Live Births.
1928	1,192*	50.55*	1,812*	58.04*	3,004	54.82
1929	1,276*	56.17*	1,713*	56.97*	2,983	56.63
1930	1,103*	49.68*	1,494*	49.91*	2,597	49.81
1931	860*	44.58*	1,217*	42.81*	2,077	43.52
1932	691*	33.88*	1,153*	42.50*	1,844	41.06
1933	629	36.82	1,110	40.94	1,739	39.35
1934	731	44.20	1,278	47.69	2,009	46.36
1935	602	35.61	1,160	41.77	1,762	39.44
1936	741	41.73	1,267	44.56	2,008	43.47
1937	703	38.72	1,229	41.89	1,932	40.68
1938	714	38.47	1,266	44.02	1,980	41.84

\* These figures on basis of boundaries as existing from 1933.

The following table shows a comparison of the rates of infantile mortality in the Australian States, in New Zealand, and in various other countries. The rates indicate the deaths under 1 year per 1,000 live births. As the rates quoted are for a single year only and fluctuate from year to year they do not show the permanent relativity between the rates prevailing in the countries named.

TABLE 481.—Infantile Mortality, States and Countries, 1936 and 1938.

State or Country.	Infantile Mortality Rate.		Country.	Infantile Mortality Rate, 1936.
	1936.	1938.		
South Australia ...	31.09	30.50	Netherlands ...	39
Western Australia ...	42.22	33.80	Sweden ...	43
Victoria ...	42.31	34.21	Norway ...	44*
New Zealand ...	30.96	35.63	Switzerland ...	47
Commonwealth ...	41.16	38.28	United States ...	57
Tasmania ...	49.55	40.15	England and Wales	59
Queensland ...	36.20	41.28	†South Africa ...	59
New South Wales ...	43.47	41.84	Germany ...	66
			Canada ...	66
			France ...	67
			Denmark ...	67
			Irish Free State (Eire)	74
			Northern Ireland ...	77
			Belgium ...	79
			Scotland ...	82
			Italy ...	100
			Spain ...	110*
			Japan ...	117
			Czechoslovakia ...	124
			Hungary ...	137
			Ceylon ...	165
			Rumania ...	175

\* Year 1935.

† White people only.

The rate of infantile mortality in New Zealand up to 1937 was consistently lower than that experienced in any of the Australian States, but in 1938 three States had more favourable rates than New Zealand. The rates for Australasia generally are greatly superior to those prevailing in most other countries for which comparable records are available. Wide differences between climatological and economic conditions should be allowed for in considering the relationship between the rates shown for the various countries.

*Causes of Infantile Mortality.*

A table published on page 115 of the Statistical Register for 1919-20 and continued in subsequent years shows the rates of infantile mortality for each of the principal causes in each year since 1895. This indicates that there has been a great decline in the mortality from diarrhoea, enteritis, and other digestive diseases, congenital debility, nervous diseases, tubercular diseases, and bronchitis, diseases of the stomach, accident, and general diseases. On the other hand, deaths from malformation, premature birth, and diseases of early infancy have increased proportionately. The mortality from epidemic diseases fluctuates considerably with a tendency to decline.

The following table shows the incidence of mortality caused by the principal diseases among infants at various periods during the first year of life in 1938, showing the experience in the metropolis in comparison with that in the whole State:—

TABLE 482.—Infantile Mortality—Causes of Death, 1938.

Cause of Death;	Deaths of Children under One Year of Age per 1,000 Live Births.							
	Metropolis.				State.			
	Under 1 week.	1 week and under 1 month.	1 month and under 1 year.	Total.	Under 1 week.	1 week and under 1 month.	1 month and under 1 year.	Total.
Epidemic Diseases ... ..	...	...	1.78	1.78	...	.10	1.82	1.92
Tuberculosis ... ..	...	...	.05	.05	...	...	.13	.13
Syphilis ... ..	...	...	.11	.11	...	.04	.08	.12
Meningitis ... ..	.05	.06	.43	.54	.04	.07	.42	.53
Convulsions ... ..	...	.06	.05	.11	.02	.04	.07	.13
Bronchitis ... ..	.05	.06	.16	.27	.04	.06	.36	.46
Pneumonia ... ..	.11	.38	3.50	3.99	.21	.40	3.68	4.29
Diarrhoea and Enteritis ... ..	...	.05	1.78	1.83	...	.11	2.32	2.43
Malformation ... ..	2.32	1.29	1.56	5.17	2.33	.89	1.56	4.78
Congenital Debility ... ..	.91	.16	.22	1.29	1.27	.27	.23	1.77
Premature Birth ... ..	10.99	1.02	.49	12.50	11.83	1.23	.30	13.36
Injury at Birth ... ..	4.15	.38	.16	4.69	4.27	.32	.10	4.69
Other Diseases of early Infancy ... ..	1.94	.27	.10	2.31	2.75	.44	.13	3.32
All Other Causes ... ..	.49	.32	3.02	3.83	.66	.51	2.74	3.91
Total ... ..	21.01	4.05	13.41	38.47	23.42	4.48	13.04	41.84

In the State in 1938 nearly 96 per cent. of the deaths during the first week after birth and 67 per cent. of the deaths which occurred during the first year after birth were due to exclusively pre-natal causes, and diseases of early infancy or syphilis. Deaths from these causes during

the first year of life represented 28.04 per 1,000 births during the year. The incidence of diarrhoea and enteritis was comparatively light among children under the age of one month.

*Deaths of Ex-nuptial Children under 1 year.*

During 1938 there were 45,336 nuptial and 1,983 ex-nuptial children born alive. During the same period the deaths of nuptial children under 1 year of age numbered 1,829 and of ex-nuptial children 151.

The infantile mortality rate of ex-nuptial children was 89 per cent. greater than the rate for nuptial children, partly owing to premature birth, infantile debility and inherited diseases, but to an equally great extent to causes arising from neglect. The mortality rates from various causes among ex-nuptial children are shown annually in the Statistical Register.

How these combined causes operate to produce a comparatively high death rate among ex-nuptial children is shown in the following table which relates to the year 1938 and the quinquennium 1934-38.

TABLE 483.—Infantile Mortality, Nuptiality and Age, 1934 to 1938.

Age at Death.	Deaths per 1,000 Live Births, 1938.				Deaths per 1,000 Live Births, 1934-1938			
	Nuptial.	Ex-nuptial.		Total.	Nuptial.	Ex-nuptial.		Total.
		Rate.	Per cent. of Nuptial Rate.			Rate.	Per cent. of Nuptial Rate.	
Under 1 week ...	22.83	36.81	161	23.42	22.62	39.22	173	23.36
1 week ... ..	2.38	5.04	212	2.49	2.67	4.77	179	2.77
2 weeks... ..	.99	3.03	306	1.08	1.22	2.24	184	1.27
3 " ... ..	.88	1.51	172	.91	1.09	2.34	215	1.14
<b>Total— under 1 month</b>	<b>27.08</b>	<b>46.39</b>	<b>171</b>	<b>27.60</b>	<b>27.60</b>	<b>48.57</b>	<b>176</b>	<b>28.54</b>
1 month ... ..	2.36	3.53	150	2.41	2.30	3.21	140	2.35
2 months ... ..	1.26	4.54	360	1.40	1.39	3.99	287	1.51
3 " ... ..	1.10	3.03	275	1.18	1.28	2.82	220	1.35
4 " ... ..	1.17	1.01	86	1.16	1.09	2.24	206	1.14
5 " ... ..	1.04	3.03	291	1.12	1.02	1.85	181	1.06
6 " ... ..	1.26	4.03	320	1.37	1.11	2.73	246	1.18
7 " ... ..	1.10	2.52	229	1.16	1.08	1.75	162	1.11
8 " ... ..	.97	3.53	364	1.08	.92	2.72	296	1.00
9 " ... ..	.82	.50	61	.80	.96	1.56	163	.99
10 " ... ..	.95	2.02	213	.99	.97	1.95	201	1.01
11 " ... ..	1.23	2.02	164	1.27	1.06	1.56	147	1.08
<b>Total— under 1 year</b>	<b>40.34</b>	<b>76.15</b>	<b>189</b>	<b>41.84</b>	<b>40.78</b>	<b>74.95</b>	<b>184</b>	<b>42.32</b>

The number of ex-nuptial children who die during one year is comparatively small, consequently the rates of mortality for such children based on the experience of a single year are unstable.

A more reliable comparison is obtained by using figures based upon the quinquennial period. The experience of the five years 1934-38 shows that the largest proportional excess of deaths of ex-nuptial children over those of nuptial children is not immediately after birth, but usually two months or more later. During the first month of life the mortality of ex-nuptial children exceeded that of nuptial children by 76 per cent., by 40 per cent. in the second, by 187 per cent. in the third, 120 per cent. in the fourth and 106 per cent. in the fifth.

The following table shows the number of births and deaths and the rate per 1,000 live births of ex-nuptial as compared with those of nuptial children in New South Wales since 1900.

TABLE 484.—Deaths under 1 Month and 1 Year, 1900 to 1938.

Year.	Total Live Births.		Deaths under 1 month.				Deaths under 1 year.			
			Nuptial.		Ex-Nuptial.		Nuptial.		Ex-Nuptial.	
	Nuptial.	Ex-Nuptial.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.
1900-04	174,507	12,982	*	*	*	*	15,712	90.04	3,361	258.90
1905-09	194,364	14,574	4,758†	30.16†	637†	54.62†	13,780	70.90	2,668	183.07
1910-14	236,589	14,363	7,150	30.22	734	51.10	15,901	67.21	2,338	162.78
1915-19	243,752	12,903	7,675	31.49	678	52.55	14,956	61.36	1,703	131.98
1920-24	258,318	13,286	7,726	29.91	624	46.97	15,194	58.82	1,485	111.77
1925-29	255,447	13,624	7,507	29.39	599	43.97	13,643	53.41	1,363	100.04
1930-34	220,555	11,740	5,957	27.01	532	45.32	9,354	42.41	912	77.68
1934	41,266	2,069	1,162	28.16	101	48.81	1,845	44.71	164	79.26
1935	42,653	2,023	1,130	26.49	110	54.38	1,601	37.54	161	79.58
1936	44,099	2,094	1,281	29.03	86	41.07	1,882	42.68	126	60.17
1937	45,391	2,106	1,238	27.27	110	52.23	1,764	38.86	168	79.77
1938	45,336	1,983	1,228	27.08	92	46.39	1,829	40.34	151	76.15

\* Not available.

† Four Years 1906-09.

The table shows that whilst the ex-nuptial death rates are uniformly high compared with the nuptial rates, they have improved considerably in the period covered by the table. In 1901, one out of every four ex-nuptial children died within a year of birth; the rate in 1938 was one in thirteen.

#### Deaths of Children under 5 years.

Apparently there has been a general improvement in the death-rate of all groups of children under 5 years of age, though the improvement has not been so marked at ages over 1 year as in the rates of infantile mortality.

The following table shows the mortality of children under 5 years of age:—

TABLE 485.—Deaths under 5 Years, 1890 to 1938.

Period.	Deaths under 5 years.		Year.	Deaths under 5 years.	
	Average Annual Number.	Rate per 1,000 Living.		Average Annual Number.	Rate per 1,000 Living.
1890-94	6,220	37.5	1934	2,777	12.2
1895-99	5,693	34.2			
1900-04	5,056	31.4	1935	2,377	10.8
1905-09	4,335	24.7			
1910-14	4,881	22.9	1936	2,680	12.4
1915-19	4,676	19.5			
1920-24	4,518	18.5	1937	2,532	11.7
1925-29	4,070	16.0			
1930-34	2,852	11.8	1938	2,600	11.9

The rate of mortality in the quinquennium 1930-34, compared with that of 1890-94, represents a saving of 26 lives each year in every 1,000 children under 5 years in the State.

Children are more susceptible to the attacks of disease in the earlier years of life than later, and the death rate decreases steadily until the age of 10 years is reached. Since the rate for preventable diseases is high, there is no doubt that many children succumb through parental ignorance of the proper food or treatment required.



*Infantile Mortality and Stillbirths.*

Pre-natal causes being a common factor in both stillbirth and the mortality of infants subsequent to birth it is of interest to note the combined rate for stillbirths and deaths of children under one year of age.

In 1938 there were 1,473 stillbirths and 1,980 deaths under one year of age, making a total loss of 3,453 infants out of 48,792 live births and stillbirths. This represents a rate of 70.77 per 1,000 of all births.

The metropolitan rate on this basis is 68.15 and in the remainder of the State 72.46. This shows the total loss of infant life in the metropolis in 1938 to be almost equal to that in the remainder of the State, despite the considerable difference disclosed by a consideration of deaths of live-born children only.

The year 1936 is the first for which figures are available on this basis.

CAUSES OF DEATH.

The classification used for tabulating causes of death is in accordance with the International List of Causes of Death, with slight modification for use throughout Australia, and is based on the fourth decennial revision by the International Commission at Paris in 1929.

The complete list of causes of death in use is published in the Statistical Register of New South Wales, which shows the number of deaths from each cause according to age, sex, and month of occurrence.

The table published below is a summary of the principal individual causes of death in 1938, compared with the average annual number in the period 1933-37, adjusted to the population of the year 1938. The proportion to the total in the five years 1934-38 is also shown:—

TABLE 486.—Causes of Death, 1938.

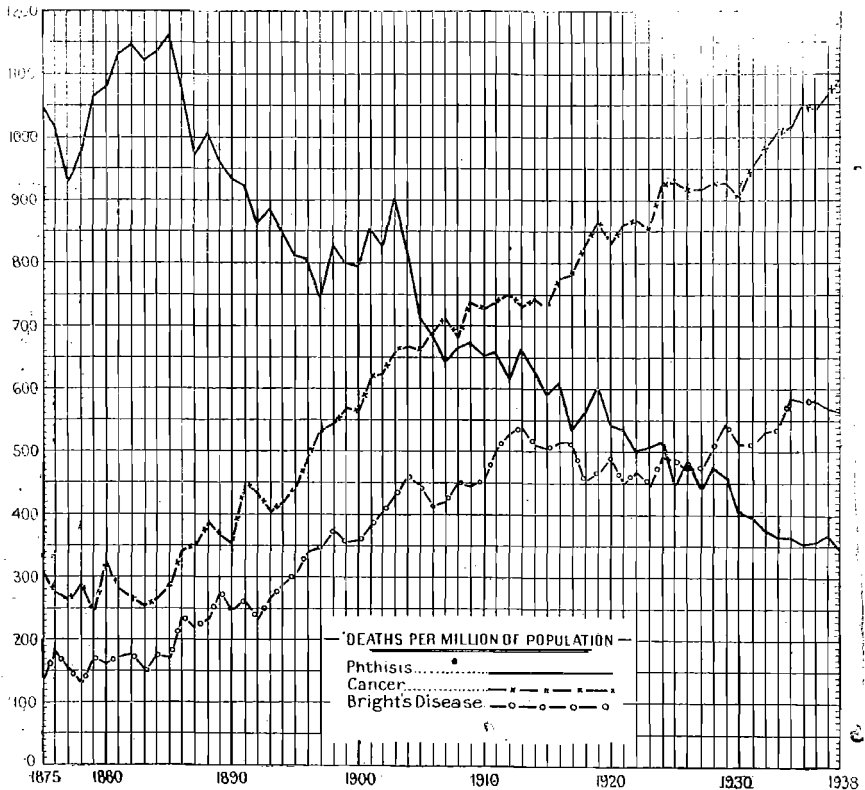
Causes of Death.	Adjusted Average 1933-37.	Number 1938.	Proportion of Total 1934-38, per cent.	Causes of Death.	Adjusted Average 1933-37.	Number 1938.	Proportion of Total 1934-38, per cent.
Typhoid Fever ...	.21	20	.08	Other Diseases of the Circulatory System ...	35	40	.15
Measles ...	40	...	.12	Bronchitis ...	295	258	1.09
Scarlet Fever ...	28	12	.07	Pneumonia ...	1,065	1,300	6.95
Whooping-cough ...	121	79	.52	Other Diseases of the Respiratory System ...	269	268	1.08
Diphtheria and Croup ...	189	156	.73	Diseases of the Stomach ...	133	148	.63
Influenza ...	322	354	1.30	Diarrhoea and Enteritis (under 2 years) ...	143	148	.57
Plague ...	...	...	...	Diarrhoea and Enteritis (2 years and over) ...	103	97	.99
Erysipelas ...	.22	13	.08	Appendicitis ...	244	234	.98
Acute Poliomyelitis and Acute Polioencephalitis	12	20	.06	Hernia, Intestinal Obstruction ...	213	209	.95
Lethargic Encephalitis ...	12	10	.04	Cirrhosis of the Liver ...	101	119	.44
Epidemic Cerebro-spinal Meningitis ...	6	7	.02	Other Diseases of the Digestive System ...	396	391	1.57
Other Epidemic Diseases	22	23	.09	Nephritis ...	1,552	1,535	6.21
Tuberculosis, Respiratory System ...	985	946	3.87	Other Genito-Urinary Diseases ...	400	405	1.59
Tuberculosis Meninges and Nervous System ...	36	33	.14	Puerperal Septicæmia ...	69	47	.26
Other Tuberculous Diseases ...	62	67	.24	Other Puerperal Diseases	202	184	.90
Cancer ...	2,818	2,967	11.36	Malformations ...	268	268	1.06
Diabetes ...	445	443	1.77	Congenital Debility ...	91	84	.36
Other General Diseases ...	585	586	2.37	Premature Birth ...	647	632	2.54
Diseases of the Blood ...	240	217	.92	Other Developmental Diseases ...	348	379	1.47
Chronic Poisonings and Intoxications ...	27	22	.10	Senility ...	738	818	2.97
Meningitis ...	106	111	.43	Suicide ...	329	330	1.29
Cerebral Hæmorrhage and Apoplexy ...	776	726	2.89	Accident ...	1,219	1,442*	5.09
Insanity ...	84	94	.33	Other Violence ...	120	105	.47
Convulsions of Infants ...	14	11	.05	All other Causes ...	222	175	.81
Other Diseases of the Nervous System ...	628	574	2.45				
Diseases of the Heart†	5,802	6,768	24.57	Total ...	24,666	26,105	100.00
Diseases of the Arteries, Atheroma, &c. ...	1,371	1,630	5.88				

\* Includes 533 from motor accidents. † See remarks in paragraph on Heart Diseases on page 571.

Generally speaking, the mortality from tuberculosis, bronchitis, diarrhoea and enteritis, diphtheria, and typhoid fever is decreasing, while the mortality from diseases of the heart, cancer, diabetes, and Bright's disease is increasing.

The figures in the foregoing table cannot be compared as absolute numbers of the same relative importance because of the limitations of a system of classification depending upon a large number of independent observers

#### DEATH RATES—PRINCIPAL DISEASES—1875-1938.



with varying degrees of diagnostic equipment, and because the age incidence is very different for the several diseases. Some diseases of the heart and diseases of the arteries, etc., affect persons of advanced years, and from the standpoint of rate of natural increase are relatively less important than are diseases like tuberculosis and pneumonia, which cause heavy mortality between ages 20 and 65. The heading senility is unsatisfactory, as it embraces the deaths of aged persons in respect of whom the cause of death is not definitely stated in the returns. Many deaths of aged persons formerly attributed to senility are now ascribed to some form of heart disease, with the result that deaths from senility, so described, have shown a considerable decrease.

Interesting features of the table are that 6.75 per cent. of all deaths in the quinquennium of 1934-38 were due to the following diseases, which are generally diseases of early childhood:—Diarrhoea and enteritis (under 2 years), malformations, diseases of infancy, whooping cough, convulsions of infants, measles, and infantile paralysis. Of the remaining deaths, more

than half are due to five major causes, diseases of the heart, cancer, pneumonia, tuberculosis, and Bright's disease. Deaths from violence represented 6.85 per cent. of the total.

In the pages which follow the experience in respect of a number of individual diseases is traced. Where the period covered is of considerable length, due allowance must be made for the effect of improvements in methods of diagnosis and classification and the general advance of medical knowledge. In some cases these factors have exercised a considerable influence upon the trend of the figures.

Apart from the records obtained by the compulsory notification, by medical practitioners, of certain infectious diseases reliable statistics are not available to show the number of cases of the various diseases occurring annually, but statistics have been collected of the occurrence of communicable diseases among school children since 1913. These show that epidemics of such diseases as measles, whooping-cough, scarlet fever, and diphtheria are of periodical recurrence, and, from time to time, assume large proportions. A large proportion of the deaths from these diseases are among children under school age, but the rate of mortality from them rises and falls with the recurrence of epidemics among school children. Statistics of the occurrence of infectious diseases among school children are collected quarterly, with the object of facilitating steps towards preventive and remedial measures.

#### *Typhoid Fever.*

A steady improvement in the incidence of this disease is apparent, and the consequent mortality has been reduced to very small proportions.

The compulsory notification by medical practitioners of cases of typhoid fever has been in force since the 1st January, 1898.

The number of cases notified and deaths from typhoid fever, and the equivalent annual rates since 1884, are stated below:—

TABLE 487.—Typhoid Fever, 1884 to 1938.

Period.	Cases Notified.		Deaths.					
	Number.	Rate per 10,000 living.	Males.		Females.		Total.	
			Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.
1884-88	*	*	1,356	5·12	1,115	5·13	2,471	5·13
1889-93	*	*	959	3·11	714	2·74	1,673	2·94
1894-98	*	*	1,107	3·27	731	2·46	1,838	2·89
1899-1903	16,406	23·95	1,054	2·93	733	2·25	1,787	2·61
1904-08	11,548	15·51	748	1·93	507	1·42	1,255	1·69
1909-13	11,508	13·66	773	1·75	464	1·15	1,237	1·47
1914-18	7,868	8·28	569	1·17	330	0·71	899	0·95
1919-23	4,401	4·18	353	0·66	241	0·47	594	0·56
1924-28	2,912	2·48	245	0·41	140	0·28	385	0·33
1929-33	1,579	1·24	115	0·18	72	0·11	187	0·15
1934-38	653	·49	72	0·11	24	0·04	96	0·07
1934	141	·54	15	0·11	4	0·03	19	0·07
1935	173	·65	15	0·11	5	0·04	20	0·08
1936	132	·49	13	0·10	6	0·05	19	0·07
1937	118	·44	12	0·09	6	0·04	18	0·07
1938	89	·33	17	0·12	3	0·02	20	0·07

\*Notifiable throughout the State from 1st January, 1898.

The rate of mortality from typhoid fever in 1938 represents only 7 persons per million living. This rate is 5 per cent. below that of the previous five years.

The decrease in the number and proportion of deaths due to this disease after 1888, was very marked, and may be traced to the operation of the Dairies Supervision Act, which became law in 1889. The rates show a further marked improvement as from 1903, and have dropped regularly, until that for 1938 was only 1.4 per cent. of the rate for the period 1884-88. The rate is higher than that experienced in England and Wales, where during 1937 it was only 5 per million living.

Owing to a superior system of sewerage and to the greater attention given to sanitary inspection and garbage disposal, the rate of mortality from typhoid fever in the metropolis is usually very much lower than in the remainder of the State. The persons who died in 1938 included 4 who resided in the metropolis and 16 in other districts. The rates per 10,000 living were 0.03 and 0.11 respectively.

Experience shows that most deaths from typhoid fever occur during the summer and autumn, but in 1938 there were only two deaths during the summer months of December, January, and February, and 12 during the autumn months of March, April and May; making a total of 14 out of 20 in the whole year.

#### *Smallpox.*

There has been no death from smallpox in New South Wales since the year 1915.

Vaccination is not compulsory in this State, and the precaution is rarely adopted unless epidemics threaten, as in the year 1913, when about 425,000 persons voluntarily submitted themselves to vaccination.

#### *Measles.*

Although measles is a common complaint, the resultant mortality is comparatively very small. The following statement shows the deaths from this cause, and the rate for each sex.

TABLE 488.—Measles, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	166	0.63	165	0.76	331	0.69
1889-93	393	1.28	369	1.41	762	1.34
1894-98	338	1.00	324	1.09	662	1.04
1899-1903	160	0.44	219	0.67	379	0.55
1904-08	82	0.21	107	0.30	189	0.25
1909-13	309	0.70	267	0.66	576	0.68
1914-18	301	0.62	221	0.48	522	0.55
1919-23	207	0.39	183	0.35	390	0.37
1924-28	177	0.30	161	0.28	338	0.29
1929-33	137	0.21	117	0.19	254	0.20
1934-38	81	0.12	66	0.10	147	0.11
1934	19	0.14	15	0.12	34	0.13
1935	47	0.35	36	0.28	83	0.31
1936	11	0.08	11	0.08	22	0.08
1937	4	0.03	4	0.03	8	0.03
1938	...	...	...	...	...	...

The high rates during the second and third quinquennial periods were due to severe outbreaks in 1893 and 1898.

Measles is a disease chiefly affecting children, and is periodically epidemic. It was epidemic in 1898-9, when 719 deaths were recorded; in 1912, when there were 371 fatal cases; and in 1915, when there were 324. During the year 1938 there were no deaths due to measles.

*Scarlet Fever.*

In 1938 the number of deaths from this disease was 12, equivalent to a rate of 0.04 per 10,000 of the population. Of these, 8 occurred in the metropolis, and 4 in the remainder of the State, showing rates of 0.06 and 0.03 per 10,000 for the respective divisions. The rate of mortality from this cause during 1938 was 57 per cent. below that of the preceding quinquennium. The number of cases notified and the deaths from scarlet fever and the equivalent annual rates have been as follows:—

TABLE 489.—Scarlet Fever, 1884 to 1938.

Period.	Cases Notified.		Deaths.					
	Number.	Rate per 10,000 living.	Males.		Females.		Total.	
			Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.
1884-88	*	*	287	1.08	342	1.57	629	1.30
1889-93	*	*	185	0.60	236	0.90	421	0.74
1894-98	*	*	162	0.48	218	0.73	380	0.60
1899-1903	10,940	15.97	84	0.23	114	0.35	198	0.29
1904-08	14,239	19.16	88	0.23	91	0.26	179	0.24
1909-13	13,220	15.70	41	0.09	57	0.14	98	0.12
1914-18	20,864	21.95	112	0.23	161	0.35	273	0.29
1919-23	6,732	6.39	34	0.06	38	0.07	72	0.07
1924-28	25,119	21.38	142	0.24	185	0.32	327	0.28
1929-33	23,260	18.21	115	0.18	165	0.26	280	0.22
1934-38	13,457	10.08	47	0.07	45	0.07	92	0.07
1934	2,166	8.26	9	0.07	10	0.08	19	0.07
1935	2,250	8.50	10	0.07	8	0.06	18	0.07
1936	3,939	14.76	12	0.09	14	0.11	26	0.10
1937	2,493	9.25	10	0.07	7	0.05	17	0.06
1938	2,609	9.59	6	0.04	6	0.04	12	0.04

\*Notifiable throughout the State from 1st January, 1898.

Like measles, scarlet fever is an epidemic disease which mainly affects children, the rate generally being somewhat higher for females than for males. Of the deaths during 1938, 7 were of children under 10 years of age, viz, 3 males and 4 females. Though not nearly so fatal as formerly, its sporadic recrudescence demands constant vigilance on the part of the authorities responsible for the health of the State. The death-rate from this cause of mortality has fluctuated since the year 1884, when it was very heavy, the rate per 10,000 inhabitants having ranged from 2.59 in that year to 0.04 in 1921, and 1938.

*Whooping-cough.*

Whooping cough is another disease which mainly affects children, and to which, like scarlet fever, females are more susceptible than males. The number of deaths and rates of mortality for each sex since 1884 are shown below.

TABLE 490.—Whooping Cough, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	327	1·24	472	2·17	799	1·66
1889-93	495	1·61	666	2·55	1,161	2·04
1894-98	343	1·01	502	1·69	845	1·33
1899-1903	573	1·59	726	2·23	1,299	1·90
1904-08	369	0·95	445	1·25	814	1·10
1909-13	377	0·86	436	1·09	813	0·97
1914-18	335	0·69	382	0·82	717	0·75
1919-23	440	0·82	497	0·96	937	0·89
1924-28	390	0·65	462	0·80	852	0·72
1929-33	285	0·44	363	0·58	648	0·51
1934-38	285	0·42	356	0·54	641	0·48
1934	139	1·05	147	1·14	286	1·09
1935	31	0·23	52	0·24	63	0·24
1936	51	0·38	69	0·52	120	0·45
1937	30	0·22	63	0·47	93	0·35
1938	34	0·25	45	0·33	79	0·29

Whooping-cough may justly be regarded as a permanent menace and a constantly recurring ailment of infancy and childhood, for the table shows that periods of decline have generally been followed by increases in the death-rate, which is maintained by epidemic outbreaks, one such occurring in 1907, when 594 cases proved fatal, and the death-rate was the highest since 1878. Further epidemics occurred in 1913, 1920, 1921, 1925, 1927, 1929, 1934 and 1938 when the deaths were 344, 369, 257, 323, 211, 212, 286 and 641 respectively.

Records kept since 1913 show that epidemics of whooping cough among school children are only second in magnitude to those of measles.

An examination of the table on a later page showing the seasonal prevalence of diseases indicates that whooping-cough is most fatal during the months of January and September to December.

*Diphtheria and Croup.*

The death rate from diphtheria and croup was very high in the earlier years shown in the table below, but following the introduction of the use of diphtheria antitoxin in 1894 the death rate fell sharply.

Compulsory notification by medical practitioners of cases of diphtheria was instituted from 1st January, 1898, but in the first ten years the notifications were not complete.

Diphtheria and croup, under which heading membranous laryngitis is included, caused 156 deaths in 1938. Deaths from these diseases in the metropolitan area numbered 79, and those in the remainder of the State

77, the respective rates per 10,000 living for each division being 0.62 and 0.53. The following table shows the number of cases notified and deaths and the equivalent annual rates since 1884:—

TABLE 491.—Diphtheria, 1884 to 1938.

Period.	Cases notified,		Deaths.					
			Males.		Females.		Total.	
	Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.	Number.	Rate per 10,000 living.	Number	Rate per 10,000 living.
1884-88	*	*	1,069	4.04	980	4.51	2,049	4.25
1889-93	*	*	1,433	4.65	1,399	5.36	2,832	4.98
1894-98	*	*	712	2.10	710	2.39	1,422	2.24
1899-1903	4,330	6.35	310	3.86	299	0.92	609	0.89
1904-08	7,298	9.82	367	0.95	338	0.95	705	0.95
1909-13	24,012	28.51	604	1.37	640	1.59	1,244	1.48
1914-18	29,213	30.74	659	1.36	682	1.47	1,341	1.41
1919-23	22,297	21.17	583	1.09	509	0.99	1,092	1.04
1924-28	18,841	16.03	448	0.75	394	0.63	842	0.72
1929-33	20,979	16.42	431	0.67	454	0.72	888	0.70
1934-38	26,334	19.72	467	0.69	439	0.66	906	0.68
1934	6,167	23.51	95	0.71	93	0.76	193	0.74
1935	4,913	18.57	93	0.74	95	0.73	194	0.73
1936	7,064	26.48	118	0.87	102	0.77	220	0.82
1937	4,244	15.75	76	0.56	67	0.50	143	0.53
1938	3,946	14.50	79	0.58	77	0.57	156	0.57

\* Notifiable throughout the State from 1st January, 1908.

Mortality from diphtheria was heaviest during two lengthy periods, viz., from 1881 to 1898, and omitting the year 1919, from 1909 to 1921, although the rate was much lower in the latter period than in the former.

The experience of the quinquennial period 1934-38 shows the disease to be most fatal during the months of April, May, and June. Eighty-eight per cent. of the persons who died from diphtheria during 1938 were under 10 years of age, and 61 per cent. were under 5 years of age.

In 1923 the Department of Health began a campaign of systematic testing of children for susceptibility to diphtheria by means of the Schick test, followed by voluntary immunisation. Although the numbers submitting for inoculation were not encouraging the campaign was gradually extended up to 1928 when it lapsed.

Following upon encouraging reports from other States and countries on the use of "anatoxin," immunisation has been recommenced in this State. In an effort to control the incidence of this disease the aim of the Department of Health is the immunisation of the majority of children at ages 1 to 14 years. Immunisation is purely voluntary, and children may be treated at public clinics or by private medical practitioners.

As part of the campaign the Municipal and Shire Councils, as the Local Health Authorities, were invited to co-operate with the Department of Health. A definite scheme was inaugurated, to operate from 1st June 1936, whereby the Department of Health would repay the Councils the cost of the anatoxin used and supply certain other requirements. At the end of

1938, approximately 128,000 children had been immunised under this scheme and between 45,000 and 50,000 otherwise; to the end of May, 1939, the corresponding figures were 145,000 and 55,000.

### *Influenza.*

During 1938 there were 354 deaths due to influenza, the rate of mortality being 10 per cent. above the average of the previous quinquennium. Prior to 1891 the average annual number of deaths was 44, but during that year 988 deaths occurred from this cause. From 1892 to 1917 the average number of deaths was 198, but in 1918 an outbreak resulted in 372 deaths. This was completely overshadowed by the disastrous epidemic in 1919, when 6,387 persons died from the disease. An examination of the experience of that year will be found in the 1920 issue of this Year Book.

Since 1919 the mortality has been exceptionally heavy in 1923, 1929 and 1935.

In the following table the deaths at each outbreak are shown together with those in the intervening periods:—

TABLE 492.—Influenza, 1875 to 1938.

Period.	Deaths.			Annual Rate per 10,000.
	Males.	Females.	Total.	
1875-1890	338	322	710	0·53
1891	549	439	988	8·65
1892-1917	2,799	2,397	5,196	1·27
1918	218	154	372	1·91
1919	3,851	2,536	6,387	31·93
1920-1922	469	420	880	1·39
1923	268	243	511	2·32
1924-1928	637	562	1,199	1·02
1929	293	248	541	2·16
1930-1934	612	529	1,141	0·88
1935	316	262	578	2·18
1936	127	87	214	0·80
1937	101	77	178	0·66
1938	178	176	354	1·30

Prior to 1919 influenza was essentially a disease fatal to young children and persons past 45 years of age, but in the severe world-wide epidemic of that year the disease was most fatal to persons in the prime of life (25 to 44 years). In issues of this Year Book up to 1933-34 it has been shown by comparing the deaths from 1920 to 1934 with those of 1914-18 and 1919 in age groups representing approximately the different stages of life, that the character of the disease has reverted to the type experienced prior to 1919.

### *Tuberculous Diseases.*

The number of deaths ascribed to the several classified forms of tuberculous disease during 1938 was 1,046, or 4.0 per cent. of the actual mortality in the State, and equal to 3.84 per 10,000 living—a rate slightly more than 3 per cent. below the average for the preceding quinquennium.



A comparison of death-rates from tuberculous diseases in the Australian States and New Zealand for the last six years is given below. The rates are stated per 1,000 of the total population, and do not take account of differences in the distribution of age and sex in the respective populations, which have a material influence on the rates.

TABLE 493.—Tuberculous Diseases, States, 1932 to 1937.

State.	Death-rate from tuberculous diseases per 1,000 of Total Population.					
	1932.	1933.	1934.	1935.	1936.	1937.
New South Wales ...	0·42	0·41	0·40	0·39	0·39	0·40
Victoria ...	0·53	0·47	0·49	0·48	0·47	0·43
Queensland ...	0·38	0·38	0·35	0·34	0·34	0·30
South Australia ...	0·48	0·52	0·48	0·44	0·40	0·43
Western Australia ...	0·51	0·49	0·55	0·51	0·46	0·43
Tasmania ...	0·53	0·56	0·49	0·57	0·58	0·51
Commonwealth ...	0·46	0·44	0·43	0·42	0·42	0·40
New Zealand ...	0·42	0·42	0·42	0·39	0·46	0·39

Mortality from tuberculous diseases is usually lower in New South Wales than in any other Australian State except Queensland.

#### *Tuberculosis of the Respiratory System.*

Tuberculosis of the respiratory system, or phthisis, was the cause of 946 deaths, or 90 per cent. of the number due to tuberculosis during the year 1938, being fifth in the order of magnitude among the fatal diseases of the State. The mortality rate per 10,000 living was 4 per cent. lower than in the previous quinquennium. The male rate in 1938 was 4.42 and the female rate 2.51.

The following table shows the number of deaths from tuberculosis of the respiratory system and the rates for each sex since 1884. This cause of death was formerly designated tuberculosis of the lungs:—

TABLE 494.—Tuberculosis of Respiratory System, 1884 to 1938.

Period.	Males.		Females.		Total	
	Deaths.	Rate per 10,000 living	Deaths	Rate per 10,000 living	Deaths.	Rate per 10,000 living.
1884-88	3,132	11·83	2,022	9·30	5,154	10·69
1889-93	3,269	10·61	1,925	7·38	5,194	9·13
1894-98	3,191	9·43	1,983	6·68	5,174	8·15
1899-1903	3,322	9·24	2,304	7·08	5,626	8·21
1904-08	2,985	7·72	2,184	6·13	5,169	6·96
1909-13	3,220	7·31	2,236	5·69	5,506	6·54
1914-18	3,373	6·95	2,194	4·72	5,567	5·86
1919-23	3,484	6·49	2,173	4·21	5,657	5·37
1924-28	3,337	5·57	2,217	3·85	5,554	4·73
1929-33	3,094	4·77	2,013	3·20	5,107	4·00
1934-38	2,996	4·44	1,790	2·71	4,786	3·58
1934	567	4·26	388	3·00	955	3·64
1935	589	4·40	350	2·68	939	3·55
1936	586	4·34	369	2·80	955	3·58
1937	647	4·75	344	2·58	991	3·68
1938	607	4·42	339	2·51	946	3·48

The general rate in the last 5 years has decreased by 66 per cent. in comparison with the first quinquennium shown, that for females slightly more than that for males. The female rate ranged from 54 per cent. of the male rate in the year 1937 to 79 per cent. during the periods 1904-08 and 1884-88.

The improvement in the death-rate is due to many factors, such as the regulation of immigration, conditions of employment, etc., and the enforcement of the various Health Acts, but principally to the adoption of improved methods of medical treatment.

Pulmonary tuberculosis has been notifiable throughout the State since 1st March, 1929.

The table below shows the death-rates from tuberculosis of the respiratory system or phthisis according to age and sex during the triennial period around each census since 1891.

TABLE 495.—Tuberculosis of Respiratory System, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living. Tuberculosis of the Respiratory System.				
	1890-92.	1900-02	1910-12.	1920-22.	1932-34.
Males.					
0-4 ... ..	.63	2.04	.57	.57	.09
5-9 ... ..	.41	.47	.31	.25	.08
10-14 ... ..	.85	.28	.49	.25	.08
15-19 ... ..	3.89	3.22	2.31	2.28	.75
20-24 ... ..	12.52	10.56	5.99	5.12	2.80
25-34 ... ..	17.91	14.37	9.72	9.18	4.66
35-44 ... ..	20.21	18.15	12.55	11.07	6.92
45-54 ... ..	20.07	19.79	15.49	12.97	10.06
55-64 ... ..	19.63	17.74	17.06	14.17	10.99
65-74 ... ..	15.84	19.24	13.37	10.27	9.36
75 and over ... ..	6.97	7.84	7.81	5.21	4.68
All Ages ... ..	10.38	9.48	7.17	6.44	4.43
Rate in 1890-92 = 100...	100	91	69	62	43
Females.					
0-4 ... ..	.93	1.43	.63	.42	.09
5-9 ... ..	.42	.48	.24	.35	.05
10-14 ... ..	.92	1.20	.59	.39	.27
15-19 ... ..	5.29	5.46	3.80	2.40	1.90
20-24 ... ..	10.47	7.99	7.74	5.92	5.21
25-34 ... ..	16.43	13.56	10.00	7.12	5.20
35-44 ... ..	15.84	13.41	9.80	6.46	4.24
45-54 ... ..	12.85	10.96	7.75	5.63	3.72
55-64 ... ..	9.81	11.96	8.34	5.32	3.29
65-74 ... ..	11.17	7.31	10.60	6.14	3.52
75 and over ... ..	4.18	2.59	3.84	3.19	2.55
All Ages ... ..	7.50	6.95	5.64	4.02	2.91
Rate in 1890-92 = 100...	100	93	75	54	39
Persons.					
0-4 ... ..	.78	1.74	.60	.50	.09
5-9 ... ..	.41	.48	.27	.30	.07
10-14 ... ..	.88	.73	.54	.32	.17
15-19 ... ..	4.59	4.34	3.04	2.34	1.32
20-24 ... ..	11.54	9.26	6.84	5.53	3.98
25-34 ... ..	17.28	13.98	9.86	8.15	4.93
35-44 ... ..	18.43	16.09	11.27	8.84	5.57
45-54 ... ..	17.17	16.06	12.10	9.50	6.99
55-64 ... ..	15.84	15.26	13.25	10.13	7.20
65-74 ... ..	13.90	14.36	12.12	8.35	6.51
75 and over ... ..	5.85	5.49	6.03	4.21	3.59
All Ages ... ..	9.06	8.28	6.44	5.25	3.68
Rate in 1890-92 = 100...	100	91	71	58	41

The rate improved to a greater extent amongst males than amongst females between 1890-92 and 1910-12, but in later years there has been a greater reduction amongst females.

A comparison of the death rates from phthisis in the various age groups shows a remarkable difference in respect of men and women. Excluding the age groups below 15 years where mortality is comparatively light the rates for females are the higher in the groups up to 35 years and above that age there is a large excess of deaths amongst males, the rate amongst men in the group 55-64 years being more than three times the corresponding rate amongst women. In this group the male death rate from phthisis reaches the maximum. Amongst females the rate has generally been highest at ages 25 to 34 years, then decreases up to ages 55 to 64 years, but in the group 65-74 years it rises slightly.

#### Other Tuberculous Diseases.

Of the 1,046 deaths during 1938 from tuberculosis, only 100 were from tuberculosis of organs other than the respiratory system, 21 of which equivalent to 21 per cent., were of children under 5 years of age. Taking the age group under 5 years, and all ages, the following table shows the distinct improvement in the death-rates since the decennium 1891-1900:—

TABLE 496.—Other Tuberculous Diseases, 1891 to 1938.

Period.	Deaths per 10,000 living—Tuberculosis other than Respiratory System.					
	Ages under 5 Years.			All Ages.		
	Males.	Females.	Total.	Males.	Females.	Total.
1891-1900	15.93	13.41	14.69	2.76	2.62	2.69
1901-1910	7.11	5.98	6.55	1.70	1.51	1.61
1911-1920	3.13	2.96	3.06	1.00	.86	.93
1921-1930	1.85	1.67	1.76	.63	.52	.58
1931-1938	1.33	1.03	1.18	.42	.32	.37
1934	1.47	1.44	1.46	.35	.33	.34
1935	1.34	1.40	1.37	.37	.31	.34
1936	1.00	.66	.84	.37	.35	.36
1937	1.36	.66	1.02	.39	.25	.32
1938	1.08	.84	.96	.44	.29	.37

#### Cancer.

In 1938 the deaths from cancer numbered 2,967, equal to a rate of 10.90 per 10,000 living. The average rate of mortality in the five years 1934-38 was much higher than in any preceding period, being 10.52 per 10,000 living as compared with 3.30 for the period 1884-88. The total for 1938 included 1,546 males and 1,421 females, the rates being 11.26 and 10.54 per 10,000 living of each sex respectively.

Classified according to the parts of the body affected and arranged in order of fatality, cancer caused the following deaths in 1938:—Stomach and duodenum 654, intestines 394, other of digestive tract 483, female genital organs 279, breast 302, male genito-urinary organs 249, buccal cavity 117, respiratory organs 156, skin 115, and other organs 218.

The following table shows the deaths and rates of each sex since 1884:—

TABLE 497.—Cancer, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	859	3.25	732	3.37	1,591	3.30
1889-93	1,262	4.10	1,038	3.98	2,300	4.04
1894-98	1,719	5.09	1,387	4.68	3,106	4.89
1899-1903	2,295	6.38	1,877	5.77	4,172	6.09
1904-08	2,671	6.91	2,418	6.78	5,089	6.85
1909-13	3,362	7.63	2,860	7.12	6,222	7.39
1914-18	3,886	8.00	3,458	7.44	7,344	7.73
1919-23	4,738	8.82	4,292	8.31	9,030	8.57
1924-28	5,790	9.66	5,068	8.80	10,858	9.24
1929-33	6,501	10.01	5,704	9.08	12,205	9.55
1934-38	7,242	10.73	6,810	10.32	14,052	10.52
1934	1,369	10.30	1,293	9.99	2,662	10.15
1935	1,451	10.84	1,321	10.11	2,772	10.48
1936	1,379	10.22	1,402	10.63	2,781	10.42
1937	1,497	11.00	1,373	10.30	2,870	10.65
1938	1,546	11.26	1,421	10.54	2,967	10.90

In New South Wales the crude male rate is usually the higher. In England and Wales, on the other hand, the crude female rate is usually the higher though the standardised rates—for which the age distribution of the population of each sex is taken into consideration—show the male rate as the higher in each year since 1924. In the period 1911-1914 the standardised female rate in England was higher than the male rate, and in 1922 and 1923 these rates for both sexes were practically equal. The change is attributed by the Registrar-General in his Annual Review to the operation of two factors which probably exercise some influence in New South Wales, viz.—(i) The success of operations upon the relatively more accessible cancers of females, and (ii) the better diagnosis of the less accessible cancers of females as a consequence of improved medical appliances and knowledge. In England and Wales, also, the crude rate for both sexes combined is usually much higher, and is increasing more rapidly than in New South Wales.

The ages of the 2,967 persons who died from cancer in New South Wales during 1938 ranged from 1 year to 97 years, but the disease is one of advanced age, 97 per cent. of the persons who died from cancer in 1938 being 35 years and over.

In the following table are shown the death-rates from cancer for each sex in age groups above 25 years, during the triennial periods around each census since 1891.

TABLE 498.—Cancer, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living.—Cancer.				
	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Males.					
25-34 ... ..	1.06	1.02	.95	.94	.99
35-44 ... ..	3.67	3.95	4.23	3.61	3.15
45-54 ... ..	12.25	12.73	13.48	13.67	11.58
55-64 ... ..	26.02	37.01	36.65	38.13	36.30
65-74 ... ..	44.24	66.71	74.84	77.29	85.83
75 and over ... ..	49.50	79.46	96.27	116.46	129.06
All Ages ... ..	4.29	6.46	7.67	8.74	10.53
Rate in 1890-92 = 100...	100	151	179	204	245
Females.					
25-34 ... ..	1.03	1.03	1.48	1.46	1.25
35-44 ... ..	6.42	6.59	6.95	6.29	6.35
45-54 ... ..	16.80	18.04	18.32	18.53	16.74
55-64 ... ..	29.96	33.85	35.40	35.91	33.24
65-74 ... ..	38.51	57.30	59.66	66.23	55.66
75 and over ... ..	45.93	76.94	93.96	104.09	93.72
All Ages ... ..	3.97	5.57	7.12	8.36	9.48
Rate in 1890-92 = 100...	100	140	179	211	239
Persons.					
25-34 ... ..	1.05	1.03	1.21	1.20	1.11
35-44 ... ..	4.79	5.10	5.50	4.91	4.77
45-54 ... ..	14.08	14.97	15.60	15.97	14.08
55-64 ... ..	27.54	35.65	36.10	37.11	34.79
65-74 ... ..	41.87	62.87	67.98	72.15	71.13
75 and over ... ..	48.07	78.33	95.23	110.34	111.02
All Ages ... ..	4.15	6.04	7.41	8.55	10.01
Rate in 1890-92 = 100...	100	146	179	206	241

There has been a continuous increase in the death rate from cancer. The increase between 1890-92 and 1910-12 was 79 per cent. for both males and females and the subsequent increase 37 per cent. for males and 34 per cent. in the rate for females. The rate is higher amongst females than males up to age 55 years, but the male rate is the higher in later ages.

In all countries for which records are kept the death rate from cancer has been increasing and great attention is being given to the problem of the control of cancer.

In 1921 the University of Sydney established a Cancer Research Committee, for which funds were made available by contributions from the Commonwealth and State Governments and by private donations and bequests. Laboratories were equipped within the University, research workers engaged to conduct investigations locally and abroad, and treatment centres were established within certain hospitals. In April, 1938, these activities were suspended and operations have since been confined to the issue of radium only.

Owing to diversity of needs and conditions, the provision of adequate facilities for examination, early diagnosis and treatment of cancer patients is considered to be economically justifiable only where large aggregations of population exist. As a result a number of centres for these purposes have been established in various metropolitan hospitals and it is proposed to set up a consultative clinic at the Newcastle Hospital.

Portion of a supply of radium purchased by the Commonwealth Government in 1927 has been made available for use in certain hospitals in New South Wales, and to the Cancer Research Committee, and through the latter to approved practitioners for use in private practice.

Co-ordination of action throughout Australia is made possible by the Australian Cancer Conference, convened annually by the Commonwealth Department of Health. Through this department, also, cancer workers in Australia are kept in touch with the Cancer Commission of the Health Organisation of the League of Nations, the Radium Commission in Great Britain, the British Empire Cancer Campaign Society, the International Union against Cancer and with national movements in many countries.

Following upon the recommendation of the Seventh Australian Cancer Conference in 1936, the Commonwealth Government, with the acquiescence of the State Governments, created the National Health and Medical Research Council, so that public health matters should receive more adequate review and so that medical research should be fostered and developed in Australia. The Council was instituted in September, 1936, and it is expected that cancer research will benefit from annual allocations of funds for this purpose.

In the following table the rates of mortality from cancer are given for the Australian States and New Zealand. The comparison is upon the crude basis of total population and is uncorrected for age and sex incidence.

TABLE 499.—Cancer, States, 1931 to 1937.

State.	Cancer Death-rate per 1,000 of Total Population.						
	1931.	1932.	1933.	1934.	1935.	1936.	1937.
<i>New South Wales</i> ..	0·95	0·98	1·01	1·01	1·05	1·04	1·07
Victoria ... ..	1·09	1·18	1·18	1·19	1·23	1·24	1·27
Queensland ... ..	0·95	0·93	0·91	0·92	0·96	0·99	1·01
South Australia ..	1·20	1·13	1·17	1·12	1·04	1·26	1·23
Western Australia ...	0·94	1·03	0·94	1·02	1·06	1·07	0·98
Tasmania ... ..	0·98	1·01	1·09	1·13	1·14	1·23	1·23
Commonwealth ... ..	1·01	1·05	1·05	1·06	1·09	1·11	1·13
New Zealand... ..	1·03	1·01	1·11	1·15	1·12	1·18	1·18

### *Diabetes.*

The proportion of deaths due to diabetes has been growing during the past thirty years. Although the disease is responsible for less than 2 per cent. of the annual number of deaths the rate of mortality from diabetes has increased, the average of the last five years being 92 per cent. higher than that for the period 1906-10.

The deaths due to diabetes in 1938 numbered 443, equal to a rate of 1.63 per 10,000 living. The rate for males was 1.06 and for females 2.21 per 10,000 living of each sex. Most of the deaths occurred after middle life, 405 out of 443 deaths in 1938, or 91 per cent. being persons over 45 years of age.

### *Meningitis.*

The diseases included under the above heading—encephalitis, simple meningitis, and non-epidemic cerebro-spinal meningitis—caused 111 deaths during 1938; the corresponding rate being 0.41 per 10,000 living. Of this

number, 75 were males and 36 females, equivalent to rates per 10,000 living of each sex of 0.55 and 0.28 respectively. The deaths in the metropolis and country were 61 and 50, with corresponding rates per 10,000 living of 0.48 and 0.35.

Of those who died during 1933, 37, or 33 per cent., were under 5 years of age.

#### *Cerebral Haemorrhage.*

Mortality from this cause showed a slow but sustained increase for twenty years prior to the quinquennium 1909-13, then there was an appreciable decline until 1924. Since that year the figures are not strictly comparable owing to changes in the method of classification due to a revision in the classification of causes of death. In 1925 greater preference was given to cerebral haemorrhage as a cause of death when found in combination with diseases of the arteries, atheroma, etc. In 1928, a further change was made, and all cases of arterio-sclerosis combined with any cerebral vascular lesion have since been included with diseases of the arteries. The introduction from 1st April, 1935, of an amended form of medical certificate of cause of death has been further instrumental in reducing the number of deaths ascribed to this title, as the additional information derived has enabled the classification to be made as just mentioned.

The number of deaths due to cerebral haemorrhage and apoplexy during the year 1938 under the new classification was 726, of which 319 were males and 407 females. The rate was 2.67 per 10,000 living, viz., 2.32 for males and 3.02 for females.

The following table shows the number of deaths and the rates for both sexes from cerebral haemorrhage and apoplexy since 1884, but the comparison over the last nine years is affected by the alterations in certification and classification mentioned above.

TABLE 500.—Cerebral Haemorrhage, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.	Deaths.	Rate per 10,000 living.
1884-88	778	2.97	467	2.15	1,245	2.58
1889-93	796	2.58	618	2.37	1,414	2.48
1894-98	943	2.79	710	2.39	1,653	2.60
1899-1903	1,050	2.92	788	2.42	1,838	2.68
1904-08	1,303	3.31	1,039	2.91	2,342	3.15
1909-13	1,627	3.69	1,439	3.58	3,066	3.64
1914-18	1,693	3.49	1,431	3.08	3,124	3.29
1919-23	1,735	3.23	1,587	3.07	3,322	3.15
1924-28	2,225	3.71	2,210	3.84	4,435	3.77
1929-33	2,025	3.12	2,132	3.39	4,157	3.25
1934-33	1,655	2.45	1,926	2.92	3,581	2.68
1934	397	2.99	429	3.31	826	3.15
1935	316	2.36	370	2.83	686	2.59
1936	332	2.46	355	2.69	687	2.58
1937	291	2.14	365	2.74	656	2.43
1938	319	2.32	407	3.02	726	2.67

*Convulsions of Children.*

Convulsions of children (under 5 years of age) caused 11 deaths during 1938, or 0.04 per 10,000 living at all ages, which is 21 per cent. below the rate for the previous quinquennium.

The following table shows the number of deaths and the rates from convulsions of children for both sexes in periods since 1875:—

TABLE 501.—Convulsions of Children, 1875 to 1938.

Year.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1875-79	1,538	8.93	1,291	8.94	2,829	8.93
1880-84	2,007	9.12	1,600	8.83	3,607	8.99
1885-89	1,916	6.99	1,615	7.14	3,531	7.06
1890-94	1,601	5.07	1,355	5.03	2,956	5.05
1895-99	1,281	3.73	1,119	3.70	2,400	3.72
1900-04	781	2.15	625	1.89	1,406	2.02
1905-09	550	1.40	480	1.32	1,030	1.36
1910-14	458	1.00	343	0.83	801	0.92
1915-19	404	0.83	291	0.61	695	0.72
1920-24	208	0.38	183	0.35	391	0.36
1925-29	145	0.23	98	0.16	243	0.20
1930-34	38	0.06	35	0.06	73	0.06
1935-38	28	0.05	23	0.04	51	0.05
1934	7	0.05	4	0.03	11	0.04
1935	3	0.02	7	0.05	10	0.04
1936	12	0.09	3	0.02	15	0.06
1937	8	0.06	7	0.05	15	0.06
1938	5	0.04	6	0.04	11	0.04

The rates of mortality ascribed to this cause show a remarkable decline, due partly to increasing skill in diagnosing the diseases of children. Numerous deaths having convulsions as their immediate cause are now ascribed to some other cause which led to convulsions.

Being limited to children under 5 years of age, the rates are better stated proportionately at that age-period. On this basis the death-rate in 1938 was 0.50 per 10,000, as compared with 0.59 of the previous quinquennium. Of the dates in 1938 six occurred during the first year of life, the equivalent rate being 0.13 per 1,000 births.

*Insanity.*

Classed as a distinct disease of the nervous system, insanity causes death from general paralysis of the insane and from other forms of mental alienation. Practically all the persons in New South Wales coming within this classification are under treatment in the various mental hospitals. On the 30th June, 1938, there were 11,481 persons under official cognisance, excluding 43 in reception houses and observation wards and gaols, but including 8 patients from the Broken Hill district who were under treatment in South Australian hospitals. The proportion per 1,000 of the population was 3.86 or about 4.5 per cent. below the average for the previous five years.



The number of deaths from insanity in the year 1938 was 94—59 males and 35 females. The death-rate per 10,000 living was 0.43 for males and 0.26 for females. In England and Wales the corresponding figures in 1937 were 0.53 and 0.42.

In the year 1937-38 there were 592 deaths in mental hospitals, equivalent to 56.40 per 1,000 of the average number of patients in residence. The rate of mortality, however, is not comparable with that just shown because many patients die from conditions other than the mental ailment nor is it comparable with that of the general population, because the proportion of mental patients under the age of 20 years is very small. This, doubtless, is due to the facts that many children mentally afflicted are cared for in their homes, and that mental alienation frequently does not become manifest until middle or advanced age is reached.

A comparison of the mortality of the adult patients in mental hospitals with that of the general population in age groups shows that at all ages the rate of mortality among the former is very much higher than among the general population. The disparity is greatest in the earlier years of adult life but diminishes as age increases.

#### *Diseases of the Heart.*

Statistics of mortality from diseases of the heart are of limited value, because there are important factors connected with the mode of certification and classification which affect the numbers from year to year.

The causes classified as diseases of the heart include pericarditis, endocarditis and other valvular diseases, diseases of the myocardium, angina pectoris, and, in 1931, and subsequent years diseases of the coronary arteries.

The figures in the following statement indicate that the death-rate in respect of diseases of the heart has more than doubled during the last thirty years. This may be due to an actual increase in mortality from these causes or it may be rather a result of more highly specialised biological knowledge and of greater attention to pathological diagnoses. There is no doubt, for instance, that many deaths recorded in former years as being caused by senile decay would be assigned now to some cardiac trouble. Moreover, it is considered that there has been an increasing tendency on the part of medical practitioners in recent years to give prominence to myocarditis as a cause of death, whether it was chronic or a terminal condition supervening in illness due primarily to some other cause. Again death certificates frequently show diseases of the heart in combination with one or more other diseases as the cause of death, and in classifying such certificates according to cause, definite principles are observed, a large measure of preference being given to diseases of the heart. This is another factor which may have operated in the direction of swelling the increase in the number of deaths ascribed to this group of diseases. It is not

practicable, however, to gauge the effects of the various changes which occur over a period of years, so that the figures may not be regarded as a satisfactory basis for comparison.

A further factor contributing to the apparent increase, but which, however, can be analysed, is the changing age composition of the population. Larger proportions of the people are reaching the ages at which the death-rate from these causes is highest. An analysis of the deaths according to age is shown on the next page, but the figures for any particular age-group are subject to the factors mentioned above.

The number of deaths ascribed to diseases of the heart since 1884, and the death-rates of each sex, are shown below:—

TABLE 502.—Diseases of the Heart, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	2,149	8.12	1,390	6.39	3,539	7.34
1889-93	2,250	7.30	1,357	5.20	3,607	6.34
1894-98	2,434	7.19	1,478	4.98	3,912	6.16
1899-1903	2,917	8.11	1,932	5.94	4,849	7.08
1904-1908	3,791	9.81	2,727	7.65	6,518	8.77
1909-1913	5,054	11.47	3,633	9.04	8,687	10.31
1914-1918	5,950	12.26	4,168	8.97	10,118	10.65
1919-1923	6,901	12.85	5,384	10.42	12,285	11.66
1924-1928	9,360	15.61	7,377	12.81	16,737	14.24
1929-1933	12,070	18.59	9,245	14.72	21,315	16.69
1934-1938	17,794	26.36	12,612	19.10	30,406	22.77
1934	3,147	23.67	2,257	17.44	5,404	20.60
1935	3,435	25.65	2,456	18.80	5,891	22.27
1936	3,386	25.10	2,443	18.52	5,829	21.85
1937	3,854	28.31	2,660	19.95	6,514	24.17
1938	3,972	28.93	2,796	20.74	6,768	24.87

Part of the increase in 1931 and subsequent years was due to the inclusion of deaths from diseases of the coronary arteries, but even if these be excluded the total rate shows a steady increase, being respectively 15.42, 16.69, 17.62, 18.54, 19.50, 18.47, 20.12, and 19.43.

The ages of persons who died from diseases of the heart during 1938 ranged between 2 weeks and 101 years, but 95 per cent. were 45 years or over.

In the following table are shown the death-rates for each sex in the principal age groups during the triennial period around each census since 1891:—

TABLE 503.—Diseases of the Heart, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living—Diseases of the Heart.				
	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Males.					
0-4 ... ..	·75	1·96	·92	·49	·17
5-9 ... ..	·91	1·05	1·22	·90	·60
10-14 ... ..	1·59	1·61	1·56	1·43	·74
15-19 ... ..	2·07	1·82	2·23	1·49	1·21
20-24 ... ..	2·11	1·73	1·90	1·71	1·17
25-34 ... ..	3·21	2·14	2·84	2·80	1·70
35-44 ... ..	7·44	5·70	5·97	5·30	5·62
45-54 ... ..	15·96	13·45	15·03	13·48	19·19
55-64 ... ..	40·05	31·61	39·92	38·61	58·52
65-74 ... ..	77·02	77·12	105·21	107·23	160·11
75 and over ... ..	101·80	123·89	228·18	293·63	433·83
All Ages ... ..	7·78	8·10	11·73	12·78	21·82
Rate in 1890-92 = 100...	100	104	151	164	280
Females.					
0-4 ... ..	·65	1·55	·70	·51	·30
5-9 ... ..	1·16	·77	·75	1·33	·56
10-14 ... ..	·76	1·61	2·06	1·47	·81
15-19 ... ..	1·52	1·63	2·10	1·60	1·21
20-24 ... ..	2·05	1·63	2·25	1·45	1·33
25-34 ... ..	3·48	2·57	2·75	2·21	1·98
35-44 ... ..	7·29	5·63	5·77	5·17	4·55
45-54 ... ..	11·46	10·88	13·67	10·24	11·90
55-64 ... ..	26·57	25·48	31·53	29·86	33·93
65-74 ... ..	62·78	61·41	94·64	88·82	118·67
75 and over ... ..	91·86	104·09	190·99	248·91	367·98
All Ages ... ..	5·29	5·92	9·33	10·10	16·56
Rate in 1890-92 = 100...	100	112	176	191	313
Persons.					
0-4 ... ..	·70	1·76	·81	·50	·23
5-9 ... ..	1·03	·91	·99	1·11	·58
10-14 ... ..	1·18	1·61	1·81	1·45	·77
15-19 ... ..	1·79	1·73	2·17	1·55	1·21
20-24 ... ..	2·08	1·68	2·07	1·58	1·25
25-34 ... ..	3·33	2·35	2·80	2·51	1·84
35-44 ... ..	7·38	5·67	5·88	5·24	5·08
45-54 ... ..	14·16	12·37	14·43	11·95	15·66
55-64 ... ..	34·84	28·97	36·25	34·62	46·41
65-74 ... ..	71·11	70·70	100·43	98·68	139·92
75 and over ... ..	97·82	115·04	211·48	271·51	400·22
All Ages ... ..	6·64	7·07	10·59	11·47	19·23
Rate in 1890-92 = 100...	100	106	159	173	290

Although the rate for all ages has increased nearly threefold during the period reviewed, the increase is confined to ages 45 and over, due to causes explained on page 571. The rates in all groups below 45 years have declined since 1890:—

Under the age of 35 there is very little difference between the rates of males and of females, but thereafter the male rate is distinctly higher, the result, no doubt, of the more strenuous life of males than of females.

#### *Bronchitis.*

Bronchitis caused 258 deaths during 1938, equal to a rate of 0.95 per 10,000 living. Of the total, 146 were males and 112 females, the corresponding rates per 10,000 of each sex being 1.06 and 0.83. The rate for the State was 12 per cent. lower than that experienced during the previous five years. Deaths in the metropolis numbered 126, and there were 132 in other parts of the State. The corresponding rates were 0.98 and 0.92 per 10,000 living. Of the total deaths, 78 were caused by acute bronchitis, 124 cases were shown as being due to the disease in its chronic form, and 56 were unspecified. Of those persons who died of acute bronchitis, 17 per cent. were under 1 year of age, and 78 per cent. were 55 years or over, whilst 83 per cent. of those who succumbed to chronic bronchitis were 55 years of age and over. Experience shows the disease to be most prevalent during the months of June, July, August and September.

#### *Pneumonia.*

Pneumonia, including broncho-pneumonia, was the cause of 1,900 deaths during 1938, the equivalent rate per 10,000 living being 6.98, which was 14 per cent. above the average for the preceding quinquennium. Of the total, 1,133 were males and 767 females. The male and female rates per 10,000 living were 8.25 and 5.69 respectively. The deaths in the metropolis numbered 958, and those in the remainder of the State 942, the rates being 7.47 and 6.54 per 10,000 living respectively. An analysis of the deaths according to age shows that pneumonia is most destructive in its attacks on children under 5 years of age and adults who have passed the age of 55. The rate of mortality from pneumonia is lowest among children between 10 and 14 years of age, then it increases with advancing age.

Of the persons who died from pneumonia during 1938, 18 per cent. were under 5 years of age and 60 per cent. 50 years of age and over. The following table gives deaths and rates, according to sex, since the year 1884:—

TABLE 504.—Pneumonia, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	2,032	7.68	1,301	5.98	3,333	6.91
1889-93	2,158	7.00	1,373	5.26	3,531	6.21
1894-98	2,514	7.43	1,528	5.15	4,042	6.37
1899-1903	3,191	8.87	2,000	6.15	5,191	7.58
1904-1908	2,816	7.28	1,824	5.12	4,640	6.24
1909-1913	2,983	6.77	1,931	4.81	4,914	5.83
1914-1918	3,779	7.78	2,402	5.17	6,181	6.50
1919-1923	4,217	7.85	3,042	5.89	7,259	6.89
1924-1928	4,810	8.02	3,498	6.08	8,308	7.07
1929-1933	4,318	6.65	3,205	5.10	7,523	5.89
1934-1938	5,028	7.45	3,574	5.41	8,602	6.44
1934	863	6.49	669	5.17	1,532	5.84
1935	999	7.46	713	5.46	1,712	6.47
1936	997	7.39	737	5.59	1,734	6.50
1937	1,036	7.61	688	5.16	1,724	6.40
1938	1,133	8.25	767	5.69	1,900	6.98

The greatest mortality from pneumonia occurs in the cold weather and early spring.

The following table shows the death-rates for each sex in the principal age groups, during the triennial period around each census since 1891:—

TABLE 505.—Pneumonia, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living—Pneumonia.				
	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Males.					
0- 4 ... ..	18.14	24.18	19.69	21.12	15.42
5- 9 ... ..	1.22	1.64	1.41	1.60	1.12
10-14 ... ..	.69	.80	.78	.83	.53
15-19 ... ..	2.55	3.49	1.25	1.79	1.02
20-24 ... ..	3.02	5.25	2.46	2.30	1.20
25-34 ... ..	3.77	6.09	3.03	2.94	1.42
35-44 ... ..	7.49	8.27	4.99	5.07	2.96
45-54 ... ..	10.86	13.01	8.16	8.52	5.65
55-64 ... ..	16.71	22.60	11.94	13.07	11.31
65-74 ... ..	26.76	36.90	24.99	28.61	23.68
75 and over ... ..	26.50	57.50	43.45	58.36	72.41
All Ages ... ..	7.22	9.78	6.85	7.55	6.03
Rate in 1890-92 = 100...	100	135	95	105	84
Females.					
0- 4 ... ..	15.64	20.66	17.88	17.60	12.50
5- 9 ... ..	1.07	1.09	1.14	1.35	.99
10-14 ... ..	.70	1.61	.92	.88	.86
15-19 ... ..	1.88	2.15	.61	1.30	.96
20-24 ... ..	2.23	2.80	1.03	1.30	1.12
25-34 ... ..	3.48	3.66	1.46	2.34	1.42
35-44 ... ..	4.88	5.89	2.68	2.87	2.37
45-54 ... ..	7.61	5.63	3.10	3.93	3.72
55-64 ... ..	9.81	15.07	8.08	7.66	6.15
65-74 ... ..	21.18	25.34	14.69	21.27	18.41
75 and over ... ..	19.83	48.49	44.10	65.22	55.69
All Ages ... ..	5.46	6.62	4.74	5.52	4.63
Rate in 1890-92 = 100...	100	121	87	101	85
Persons.					
0- 4 ... ..	16.91	22.45	18.80	19.39	13.99
5- 9 ... ..	1.15	1.37	1.28	1.48	1.06
10-14 ... ..	.70	1.20	.85	.86	.69
15-19 ... ..	2.22	2.82	.93	1.55	.99
20-24 ... ..	2.64	4.01	1.76	1.79	1.16
25-34 ... ..	3.65	4.91	2.27	2.64	1.42
35-44 ... ..	6.42	7.23	3.91	4.01	2.66
45-54 ... ..	9.56	9.89	5.94	6.35	4.71
55-64 ... ..	14.05	19.37	10.25	10.60	8.77
65-74 ... ..	24.45	32.18	20.33	25.21	21.11
75 and over ... ..	23.83	53.47	43.74	61.76	63.88
All Ages ... ..	6.41	8.28	5.84	6.56	5.34
Rate in 1890-92 = 100...	100	129	91	102	83

The male death rate is higher than the female rate at all ages excepting 10-14 years. The rates have fluctuated, but show a general decline of about 17 per cent. over the period under review, and the fall is apparent at all ages, except 75 and over. This increase is due probably to more information being available as to cause of death.

*Diseases of the Digestive System.*

Diseases of the digestive system caused the deaths of 797 males and 549 females during 1938, the respective rates per 10,000 living being 5.81 and 4.07. The rate corresponding to the total deaths from these diseases in the State was 4.95 per 10,000 living, and was 1 per cent. above than that experienced during the previous five years. Deaths resulting from diseases of the digestive system are caused in the main by diarrhoea and enteritis, appendicitis, hernia and intestinal obstruction, ulcer of the stomach or duodenum, diseases of the gall bladder and ducts, and cirrhosis of the liver. Some of these causes are dealt with individually in later paragraphs.

*Diarrhoea and Enteritis.*

The incidence of these diseases is mainly upon young children, the deaths under 1 year of age from these causes in 1938 being 115—76 males and 39 females. In 1938 there were 245 deaths from these causes at all ages, equivalent to a rate of 0.90 per 10,000 of the general population, the rate for males being 1.03 and for females 0.76. The combined rate was a fraction of 1 per cent. below the average for the preceding quinquennium. The following table shows the number of deaths and the rates since 1884, distinguishing between the sexes:—

TABLE 506.—Diarrhoea and Enteritis, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	3,412	12.89	3,048	14.02	6,460	13.40
1889-93	3,451	11.20	2,851	10.92	6,302	11.07
1894-98	4,042	11.94	3,638	12.26	7,680	12.09
1899-1903	4,422	12.20	3,901	11.99	8,323	12.15
1904-1908	3,714	9.61	3,000	8.41	6,714	9.03
1909-1913	4,257	9.66	3,471	8.64	7,728	9.18
1914-1918	3,622	7.46	2,957	6.36	6,579	6.92
1919-1923	3,813	7.10	3,039	5.88	6,852	6.50
1924-1928	2,436	4.06	2,036	3.54	4,472	3.81
1929-1933	1,353	2.08	998	1.59	2,351	1.84
1934-1938	634	0.94	558	0.85	1,192	0.89
1934	121	0.91	117	0.90	238	0.91
1935	119	0.89	95	0.73	214	0.81
1936	127	0.94	129	0.98	256	0.96
1937	125	0.92	114	0.85	239	0.89
1938	142	1.03	103	0.76	245	0.90

There was a considerable drop in the rate after 1888, due probably to the beneficial operation of the Dairies Supervision Act. During the next fifteen years there was a gradual increase, followed by a marked improvement in 1904. The improvement was maintained consistently until the

years 1919 and 1920, when an upward tendency was manifested. After 1920 the rate fell rapidly.

The unusually low mortality in recent years is probably due in a large measure to the work of the Baby Health Centres previously mentioned and to favourable seasonal conditions.

This comparison is vitiated to a certain extent by the fact that these rates are calculated on the population at all ages, whereas the deaths from this cause are mainly confined to children in the early years of life (in 1938 60 per cent. were under 2 years of age, and 71 per cent. under 5 years of age). The proportion of the population under 5 years of age has declined considerably since 1871, and this has resulted in an unduly rapid decline in the rates on the above basis.

The following table shows the deaths from this cause, of children under 2 years of age and under 5 years of age. The rates are based upon the population living in these age groups and give a more accurate comparison over a period of years.

TABLE 507.—Diarrhoea and Enteritis, Specific Mortality, 1881 to 1938.

Year.	Under 2 years of Age.		Year.	Under 5 years of Age.	
	No.	Rate per 10,000 Living.		No.	Rate per 10,000 Living.
1881	733	335.0	1932	225	9.2
1891	985	147.6	1933	160	6.8
1901	1,165	181.0	1934	161	7.1
1911	963	112.1	1935	143	6.5
1921	988	100.8	1936	172	8.0
1931	283	29.4	1937	165	7.6
1934	138	16.4	1938	174	8.0
1935	127	15.2			
1936	150	17.6			
1937	141	16.0			
1938	148	16.4			

Of the total deaths from diarrhoea and enteritis during 1938, 80 or 33 per cent., occurred in the months of January, February, and March; and 40 or 16 per cent. in the months of June, July and August. The mortality from these causes, although still comparatively heavy, has been reduced to very small proportions relative to earlier years and the disease does not constitute the dreaded summer menace that it once was.

#### *Appendicitis.*

To this cause 234 deaths were ascribed in 1938, the rate being 0.86 per 10,000 living, which is 4 per cent. below the average of the preceding quinquennium. Appendicitis is more fatal to males than to females, the rate for the former in 1938 being 1.12, and for the latter 0.59 per 10,000 living.

#### *Cirrhosis of the Liver.*

Information relating to mortality from cirrhosis of the liver is of interest in connection with alcoholism.

Deaths from cirrhosis of the liver in 1938 numbered 119—89 males and 30 females, the rate being 0.44 per 10,000 living—18 per cent. above the average for the previous quinquennial period. This disease is more prevalent among males than females—the rate for the former in 1938 being 0.65 and for the latter 0.22 per 10,000 living of each sex.

*Bright's Disease or Nephritis.*

Bright's disease or nephritis has grown from a comparatively infrequent cause to a prominent position among the major causes of death whose incidence falls upon the general population. From 1884 to 1913 the number of deaths due to the disease gradually increased, and the rate of mortality more than doubled. A check in the increase then set in, and was followed after 1918 by an appreciable decrease, and the average annual rate for the next five years fell to 456 per million inhabitants as against 501 in 1914-18. From 1928 onwards, however, the rates exceed 500, reaching a maximum figure of 584 per million in 1934, but showing a slight decline in each succeeding year to 564 per million in 1938.

During 1938 there were 1,940 deaths due to diseases of the genito-urinary system, of which 1,535 were caused by all forms of nephritis. The rate was 5.64 per 10,000 living, and for males and females 6.10 and 5.17 respectively, the general rate being approximately 1 per cent. below that experienced during the previous quinquennium. The deaths due to these diseases in the metropolis were 775, and in the rest of the State 760, the corresponding rates per 10,000 living being 6.05 and 5.28. Experience shows that the fatality of these diseases increases slightly during the winter months.

The number of deaths and the rates of mortality due to Bright's disease are shown below.

TABLE 508.—Nephritis, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	626	2.37	386	1.78	1,012	2.10
1889-93	907	2.94	570	2.18	1,477	2.60
1894-98	1,291	3.81	821	2.77	2,112	3.33
1899-1903	1,659	4.61	996	3.06	2,655	3.88
1904-1908	2,056	5.32	1,199	3.36	3,255	4.38
1909-1913	2,649	6.01	1,539	3.83	4,188	4.97
1914-1918	3,080	6.34	1,682	3.62	4,762	5.01
1919-1923	2,914	5.43	1,886	3.65	4,800	4.56
1924-1928	3,391	5.66	2,324	4.04	5,715	4.86
1929-1933	3,841	5.92	2,902	4.62	6,743	5.28
1934-1938	4,315	6.39	3,375	5.11	7,690	5.76
1934	839	6.31	692	5.35	1,531	5.84
1935	886	6.61	652	4.99	1,538	5.81
1936	890	6.60	659	5.00	1,549	5.81
1937	862	6.33	675	5.06	1,537	5.70
1938	838	6.10	697	5.17	1,535	5.64



During the period covered by the foregoing table the rate of mortality both for males and females has more than doubled. The rate for males in the last five years was 25 per cent. higher than that for females. Comparatively few persons under 35 years of age die from nephritis, the proportion in 1938 being 6.3 per cent. of the total.

The following table shows the death rates for each sex in the principal age groups during the triennial period around each census since 1891:—

TABLE 509.—Nephritis, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living.—Nephritis.				
	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
Males.					
0-4 ... ..	1.30	2.00	.99	.71	.57
5-9 ... ..	.59	.23	.42	.31	.29
10-14 ... ..	.11	.28	.37	.51	.18
15-19 ... ..	.67	.75	.78	.63	.38
20-24 ... ..	.74	.89	1.34	1.11	1.00
25-34 ... ..	1.44	2.11	1.78	1.36	1.19
35-44 ... ..	4.22	4.49	4.13	3.00	2.96
45-54 ... ..	5.83	9.45	10.76	8.96	7.54
55-64 ... ..	11.67	19.09	24.16	20.18	15.32
65-74 ... ..	22.12	35.96	47.60	39.55	38.30
75 and over ... ..	17.43	40.77	71.58	73.99	104.24
All Ages ... ..	2.77	4.57	5.98	5.42	6.14
Rate in 1890-92 = 100...	100	165	216	196	222
Females.					
0-4 ... ..	1.34	1.13	.93	.51	.47
5-9 ... ..	.60	.28	.35	.35	.30
10-14 ... ..	.22	.33	.42	.59	.32
15-19 ... ..	.67	.61	.61	.57	.58
20-24 ... ..	1.30	1.22	1.54	1.12	.97
25-34 ... ..	1.90	1.90	1.46	1.66	1.37
35-44 ... ..	4.01	4.44	3.72	3.06	3.36
45-54 ... ..	5.53	7.84	8.29	6.38	5.92
55-64 ... ..	7.85	11.60	15.55	11.15	11.02
65-74 ... ..	16.18	22.83	31.35	25.99	29.29
75 and over ... ..	9.39	30.39	41.04	49.25	70.06
All Ages ... ..	2.17	3.01	3.87	3.63	4.85
Rate in 1890-92 = 100...	100	139	178	167	224
Persons.					
0-4 ... ..	1.32	1.57	.96	.61	.52
5-9 ... ..	.60	.26	.39	.33	.29
10-14 ... ..	.16	.31	.39	.55	.25
15-19 ... ..	.67	.68	.70	.60	.48
20-24 ... ..	1.01	1.06	1.44	1.11	.99
25-34 ... ..	1.64	2.01	1.62	1.51	1.28
35-44 ... ..	4.14	4.47	3.94	3.03	3.16
45-54 ... ..	5.71	8.77	9.68	7.74	6.76
55-64 ... ..	10.19	15.87	20.39	16.05	13.20
65-74 ... ..	19.66	30.59	40.25	33.25	33.91
75 and over ... ..	14.21	36.13	57.86	61.76	86.80
All Ages ... ..	2.50	3.83	4.97	4.54	5.50
Rate in 1890-92 = 100...	100	153	199	182	220

Although the total rates show a decided increase during the period reviewed, it is only in the oldest group, 75 years and over, that the rate in 1932-34 was higher than twenty years earlier. For each sex the rate depends entirely upon the age; a slow increase is noted till the age of 45 is reached, after which the increase is rapid. From this age the rates for males show a marked excess over the rates for females.

#### *Deaths from Puerperal Causes.*

The word "puerperal" is used in the broadest sense and includes all deaths due to pregnancy, parturition, or diseases of the breast during lactation.

Details of the deaths due to puerperal causes according to age, duration of marriage, previous issue, cause, locality and conjugal condition are shown in the Statistical Register. In 1938 the deaths of 231 women were due to puerperal causes, viz., 197 married and 34 single women. Of the married mothers who died in 1938, 15, and of the single mothers, 12 died before reaching the age of 21 years; the ages at death of the married women ranged from 18 years to 48 years, and of single women from 15 years to 40 years. The age at marriage of mothers who died ranged from 16 to 44 years. In 13 cases the duration of marriage was 20 years or over, but 11 mothers died within a year of marriage. In 73 cases there was no previous issue and in 35 of these cases the death occurred within two years of marriage, while in one case 11 children survived the mother.

The incidence of deaths from puerperal causes falling only upon women bearing children, the rates of mortality are not quoted as a proportion of general population, but have been related to the live births as being the nearest approach to the number of pregnancies. Whilst not perfectly accurate the method gives useful results where live births only are recorded. Commencing with 1936, however, it is possible to calculate the rates for New South Wales in two further ways giving a greater measure of accuracy. The deaths may be related to the live births and stillbirths combined or to the number of confinements calculated from such figure by allowing for plural births. These rates are shown on a later page, but are still not an absolutely accurate measure, because the deaths include women dying from conditions associated with abortion or miscarriage or dying in an undelivered state, whereas the number of non-fatal abortions, etc., are not recorded and cannot be estimated. This shortcoming, however, is general in the statistical records of all countries.

In order to preserve uniformity with former years and with other States and countries which adopt the same method, rates are still stated as per thousand live births. Such rates showed a persistent though fluctuating decline in the three decades 1895-1924. During the period 1895-1904 the annual average number of deaths of mothers in childbirth was 268, equal to 7.1 deaths per 1,000 live births. The corresponding number in the period 1905-1914 was 284, and the rate 6.2, compared with 289 and 5.2 respectively in the period 1915-1924. The lower proportion of unmarried mothers contributed slightly to this decline; but the rates quoted represent very closely the improvement that occurred in mortality in childbirth among married mothers. A comparison of deaths in childbirth in this State with those of other countries must be made with caution. Apart from possible differences in the method of calculating the rate (as indicated above) a further difference arises in the classification of criminal abortion (illegal operations). In the International List of Causes of Death these are

classified with homicide. In the table given below deaths from this cause are included to show the total deaths incidental to childbirth, but the totals are also shown excluding criminal abortion to enable comparison to be made with other countries where these deaths are not included.

TABLE 510.—Maternal Deaths, 1937 and 1938.

Causes.	Deaths, 1937.		Deaths, 1933-37.		Deaths, 1938.		Deaths, 1934-38	
	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.	No.	Rate per 1,000 Live Births.
Accidents of Pregnancy ...	27	.57	111	.49	18	.38	103	.45
Puerperal Hæmorrhago ...	43	.91	177	.78	31	.66	177	.77
Puerperal Septicæmia ...	25	.52	187	.83	38	.80	191	.83
Post Abortive Septicæmia ...	27	.57	148	.66	9	.19	125	.55
Albuminuria and Eclampsia ...	43	.90	269	1.19	46	.97	264	1.15
Phlegmasia Alba Dolens, Embolus, Sudden Death.	16	.34	85	.38	19	.40	88	.38
Other Casualties of Childbirth	17	.36	113	.50	20	.42	111	.49
Total, excluding Illegal Operations.	198	4.17	1,090	4.83	181	3.82	1,059	4.62
Illegal Operations ...	35	.74	226	1.00	50	1.06	242	1.06
Total, including Illegal Operations.	233	4.91	1,316	5.83	231	4.88	1,301	5.68

More than any other cause of death during childbirth, puerperal septicaemia (including post-abortive sepsis) can be classed as a preventable disease. In the last five years nearly 30 per cent. of the total deaths (excluding criminal abortion) were due to this cause, but the proportion was lower than previously. During the last two years there has been a substantial decline in deaths from post-abortive sepsis, probably due to improved treatment of such cases. Similar improvement has not occurred in mortality from puerperal septicaemia. The annual rates of mortality of mothers in childbirth per 1,000 live births in the last 10 years were as follows:—

TABLE 511.—Maternal Deaths, Metropolis and Country, 1928 to 1938.

Year.	Deaths from Puerperal Septicæmia per 1,000 Live Births.			Total Deaths of Mothers in Childbirth per 1,000 Live Births.					
	Metropolis.	Remainder of State.	State.	Including Illegal Operations.			Excluding Illegal Operations.		
				Metropolis.	Remainder of State.	State.	Metropolis.	Remainder of State.	State.
1928	2.03	1.75	1.86	6.29	5.77	5.97	5.20	5.50	5.39
1929	1.97	1.15	1.50	6.09	4.68	5.28	5.01	4.39	4.65
1930	2.01	1.19	1.53	6.06	5.66	5.83	5.15	4.87	4.99
1931	2.04	1.50	1.72	6.66	5.62	6.03	4.93	5.20	5.09
1932	1.71	1.06	1.31	7.79	5.09	6.14	5.80	4.54	5.03
1933	1.93	1.22	1.49	6.79	4.79	5.57	5.21	4.54	4.80
1934	1.63	1.34	1.45	7.01	5.49	6.07	5.02	4.89	4.94
1935	1.72	1.55	1.61	6.92	5.94	6.31	4.38	5.62	5.15
1936	2.25	1.48	1.78	7.43	5.63	6.32	5.80	4.68	5.11
1937	.94	1.19	1.09	5.51	4.53	4.91	4.57	3.92	4.17
1938	.92	1.04	.99	5.82	4.28	4.88	3.88	3.79	3.82

Rates for the year 1938 calculated by the two additional methods mentioned earlier are shown in the following table. The rates on one base should not be compared with those on another, but they are given together here for convenience in presentation:—

TABLE 512.—Maternal Deaths, Special Rates, 1938.

Cause of Death in Childbirth.	Deaths per 1,000 All Births (Live and Still).			Deaths per 1,000 Confinements.		
	Married.	Single.	Total.	Married.	Single.	Total.
Accidents of Pregnancy ... ..	.34	.97	.37	.35	.98	.37
Puerperal Hæmorrhage ... ..	.66	...	.64	.67	...	.64
Puerperal Septicæmia ... ..	.73	1.94	.78	.74	1.96	.79
Post Abortive Septicæmia ... ..	.17	.48	.18	.17	.49	.19
Albuminuria and Eclampsia ... ..	.92	1.46	.94	.93	1.47	.95
Phlegmasia Alba Dolens, Embolus, Sudden Death.	.41	...	.39	.41	...	.39
Other Casualties of Childbirth... ..	.41	.49	.41	.41	.49	.42
Total, excluding Illegal Operations	3.64	5.34	3.71	3.68	5.39	3.75
Illegal Operations ... ..	.58	11.18	1.02	.58	11.29	1.04
Total, including Illegal Operations.	4.22	16.52	4.73	4.26	16.68	4.79

The proportion of deaths due to each cause is shown below for 1938 in comparison with the previous five years. The average for the five years, 1934-38, is also shown.

TABLE 513.—Maternal Deaths, Proportion each Cause, 1938.

Causes.	Proportion per cent. due to each Cause.								
	1933-37.			1938.			1934-38.		
	Married.	Single.	Total.	Married.	Single.	Total.	Married.	Single.	Total.
Accidents of Pregnancy ...	8.4	8.7	8.4	8.1	5.9	7.8	7.9	7.9	7.9
Puerperal Hæmorrhage ...	14.4	5.1	13.5	15.7	...	13.4	14.8	4.6	13.6
Puerperal Septicæmia ...	15.1	6.5	14.2	17.3	11.8	16.5	15.7	7.2	14.7
Post Abortive Septicæmia	11.3	10.9	11.2	4.1	2.9	3.9	9.8	8.5	9.6
Albuminuria and Eclampsia	21.0	15.9	20.4	21.8	8.8	10.9	21.2	13.2	20.3
Phlegmasia Alba Dolens, Embolus, Sudden Death.	7.0	2.2	6.5	9.6	...	8.2	7.4	2.0	6.8
Other Casualties of Child- birth.	9.2	2.9	8.6	9.7	3.0	8.7	9.2	3.3	8.5
Total, excluding Illegal Operations.	86.4	52.2	82.8	86.3	32.4	78.4	86.0	46.7	81.4
Illegal Operations ... ..	13.6	47.8	17.2	13.7	67.6	21.6	14.0	53.3	18.6
Total, including Illegal Operations.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

In the five years 1934-38, illegal operations caused more than 53 per cent. of the puerperal deaths of single women.

*Deaths from Violence.*

This category includes deaths from accident, suicide, homicide, and other deaths not classified, in respect of which "open verdicts" were recorded at coroners' inquests. The annual number of suicides has increased, but their proportion to the population has not shown any marked variation. Deaths from homicide and those classed as "open verdicts" have remained fairly constant in number, and their proportion to the population has, therefore, decreased.

Deaths from violence in 1938 numbered 1,877, or 7.2 per cent. of the total deaths of the year. This number includes 330 suicides, 1,442 accidents, 33 homicides, and 72 "open verdicts." The rate, 6.90 per 10,000 living, was 13 per cent. above the rate for the preceding quinquennium, which was 6.13. In the year 1938 the males numbered 1,421, or 10.35 per 10,000 living, and the females 456 or 3.38 per 10,000 and 33 per cent. of the male rate.

*Deaths from Suicide.*

The number of persons who took their own lives in 1938 was 330, or a rate of 1.21 per 10,000 living, and a fraction of one per cent. above the average for the preceding quinquennium. The number of male suicides was 254, or a rate of 1.85 per 10,000 living, and of female 76, or a rate of 0.56 per 10,000 living,—the male rate being over three and one-quarter times that of the female.

The number of deaths from suicide and the rates since 1884 are shown in the following table:—

TABLE 514.—Suicide, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	428	1.62	96	0.44	524	1.09
1889-93	519	1.68	110	0.42	629	1.11
1894-98	679	2.01	169	0.57	848	1.34
1899-1903	651	1.81	142	0.44	793	1.16
1904-1908	719	1.86	160	0.49	879	1.18
1909-1913	857	1.95	238	0.59	1,095	1.30
1914-1918	888	1.83	223	0.48	1,111	1.17
1919-1923	887	1.65	244	0.47	1,131	1.07
1924-1928	1,100	1.84	269	0.47	1,369	1.16
1929-1933	1,244	1.92	301	0.48	1,545	1.21
1934-38	1,235	1.83	367	0.56	1,602	1.20
1934	263	1.98	86	0.66	349	1.33
1935	268	2.00	67	0.51	335	1.27
1936	217	1.61	74	0.56	291	1.09
1937	233	1.71	64	0.48	297	1.10
1938	254	1.85	73	0.56	330	1.21

The means usually adopted for self-destruction by men are either shooting, poisoning, cutting, or hanging. Women, as a general rule, avoid weapons and resort mostly to poison. Of every 100 cases of suicide during the five years 1934-38, 27 were by the agency of poison, 26 by shooting, 12 by gas, 12 by cutting, 9 by hanging, and 7 by drowning.

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Experience indicates that the suicidal tendency is probably influenced by the seasons. During the last ten years, 1929-38, the proportion of male suicides per 1,000 was approximately as follows:—In spring, 254, summer 269, autumn 249 and winter 228. The number of suicides is usually greater in January and December than in any other month.

Female suicides, being numerically small, give variable results as regards seasonal influence, and, contrary to the experience of males, no particular month showed any preponderance.

#### *Deaths from Accident.*

During the year 1938 the number of deaths due to accident was 1,442, viz., 1,093 of males and 349 of females, or equal to rates of 7.96 and 2.59 per 10,000 living of each sex, and the general rate was 5.30 per 10,000 living.

The number of deaths from accident and the rates since 1884 are shown in the table below:—

TABLE 515.—Accident, 1884 to 1938.

Period.	Males.		Females.		Total.	
	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.	Deaths.	Rate per 10,000 Living.
1884-88	3,550	13.41	944	4.34	4,494	9.32
1889-93	3,666	11.90	966	3.70	4,632	8.14
1894-98	3,498	10.33	1,095	3.69	4,593	5.23
1899-1903	3,432	9.54	1,103	3.39	4,535	6.62
1904-1908	3,145	8.13	1,056	2.96	4,201	5.65
1909-1913	3,894	8.84	1,119	2.79	5,013	5.95
1914-1918	3,821	7.87	1,088	2.34	4,909	5.17
1919-1923	3,677	6.85	1,102	2.13	4,779	4.54
1924-1928	4,860	8.11	1,363	2.37	6,223	5.30
1929-1933	4,597	7.08	1,344	2.14	5,941	4.65
1934-1938	4,814	7.13	1,490	2.26	6,304	4.72
1934	801	6.03	247	1.91	1,048	3.99
1935	861	6.43	281	2.15	1,142	4.32
1936	972	7.21	304	2.30	1,276	4.78
1937	1,077	7.91	319	2.39	1,396	5.18
1938	1,093	7.96	349	2.59	1,442	5.30

NOTE.—In the years 1927 to 1930 inclusive "open verdicts" are included as accidents.

These figures have been adjusted on the basis of the 1929 revision of the International List which came into use in 1931. They include inattention at birth, throughout and prior to 1896, injury at birth and traumatic tetanus. In the years 1927 to 1930 "open verdicts" are included as they cannot be separated in the classification.

Although the death-rate from accidents is still high compared with that of more closely settled countries, it has decreased, the rate for 1934 being the lowest on record.

The experience of the quinquennium ended 1938 shows that out of every 1,000 fatal accidents 415 are due to vehicles and horses, 86 to drowning, 154 to falls, 62 to burns or scalds, 63 to railway or tramway accidents, 22 to accidents in mines and quarries, and 14 were due to weather, *i.e.*, excessive cold or heat, and lightning.

Out of 610 deaths caused by accidents with vehicles and horses in 1938, 533 were due to accidents in which a motor vehicle was involved. The deaths due to this class of accident over the last ten years are shown in the following table:—

TABLE 516.—Automobile Accidents, 1928 to 1938.

Year.	Average Number of Vehicles Registered.	Persons Killed.			Death Rate per 1,000 Vehicles Registered.	Death Rate per million of Population.	Ages of Persons Killed.				
		Pedestrians.	Others.	Total.			Under 15.	15-29.	30-64.	65 & over.	N.S.
1928 ...	208,427	155	229	384	1.8	156	81	122	145	35	1
1929 ...	237,322	199	279	478	2.0	191	87	138	201	52	...
1930 ...	245,316	184	247	431	1.8	170	72	134	183	41	1
1931 ...	222,912	137	195	332	1.5	130	70	103	126	33	...
1932 ...	208,145	149	155	304	1.5	118	56	91	112	45	...
1933 ...	214,987	117	204	321	1.5	123	59	95	126	41	...
1934 ...	228,318	158	177	335	1.5	128	49	97	128	61	...
1935 ...	245,790	159	242	401	1.6	152	66	136	142	56	1
1936 ...	265,313	161	306	467	1.8	175	64	143	201	59	...
1937 ...	282,464	174	360	534	1.9	198	70	165	234	65	...
1938 ...	304,805	158	375	533	1.7	196	65	192	220	56	...

Accidents of this class became more numerous as the use of motor vehicles increased, and they diminished in 1931 and 1932 as motor transport declined. With the use of motor vehicles again increasing there has been a proportionate increase in the deaths.

In 1938 pedestrians killed represented 30 per cent. of the total.

THE SEASONAL PREVALENCE OF DISEASES.

The following table shows for each month of the year the proportion of deaths due to each of nine principal causes. The figures are based on the experience of the five years 1934-38, and in order to make the results of the computation comparable, adjustments have been made to correct the inequality of the number of days in each month:—

TABLE 517.—Seasonal Prevalence of Diseases, 1934-38.

Month.	Typhoid Fever.	Influenza.	Diphtheria and Croup.	Whooping-Cough.	Phthisis.	Pneumonia.	Bronchitis.	Diarrhea, Enteritis, and Dysentery.	Bright's Disease.
January ...	72	19	63	78	82	54	55	132	75
February..	112	15	75	71	71	55	41	137	74
March ...	225	23	91	44	80	55	73	107	68
April ...	138	23	142	44	85	62	61	110	77
May ...	164	52	142	51	86	83	85	70	80
June ...	31	64	100	44	87	95	105	49	92
July ...	51	196	85	61	96	127	152	56	104
August ...	41	220	65	75	94	134	127	52	100
September.	10	169	58	138	86	114	104	63	93
October ...	10	121	56	148	76	87	85	56	81
November.	64	65	55	146	76	66	57	65	80
December .	82	33	68	100	81	68	55	103	76
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

In interpreting the foregoing table comparison should be made vertically and not horizontally, the figures representing proportions per thousand and not absolute numbers.

The chief features of the foregoing table are exhibited in the contrast between the figures relating to typhoid fever, diarrhœa and enteritis on the one hand, and to influenza, pneumonia, and bronchitis on the other. In the first group the influence of the hot weather is the controlling factor; in the second, the cold. The warmest months in the year are January, February, and December; the coldest, June, July, and August. The morbidity from phthisis varies little throughout the year, but the rates show that it is more fatal in the colder months. Bright's disease shows likewise a higher mortality during the cold weather.



## FACTORIES.

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THE manufacturing industries of New South Wales have expanded rapidly in recent years. Prior to the federation of the Australian States in 1901 there were relatively few of the higher classes of manufacturers, notwithstanding the volume and variety of raw materials, such as wool, minerals, etc., readily available. The great majority of the establishments were engaged in the production for local use of food commodities, furniture and bricks; in making clothing from imported materials; in printing; in the repair rather than the manufacture of machinery; or in the preliminary treatment of primary products, such as wool-scouring or saw-milling.

After federation a uniform protective customs tariff replaced the duties imposed by the States on oversea and interstate goods and trade between the States became free. Then a period of steady expansion commenced. Economic conditions were especially favourable; the State was prosperous, primary production was increasing, and the population was being augmented by immigration as well as by natural increase. The outbreak of war, which occurred at a time when the primary industries were affected by adverse seasonal conditions, caused a measure of disorganisation in the factories. But the set-back was temporary, and recovery was rapid in consequence of the demand for products for war purposes and the increase in the spending power of the people by reason of the circulation of war moneys and the returns received from high-priced exports. Moreover, the curtailment or cessation of supplies of many imported articles caused greater attention to be directed towards local resources.

Under these conditions the manufacturing industries entered upon a more advanced stage of development. Iron and steel works, and many subsidiary industries were established, the manufacture of various classes of machinery was undertaken, and a considerable range of other high-grade products were added to the list of commodities made in New South Wales.

General industrial depression from 1929 to 1932 caused considerable contraction of factory activity, but recovery commenced in 1933 and thereafter very rapid expansion occurred in established secondary industries and in the development of new industries. This was due partly to the restrictions necessarily placed upon imports to adjust the balance of payments during the economic crisis and partly to the rapid return to prosperity and the increase in business activity within the State. There were numerous increases in the tariff between November, 1929, and July, 1931, which, coupled with a primage duty imposed on imports as from 10th July, 1930, and a depreciation of the Australian pound in terms of sterling as from January, 1931, gave a measure of stimulus to local industries. The tariff on non-British goods was raised after the Ottawa agreement in July, 1932, in order to accord margins of preference in respect of British goods.

With the improvement of economic conditions, both internal and external, it became practicable to reduce the tariff, as well as revenue duties, primage, etc. The net effect of these varied influences has been to promote substantial new development of local manufactures.

The Commonwealth Statistician has calculated that the net customs revenue collected in Australia represented 20.5 per cent. of the total value of merchandise imported in 1928-29, and that it rose to 33 per cent. (including primage) in 1931-32. Then it declined to 29.8 per cent. in 1932-33 and 1933-34, to 27.8 per cent. in 1934-35, and to 25.3 per cent. in 1936-37. The customs revenue (excluding primage) was 32.8 per cent. of the value of dutiable goods in 1928-29, 45.2 per cent. in 1931-32, 41.3 per cent. in 1933-34, 38.2 per cent. in 1934-35, 36.6 per cent. in 1935-36 and 37.7 per cent. in 1936-37.

The Tariff Board investigates proposals for altering the tariff and for granting bounties, and takes into consideration the effect of tariff and customs laws and bounties on the industries of Australia. The Board reports to the Minister for Customs and determinations of fiscal policy are made by the Commonwealth Government.

In May, 1936, changes were made in the tariff with a view to promoting expansion of certain secondary industries in Australia. This applied principally to metal and machines manufactures, especially motor chassis. Imports of motor chassis from countries other than United Kingdom were restricted by licence to the same level as in the twelve months ended 30th April, 1936. At the same time an additional duty of 7d. per lb. was imposed on imported motor chassis and chassis parts to provide funds for a bounty on motor car engines of local manufacture. The matter was referred to the Tariff Board for report in November, 1936. In May, 1938, the Federal Government abandoned the licensing system. No arrangement has yet been made for payment of bounty on motor car engines from the proceeds of special duty.

#### SCIENTIFIC RESEARCH AND STANDARDISATION.

The Commonwealth Council of Scientific and Industrial Research, which became a permanent body in 1921, was re-organised in 1926 in terms of the Science and Industry Research Act, 1920-26. There is a central council, and a committee in each State to advise the Council as to the problems to be investigated. The Council consists of three members appointed by the Commonwealth Government, who form the executive committee, the chairman of each State committee, and other persons with scientific knowledge co-opted by the Council.

The Council is empowered to conduct scientific researches in connection with primary and secondary industries, to train research workers, to make grants in aid of scientific research, to test and standardise scientific apparatus, to conduct investigations in reference to standardisation of machinery and materials used in industry, and to establish a bureau of information relating to scientific and technical matters.

The council confines its activities for the most part to primary industries, and its assistance to secondary production is mainly in the form of technical and scientific information. Nevertheless many of its investigations have an important bearing upon the manufacturing industries. For instance the council has taken action to encourage the use of modern methods in the seasoning and the use of local timbers and has conducted investigations into the production of suitable tobacco leaf, the chilling of beef and the extraction of valuable minerals from complex ores.

The Standards Association of Australia, which is an amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Association of Simplified Practice, aims at the improvement of industry by preparing standards in connection with engineering

structures and materials, seeking to promote their adoption, and co-ordinating efforts for their improvement. The Association receives financial support from the Commonwealth Government, and the Council of Scientific and Industrial Research is the means of liaison between it and that Government.

The Curator and staff of the State Technological Museum also engage in research and in disseminating technical and scientific information tending to promote the efficiency and extension of existing industries, and the establishment of undertakings for the manufacture of new products.

BOUNTIES.

The following were manufactured commodities for which producers in New South Wales received bounties provided by the Commonwealth for the encouragement of production and manufacturing in Australia during the last three years, viz. :—

Wire netting manufactured from materials produced in Australia—  
9s. 7d. per ton.

Traction engines.—According to capacity, £40–£90 per tractor.

Sulphur from Australian pyrites and other sulphide ores and concentrates—36s. per ton.

Fortified wine—Payable on export—1s. 4.8d. per gallon, reduced to 1s. 3d. per gallon as from 1st March, 1935, and to 1s. 2d. as from 1st March, 1937.

The amounts paid to producers in New South Wales during three years ended 30th June, 1938, are shown below:—

TABLE 518.—Bounties Paid in New South Wales.

Product.	1935-36.		1936-37.		1937-38.	
	Quantity on which Bounty was Paid.	Amount of Bounty.	Quantity on which Bounty was Paid.	Amount of Bounty.	Quantity on which Bounty was Paid.	Amount of Bounty.
Wire Netting ... ..ton	20,689	£ 9,913	16,257	£ 7,790	13,088	£ 6,271
Traction Engines ... ..No.	133	6,578	224	11,089	275	13,620
Sulphur ... ..ton	7,065	12,717	6,150	11,071	5,318	9,572
Fortified Wine ... ..gal.	43,959	2,748	51,692	3,209	81,465	4,637
Total New South Wales ...	...	31,956	...	33,159	...	34,100

Particulars of bounties on gold and on wheat are shown in the chapters of the volume relating to mining and agriculture respectively.

DEFINITIONS IN FACTORY STATISTICS.

The statistics relating to factories, as shown in this chapter, have been compiled from returns supplied annually by manufacturers in terms of the Census Act of 1901. A return must be supplied in respect of every factory where four or more persons are employed or where power is used—including educational or charitable institutions, reformatories and other public

institutions, except penitentiaries. Returns from bakeries were collected for the first time for the year 1927-28. Returns are not collected in respect of small-goods-making or farriery.

If a manufacturing business is conducted in conjunction with an importing or a retail business, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment a separate return is obtained for each industry. Prior to 1936-37 this rule applied in all cases, but in 1936-37 and later years electricity plants (generating power solely for use in the factory with which they are associated) were treated as part of that factory and not as individual electricity stations as formerly. If power from any generating plant is used for more than one industry, the cost is distributed proportionately amongst such industries.

Manufacturers are requested to state in their returns particulars as to the number, age, wages, etc., of their employees, the value of premises and equipment, the power of machinery, the value, and, in most cases, the quantities of raw materials and fuel used and of their output.

The *value of the factory output* is the value of the goods manufactured or work done; it represents generally the wholesale selling value at the factory (exclusive of cost of delivery). The *value of production* is the value added to raw materials by the processes of manufacture; it is calculated from the value of the output by deducting the cost of raw materials, containers and packing, power, fuel or light, water and lubricating oil used, tools replaced, and repairs to plant.

In process of manufacture many goods are treated in several industries, the output of one becoming the raw materials of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, and timber from the saw mills used in furniture factories and in joinery. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole. There are some establishments where a separate department is organised for selling the products, and the value of the output, as recorded in the returns furnished by the manufacturers, is the nominal value at which the goods are transferred from the factory to the sales branch. Information is not available to indicate the extent to which the recorded value of the output and the value of production are affected thereby, but it is known to be appreciable in some industries. Being a constant practice, this does not greatly disturb the basis of comparisons from year to year, but it has a bearing in analysing statistics of the manufacturing industries, e.g., in calculating the proportion of the output which is represented by cost of raw materials or by wages, etc.

Factory statistics have been reviewed by various conferences of Australian statisticians held from time to time for the purpose of improving and standardising statistical methods. As a result, certain changes have been introduced. For instance, by a change introduced in 1930-31, the value added by processes in the factory, and not the value of the goods manufactured, is treated as the value of the output in the case of three industries, viz. (1) assembly of motors, machinery, etc., (2) chaff cutting, and (3) cold storage. Due mainly to this alteration in statistical

method, the recorded value of materials used in these industries was reduced by about £6,000,000 in 1930-31 as compared with the preceding year, and the value of the output by approximately £7,500,000.

Changes in the manner of recording the power of machinery used and the age distribution of employees are noted later in this chapter.

The returns obtained from factory proprietors relate to a comprehensive range of statistical items, but are not designed to establish a complete record of either income or expenditure nor to show the profits and losses of factories either collectively or individually.

CLASSIFICATION OF FACTORIES.

For statistical purposes a standard classification of the manufacturing industries was formulated at a conference of Australian statisticians in 1902 and revised at more recent conferences. This classification was used in the compilation of the statistics relating to factories in New South Wales in the years 1930-31 to 1935-36, and with certain amendments (mainly in class XII) in 1936-37 and 1937-38.

The classes are as follow :—

CLASS I.—TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS.

Coke Works.  
Briquetting and Pulverised Coal.  
Carbide.  
Lime, Plaster and Asphalt.  
Marble, Slate, etc.  
Cement and Cement Goods.  
Other.

CLASS II.—BRICKS, POTTERY, GLASS, ETC.

Bricks and Tiles, Fire Bricks and Fire-clay Goods.  
Earthenware, China, Porcelain, Terra-cotta,  
Glass (other than Bottles).  
Glass Bottles.  
Modelling.  
Other.

CLASS III.—CHEMICALS, DYES, EXPLOSIVES, PAINT OILS, GREASE.

Chemicals, Drugs and Medicines.  
Explosives.  
White Lead, Paints and Varnish.  
Oils, Vegetable (including Oil Cake).  
Oils, Mineral.  
Oils, Animal (including Greases and Glue).  
Boiling Down, Tallow Refining, Bone Mills, etc.  
Soap and Candles.  
Chemical Fertilisers.  
Inks, Polishes, etc.  
Matches.  
Other.

CLASS IV.—INDUSTRIAL METALS, MACHINES, IMPLEMENTS AND CONVEYANCES.

Smelting, Converting, Refining, and Rolling of Iron and Steel.  
Engineering (not Marine or Electrical).  
Extracting and Refining of other Metals and Alloys.  
Electrical Machinery, Cables and Apparatus.  
Construction and Repair of Vehicles.  
Ship and Boat-building and Repairing, Marine Engineering.  
Cutlery and Small Tools (not Machine Tools).  
Agricultural Implements.

CLASS IV.—INDUSTRIAL METALS, ETC.—

Brass and Copper.  
Galvanised Iron-working and Tinsmithing.  
Wireworking (including Nails).  
Art Metal Works.  
Stoves and Ovens.  
Gas Fittings and Meters.  
Lead Mills.  
Sewing Machines.  
Lamps and Fittings.  
Arms.  
Wireless Apparatus.  
Other Metal Works.

CLASS V.—PRECIOUS METALS, JEWELLERY, PLATE.

Jewellery.  
Watches and Clocks.  
Gold, Silver and Electroplate.  
Other.

CLASS VI.—TEXTILES AND TEXTILE GOODS. (NOT DRESS).

Cotton.  
Wool, Worsted and Shoddy.  
Hosiery and other Knitted Goods.  
Silk, Natural and Artificial.  
Rope and Cordage.  
Canvas Goods, Tents, Tarpaulins and Sailmaking.  
Bags and Sacks.  
Other.

CLASS VII.—SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR).

Furs, Skins, Leather.  
Saddlery, Harness, Bags, Trunks, and other Goods of Leather and Leather Substitutes (not Clothing or Footwear).  
Other.

The classes—*continued*.

## CLASS VIII.—CLOTHING.

Tailoring and Slop Clothing (Makers' Material).  
 " " (Customers' Material).  
 Clothing—Waterproof and Oilskin.  
 Dressmaking (Makers' Material).  
 " (Customers' Material)  
 Millinery (Makers' Material).  
 " (Customers' Material).  
 Shirts, Collars, and Underclothing (Makers' Material).  
 Shirts, Collars, and Underclothing (Customers' Material).  
 Stays and Corsets.  
 Handkerchiefs, Ties and Scarves (Makers' Material)  
 Handkerchiefs, Ties and Scarves (Customers' Material).  
 Hats and Caps.  
 Gloves.  
 Boots and Shoes.  
 Boot Repairing.  
 Boot Accessories.  
 Umbrellas and Walking Sticks.  
 Dyeworks and Cleaning (including Renovating and Repairing).  
 Other.

## CLASS IX.—FOOD, DRINK, AND TOBACCO.

Flour Milling.  
 Cereal Foods and Starch.  
 Cattle and Poultry Foods (not Oilcake);  
 Chaffcutting and Corn Crushing.  
 Bakeries (including Cakes and Pastry).  
 Biscuits.  
 Sugar Mills.  
 Sugar Refining.  
 Sugar Confectionery (including Chocolate).  
 Jam, Fruit and Vegetable Canning.  
 Pickles, Sauces and Vinegar.  
 Bacon Curing.  
 Butter and Cheese Factories, etc.  
 Margarine and Butterine.  
 Meat and Fish Preserving, Meat Extracts.  
 Cocoa.  
 Condiments, Coffee, Spices, etc.  
 Ice and Refrigerating.  
 Salt Refining.  
 Aerated Waters, Cordials, etc.  
 Breweries.  
 Distilleries.  
 Wine Making.  
 Cider and Perry Making.  
 Malting.  
 Bottling.  
 Tobacco, Cigars, Cigarettes, Snuff, etc.  
 Dried Fruits.  
 Ice-cream.  
 Sausage Skins.  
 Other.

## CLASS X.—WOOD WORKING AND BASKETWARE.

Sawmills (Forest).  
 " (Town).  
 Plywood Mills.  
 Bark Mills.  
 Joinery.  
 Cooperage.  
 Boxes and Cases.  
 Wood Turning, Wood Carving, etc.  
 Basketware and Wickerware, including Seagrass  
 and Bamboo Furniture.  
 Perambulators.  
 Other.

## CLASS XI.—FURNITURE, BEDDING, ETC.

Billiard Tables, Cabinet and Furniture Making and  
 Upholstery.  
 Bedding and Mattresses.  
 Furnishing Drapery, etc.  
 Picture Frames.  
 Window Blinds, Verandah Blinds.  
 Other.

CLASS XII.—PAPER, STATIONERY, PRINT,  
BOOKBINDING, ETC.

Newspapers.  
 Printing.  
 Stationery and Paper Products.  
 Stereotyping and Electrotyping.  
 Process Engraving, Photo. Engraving.  
 Cardboard Boxes, Cartons, etc.  
 Paper Bags.  
 Paper Making.  
 Pencils, Penholders, etc.  
 Other.

## CLASS XIII.—RUBBER.

Rubber Boots and Shoes.  
 Tyres, Motor and Cycle.  
 Other Rubber Goods (not Clothing or Belting).

## CLASS XIV.—MUSICAL INSTRUMENTS.

Gramophones.  
 Gramophone Records.  
 Pianos, Piano-players, Organs.  
 Other.

## CLASS XV.—MISCELLANEOUS PRODUCTS.

Linoleum, Leather Cloth, Oil Cloth, etc.  
 Bone, Horn, Ivory and Tortoiseshell.  
 Celluloid and Similar Composition.  
 Buttons.  
 Ornamental Feather Dressing, Cleaning and Dyeing.  
 Brooms and Brushes.  
 Surgical, Optical, and other Scientific Instruments  
 (not Electrical).  
 Toys, Games, and Sports Requisites.  
 Artificial Flowers.  
 Other.

## CLASS XVI.—HEAT, LIGHT, AND POWER.

Electric Light and Power.  
 Gas Works.  
 Other.

FACTORY DEVELOPMENT SINCE 1901.

The following summary of certain principal items from statistical returns indicates the development of factories in New South Wales since 1901:—

TABLE 519.—Factory Statistics 1901 to date.

Year.	Establishments.	Employees.*	Total Horsepower of Engines installed. (c)	Value of Land, Buildings and Plant.	Salaries and Wages.	Value of Materials and Fuel used.	Value of Output.	Value of Production, i.e. added to Raw Materials.	
	No.	No.	H.p.	£(000)	£(000)	£(000)	£(000)	£(000)	
1901 ...	3,367	61,764†	57,335	13,699	4,945	15,637	25,648	10,011	
1911 ...	5,039	104,551†	212,555	25,651	10,048	34,914	54,346	19,432	
1920-21 ...	5,837	130,211	491,576	59,544	25,619	94,713	137,841	43,128	
1925-26 ...	8,196	169,774	796,525	89,949	33,567	105,125	169,963	64,838	
1928-29 ...	8,465	180,756	1,028,212	102,741	38,545	111,671	185,298	73,627	
1929-30 ...	8,208	162,913	1,267,315	107,301	34,876	100,403	167,251	66,848	
1930-31 ...	7,544	127,605	1,328,864	100,688	25,200	68,960	118,484	49,524	
1931-32 ...	7,397	126,355	1,382,682	96,741	22,751	67,786	114,439	46,653	
1932-33 ...	7,444	138,504	1,390,994	95,777	23,783	74,877	124,446	49,569	
1933-34 ...	7,818	153,999	1,404,340	95,395	25,749	82,570	136,612	54,042	
1934-35 ...	8,254	175,033	1,454,397	98,391	29,513	93,003	154,433	61,430	
1935-36 ...	8,486	193,200	1,505,247	101,459	33,315	105,224	174,694	69,470	
1936-37 ...	8,726	208,497	1,578,949	103,609	36,642	116,058	192,812	76,754	
1937-38 ...	9,097	224,861	1,692,993	111,694	42,210	129,715	214,883	85,168	
		Average per factory.			Average per employee.				
		No.	H.p.	£	£	£	£	£	
1901 ...	...	18.3	17.0	4,069	80	253	415	162	
1911 ...	...	20.7	42.2	5,090	100	334	520	186	
1920-21 ...	...	23.8	84.2	10,201	190	680	990	310	
1928-29 ...	...	21.4	121.5	12,137	221	618	1,025	407	
1930-31 ...	...	16.9	176.2	13,347	207	540	928	388	
1935-36 ...	...	22.8	177.4	11,956	179	545	904	359	
1936-37 ...	...	23.9	181.0	11,874	182	557	925	308	
1937-38 ...	...	24.7	186.1	12,278	194	577	956	379	

\*Average number during whole year (see page 602). † Estimated. (a) Excluding Electric Motors used in Electric Generating Stations.

The increase in the number of factories since 1920-21 has not been so great as the figures indicate, insofar as a more extensive use of electrically driven machinery of small horse-power in bakeries, bootmaking, and boot-repairing workshops, motor garages, etc., has brought numerous small establishments within the definition of "factory." This has affected, though not in the same degree, the number of employees and the value of the output.

The year 1928-29 marked the predepression peak of factory production in New South Wales, and this was surpassed in 1936-37 and 1937-38.

Between 1928-29 and 1931-32 there was a decline of 12½ per cent. in the number of factories, 30 per cent. in the average number of employees, 41 per cent. in wages, and 38 per cent. in the recorded value of output.

Between 1931-32 and 1937-38 there was an increase of nearly 23 per cent. in the number of factories, 78 per cent. in the number of employees and 90 per cent. in the value of materials and fuel used, 86 per cent. in the salary and wages bill, and 88 per cent. in the value of output.

The number of factories in 1937-38 was 7 per cent. greater than in 1928-29; the number of employees, 24 per cent. greater; the wages bill was nearly 10 per cent. greater; and the value of output 16 per cent. more.

#### GOVERNMENT FACTORIES AND WORKSHOPS.

The foregoing statement includes particulars of a number of factories and workshops under Government control in New South Wales.

The statistics of Government establishments are on a similar basis to those of other establishments. But in cases where the former are not conducted for-profit the value of the output has been estimated by adding 10 per cent. to the value of materials and fuel used and other factory costs. Repair work constitutes a large proportion of the work done in Government factories.

The following table shows the details of the operations of the establishments under the control of the State and Commonwealth Governments in 1937-38 separately from those conducted by private enterprise:—

TABLE 520.—Government and Private Factories, 1937-38.

Particulars.	Government Workshops, etc.	Other Establishments.	Total.	
Number of Establishments* ... ..	71	9,026	9,097	
Average Number of Employees. †	{ Male ... ..	15,159	149,232	164,391
	{ Female ... ..	478	59,992	60,470
	{ Total ... ..	15,637	209,224	224,861
Salaries and Wages paid to Employees. ‡	{ Male ... ..	£ 3,715,250	32,531,837	36,247,087
	{ Female ... ..	£ 54,424	5,908,364	5,962,788
	{ Total ... ..	£ 3,769,674	38,440,201	42,209,875
Capital Value of Land, Buildings, and Fixtures	£ 5,617,656	48,853,987	54,471,643	
Value of Plant and Machinery ... ..	£ 6,784,934	50,437,759	57,222,693	
Value of Materials and Fuel used ... ..	£ 3,379,340	126,336,084	129,715,424	
Total Value of Output ... ..	£ 8,574,086	206,309,471	214,883,557	
Value of Production ... ..	£ 5,194,746	79,973,387	85,168,133	

\* Each railway workshop is counted as a separate establishment. † Excluding drawings of working proprietors. ‡ Average number during period of operation (see page 602).



The Government establishments include railway and tramway workshops, electric light and power works, printing works, abattoirs, dockyards, and factories for the production of small arms, clothing and school furniture. Gas works and electricity undertakings of the local governing bodies are not included with the Government establishments.

FACTORIES ACCORDING TO CLASS OF INDUSTRY.

The following table summarises the operations of the factories in New South Wales and in the metropolitan district during the year 1937-38 according to the class of industry. For an explanation of the terms used, e.g., value of output, value of production, see page 590.

TABLE 521.—Factories—Classes of Industry, 1937-38.

Class of Industry.	Establishments.	Average Number of Employees.*			Salaries and Wages, exclusive of Drawings of Working Proprietors.	Value of Materials and Fuel Used.	Value of Goods Manufactured or Work done.	Value of Production, being Value added to Raw Materials.
		Males.	Females.	Total.				
NEW SOUTH WALES.								
Treatment of Non-metalliferous					£(000)	£(000)	£(000)	£(000)
Mine and Quarry Products...	186	4,372	66	4,438	1,038	2,888	5,189	2,301
Bricks, Pottery, Glass ...	215	7,605	240	7,845	1,625	1,464	4,429	2,975
Chemicals, Paint, Oil, Grease ...	273	5,316	2,632	7,948	1,576	7,875	13,852	5,977
Industrial Metals, Machines, Conveyances ...	2,545	76,465	5,007	81,472	17,452	47,701	76,808	29,107
Precious Metals, Jewellery ...	88	889	154	1,043	171	191	482	291
Textiles and Textile Goods (not dress) ...	153	5,564	9,180	14,744	2,025	5,679	9,019	3,340
Skins, Leather (not clothing or footwear) ...	216	3,287	862	4,149	755	3,074	4,289	1,215
Clothing... ..	1,605	8,096	23,296	31,392	3,670	6,555	12,449	5,894
Food, Drink, Tobacco ...	1,553	18,036	9,546	27,582	5,197	36,059	51,297	16,238
Wood Working, Basket Ware ...	832	9,546	348	9,894	1,890	5,099	8,245	3,146
Furniture, Bedding ...	346	5,211	1,301	6,512	1,201	2,302	4,208	1,906
Paper, Printing ...	671	11,538	5,338	16,876	3,371	5,107	11,424	6,317
Rubber ...	95	2,380	1,074	3,454	713	2,227	3,106	870
Musical Instruments ...	11	201	64	265	52	41	135	94
Miscellaneous Products ...	157	2,742	1,329	4,071	599	1,168	2,364	1,196
Heat, Light, Power ...	151	3,143	33	3,176	875	2,295	7,587	5,292
Total ...	9,097	164,391	60,470	224,861	42,210	129,715	214,883	85,168
METROPOLITAN DISTRICT.								
Treatment of Non-metalliferous								
Mine and Quarry Products ..	93	1,893	39	1,932	386	713	1,380	667
Bricks, Pottery, Glass ...	98	5,782	220	6,002	1,247	1,176	3,500	2,333
Chemicals, Paint, Oil, Grease ...	252	4,670	2,608	7,278	1,414	7,251	12,804	5,553
Industrial Metals, Machines, Conveyances ...	1,561	55,562	4,384	59,946	12,302	22,129	40,954	18,825
Precious Metals, Jewellery ...	86	880	155	1,035	171	190	478	288
Textiles and Textile Goods (not dress) ...	138	4,756	8,165	12,921	1,795	5,094	8,055	2,961
Skins, Leather (not clothing or footwear) ...	179	3,097	849	3,946	722	2,938	4,069	1,131
Clothing... ..	1,349	7,432	22,441	29,873	3,528	6,332	11,940	5,608
Food, Drink, Tobacco ...	733	12,549	8,705	21,254	3,904	23,083	36,218	12,235
Wood Working, Basket Ware ...	347	5,374	233	5,607	1,134	3,307	5,217	1,910
Furniture, Bedding ...	310	5,019	1,264	6,283	1,163	2,234	4,073	1,839
Paper, Printing ...	409	10,052	5,107	15,159	3,034	4,903	10,681	5,778
Rubber ...	42	2,226	1,063	3,289	694	2,172	3,004	832
Musical Instruments ...	11	201	64	265	52	41	135	94
Miscellaneous Products ...	149	2,708	1,330	4,038	594	1,160	2,348	1,188
Heat, Light, Power ...	11	1,913	12	1,925	518	1,598	5,733	4,140
Total ...	5,878	124,114	56,639	180,753	32,058	85,210	150,598	65,382

\* Average during the whole year (see page 602).

The most important group of secondary industries in the State consists of metal and machinery works, in which the number of employees, the amount of salaries and wages, the value of raw materials and fuel used, of output, and of production are much greater than in any other group. The

factories connected with food and drink, are as a group, second in importance, though the number of employees is less than in the clothing factories.

The value of the production in the two main groups of factories—metals and machinery and food and drink—represents more than half the total value of factory production, and the four groups—printing, chemicals, paints, etc., heat, light and power, and clothing—contribute in almost equal proportions nearly 30 per cent. of the value.

### GEOGRAPHICAL DISTRIBUTION OF FACTORIES.

The number of factories in the more important classes and the average number of persons employed during the year 1937-38 in the divisions of the State are shown below:—

TABLE 522.—Factories and Employees in Classes and Statistical Divisions, 1937-38.

Division.	Bricks, Pottery, Glass.	Chemicals, Paint, Oil, Grease.	Industrial Metals.	Textiles.	Skins, Leather.	Clothing.	Food, Drink, &c.	Wood.	Furniture, &c.	Paper, Printing.	Heat, Light, Power.	Other Classes	Total.
NUMBER OF ESTABLISHMENTS.													
Cumberland—													
Metropolis ...	98	252	1,561	138	179	1,349	783	347	310	469	11	381	5,878
Balance of ...	11	2	30	5	9	11	40	14	1	8	...	7	144
North Coast ...	5	1	115	...	...	16	103	118	6	21	11	16	412
Hunter and Manning ...	20	5	172	3	5	75	146	106	20	31	17	33	637
South Coast ...	6	2	79	...	2	21	94	54	...	18	17	22	315
Tablelands—													
Northern ...	3	2	39	...	2	11	32	23	2	7	9	5	136
Central ...	17	1	80	3	1	22	76	21	2	17	14	20	286
Southern ...	6	1	45	1	1	13	30	13	...	10	8	13	141
Western Slopes—													
North... ..	7	...	49	...	1	9	23	19	...	7	7	5	127
Central ...	5	1	61	...	1	16	31	18	...	14	14	5	166
South ...	22	1	120	3	2	30	70	33	3	28	12	22	346
Plains—													
Northern ...	3	...	33	...	3	5	19	20	2	8	6	2	101
Central ...	1	...	27	...	3	3	12	12	...	7	6	...	71
Riverina ...	9	...	90	...	3	13	57	29	...	17	12	6	236
Western Division ...	2	1	32	...	4	5	37	5	...	8	7	...	101
Total ...	215	273	2,545	153	216	1,605	1,553	832	346	671	151	537	9,097
AVERAGE NUMBER OF EMPLOYEES.*													
Cumberland—													
Metropolis ...	6,037	7,315	60,197	12,943	3,986	30,209	21,361	5,659	6,320	15,210	1,925	10,605	181,758
Balance of ...	378	31	761	1,113	70	31	564	107	1	47	...	130	3,233
North Coast ...	42	20	750	...	...	77	1,233	1,375	13	208	68	90	3,876
Hunter and Manning ...	561	433	12,233	9	30	768	1,651	1,265	182	468	366	760	18,726
South Coast ...	408	161	4,035	...	14	61	519	439	...	109	209	824	6,779
Tablelands—													
Northern ...	40	7	209	...	11	83	140	136	3	53	42	20	744
Central ...	147	3	1,100	364	7	103	429	96	10	181	151	810	3,401
Southern ...	31	4	556	109	18	134	127	73	...	54	62	84	1,242
Western Slopes—													
North... ..	55	...	308	...	4	25	171	101	...	82	45	27	818
Central ...	54	3	313	...	6	26	171	145	...	82	60	15	875
South ...	148	5	763	237	12	118	604	330	10	182	49	151	2,600
Plains—													
Northern ...	12	...	201	...	14	22	82	227	10	43	38	3	653
Central ...	3	...	134	...	24	8	30	92	...	23	24	...	338
Riverina ...	46	...	406	...	16	33	824	172	...	87	66	18	1,668
Western Division ...	4	7	608	...	38	36	217	62	...	109	82	...	1,163
Total ...	7,966	7,989	82,574	14,775	4,250	31,726	28,123	10,279	6,549	16,938	3,177	13,537	227,883

\* Average number during period of operation (see page 602)

Approximately 64 per cent. of the factories and 80 per cent. of factory employees are situated in the metropolitan area. Other important manufacturing centres are in proximity to the coal-fields, viz., at Newcastle in the Hunter and Manning division, and at Port Kembla in the South Coast division. In the western division the mining of the silver-lead deposits at Broken Hill has given rise to a number of subsidiary factories, such as ore-treatment plants.

In the metropolitan district metal and machinery workshops and clothing factories give employment to a much greater number of workers than any other group, next in order being food and drink factories. In the Hunter and Manning and in the South Coast divisions, metal and machinery workshops give employment to the greatest number of employees. Butter and bacon factories are most prominent in the northern coastal districts, and there are many sawmills. Beyond the coastal belt there are few large groups of establishments.

The extent of the operations of factories in each division in 1937-38 is indicated in the following table:—

TABLE 523.—Factory Statistics in Divisions, 1937-38.

Division.	No. of Establishments.	Average Number of Employees.*	Value of Lands and Buildings and Fixtures.	Value of Plant and Machinery.	Salaries and Wages Paid.	Materials and Fuel used.	Value of Goods Manufactured, or Work done.	Value of Production (Value added to Raw Materials).
			£(000)	£(000)	£(000)	£(000)	£(000)	£(000)
Metropolis ... ..	5,878	181,758	42,803	35,397	32,658	85,216	150,598	65,382
Balance of Cumberland ...	144	3,233	587	640	530	1,238	2,184	946
North Coast ... ..	412	3,876	1,150	1,814	688	5,543	6,850	1,307
Hunter and Manning ...	637	18,726	3,906	7,843	4,506	20,228	28,947	8,719
South Coast ... ..	315	6,779	1,980	6,923	1,416	8,793	12,017	3,224
Northern Tableland ...	136	744	198	203	113	273	505	232
Central Tableland ...	286	3,401	1,268	1,445	680	1,282	2,717	1,435
Southern Tableland ...	141	1,242	307	346	199	320	699	379
North-western Slope ...	127	818	202	244	136	408	704	296
Central-western Slope	166	875	253	245	143	300	574	274
South-western Slope ...	346	2,609	766	541	408	1,458	2,223	765
Northern Plain ... ..	101	653	137	115	109	204	408	204
Central Plain ... ..	71	338	65	80	50	49	150	101
Riverina ... ..	236	1,668	513	336	268	869	1,363	494
Western Division ...	101	1,163	337	1,051	306	3,534	4,944	1,410
Total ... ..	9,097	227,883	54,472	57,223	42,210	129,715	214,883	85,168

\* Average number during period of operation (see page 602).

The foregoing statement illustrates the preponderance of the metropolitan factories in comparison with those of other districts. Approximately 80 per cent. of the employees work in the metropolitan district, where the capital value of factory premises and equipment represents 70 per cent. of the value in all districts.

## VALUE OF PREMISES AND EQUIPMENT.

The value of the land, buildings, plant and machinery of the manufacturing industry as recorded since 1927-28, relates to the depreciated or book values less any depreciation reserve existing in respect of them. Prior to 1927-28 some factory owners had been stating the value of their land, buildings, plant and machinery at their original cost. Where the factory premises and equipment are not the property of the occupier the value is computed by capitalising the rent paid at fifteen years' purchase. The following table shows the extent to which the recorded value of the premises used for manufacturing purposes and of plant and machinery installed has changed since 1901:—

TABLE 524.—Value of Factory Premises, Machinery, etc., 1901 to 1937-38.

Year	No. of Establishments.	Capital Value of Premises.	Value of Machinery, Tools, and Plant.	Average Value per Establishment.	
				Premises.	Machinery, Tools and Plant.
1901*	3,367	£ 7,838,628	£ 5,860,725	£ 2,328	£ 1,740
1911	5,039	13,140,207	12,510,600	2,608	2,483
1920-21	5,837	28,428,917	31,115,444	4,870	5,331
1925-26	8,196	43,954,312	45,994,534	5,363	5,610
1928-29	8,465	51,375,003	51,365,716	6,069	6,068
1929-30	8,208	53,785,319	53,515,368	6,553	6,520
1930-31	7,544	49,822,312	50,865,884	6,604	6,743
1931-32	7,397	46,462,828	50,277,992	6,281	6,497
1932-33	7,444	45,873,565	49,903,177	6,162	6,704
1933-34	7,818	46,310,925	49,083,921	5,924	6,278
1934-35	8,254	47,937,192	50,453,590	5,808	6,112
1935-36	8,486	49,494,222	51,964,982	5,832	6,124
1936-37	8,726	51,629,598	51,979,614	5,917	5,957
1937-38	9,097	54,471,643	57,222,693	5,988	6,290

\* Excluding a number of small country establishments.

The premises owned by the occupiers in 1937-38 were valued at £40,016,638, and rented premises (on the basis described above) at £14,455,005, the corresponding values in 1920-21 being £19,111,772 for premises owned by the occupiers and £9,317,145 for rented premises.

A marked improvement in the class of buildings used as factories has been a feature of the progress of the industries. Provision has been made for ventilation and good lighting, in accordance with the requirements of the Factories and Shops Act, and for the general comfort and welfare of the employees, as well as for the expeditious handling of materials and products.

NEW INVESTMENT IN FACTORY PREMISES AND EQUIPMENT.

The figures in the foregoing table refer to depreciated or book values and do not give any indication of the cost of new factory buildings and equipment and additions and replacements to existing factories. So far as these are recorded in annual statistical returns they are shown in the following comparison for the past five years:—

TABLE 526.—Cost of New Factories, Additions and Replacements.

Year ended 30th June.	Land and Buildings.	Plant and Machinery.	Total.
	£	£	£
1934 ... ..	604,737	2,131,584	2,736,321
1935 ... ..	957,868	3,096,379	4,054,247
1936 ... ..	1,148,105	3,127,517	4,275,622
1937 ... ..	1,797,390	4,602,142	6,399,532
1938 ... ..	2,142,726	8,585,958	10,728,684

The above expenditure does not represent entirely new investment, as part of the amount was derived from depreciation reserves. The amount recorded as written off for depreciation of premises, plant and machinery in 1937-38 was £4,110,662. Although accurate records are not available for earlier years the amount expended on factory premises and equipment in 1937-38 probably constitutes a record in the history of manufacturing industry in New South Wales. The principal industries in which additions and replacements of plant and machinery occurred were:—

TABLE 527.—Cost of Additions and Replacement of Plant and Machinery.

Industry.	1936-37.	1937-38.
	£	£
Iron and steel works metals, machinery, etc. ... ..	1,970,929	2,493,665
Works treating mine and quarry products (mainly coke works)	126,371	1,903,646
Heat, light and power works (mainly electricity) ... ..	586,396	1,458,702
Factories making food and drink ... ..	578,069	822,722
Factories engaged in paper-making, printing, etc. ... ..	310,030	837,190
All other ... ..	1,030,347	1,070,033
Total ... ..	4,602,142	8,585,958

SIZE OF ESTABLISHMENTS.

The following statement shows the distribution of establishments in the metropolitan and extra-metropolitan districts, according to the number of persons engaged. Factories in Auburn, Granville, Lidcombe and Parramatta were classified as extra-metropolitan in 1920-21, but have been grouped with the metropolitan factories in later years. Where two or more classes of manufacturing are conducted in one factory, each branch is treated, in the compilation of the factory statistics, as if it were a separate establishment.

TABLE 525.—Size of Factories.

Establishments employing on the average—	1920-21.		1928-29.		1931-32.		1937-38.	
	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.	Establish- ments.	† Em- ployees.
<b>METROPOLITAN DISTRICT.</b>								
Under 4 employees...	} a	} a	1,240	2,457	1,404	2,723	1,491	2,878
4 employees ...			391	1,564	376	1,504	415	1,660
5 to 10 employees			1,425	10,047	1,177	8,150	1,436	10,061
11 „ 20 „ ...			881	12,872	682	10,069	925	13,616
21 „ 50 „ ...			808	25,862	584	18,482	883	28,266
51 „ 100 „ ...			321	21,990	193	13,286	395	27,466
101 and upwards ...		232	71,028	160	50,198	333	97,811	
Total ...			5,298	145,820	4,576	104,412	5,878	181,758
<b>REMAINDER OF STATE.</b>								
Under 4 employees	} a	} a	1,226	2,540	1,473	2,802	1,125	2,458
4 employees ...			391	1,564	308	1,232	463	1,852
5 to 10 employees			962	6,503	662	4,369	995	6,766
11 „ 20 „ ...			340	4,857	190	2,681	364	5,120
21 „ 50 „ ...			155	4,769	108	3,207	171	5,292
51 „ 100 „ ...			34	2,332	34	2,397	40	2,695
101 and upwards ...		59	16,742	46	11,152	61	21,942	
Total ...			3,167	39,313	2,821	27,840	3,219	46,125
<b>NEW SOUTH WALES.</b>								
Under 4 employees	1,006	2,256	2,466	4,997	2,877	5,525	2,616	5,336
4 employees ...	500	2,000	782	3,128	684	2,736	878	3,512
5 to 10 employees	1,936	13,462	2,387	16,556	1,839	12,519	2,431	16,827
11 „ 20 „ ...	1,064	15,469	1,221	17,729	872	12,750	1,289	18,736
21 „ 50 „ ...	820	26,006	963	30,631	692	21,689	1,054	33,558
51 „ 100 „ ...	265	18,061	355	24,331	227	15,683	435	30,161
101 and upwards ...	246	67,757	291	87,770	206	61,350	394	119,753
Total ...	5,837	145,011	8,465	185,142	7,397	132,252	9,097	227,883

† Number during period of operation (see page 602) working proprietors included.  
a Comparable figures not available.

The increase in the number of small factories has occurred for the most part in boot-repairing establishments and garages where motor repairs are effected, which are the most numerous of the establishments with less than four employees. Part of the increase was due to the inclusion in later years of bakeries, from which returns were not collected prior to 1927-28. There were 88 boot-repairing establishments with 386 employees in 1920-21 and 638 with 1,121 employees in 1937-38. The works for motor vehicles and accessories in the respective years numbered 283 with 3,090 employees, and 1,222 with 10,835 employees. The establishments with less than 4 employees in 1937-38 included 594 with 832 persons engaged in boot repairing, and 519 motor vehicle works with 1,158 employees.

In the metropolitan district the proportion of establishments employing less than five hands was 32.4 per cent. in 1937-38. In the country districts the proportion of such factories was nearly 50 per cent. Increases in this proportion between 1928-29 and 1931-32 were due to the general curtailment of employment owing to industrial depression, and a substantial decrease occurred as business conditions improved. The proportion of factories with more than 20 employees in 1937-38 was slightly higher than the proportion in 1928-29.

As noted on page 590, the statistics are not compiled on the basis which would show the number and size of "factories" as understood in general

usage, because where more than one industry is carried on in the same factory each branch is represented in the compilations as an establishment. For instance, many large establishments are engaged in the manufacture of a wide range of products and each class of activity is classed as a separate factory. For statistical purposes, these factories are treated as so many individual establishments. Despite the absence of a classification of actual business units, the statistics, as compiled, furnish evidence of a definite trend toward the concentration of manufacture in enterprises of greater magnitude. In each of the following examples the number of establishments is related to the average number of employees engaged per factory in the manufacture of the commodity specified, and the average production per establishment in 1901, 1911, 1920-21, 1928-29, and 1937-38.

TABLE 528.—Size of Certain Factories.

Year.	Butter Factories.			Flour Mills.			Soap Factories.		
	No.	Average per factory.		No.	Average per mill.		No.	Average per factory.	
		Em- ployees.	Butter made.		Em- ployees.	Wheat treated.		Em- ployees.	Soap made.
1901 ... ..	130	7	cwt. 2,355	89	8	bus. 105,276	44	11	cwt. 5,309
1911 ... ..	150	6	4,668	73	12	172,823	37	18	7,732
1920-21 ... ..	126	8	5,659	60	15	193,263	26	36	12,184
1928-29 ... ..	108	9	7,584	56	20	383,537	27	40	19,900
1937-38 ... ..	98	12	10,562	52	23	431,019	27	52	19,257

Year.	Breweries.			Tobacco Factories.			Boot Factories.		
	No.	Average per brewery.		No.	Average per factory.		No.	Average per factory.	
		Em- ployees.	Beer, etc. made.		Em- ployees.	Leaf treated.		Em- ployees.	Boots, Shocs and Slippers made.
1901 ... ..	51	20	gall. (000.) 274	20	48	cwt. 1,338	100	39	Pairs. 33,343
1911 ... ..	37	24	535	26	55	1,842	106	41	39,341
1920-21 ... ..	17	66	1,498	16	147	5,816	101	43	38,038
1928-29 ... ..	8	159	3,678	8	312	15,476	103	50	39,893
1937-38 ... ..	6	163	5,272	9	364	13,455	93	59	84,438

The increase in the average number of employees is more noteworthy when the increasing mechanisation of factory production is taken into consideration, and the particulars of average production indicate that the progress toward concentration of manufacturing into larger business units has been much greater than employment figures show. The movement has been marked in the case of breweries, tobacco factories, and flour mills.

## EMPLOYMENT IN FACTORIES.

The number of factory employees in the various years is shown in this chapter by two sets of figures. One set represents the sum of the average number of employees in factories operating for the whole of the year, and the average number of employees during the period of operation in the case of factories which were working only part of the year.

In the other set of figures (which are shown where available) the number of employees working in all factories, irrespective of period of operation, has been reduced to the equivalent number working for a full year, so that it represents the average number of employees for the whole of the year in all factories. The number on the first of these bases, i.e., the average during the period of operation was 227,883 in 1937-38 and the equivalent average over the full year was 224,861.

The following comparative statement shows the average number of persons engaged (over the whole year) in the various classes of manufacturing industries for various years since 1928-29:—

TABLE 529.—Factory Employees 1928-29 to 1937-38.

Class of Industry.	Persons engaged, including Working Proprietors.					
	1928-29.	1931-32.	1934-35.	1935-36.	1936-37.	1937-38.
Treatment of Non-metalliferous Mine and Quarry Products ...	4,060	1,638	2,998	3,303	3,742	4,438
Bricks, Pottery, Glass ... ..	6,674	2,391	5,931	6,623	7,382	7,845
Chemicals, Paint, Oil, Grease ...	6,137	5,135	6,143	6,615	7,344	7,948
Industrial Metals, Machines, Conveyances ... ..	62,090	38,981	57,810	66,277	73,464	81,472
Precious Metals, Jewellery ...	775	476	742	845	952	1,043
Textiles and Textile Goods (not Dress) ... ..	8,894	9,989	11,889	13,645	13,892	14,744
Skins, Leather (not Clothing or Footwear) ... ..	3,246	3,278	3,917	4,079	4,238	4,149
Clothing ... ..	28,473	19,669	27,031	28,577	30,102	31,392
Food, Drink, Tobacco ... ..	22,490	20,054	23,537	24,489	25,991	27,582
Woodworking, Basketware ...	8,864	3,838	7,609	8,738	9,483	9,894
Furniture, Bedding ... ..	5,737	2,527	4,516	5,582	6,237	6,512
Paper, Printing ... ..	13,932	11,331	14,079	14,969	15,712	16,876
Rubber ... ..	2,775	1,786	2,681	2,634	2,723	3,454
Musical Instruments ... ..	1,257	540	243	283	249	265
Miscellaneous Products... ..	1,504	1,826	2,845	3,363	3,860	4,071
Heat, Light, Power ... ..	3,848*	2,896	3,062	3,178	3,126	3,176
Total, Average over whole Year ... ..	180,756	126,355	175,033	193,200	208,497	224,861

\*Includes a number of employees engaged in maintenance work, not included in 1931-32 and later years.

In 1928-29 the number of employees in factories was greater than in any earlier year, notwithstanding a serious industrial dislocation in the timber industry. As the world economic depression developed, a general



decline commenced, but the movement was irregular as between groups, with the result that although employment in factories decreased in the years 1930-31 and 1931-32, the number of employees engaged in the textile group fell but little in 1930-31, and increased in 1931-32, when it was more than 12 per cent. greater than in 1928-29. The relative inelasticity of demand for consumption goods helped to sustain employment fairly well in such factories as those concerned in the production of food commodities, while the number of employees was substantially reduced in factories associated with the building trades, metal working, furniture, rubber, etc.

Between 1928-29 and 1931-32, the decline was proportionately greatest in the group bricks, pottery and glass, reaching 64 per cent. The group treating non-metalliferous mine and quarry products showed a reduction of 60 per cent.; wood-working and musical instruments, 57 per cent.; industrial metals, 37 per cent.; clothing, 31 per cent.; food and drink, 11 per cent.; and paper and printing, 19 per cent. The decline in the aggregate number of factory employees between 1928-29 and 1931-32 was about 30 per cent.

In 1932-33 there was a partial recovery in employment, and the improvement has continued to 1937-38. In 1937-38 the number of persons employed in factories was the largest hitherto recorded, being 24 per cent. higher than in 1928-29. Practically all classes of industry have shown expansion. This was greatest in the textile industry, in which employment in 1937-38 was 66 per cent. greater than in 1928-29. In the largest group, metal and machinery works the number of employees was 19,382 or 31 per cent. greater than in 1928-29. In chemicals, paint, etc., the improvement was 30 per cent., food, drink and tobacco, 23 per cent., and paper and printing 21 per cent. There has been a noticeable recovery in factories making such products as bricks and tiles, cement, etc., wood and furniture, which suffered most in the early stages of the depression.

In the following table the growth in factory employment is compared with the increase in the total population since 1901. The comparison is shown in quinquennial periods up to 1926. Then two periods are combined in order to smooth the fluctuations in factory employment during the depression. The decrease in factory employees between 1926 and 1931 represented an average rate of 5.6 per cent. per annum, and the increase in the next five years 8.6 per cent. per annum. The factory figures relate to the average number employed over the whole of the years specified (see page 602).

TABLE 530.—Relative Growth of Factory Employment.

Period ended—	Increase in Factory Employees.		Increase in Population— Average Annual Rate.
	Number.	Average Annual Rate.	
Dec. 1906 (5 years) ... ..	11,584	per cent. 3.5	per cent. 1.7
Dec. 1911 (5 years) ... ..	31,203	7.3	2.6
June 1916 (4½ years) ... ..	7,578	1.6	2.4
June 1921 (5 years) ... ..	27,082	4.4	2.1
June 1926 (5 years) ... ..	30,563	4.1	2.2
June 1936 (10 years) ... ..	23,426	1.3	1.3
June 1938 (2 years) ... ..	31,661	7.9	1.0

*Nature of Employment.*

Of the persons engaged in manufacturing industries during the year 1937-38 approximately 7 per cent. were working proprietors or managers or overseers, 84.5 per cent. were actually employed in the different processes of manufacture, or in the sorting and packing of finished articles. Engine-drivers, etc., represented 1.2 per cent., clerical workers 6.3 per cent., carters, messengers, and others 1.2 per cent. The following statement shows the average number during the period of operation and the nature of employment of the persons engaged in each class of industry in 1937-38.

TABLE 531.—Factory Employment, Occupations 1937-38.

Class of Industry.	Working Proprietors, Managers, and Overseers.	Clerks, etc.	Engine-drivers, etc.	Workers in Factory, Mill, etc.		Carters, Messengers, and others.	Persons regularly employed at their own Homes.	Total. (during period of operation.)
				Males.	Females.			
Treatment of Non-metalliferous Mine and Quarry Products ...	348	253	113	3,020	2	31	1	4,668
Bricks, Pottery, Glass ...	308	357	92	6,907	120	92	...	7,966
Chemicals, Paint, Oil, Grease ...	611	1,033	126	4,069	2,014	136	...	7,989
Industrial, Metals, Machines, Conveyances ...	4,872	5,471	849	67,880	3,028	472	2	82,574
Precious Metals, Jewellery ...	123	55	...	732	115	22	4	1,051
Textiles and Textile Goods (not dress) ...	447	500	42	4,934	8,779	39	34	14,775
Skins, Leather (not Clothing or Footwear) ...	332	166	47	2,891	772	40	2	4,250
Clothing ...	2,103	861	21	6,080	22,244	264	153	31,726
Food, Drink, Tobacco ...	2,248	2,661	680	13,628	8,226	677	3	28,123
Woodworking, Basketware ...	1,060	583	278	8,045	108	204	1	10,279
Furniture, Bedding ...	503	304	4	4,600	1,104	26	8	6,549
Paper, Printing ...	1,275	1,520	12	9,389	4,430	304	8	16,938
Rubber ...	162	313	15	1,922	976	72	...	3,460
Musical Instruments ...	20	20	2	170	46	6	1	265
Miscellaneous Products ...	270	255	13	2,347	1,153	37	18	4,093
Heat, Light, Power ...	387	177	592	1,994	1	26	...	3,177
Total ...	15,159	14,529	2,886	139,508	53,118	2,448	235	227,883
Males ...	14,162	7,944	2,886	139,508	...	2,308	57	166,865
Females ...	997	6,585	...	...	53,118	140	178	61,018

The status of workers employed varied greatly in the sixteen standard classes of manufacturing industry. The average proportion of working proprietors, managers and overseers in 1937-38 varied from 3 per cent. in textile works to 10 per cent. in those engaged in woodworking and basketware and 12 per cent. in heat, light and power.

Amongst all males engaged in the manufacturing industries in 1937-38 the proportion of working proprietors, etc., was 8.5 per cent. and of workers in the factories 83.6 per cent. The corresponding proportions amongst the females were 1.6 per cent. and 87.1 per cent.

Of the clerical workers 45.3 per cent. were females, representing 10.8 per cent. of the total number of female employees in 1937-38.

The practice of giving out work at piece rates is very limited. Workers employed in their own homes represented only 1.03 per thousand of the total number employed, and nearly all were engaged by textile and clothing manufacturers. Outworkers in the clothing trades must be licensed annually by the Industrial Registrar in terms of the Factories and Shops Act. The licenses may be granted to persons who are in necessitous circumstances or are unable to work in factories owing to domestic ties or other sufficient reason, and an occupier of a factory may not employ more than one licensed outworker to every ten indoor workers or fraction thereof, except with the approval of the Industrial Registrar.

A comparative statement covering the last ten years is shown below:—

TABLE 532.—Factory Employment, Occupations, 1928-29 to 1937-38.

Year.	Working Proprietors, Managers and Overseers.	Clerks, etc.	Engine Drivers, etc.	Workers in Factory, Mill, etc.		Carters, Messengers and others.	Persons employed regularly at their own Homes.	Total (Period of Operation).
				Males.	Females			
1928-29 ...	13,753	10,300	3,014	115,494	40,642	1,646	293	185,142
1929-30 ...	13,101	10,016	2,760	102,802	36,753	2,038	220	167,090
1930-31 ...	12,074	8,663	2,373	77,931	30,499	1,700	124	133,364
1931-32 ...	11,790	8,538	2,221	75,305	32,443	1,845	110	132,252
1932-33 ...	11,928	8,958	2,276	82,656	34,881	1,967	132	142,798
1933-34 ...	12,418	9,751	2,349	92,955	38,040	2,013	265	157,791
1934-35 ...	13,111	10,910	2,440	106,662	42,740	2,546	297	178,706
1935-36 ...	13,777	11,963	2,541	119,263	46,449	2,903	238	197,134
1936-37 ...	14,337	13,370	2,794	128,138	49,677	2,486	264	211,066
1937-38 ...	15,159	14,529	2,886	139,508	53,118	2,448	235	227,883

The proportion of working proprietors, managers, etc., increased from 7.4 per cent. to 9.1 per cent. between 1928-29 and 1930-31, and has since declined to 6.7 per cent. The proportion of factory workers, which declined from 84.3 per cent. to 81.3 per cent. in the period named, has regained pre-depression level.

*Sex Distribution of Factory Employees.*

The following table shows the number of males and of females employed in factories, and the ratio to the male and female population respectively during various years since 1920-21. The figures are based on the average number of employees during the full year (see page 602).

TABLE 533.—Sex of Factory Employees, 1920-21 to 1937-38.

Year.	Males.		Females.		Total. (Average over full year.)	
	Average Number.	Average per 1,000 of Male Population.	Average Number.	Average per 1,000 of Female Population.	Average Number.	Average per 1,000 of Mean Population.
1920-21 ...	107,700	101.0	31,511	30.8	139,211	6.66
1925-26 ...	128,846	108.9	40,928	36.0	169,774	73.2
1928-29 ...	135,773	107.1	44,983	37.0	180,756	72.8
1929-30 ...	122,005	95.1	40,908	33.1	162,913	64.7
1930-31 ...	93,881	72.6	33,724	26.9	127,605	50.1
1931-32 ...	90,667	69.5	35,688	28.2	126,355	49.2
1932-33 ...	99,718	75.9	38,786	30.4	138,504	53.5
1933-34 ...	111,599	84.2	42,400	32.9	153,999	58.9
1934-35 ...	127,114	95.3	47,919	36.9	175,033	66.4
1935-36 ...	140,896	104.8	52,304	39.8	193,200	72.7
1936-37 ...	152,064	112.2	56,433	42.6	208,497	77.8
1937-38 ...	164,391	120.2	60,470	45.1	224,861	83.0

In 1937-38 the manufacturing industries provided employment for 8.3 per cent. of the total population, viz., about 12.0 per cent. of males, and 4.5 per cent. of females. The proportion of the total population was the highest yet recorded.

In terms of the Factories and Shops Act certain restrictions are imposed on the employment of women and juveniles.

The following table shows, at intervals since 1920-21, the industries in which women and girls have been employed in greatest numbers, and the ratio to every 100 males employed in the same industries. Only workers in the factory have been included, and managers, overseers, clerks, messengers, etc., have been excluded.

TABLE 534.—Female Factory Employees, 1920-21 to 1937-38.

Industry.	Average Number of Women and Girls employed in Factory.* (Operatives only.)				Number of Women and Girls per 100 Males employed in Factory.* (Operatives only.)			
	1920-21.	1928-29.	1931-32.	1937-38.	1920-21.	1928-29	1931-32.	1937-38.
<b>Food, etc.—</b>								
Biscuits ... ..	822	940	898	1,445	102	142	143	194
Confectionery ... ..	1,190	1,629	1,332	1,862	113	139	153	176
Jam and fruit canning, pickles, etc.	951	917	826	704	122	133	142	106
Condiments, etc ... ..	545	673	562	793	125	184	163	191
Tobacco ... ..	1,262	1,392	1,253	2,059	131	152	151	213
Other food, etc. ... ..	325	705	848	1,363	6	9	11	14
<b>Clothing, etc.—</b>								
Woollen mills ... ..	793	1,908	2,297	3,501	101	207	166	132
Hosiery and knitting factories ... ..	1,186	3,343	2,916	3,932	663	383	309	354
Boot and shoe Factories ... ..	1,512	2,222	1,755	2,658	70	91	98	115
Clothing, dressmaking, and millinery	11,080	11,833	7,001	12,449	620	643	667	693
Hats and caps ... ..	815	1,178	945	925	160	227	223	162
Shirts, underclothing, etc.... ..	2,719	4,296	3,544	5,456	2,124	1,672	1,729	1,668
<b>Paper, paper bags and boxes ... ..</b>	827	1,521	1,252	2,198	119	148	129	130
<b>Printing and book-binding ... ..</b>	1,711	1,865	1,313	2,173	34	30	27	31
Rubber goods ... ..	344	618	392	976	57	36	38	51
Other industries ... ..	3,520	5,602	5,309	10,624	5	6	10	9
<b>Total ... ..</b>	<b>29,602</b>	<b>40,642</b>	<b>32,443</b>	<b>53,118</b>	<b>32</b>	<b>35</b>	<b>43</b>	<b>38</b>

\* Average during period of operation, see page 602.

Women workers outnumber men in the clothing trades and in such industries as biscuit, confectionery, jam and pickle, and tobacco factories. In most of the industries specified in the foregoing table the proportion of women has increased since 1928-29—exceptions include woollen mills, jam factories, hat and cap factories, hosiery and knitting factories and paper and paper-bag factories.

In the aggregate, the number of women employed as factory operatives increased from 40,642 in 1928-29 to 53,118 in 1937-38, or by 30.7 per cent., and the number of men from 115,494 to 139,508 or by 20.8 per cent. The proportion of female factory operatives increased from 26 per cent. in 1928-29 to 29.9 per cent. in 1931-32, the increase being due to the marked

decrease in employment in heavy industries where male employees predominate as compared with light industries where the percentage of females is higher. With the return to normal employment conditions the proportion of females dropped to 27.6 per cent. in 1937-38. The principal reason for the proportion of female operatives being greater in 1937-38 than in 1928-29 is the fact that in recent years new avenues for employment have been opened for women, more particularly in textiles and the assembly of wireless and electrical apparatus.

*Ages of Factory Employees.*

The following comparative statement shows factory employees classified in the three age groups, under sixteen years, sixteen and under twenty-one years, and adults. Until 1936-37 the numbers of factory employees in age groups were recorded as averages over the whole year, and included the number of working proprietors. In 1937 and 1938 the ages of factory employees were recorded as at 15th June and working proprietors were excluded.

TABLE 535.—Age and Sex of Factory Employees, 1911 to 1938.

Year ended June.	Males.				Females.				Grand Total.
	Under 16 Years.	16 and under 21 Years.	Adults.	Total Males.	Under 16 Years.	16 and under 21 Years.	Adults.	Total Females.	
Average over whole year (including working proprietors).									
1911*	2,381	76,624		79,005	2,182	23,364		25,546	104,551
1921	3,526	13,420	90,754	107,700	3,466	9,998	18,047	31,511	139,211
1926	4,411	19,726	104,709	128,846	4,583	16,183	20,162	40,928	169,774
1929	3,958	23,354	108,461	135,773	5,054	17,663	22,266	44,983	180,756
1930	3,265	20,624	98,116	122,005	4,161	15,858	20,889	40,908	162,913
1931	1,826	16,624	75,431	93,881	2,734	13,143	17,847	33,724	127,605
1932	1,895	16,710	72,062	90,667	3,189	13,329	19,170	35,688	126,355
1933	2,355	18,174	79,189	99,718	3,514	14,712	20,560	38,786	138,504
1934	3,027	20,822	87,750	111,599	4,395	16,065	21,940	42,400	153,999
1935	3,990	24,143	98,981	127,114	5,571	18,401	23,947	47,919	175,033
1936	4,887	26,690	109,319	140,896	6,562	20,488	25,254	52,304	193,200
1937	5,724	29,664	116,676	152,064	7,551	22,593	26,289	56,433	208,497
At 15th June (working proprietors excluded).									
1937	5,888	30,601	113,509	149,998	7,539	22,630	25,659	55,828	205,826
1938	6,032	32,874	120,541	159,447	7,499	24,378	28,277	60,154	219,601
Percentage, of Total Employees.									
Average over whole year (including working proprietors).									
1911*	2.3	73.3		75.6	2.1	22.3		24.4	100
1921	2.5	9.7	65.2	77.4	2.5	7.2	12.9	22.6	100
1926	2.6	11.6	61.7	75.9	2.7	9.5	11.9	24.1	100
1929	2.2	12.9	60.0	75.1	2.8	9.8	12.3	24.9	100
1930	2.0	12.7	60.2	74.9	2.6	9.7	12.8	25.1	100
1931	1.4	13.1	59.1	73.6	2.1	10.3	14.0	26.4	100
1932	1.5	13.2	57.1	71.8	2.5	10.5	15.2	28.2	100
1933	1.7	13.1	57.2	72.0	2.5	10.6	14.9	28.0	100
1934	2.0	13.5	57.0	72.5	2.8	10.4	14.3	27.5	100
1935	2.3	13.8	56.5	72.6	3.2	10.5	13.7	27.4	100
1936	2.5	13.8	56.6	72.9	3.4	10.6	13.1	27.1	100
1937	2.7	14.2	56.0	72.9	3.6	10.9	12.6	27.1	100
At 15th June (working proprietors excluded).									
1937	2.9	14.9	55.1	72.9	3.7	11.0	12.4	27.1	100
1938	2.7	15.0	54.9	72.6	3.4	11.1	12.9	27.4	100

\*Calendar year—estimated.

Nearly 73 per cent. of the employees in factories at 15th June, 1938, were males, of whom 76 per cent. were adults and 21 per cent. were aged 16 and under 21 years. Of the female employees, only 47 per cent. were adults, 41 per cent. were aged 16 to 21 years and 12 per cent. were under 16.

More than 45 per cent. of the boys under 16 years and 50 per cent. of those at ages 16 and under 21 years were employed in the metal and machinery industries. The female juveniles are employed for the most part in clothing, textile and food factories and in the printing trades.

*Child Labour in Factories.*

The Factories and Shops Act prescribes that no child under 14 years may be employed in a factory unless by special permission of the Minister for Labour and Industry, and such permission may not be given to a child under 13 years. Moreover, the Public Instruction Act prescribes that children must attend school until they reach the age of 14 years, though exemptions from attendance may be granted in special cases, *e.g.*, if the Minister for Education is satisfied that exemption is necessary or desirable, or in the case of children under 13 years, if they have attained a certain standard of education.

The Minister for Labour and Industry may prohibit the employment of children under the age of 16 years in any factory in connection with dangerous machinery or in any work in which he considers it undesirable that they should be employed. Moreover, the employment of children under 16 years of age is prohibited unless the occupier has obtained a certificate by a legally qualified medical practitioner regarding the child's fitness for employment in that factory.

During 1938 certificates of fitness were issued to 11,722 children under 16 years of age, *viz.*, 5,635 boys and 6,087 girls.

The number of boys and girls under 16 years of age employed in factories in 1937-38 as shown in the preceding table includes clerks, messengers, *etc.*, as well as factory operatives. The number of boys, 6,032, represented approximately 12 per cent. of the boys aged 14 and 15 years in the State; and the number of girls, 7,499, was about 15 per cent. of the girls at these ages. The factory figures include some children aged 13 years, but the number is too small to affect the ratios in an appreciable degree.

*Seasonal Trends in Factory Employment.*

Monthly statistics indicating the seasonal trends in employment in the various classes of factories have been collected as from July, 1932; aggregate figures (in thousands) for each month of the last four years are shown below.

TABLE 536.—Number of Factory Employees, Monthly, 1934 to 1938.

Month.	Employees on Factory Pay Rolls on the Pay Day nearest to the 15th of each Month. (excluding working proprietors.)											
	Males.				Females.				Total.			
	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.	1934-35.	1935-36.	1936-37.	1937-38.
	Thousands.											
July ...	114.2	129.0	136.3	150.9	41.7	47.2	51.8	56.5	155.9	176.2	188.1	207.4
August ...	115.5	129.9	137.5	152.3	44.5	48.4	53.1	57.9	160.0	178.3	190.6	210.2
September ...	114.7	131.5	138.7	153.1	45.9	49.9	54.3	58.8	160.6	181.4	193.0	211.9
October ...	118.6	133.3	141.2	155.3	47.2	51.0	55.0	59.4	165.8	184.3	196.2	214.7
November ...	120.7	136.3	143.0	156.8	48.0	51.9	55.5	60.0	168.7	188.2	198.5	216.8
December ...	121.3	137.0	143.3	158.0	47.5	52.2	54.8	60.6	169.1	189.2	198.1	218.6
January ...	120.7	134.6	142.1	156.5	44.1	48.5	51.6	56.7	164.8	183.1	193.7	213.2
February ...	122.6	134.6	145.2	157.0	46.5	51.8	55.1	59.9	169.1	186.4	200.3	216.9
March ...	124.5	136.8	146.7	158.6	48.3	53.4	56.7	61.1	172.8	190.2	203.4	219.7
April ...	125.9	137.7	145.9	157.8	48.4	52.4	56.3	60.8	174.3	190.1	202.2	218.5
May ...	126.5	139.8	147.5	158.6	47.8	52.8	56.0	60.8	174.3	192.6	203.5	219.4
June ...	126.9	139.8	149.8	159.4	47.4	52.0	56.0	60.2	174.3	191.3	205.8	219.6

During this period of four years seasonal fluctuations in the aggregate figures have not been remarkable except in November and January. In November employment is increased in anticipation of the Christmas trade. In January there is a decline in the number of employees, as work in many factories is interrupted on account of the summer holiday season. The movable incidence of Easter affects the figures for March and April—the Easter holidays commenced before the middle of April in 1936, at the end of March in 1934 and 1937, and after the middle of April in 1935.

The monthly figures for each industry in 1932-33 are published in the 1932-33 issue of the Year Book, and those for subsequent years in the "Statistical Registers."

The monthly records of the metal and machinery works show a steady upward trend, with little seasonal fluctuation throughout the four years. In the clothing factories there seems to be greater activity at the changes of the season and before Christmas and Easter. Employment in the food, drink and tobacco group is greatest in the summer months.

An index of employment in factories is published in the chapter Employment of this Year Book.

SALARIES AND WAGES IN FACTORIES.

The amount of salaries and wages quoted throughout this chapter is exclusive of amounts drawn by working proprietors.

The salaries and wages paid to employees in factories amounted to £42,109,875 in 1937-38, as compared with £38,544,687 in 1928-29, and £22,751,013 in 1931-32. A comparison of the amount of salaries and wages paid during certain years is given in the next table, together with the average amount received per employee. Similar information regarding each class of industry is published in the Statistical Register of New South Wales.

TABLE 537.—Total Factory Wages, 1911 to 1937-38.

Year.	Salaries and Wages (exclusive of Drawings by Working Proprietors).					
	Amount.			Average per Employee, including Juveniles.		
	Males.	Females.	Total.	Males.	Females.	Total.
	£	£	£	£ s.	£ s.	£ s.
1911	8,917,583	1,130,079	10,047,662	118 18	44 16	100 5
1920-21	22,766,216	2,852,375	25,618,591	219 15	91 5	190 0
1925-26	29,370,062	4,196,484	33,566,546	240 1	103 12	206 2
1928-29	33,508,975	5,035,712	38,544,687	258 15	112 19	221 8
1929-30	30,228,967	4,647,028	34,875,995	260 8	114 12	222 13
1930-31	21,605,432	3,594,858	25,200,290	244 7	107 11	206 16
1931-32	19,258,969	3,492,044	22,751,013	226 1	98 14	188 14
1932-33	20,099,456	3,683,392	23,782,848	213 16	95 16	179 10
1933-34	21,885,356	3,863,191	25,748,547	207 2	91 18	174 6
1934-35	25,215,391	4,298,076	29,513,467	208 11	90 8	175 4
1935-36	28,576,202	4,738,332	33,314,534	212 7	91 6	178 13
1936-37	31,450,699	5,191,745	36,642,444	216 6	92 14	181 19
1937-38	36,247,087	5,962,788	42,209,875	230 4	99 8	194 2

The average wages are based on the average number of employees over the whole year (excluding working proprietors), and represent approximately the amount which would have been received by an employee working full time. The average earnings of males so calculated in 1937-38 were highest in heat, light and power works (£280), and paper and printing factories (£260 16s.) per male worker.

The average amounts paid to women and girls in the principal industries in which they were employed were as follows:—Food and drink factories, £108 10s. 5d.; printing and bookbinding trades, £98 11s. 8d.; textiles, £97 15s. 2d.; and clothing factories, £95 12s. per female worker.

The wages paid to factory workers are for the most part subject to regulation by industrial awards and agreements, with reference to changes in the purchasing power of money. In this, there have been marked variations during the period under review, and, in order to measure the effective value of the wages, it is necessary to relate the average amounts to appropriate index numbers of retail prices. This matter is discussed in greater detail in the chapter, Food, Prices and Industrial Conditions of this Year Book.

#### MOTIVE POWER.

In order to eliminate as far as possible any duplication from statistics of motive power available for use in manufacturing, comparative tables have been prepared showing the total horse-power of engines and electric motors installed (a) in factories engaged in manufacturing processes, and (b) in electric generating stations. Prior to 1936-37 occupiers of factories were asked to state in their annual returns (1) the full capacity of their machinery, and (2) the average horse-power in use during the period of operation. Since 1936-37 the details have been collected on slightly different basis, viz., (1) the horse-power of machinery ordinarily in use, and (2) the horse-power of machinery in reserve or idle.

The number of factories, excluding electric generating stations, in which power-driven machinery was used is shown in the following table, together with the full capacity of engines and electric motors installed. The horse-power shown is the combined total of engines and electric motors ordinarily in use and in reserve or idle, and represents the total power available for manufacturing purposes, irrespective of whether it is actually in use or not. Obsolete engines are excluded.

TABLE 538.—Horse-power of Engines in Factories, 1901 to 1937-38.

Year.	Establishments using Manual Labour only.	Establishments using Power Driven Machinery.	Horsepower of Engines Installed in Factories (excluding Electric Generating Stations).					
			Steam.	Gas.	Electricity.	Water.	Oil.	Total.
	No.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
1901 ...	1,398	1,916	48,153	2,015	666	71	53	50,958
1911 ...	1,489	3,446	79,807	14,728	27,466	92	1,307	123,400
1920-21 ...	835	4,885	129,894	15,345	149,870	38	1,805	296,952
1925-26 ...	920	7,152	133,353	13,691	237,229	413	3,521	388,207
1928-29 ...	805	7,534	128,252	10,632	321,237	314	9,646	470,081
1929-30 ...	620	7,461	127,793	8,667	336,244	173	13,019	485,896
1930-31 ...	418	7,000	116,373	7,625	335,223	95	13,700	473,016
1931-32 ...	358	6,921	139,061	8,024	359,452	429	16,087	523,053
1932-33 ...	347	6,981	135,410	7,168	366,611	163	16,211	525,563
1933-34 ...	351	7,345	141,408	7,636	396,328	156	15,626	561,154
1934-35 ...	380	7,751	141,055	7,310	431,803	108	16,719	596,995
1935-36 ...	425	7,937	142,127	5,968	457,910	62	16,128	622,195
1936-37 ...	390	8,230	197,972	6,576	485,444	258	19,049	709,299
1937-38 ...	385	8,605	210,124	6,218	527,407	815	19,098	763,662

Prior to 1936-37 certain establishments which generated electricity for their own use, furnished a separate return for the generation of electricity; since 1936-37 particulars of the generation of electricity have been included in the return covering the general operations of the establishment. The



effect of this change was to increase the horse-power of prime movers, principally steam, in factories and reduce the horse-power of prime movers in electric generating stations by an equivalent amount. The horse-power involved in this change in 1936-37 was approximately 50,000.

A further analysis of the power of engines installed in factories (excluding electric generating stations) for the year 1937-38 is shown below.

TABLE 539.—Horse-power of Engines in Factories, 1937-38.

Class of Engine.	Horse-power of Engines Installed in Factories (excluding Electric Generating Stations).	
	Ordinarily in Use.	In Reserve or Idle.
	h.p.	h.p.
<b>Steam—</b>		
Reciprocating ... ..	129,328	19,600
Turbine ... ..	46,577	14,619
<b>Internal Combustion—</b>		
Gas ... ..	5,363	855
Petrol or other light oils ... ..	3,562	317
Heavy oils ... ..	12,614	2,605
<b>Water</b> ... ..	801	14
<b>Total Prime Movers</b> ... ..	<b>198,245</b>	<b>38,010</b>
<b>Electric Motors—</b>		
Driven by purchased electricity ... ..	406,277	32,122
Driven by electricity generated in own works ... ..	82,580	6,428
<b>Total Electric Motors</b> ... ..	<b>488,857</b>	<b>38,550</b>
<b>Total Power Installed</b> ... ..	<b>687,102</b>	<b>76,560</b>

The proportion of each kind of power installed in factories, excluding electric generating stations, in 1937-38 was: Electricity, 69 per cent.; steam, 27.5; oil, 2.5; and gas and water combined, 1 per cent.

*Horse-power of Engines in Electric Generating Stations.*

Particulars of the horse-power of the various types of prime movers installed in electric generating stations, together with the units of electricity generated, are shown in the following table:—

TABLE 540.—Horse-power of Engines in Electric Generating Stations, 1901 to 1937.

Year.	Horse-power of Engines Installed in Electric Generating Stations.					Electricity Generated.
	Steam	Gas.	Water.	Oil.	Total.	
	h.p.	h.p.	h.p.	h.p.	h.p.	(000) units.
1901 ... ..	5,577	50	750	.....	6,377	*
1911 ... ..	87,173	1,610	280	92	89,155	135,337
1920-21 ... ..	189,670	3,727	.....	1,227	194,624	342,536
1925-26 ... ..	394,598	8,661	1,450	3,609	408,318	692,125
1928-29 ... ..	520,033	8,229	19,250	10,619	558,131	959,985
1929-30 ... ..	740,733	6,733	19,045	14,908	781,419	966,117
1930-31 ... ..	812,001	6,606	18,940	18,301	855,848	1,059,829
1931-32 ... ..	790,932	6,339	20,280	42,078	859,629	1,075,706
1932-33 ... ..	799,048	5,226	18,946	42,211	865,431	1,154,457
1933-34 ... ..	773,549	5,506	21,581	42,550	843,186	1,227,873
1934-35 ... ..	774,993	5,384	21,635	55,390	857,402	1,349,248
1935-36 ... ..	803,806	6,333	21,551	51,362	883,052	1,464,898
1936-37 ... ..	791,185	5,842	16,660	55,963	869,650	1,636,833
1937-38 ... ..	827,575	5,448	41,523	54,785	929,331	1,816,814

\* Not Available.

Further details of electric generating stations are shown on page 643.

## FUEL CONSUMED.

The value of fuel consumed, motive power rented, and lubricating oil used in 1937-38 amounted to £7,123,961. This sum includes lubricating oil and water to the value of £547,444, and fuels of various kinds £6,576,517. The value of the fuels used in each class of industry is shown below:—

TABLE 541.—Value and Kinds of Factory Fuel, etc., 1937-38.

Industry.	Coal.	Coke.	Wood.	Oil and Tar.	Gas.	Elec- tricity.	Other.	Total.
	£	£	£	£	£	£	£	£
Treatment of Non-metalliferous Mine and Quarry Products ...	129,484	11,914	5,564	1,429	8,144	151,120	557	308,212
Brick, Pottery, Glass ...	302,632	2,626	26,648	33,630	13,145	67,529	38	446,248
Chemical, Paint, Oil, Grease ...	78,497	7,845	1,302	21,624	7,001	78,081	2,302	196,652
Industrial Metals, Machines, Conveyances ...	432,818	1,129,856	3,877	144,360	346,623	720,424	58,734	2,836,692
Textiles and Textile Goods (not Dress) ...	39,830	632	12	2,985	1,825	115,230	...	160,523
Skins, Leather (not Clothing or Footwear) ...	24,269	830	1,056	2,666	1,023	29,192	10	59,046
Clothing ...	12,065	2,019	509	5,578	9,669	63,398	809	94,047
Food, Drink, Tobacco ...	240,211	32,562	76,106	52,027	49,219	317,588	3,734	771,447
Woodworking, Basketware	2,394	63	7,938	7,174	1,464	54,371	786	73,290
Furniture, Bedding ...	2,492	143	8	1,044	1,254	24,284	1	29,226
Paper, Printing ...	33,292	532	377	4,534	18,055	83,944	53	140,787
Rubber ...	21,163	912	677	455	1,751	58,425	11	83,394
Heat, Light, Power ...	954,316	129,607	6,100	177,857	60,837	3,184	1,734	1,333,635
Other ...	7,132	1,550	322	1,088	5,649	27,553	24	43,318
Total ...	2,280,595	1,321,091	129,596	456,451	525,659	1,794,332	68,793	6,576,517

Nearly half the coal used as fuel in factories is for the generation of electricity; large quantities are used also in metal and machinery works, brick, pottery and glass works, and in food and drink factories. The coke is used for the most part in smelting and the gas companies utilise substantial quantities. The firewood is used mainly in bakeries and butter factories, and the oil in the generation of electricity, metal and machinery works, and food and drink factories. Large quantities of coke oven gas and blast furnace gas are used in the iron and steelworks at Newcastle and Port Kembla.

The quantities of coal, coke, firewood and fuel oil used in the various classes in 1937-38 are shown in the following statement, also the quantity of coal used as raw material in coke works, and coal and oil in heat, light and power works:—

TABLE 542.—Factory Fuel, Quantities, 1937-38.

Class of Industry.	Coal.	Coke.	Wood.	Oil.
	tons.	tons.	tons.	gallons.
Fuel—				
Treatment of Non-metal Mine and Quarry Products ...	200,484	20,449	11,358	56,166
Bricks, Pottery, Glass ...	293,499	1,953	34,339	1,818,870
Chemicals, Paint, Oil, Grease ...	68,428	5,961	1,370	1,248,077
Industrial Metals, Machines, Conveyances ...	487,071	973,800	3,857	6,551,682
Textiles, Skins, Leather, Clothing ...	62,526	2,626	2,159	890,539
Food, Drink, Tobacco ...	214,145	27,726	85,900	1,893,340
Wood, Furniture, etc. ...	4,803	145	14,371	145,610
Paper, Printing, etc. ...	27,369	334	403	171,025
Rubber ...	19,747	649	690	15,198
Heat, Light, Power ...	1,104,415	125,432	8,900	8,035,210
Other ...	6,185	2,090	347	45,275
Total used as Fuel ...	2,488,672	1,161,165	163,694	20,870,992
Raw Material—				
Coke Works ...	1,536,690	...	...	...
Heat, Light, Power ...	577,030	...	...	1,970,263
Total (Fuel and Raw Material)...	4,602,392	1,161,165	163,694	22,841,255

A comparative statement of the quantities of coal used as raw material and fuel, and of coke and wood used as fuel in the factories in each year since 1927-28 is shown below. Similar details are not available regarding oil prior to 1933-34, and are shown for the last five years only:—

TABLE 543.—Factory Fuel, Quantities, 1928 to 1938.

Year ended June.	Coal.		Coke.	Wood.	Oil.
	Fuel.	Raw material, coke and gas works.			
	tons.	tons.	tons.	tons.	Gallons.
1928 ... ..	2,224,821	1,534,523	760,091	157,806	} *
1929 ... ..	2,201,235	1,531,135	779,906	167,401	
1930 ... ..	2,114,881	1,259,178	638,873	139,912	
1931 ... ..	1,603,401	992,361	455,519	100,054	
1932 ... ..	1,397,463	914,368	433,823	98,802	
1933 ... ..	1,499,024	1,158,209	561,618	102,109	
1934 ... ..	1,689,327	1,412,062	712,169	118,464	
1935 ... ..	1,891,607	1,758,626	961,496	132,022	
1936 ... ..	2,098,214	1,818,743	1,033,686	131,501	
1937 ... ..	2,312,983	1,961,782	1,138,847	139,888	
1938 ... ..	2,488,672	2,113,720	1,161,165	163,694	17,300,000† 17,913,862 21,840,147 22,548,275 22,841,255

\* Not available.

† Approximate.

The increase in the use of coal as a raw material is mainly the result of the expansion in coke-making in order to supply the large quantities of coke required for the production of pig-iron by the blast furnaces at Newcastle and Port Kembla. The quantity of coal used in coke works declined from 1,060,400 tons in 1926-27 to 398,900 tons in 1931-32, but increased to 1,536,690 tons in 1937-38.

VALUE OF MATERIALS AND PRODUCTION.

The following statement shows the value of materials and fuel used, the value of the output, as recorded in the manufacturers' returns, and the value of production, which is the value added to raw materials etc., in the processes of manufacture; also the amount paid in wages in factories in various years since 1901. Particulars as to the basis of the values stated and of certain changes in statistical method which affect the comparison are shown on page 590:—

TABLE 544.—Value of Factory Output and Production, 1901 to 1937-38.

Year.	Value of—					Salaries and Wages paid, (exclusive of Drawings of Working Proprietors).	Balance (Output, less Materials, Fuel and Wages).
	Materials, Containers, etc., Used.	Fuel Consumed, including Motive-power Rented.	Goods Manufactured or Work Done.	Factory Production (i.e., value added to raw materials, etc.).	Production per Employee. †		
	£(000)	£(000)	£(000)	£(000)	£	£(000)	£(000)
1901	15,141	496	25,648	10,011	160.2	4,952	5,059
1911	33,671	1,243	54,346	19,432	185.9	10,048	9,334
1920-21	91,104	3,609	137,841	43,128	309.8	25,619	17,509
1925-26	99,303	5,822	169,963	64,838	381.9	33,566	31,272
1928-29	105,357	6,314	185,298	73,627	407.3	38,544	35,083
1929-30	94,365	6,038	167,251	66,848	410.3	34,876	31,972
1930-31	64,579	4,381	118,484	49,524	388.1	25,200	24,324
1931-32	63,557	4,229	114,439	46,653	369.2	22,751	23,902
1932-33	70,085	4,792	124,446	49,569	357.9	23,783	25,786
1933-34	77,330	5,240	136,612	54,042	350.9	25,749	28,293
1934-35	87,097	5,906	154,433	61,430	351.0	29,513	31,917
1935-36	98,950	6,274	174,694	69,470	359.6	33,315	36,155
1936-37	109,593	6,465	192,812	76,754	368.1	36,642	40,112
1937-38	122,591	7,124	214,883	85,168	378.8	42,210	42,958

† Based on average number of employees over full year, see page 602.

The value of materials used in 1937-38 was £122,591,463, including containers and packing £5,363,190, and tools replaced and repairs to plant £3,360,669.

On the average, out of every hundred pounds worth of goods produced in factories in 1937-38 the materials, containers, etc., cost £57 1s., and fuel £3 6s., while the employees received £19 13s., leaving a balance of £20 for the payment of overhead charges and other expenses and for profits. The amounts in 1928-29 were materials and fuel £60 6s., salaries and wages £20 16s., and balance £18 18s. respectively. The balance is in general the proportion which accrues to the proprietors for overhead expenses, including depreciation, taxation, workers' compensation, etc., and profit. In some cases the value of the output as recorded represents the value at which the products are passed to the sale departments (see page 590).

The appended table shows separately the proportions of the items which made up the total recorded value of output of all the factories and of private establishments only. The latter comparison is the more satisfactory, because the nature of the work undertaken in Government workshops differs greatly from that of the private establishments, and the value of the output has been partly estimated (see page 594).

TABLE 545.—Value of Output, Proportionate Distribution, 1901 to 1937-38.

Year.	All Establishments.				Private Establishments Only.			
	Proportion per cent. of Total Value of Output absorbed by—			Total.	Proportion per cent. of Total Value of Output absorbed by—			Total.
	Materials and Fuel.	Salaries and Wages.	Overhead Charges, Profit, etc.		Materials and Fuel.	Salaries and Wages.	Overhead Charges, Profit, etc.	
1901	61.0	19.3	19.7	100	†	†	†	†
1911	64.2	18.6	17.2	100	†	†	†	†
1920-21	68.7	18.6	12.7	100	70.4	16.4	13.2	100
1925-26	61.9	19.7	18.4	100	63.4	18.3	18.3	100
1928-29	60.3	20.8	18.9	100	61.8	19.2	19.0	100
1929-30	60.0	20.9	19.1	100	61.5	19.2	19.3	100
1930-31	58.2	21.3	20.5	100	60.0	19.4	20.6	100
1931-32	59.2	19.9	20.9	100	61.4	18.2	20.4	100
1932-33	60.2	19.1	20.7	100	61.6	17.6	20.8	100
1933-34	60.4	18.8	20.8	100	61.5	17.7	20.8	100
1934-35	60.2	19.1	20.7	100	61.2	17.9	20.9	100
1935-36	60.2	19.1	20.7	100	61.1	18.0	20.9	100
1936-37	60.2	19.0	20.8	100	61.1	18.0	20.9	100
1937-38	60.4	19.6	20.0	100	61.2	18.6	20.2	100

† Not available.

Between 1920-21 and 1925-26 the proportion absorbed by materials and fuel in private establishments fell from 70.4 per cent. to 63.4 per cent.; since 1928-29 the proportion has been somewhat in excess of 61 per cent., except in the year 1930-31, when it was only 60 per cent. The proportion for expenses and profits, etc., rose from 13.2 per cent. to 18.3 per cent. in 1925-26 and to 20.6 in 1930-31, and has varied but slightly since that year.

The ratio of salaries and wages, which had been about 19½ per cent. for some years, declined to 18.2 per cent. in 1931-32, and further to 17.6 per cent. in 1932-33. It has been slightly higher during the last four years.

The following table shows, in each class of industry in 1937-38 the proportions which the value of goods manufactured, the cost of materials used and of fuel consumed, the amount paid in wages and salaries, bore to the total output as stated in the manufacturers' returns.

TABLE 546.—Value of Output, Proportionate Distribution by Industries, 1937-38.

Class of Industry.	Proportionate Value of Manufactured Goods represented by—			
	Materials used.	Fuel, etc.	Salaries and Wages.	Balance.
Treatment of Non-metalliferous Mine and Quarry	per cent.	per cent.	per cent.	per cent.
Products ... ..	49.1	6.6	20.0	24.3
Bricks, Pottery, Glass ... ..	22.2	10.6	36.7	30.5
Chemicals, Paint, Oil, Grease ... ..	55.2	1.6	11.4	31.8
Industrial Metals, Machines, Conveyances ... ..	58.2	3.9	22.7	15.2
Precious Metals, Jewellery ... ..	37.5	2.1	35.6	24.8
Textiles and Textile Goods (not Dress) ... ..	60.8	2.1	22.4	14.7
Skins, Leather (not Clothing or Footwear) ... ..	70.1	1.6	17.6	10.7
Clothing ... ..	51.8	0.8	29.5	17.9
Food, Drink, Tobacco ... ..	68.4	1.8	10.1	19.7
Woodworking, Basketware ... ..	60.6	1.2	22.9	15.3
Furniture, Bedding ... ..	53.9	0.8	28.5	16.8
Paper, Printing ... ..	43.3	1.4	29.5	25.8
Rubber ... ..	68.7	3.0	22.9	5.4
Musical Instruments ... ..	27.5	3.1	38.2	31.2
Miscellaneous Products ... ..	48.0	1.4	25.3	25.3
Heat, Light, Power ... ..	12.0	18.2	11.5	58.3
Total ... ..	57.0	3.3	19.6	20.1

For the industries as a whole, the ratio of the total amount of wages to the recorded value of production, that is, the value added to raw materials, was about 52 per cent. until 1930-31, when a decline occurred as a result of reductions in rates of wages and proportionately greater overhead expenses which were a consequence of the smaller turnover. The ratio remained about 48 per cent. until 1937-38 when it rose to 49.5 per cent. It varies considerably in different industries, as will be seen in the following table:—

TABLE 547.—Ratio of Wages to Value of Production, 1937-38.

Class of Industry.	Ratio of Amount of Wages Paid to Value of Production.					
	1928-29.	1931-32.	1934-35.	1935-36.	1936-37.	1937-38.
Treatment of Non-metalliferous Mine and Quarry Products ... ..	per cent. 49.9	per cent. 57.9	per cent. 42.2	per cent. 43.1	per cent. 44.5	per cent. 48.0
Bricks, Pottery, Glass ... ..	60.0	59.1	54.0	55.2	57.0	54.6
Chemicals, Paint, Oil, Grease ... ..	33.9	23.8	23.3	22.9	23.2	26.4
Industrial Metals, Machines, Conveyances ... ..	65.2	68.8	61.0	59.0	57.2	59.9
Precious Metals, Jewellery ... ..	61.5	59.9	60.8	58.9	60.5	58.9
Textiles and Textile Goods (not Dress) ... ..	53.5	64.3	56.9	54.5	59.4	60.2
Skins, Leather (not Clothing or Footwear) ... ..	60.4	62.0	52.7	52.8	59.2	62.2
Clothing ... ..	61.6	61.4	61.7	62.1	60.8	57.1
Food, Drink, Tobacco ... ..	35.4	38.0	35.6	34.7	34.2	33.9
Woodworking, Basketware ... ..	62.3	61.7	59.4	61.4	58.4	60.1
Furniture, Bedding ... ..	63.6	65.4	62.2	63.3	62.5	58.7
Paper, Printing ... ..	57.1	55.5	54.5	53.6	53.2	53.4
Rubber ... ..	45.0	47.6	67.1	70.3	72.1	81.1
Musical Instruments ... ..	57.5	109.3	52.7	49.8	56.0	55.1
Miscellaneous Products ... ..	62.2	49.9	46.0	45.9	51.9	50.1
Heat, Light, Power ... ..	21.9	15.2	16.4	16.7	16.1	16.5
Total ... ..	52.4	48.8	48.0	48.0	47.7	49.5

## PRINCIPAL FACTORY PRODUCTS.

The following statement of principal products includes those for which particulars of quantity and value were collected for the years prior to 1936-37:—

TABLE 548.—Principal Articles Manufactured, 1928-29 to 1937-38.

Commodities.	1928-29.		1936-37.		1937-38.	
	Quantity.	Value at Works.	Quantity.	Value at Works.	Quantity.	Value at Works.
Wool, Scoured ... ..lb.	19,649,577	2,106,373	29,492,996	£ ††	26,271,253	£ ††
„ Tops and Noils ...lb.	2,274,959	301,886	7,213,909	854,403	6,402,290	668,870
Leather—						
Dressed and Upper sq. ft. }	19,396,616 <sup>§</sup>	1,600,787 <sup>§</sup>	27,547,896	1,099,631	25,584,431	1,124,498
Sole and Harness ...lb. }			10,810,444	682,308	11,076,387	731,619
Soap ... ..cwt.	483,531	1,152,735	458,101	1,149,100	453,367	1,141,682
Tallow, Raw ... ..cwt.	354,566	604,165	301,087	386,464	286,195	299,934
Bricks ... ..1,000	437,158	1,625,464	316,713	950,157	351,639	1,176,615
Cement ... ..ton	414,913	1,744,792	321,689	1,098,059	438,267	1,403,949
Timber, Sawn ...100 super ft.	1,395,297	1,750,408	2,095,414	††	2,889,143	††
Steel, Ingots ... ..ton	432,773	††	1,073,479	††	1,159,075	4,601,363
Pig Iron ... ..ton	461,110	††	913,406	††	929,676	2,243,614
Bacon and Ham <sup>†</sup> ... ..lb.	22,340,106	1,163,507	20,208,024	††	20,795,580	††
Butter <sup>†</sup> ... ..cwt.	819,050	7,173,369	923,347	5,917,002	1,035,092	7,174,632
Cheeset <sup>†</sup> ... ..lb.	6,203,409	282,755	7,145,170	313,706	7,701,411	337,543
Margarine ... ..lb.	16,627,959	551,014	21,780,611	636,112	24,564,011	725,119
Biscuits ... ..lb.	43,289,522	1,462,757	42,138,719	1,397,842	43,262,602	1,528,301
Ice ... ..ton	258,833	503,605	199,732	344,590	96,155	406,126
Aerated Waters, etc. ...gal.	6,980,373 <sup>†</sup>	1,071,897	6,670,625	735,429	8,391,785	923,700
Jams and Preserves ...lb.	30,579,055	755,268	53,893,286	*1,035,283	51,579,868	1,056,630
Pickles and Sauces ...pint	10,419,549	528,713	8,294,816	307,683	8,777,375	419,790
Flour ... ton (2,000 lb.)	449,011	4,977,770	464,498	4,728,132	476,881	4,941,825
Bran ... ..ton	87,259	559,012	99,744	611,803	96,155	614,535
Pollard ... ..ton	95,641	645,294	97,648	615,897	106,733	707,735
Meat, Preserved in Tins...lb.	4,251,040	172,627	5,355,370	186,902	5,298,262	194,082
Sugar, Raw (94 net titre), tons	17,434	364,175	38,158	684,542	47,077	764,385
Beer and Stout ... ..gal.	29,420,920	3,176,085	26,916,376	2,796,268	31,630,132	3,284,751
Tobacco ... ..lb.	10,134,242	3,064,680	10,503,136	3,680,306	10,864,732	3,833,149
Cigarettes and Cigars ...lb.	5,203,558	1,790,023	4,237,633	2,104,553	4,520,649	2,314,568
Cloth, Woollen and Worsted sq. yds.	5,743,788	1,293,288	10,946,691	1,959,764	10,995,617	2,212,913
Soaks and Stockings doz. prs.	1,142,192	1,343,990	1,074,309	794,652	1,381,565	892,269
Knitted Goods—Woollen No.	1,397,172	538,895	2,726,148	516,715	2,784,156	603,670
„ „ „ Cotton No.	5,609,330	297,073	2,334,940	163,147	3,749,928	237,194
„ „ „ Art Silk No.	1,855,943	408,024	4,813,860	552,537	6,284,172	670,533
Hats and Caps ... ..No.	2,860,332	948,292	3,455,520	††	3,746,604	††
Boots, Shoes and Slippers prs.	5,108,946	2,627,023	7,631,597	2,354,258	7,857,072	2,558,943
Goloshes & Rubber Shoes prs.	2,294,682	352,793	2,752,454	347,897	2,924,638	428,834
Rubber Tyres ... ..No.	670,952	1,703,780	611,006	1,309,154	631,890	1,350,833
Gas ... 1,000 cub. ft.	10,683,530	2,139,694	10,377,602	1,453,008	10,677,273	1,501,328
Coke ... ..ton	1,003,626	1,441,321	1,353,263	1,433,896	1,477,736	1,579,540
Electricity ... 1,000 units	959,985	4,930,839	1,626,833	5,193,778	1,816,814	5,244,866
Motor Bodies ... ..No.	13,321	845,727	5,767	479,580	7,022	597,742

\* Basis of valuation revised; on former basis the value would be £1,231,129.

† Dozens.

‡ Exclusive of quantity made on farms.

§ lb.

†† Not available.

The commodities shown above represent about 30 per cent. of the total value of the factory output. The list is exclusive of most of the products of metal and machinery works which in 1937-38 contributed £76,808,406 or nearly 36 per cent. of the total as well as of the printing and furniture trades, the combined output of which was £15,632,018 or 7 per cent. of the total value of factory output.

Since 1936-37 particulars of quantity and value of output have been collected in respect of a comprehensive list of factory products.

Information relating to a number of the principal articles produced is shown in the following table for the year 1937-38. These show the *total* recorded production of each article under its appropriate industry. In some cases portion of the output may have been made as by-products in establishments classified in other groups of industry, for example, coke is made both in coke works and gas works, but the total output of coke is shown in Class I. Treatment of Non-metalliferous Mine and Quarry Products, the appropriate group for coke works.

The details here shown are a summary only of information available as to articles manufactured. More detailed information is available from statistical records and will be published fully in comparative tables in the Statistical Register.

In the case of articles produced by only one or two factories particulars cannot be published, as the provisions of the Census Act, 1901, prohibits disclosure of the contents of any individual return.

TABLE 549.—Principal Articles Manufactured, 1937-38.

Description.	Quantity.	Value at Works.
CLASS I.—Treatment of Non-metalliferous Mine and Quarry Products.		
		£
Coke ... ..	tons 1,477,736	1,579,540
Motor spirit (from coal) ... ..	gals. 3,088,187	135,902
Sulphate of ammonia ... ..	tons 17,768	152,560
Tar—		
Crude ... ..	gals. 19,480,586	260,997
Refined ... ..	„ 2,274,208	35,311
Cement, Portland grey ... ..	tons 438,267	1,463,949
Cement pipes ... ..	„ a	330,486
Cement building sheets ... ..	sq. yds. 4,558,469	345,395
Fibrous plaster sheets ... ..	„ 2,364,470	193,197
Lime—		
Quick ... ..	tons 29,749	64,238
Hydrated ... ..	„ 6,791	29,885
Agricultural ... ..	„ 5,961	9,057
CLASS II.—Bricks, Pottery, Glass, etc.		
Bricks—Building ... ..	1,000 351,639	1,176,615
Fire bricks and blocks ... ..	„ 23,230	404,625
Floor and wall tiles ... ..	sq. yds. 84,860	32,792
Roofing tiles ... ..	1,000 17,521	248,689
Earthenware pipes ... ..	„ a	396,467
Terra cotta for building purposes ... ..	„ a	50,920
Sanitary earthenware ... ..	„ a	105,370
Domestic earthenware ... ..	„ a	38,660
Glass bottles ... ..	„ a	615,923
CLASS III.—Chemicals, Dyes, Paint, Oils, etc.		
Sulphuric acid ... ..	tons 87,467	b
Cosmetic creams and lotions ... ..	cwt. 6,289	116,452
Hydrogen peroxide ... ..	gals. 187,185	20,051
Pharmaceutical products ... ..	„ a	1,948,460
Tooth paste and powder ... ..	„ a	127,503
Disinfectants ... ..	„ a	92,862
Insecticides ... ..	„ a	121,843
Water paints ... ..	lb. 3,655,207	68,548
Oil paints, ready mixed and other... ..	gals. 1,576,847	1,026,044
Colours ... ..	lb. 5,574,549	58,562
Varnishes ... ..	gals. 863,309	295,512
Kalsomine ... ..	lb. 3,903,096	59,030

a Quantity not available.

b Values not available.

TABLE 549.—Principal Articles Manufactured in 1937-38—*continued*.

Description.		Quantity.	Value at Works.
Class III.—Chemicals, Dyes, Paint, Oils, etc.— <i>continued</i> .			
Lacquer—			£
Clear	... .. gals.	67,445	42,396
Colours	... .. "	408,501	319,530
Thinners	... .. "	413,247	120,884
Enamels	... .. "	195,442	168,776
Stains (oil)	... .. "	97,654	55,567
Whitelead	... .. cwt.	125,565	286,646
Zinc oxide	... .. "	118,423	206,885
Putty	... .. "	19,587	21,571
Synthetic finishes	... .. gals.	254,315	281,913
Oil—			
Castor	... .. "	65,153	25,033
Linseed	... .. "	2,173,767	440,223
Neatsfoot	... .. "	53,580	9,963
Coco-nut (unrefined)	... .. tons	11,957	326,529
Peanut	... .. "	1,622	81,425
Coco-nut cake and meal	... .. "	7,934	58,834
Linseed cake and meal	... .. "	15,040	149,387
Tallow, raw	... .. "	14,310	299,984
Glue pieces and sinews	... .. "	7,825	21,090
Glue	... .. cwt.	14,093	9,628
Soap—			
Household	... .. cwt.	305,241	604,227
Toilet	... .. "	96,710	465,786
Sand	... .. "	39,921	58,238
Soft and other	... .. "	11,495	13,431
Soap extracts and powders	... .. "	67,254	121,462
Cleansing powders and liquids	... .. "	21,097	63,911
Glycerine—Refined	... .. "	21,620	142,348
Soda crystals	... .. "	44,353	14,215
Talcum powder	... .. lb.	143,679	28,635
Printer's ink	... .. "	a	188,390
Writing ink	... .. "	a	39,553
Polishes	... .. "	a	277,551
Matches, wooden	... .. gross boxes	1,093,399	230,569
CLASS IV.—Industrial Metals, Machines, Implements and Conveyances.			
Pig-iron	... .. tons	929,676	2,243,614
Steel ingots	... .. "	1,159,075	4,601,363
Fabricated structural steel	... .. "	61,515	1,532,697
Mining and excavating machinery	... .. "	a	112,652
Weighing machinery and appliances	... .. "	a	53,806
Laundry machinery (other than household)	... .. "	a	35,790
Refrigerating machinery (other than household)	... .. "	a	258,920
Metalworking machinery	... .. "	a	146,532
Refrigerators—Household	... .. No.	5,921	207,770
Furniture of iron and steel	... .. "	a	106,208
Metal window frames	... .. "	a	64,933
Lawnmowers	... .. No.	22,895	36,460
Bolts and nuts	... .. "	a	322,636
Washers	... .. tons	114	2,537
Springs—			
Automobile	... .. "	a	169,606
Other	... .. "	a	99,857
Brass and copper utensils	... .. "	a	47,933
Aluminium utensils	... .. "	a	148,587
Non-ferrous alloy, steam, gas and water fittings	... .. "	a	401,440
Non-ferrous alloy, window and door fittings	... .. "	a	68,195
Milk cans	... .. No.	8,932	13,341

a Quantity not available. b Values not available.



TABLE 549.—Principal Articles Manufactured in 1937-38—continued.

Description.	Quantity.	Value at Works.
Class IV.—Industrial Metals, Machines, Implements and Conveyances—continued.		
		£
Packers' cans...	a	1,227,813
Household utensils of sheet iron and steel	a	182,404
Railway cars and wagons	No. 369	389,869
Stoves—		
Wood, coal and coke burning	No. 16,607	86,789
Gas	16,085	172,042
Electric	4,654	72,108
Other Heating	6,360	20,758
Fencing wire	tons 34,909	626,926
Wire, other iron and steel (excluding fencing-wire)	88,443	1,464,223
Wire gates	a	81,562
Nails	tons 6,175	151,784
Pipes—Wrought, welded, black	56,589	1,219,838
Pipe fittings—Malleable	3,009	199,801
Motor chassis assembled—		
Car	No. 23,278	b
Truck—		
Spark plug ignition	5,422	b
Compression ignition	124	b
Motor bodies—		
Car	1,076	63,084
Passenger buses	231	162,257
Trucks and vans	4,292	290,483
Other, etc.	1,423	81,918
Motor cycle sidecars	3,175	23,747
Bicycles	39,255	190,288
Motor car—		
Axles	29,266	25,313
Pistons	19,209	11,702
Piston rings	1,701,007	63,045
Gears	a	127,571
Electric motors—		
Alternating current	No. 21,776	298,316
Direct current	581	41,541
Transformers and converters	92,059	235,432
Electric batteries	9,696,799	445,696
Accumulators (car and radio)	419,365	533,171
Telephone and telegraph apparatus	a	199,382
Electric regulating, starting and controlling apparatus	a	434,716
Household fittings (switches, fuzes, etc.)	a	30,358
Small household electro mechanical appliances	a	32,753
Other domestic cooking appliances	a	23,446
Electric heating apparatus	a	97,473
Wireless chassis made	No. 136,478	1,056,014
Complete wireless sets assembled	164,022	b
Parts for receiving sets	a	435,003
Wireless transmitting apparatus	a	139,922
Other wireless apparatus	a	77,572
CLASS VI.—Textiles and Textile Goods.		
Cotton tweed, denims and other piece goods	sq. yds. 1,984,802	223,053
Woollen cloth and tweed	1,223,415	166,857
Worsted cloth	9,621,709	2,022,068
Serge	150,493	23,988
Flannel	813,629	95,101
Blankets	pair 134,499	144,351
Rugs	No. 8,071	7,313

\*19177—B a Quantity not available. b Values not available.

TABLE 549.—Principal Articles Manufactured in 1937-38—*continued.*

Description.	Quantity.	Value at Works.
Class VI.—Textiles and Textile Goods— <i>continued.</i>		
Stockings and socks—		
Men's—		£
Wholly of wool ... .. doz. pairs	49,208	34,077
Wholly of other materials ... .. "	10,084	4,387
Mixtures of wool ... .. "	67,638	49,017
Mixture of other materials ... .. "	56,481	28,227
Women's—		
Wholly of wool ... .. "	17,789	11,137
Wholly of silk ... .. "	122,393	114,208
Wholly of artificial silk ... .. "	127,660	53,544
Wholly of cotton ... .. "	14,962	9,646
Silk mixture ... .. "	192,870	293,490
Artificial silk mixture ... .. "	160,210	99,353
Other mixtures ... .. "	17,956	11,823
Children's—		
Wholly of wool ... .. "	95,054	62,126
Wholly of other materials ... .. "	1,681	813
Mixtures of wool ... .. "	61,320	36,635
Mixtures of artificial silk ... .. "	181,247	70,688
Other mixtures ... .. "	25,012	13,088
Knitted apparel—		
Underwear—		
Wool or containing wool ... .. doz.	117,674	124,408
Artificial silk ... .. "	492,310	594,632
Cotton ... .. "	294,128	195,403
Other ... .. "	50,299	27,721
Women's and girls' nightwear—		
Artificial silk ... .. "	30,671	74,076
Other ... .. "	2,548	6,225
Bathing suits—		
Wool or containing wool ... .. "	42,948	190,783
Cardigans, jumpers, sweaters, etc.—		
Chest under 34 inches—		
Wool or containing wool ... .. doz.	43,719	65,465
Other ... .. "	1,190	2,786
Chest, 34 inches and over—		
Wool or containing wool ... .. "	45,102	215,221
Other ... .. "	16,485	35,659
Ropes and cables ... .. cwt.	28,525	96,965
Twine—		
Binder ... .. "	24,362	73,921
Shop ... .. "	5,015	36,068
Other ... .. "	<i>a</i>	15,531
Waterproofed piece goods ... .. sq. yds.	64,500	11,767
Tarpaulin ... .. "	<i>a</i>	52,611
Tents ... .. "	<i>a</i>	77,819
Sails ... .. "	<i>a</i>	9,283
Flour bags ... .. No.	3,815,783	49,159
Meat wraps ... .. "	270,250	7,042
CLASS VII.—Skins and Leather.		
Soured wool ... .. lb.	26,271,253	<i>b</i>
Pelts ... .. No.	2,395,551	<i>b</i>
Leather—		
Sole ... .. lb.	10,266,984	652,515
Harness, etc. ... .. "	809,403	79,104
Upholstery ... .. sq. ft.	2,431,378	121,658
Dressed and upper from hides ... .. "	6,447,928	290,940

*a* Quantity not available.      *b* Values not available.

TABLE 549.—Principal Articles Manufactured, 1937-38—*continued*.

Description.	Quantity.	Value at Works.
<b>CLASS VII.—Skins and Leather—(continued)</b>		
Dressed leather from skins—		£
Calf ... .. sq. ft.	4,658,225	265,093
Goat ... .. "	3,612,915	243,393
Sheep ... .. "	7,943,453	173,984
All other ... .. "	442,870	26,111
Basils ... .. lb.	1,732,855	115,263
Saddles ... .. No.	4,348	18,042
Collars ... .. "	6,175	5,708
Suitcases ... .. "	582,310	129,933
Handbags ... .. "	397,533	156,043
School bags ... .. "	31,398	3,544
Machine belting—leather ... .. lb.	331,136	61,001
<b>CLASS VIII.—Clothing.</b>		
Articles made from woven piece goods—		
Men's and boys'—		£
Shirts ... .. doz.	348,147	<i>b</i>
Collars (including those made for sale with shirts shown above) ... .. "	87,767	<i>b</i>
Undershirts, underpants and combinations ... .. "	150,873	<i>b</i>
Pyjamas ... .. "	85,792	<i>b</i>
Handkerchiefs ... .. "	761,202	<i>b</i>
Neckties ... .. "	268,547	<i>b</i>
Garters and hose suspenders ... .. "	23,419	9,373
Braces ... .. "	51,100	41,771
Women's and girls'—		
Underwear ... .. "	260,068	<i>b</i>
Pyjamas and nightdresses ... .. "	47,426	<i>b</i>
Handkerchiefs ... .. "	949,135	<i>b</i>
Corsets ... .. "	38,434	237,792
Corselets ... .. "	4,597	40,401
Brassieres ... .. "	32,865	63,266
Leather gloves—		
Dress ... .. "	3,219	10,554
Working ... .. "	42,423	25,464
Umbrellas ... .. "	16,013	65,327
Hats—		
Fur felt—		
Men's and boys' ... .. "	42,489	255,447
Women's and girls' ... .. "	20,051	<i>b</i>
Wool felt—		
Men's and boys' ... .. "	19,613	<i>b</i>
Women's and girls' ... .. "	19,951	<i>b</i>
Hoods and capelines (for sale) ... .. "	50,224	50,966
Hats—		
Straw—		
Men's and boys' ... .. "	25,434	11,733
Women's and girls' ... .. "	44,459	<i>b</i>
Other ... .. "	42,313	65,849
Caps (all kinds) ... .. "	25,561	31,898
Boots—Leather—		
Men's ... .. pair	429,642	232,369
Women's ... .. "	2,033	1,849
Children's ... .. "	17,035	6,651
Shoes—Leather—		
Men's ... .. "	1,007,278	554,047
Women's ... .. "	2,028,437	1,156,488
Children's ... .. "	1,021,765	252,837

*a* Quantity not available. *b* Values not available.

TABLE 549.—Principal Articles Manufactured, 1937-38—*continued*.

Description.	Quantity.	Value at Works.
CLASS VIII.—Clothing—( <i>continued</i> )		
Boots and shoes, other than leather—		£
Men's ... .. pair	12,750	3,585
Women's ... .. "	33,180	5,218
Children's ... .. "	70,916	9,337
Slippers—Felt—		
Men's ... .. "	209,434	24,963
Women's ... .. "	1,652,877	144,742
Children's ... .. "	407,837	19,439
Slippers—Leather—		
Men's ... .. "	195,856	40,563
Women's ... .. "	641,117	97,321
Children's ... .. "	128,235	9,534
CLASS IX.—Food, Drink and Tobacco.		
Flour ... .. tons (2,000 lb.)	476,881	4,941,825
Bran—Wheaten ... .. "	95,027	606,064
Pollard ... .. "	106,733	707,735
Wheatmeal ... .. cwt.	224,156	124,634
Breakfast foods—(Made from Wheat)	129,995	342,756
"    "    Other ... .. "	97,695	416,661
Oatmeal ... .. "	86,702	163,382
Maizemeal ... .. "	48,544	19,376
Semolina ... .. "	32,368	17,447
Sharps and screenings ... .. bushels	506,307	53,294
Rice ... .. cwt.	334,953	309,277
Rice meal ... .. "	71,479	16,749
Rice flour ... .. "	25,489	18,311
Macaroni and vermicelli ... .. "	13,131	22,542
Biscuits ... .. lb.	42,380,364	1,489,404
Ice cream cones ... .. "	1,010,628	38,897
Sugar raw (94 net titre) ... .. tons	47,077	764,385
Confectionery—		
Chocolate ... .. lb.	18,775,686	1,233,611
Other ... .. "	28,984,580	1,557,846
Jams, conserves and jellies ... .. "	20,996,010	463,193
Fruit preserved in liquid ... .. "	26,947,628	465,968
Vegetables preserved in liquid ... .. "	3,636,230	127,978
Crystallized fruit ... .. "	227,890	11,417
Candied peel ... .. "	576,097	15,148
Pickles ... .. pints	1,681,248	68,367
Sauce—		
Tomato ... .. "	3,813,334	161,632
Other ... .. "	3,282,793	189,791
Soup—		
Tomato ... .. "	248,913	7,834
Other ... .. "	247,366	17,840
Vinegar ... .. gals.	1,425,570	43,635
Butter... .. cwt.	1,035,092	7,174,632
Cheese... .. lb.	7,701,411	337,543
Bacon and ham ... .. "	20,795,580	b
Milk—		
Condensed ... .. "	3,819,862	88,993
Concentrated ... .. "	1,785,955	32,898
Powdered ... .. "	1,951,200	100,476
Preserved meat ... .. "	4,305,594	131,473
Preserved tongues ... .. "	993,078	62,609
Meat extracts ... .. "	152,672	18,405
Margarine—		
Table ... .. "	4,014,726	148,773
Other ... .. "	20,549,285	576,346

a Quantity not available.

b Values not available.

TABLE 549.—Principal Articles Manufactured, 1937-38—*continued*.

Description	Quantity.	Value at Works.
CLASS IX—Food, Drink, and Tobacco—( <i>continued</i> )		
Dripping ... ..	lb. 2,459,158	37,091
Coffee ... ..	" 1,788,983	138,802
Pepper ... ..	" 350,445	15,290
Mustard ... ..	" 688,724	91,750
Custard powder ... ..	" 1,816,146	74,041
Saline powders ... ..	" 976,741	40,887
Flavouring essences ... ..	gals. 19,327	33,890
Peanut butter ... ..	lb. 1,433,095	113,381
Icing sugar ... ..	" 8,586,601	135,807
Starch ... ..	" 853,068	15,727
Baking powder ... ..	" 1,404,762	105,009
Jelly crystals ... ..	" 2,882,583	148,746
Ice ... ..	tons 218,861	406,426
Ice cream ... ..	gals. 2,127,559	746,159
Aerated water ... ..	" 6,174,519	594,135
Syphons ... ..	No. 1,835,466	45,629
Cordials ... ..	gals. 225,667	91,695
Pure fruit juice ... ..	" 50,862	15,363
Syrups ... ..	" 187,433	56,115
Hop and ginger beer ... ..	" 1,311,502	100,461
Bulk ale and beer ... ..	" 25,025,599	2,042,785
Bottled ale and beer ... ..	" 6,604,533	1,241,966
Wine—		
Beverage ... ..	" 1,365,036	142,906
For distillation ... ..	" 866,100	45,102
Malt—		
Barley ... ..	bush. 510,283	174,921
Other ... ..	" 12,972	4,679
Tobacco—		
Plug ... ..	lb. 1,933,498	541,362
Flake ... ..	" 5,367,096	2,073,153
Fine cut ... ..	" 3,564,138	1,218,634
Cigarettes ... ..	" 4,466,067	2,248,431
Cigars ... ..	" 54,582	66,137
Casings—		
Beef ... ..	cwt. 9,209	12,930
Mutton and lamb ... ..	" 5,905	94,952
Pig ... ..	" 971	17,227
CLASS X.—Woodworking and Basketware.		
Rough sawn timber—		
Local—		
Hardwoods ... ..	super ft. 119,523,751	<i>b</i>
Pines ... ..	" 37,424,096	<i>b</i>
Other softwoods ... ..	" 11,093,906	<i>b</i>
Imported (interstate or overseas)—		
Hardwoods ... ..	" 6,585,002	<i>b</i>
Softwoods ... ..	" 114,287,561	<i>b</i>
Floorboards—		
Australian timber ... ..	" 22,853,499	301,178
Imported timber ... ..	" 2,454,565	52,981
Weatherboards—		
Australian timber ... ..	" 8,201,743	104,004
Imported timber ... ..	" 788,366	19,001
Other dressed timber, linings, etc. ... ..	" 22,582,782	497,938
Plywood ... ..	super ft. solid 3,923,738	228,720
Veneers ... ..	" 1,357,500	79,114
Joinery ... ..	" <i>a</i>	1,162,010
Casks ... ..	No. 30,552	<i>b</i>
Box shoeks ... ..	" <i>a</i>	140,166

*a* Quantity not available. *b* Values not available.

TABLE 549.—Principal Articles Manufactured, 1937-38—*continued.*

Description.	Quantity.	Value at Works.
CLASS X.—Woodworking and Basketwre—( <i>continued</i> )		
Boxes—Butter ... .. No.	2,794,401	£ 173,356
Cases—Fruit ... .. „	3,588,044	138,958
All other boxes, cases and crates ... .. „	<i>a</i>	592,024
Timber, kiln-dried ... .. super. ft.	6,195,658	<i>b</i>
CLASS XI.—Furniture, Bedding, etc.		
Perambulators ... .. No.	24,340	54,960
Furniture ... .. „	<i>a</i>	2,488,297
Picture and mirror frames ... .. „	<i>a</i>	77,056
Wireless cabinets ... .. No.	175,141	358,443
Mattresses—		
Spring ... .. „	86,974	99,558
Inner spring ... .. „	13,361	43,457
Other bedding and pillows ... .. „	<i>a</i>	378,075
Down quilts ... .. No.	41,530	48,150
CLASS XII.—Paper, Stationery, Printing, Bookbinding, etc.		
Cardboard boxes ... .. „	<i>a</i>	980,178
Envelopes ... .. „	<i>a</i>	184,856
Exercise books, etc. ... .. „	<i>a</i>	199,088
Paper bags ... .. „	<i>a</i>	277,481
Paper containers ... .. „	<i>a</i>	79,848
Writing pads ... .. „	<i>a</i>	99,319
CLASS XIII.—Rubber.		
Rubber boots and shoes ... .. pair	2,924,638	428,834
Rubber garden hose ... .. ft.	5,586,347	83,316
CLASS XV.—Miscellaneous Products.		
Buttons ... .. „	<i>a</i>	40,853
Buckles, clasps, slides ... .. „	<i>a</i>	26,116
Brushes—		
Hair and cloth ... .. gross	2,596	31,357
Nail ... .. „	2,736	7,276
Tooth ... .. „	32,521	106,390
Scrubbing ... .. „	2,854	8,956
Shaving ... .. „	618	4,621
Paint and varnish... .. „	5,704	62,530
Other ... .. „	2,121	14,557
Brooms—		
Millet ... .. „	5,531	78,166
Bassine ... .. „	1,273	14,360
Hair ... .. „	1,908	20,684
Mops ... .. „	2,124	16,624
Toys ... .. „	<i>a</i>	209,190
Tennis racquet frames ... .. doz.	12,033	129,068
Golf clubs ... .. „	8,363	77,623
Cricket bats ... .. „	1,395	12,706
CLASS XVI.—Heat, Light, and Power.		
Electricity—		
Generated and sold ... .. 1,000 units.	1,486,057	5,244,866
Used in generating station ... .. „	74,384	...
Lost ... .. „	137,220	...
Generated in factories for own use ... .. „	119,153	...
Total Electricity generated ... .. „	1,816,814	...
Gas—		
Sold ... .. 1,000 cub ft.	9,207,134	1,501,328
Used in own works ... .. „	82,440	...
Lost ... .. „	1,387,699	...
Total gas made ... .. „	10,677,273	...

*a* Quantity not available.*b* Values not available.

INDIVIDUAL INDUSTRIES.‡

CEMENT WORKS.

The extensive deposits of limestone and shale in the State are used for making cement in five establishments situated in proximity to the supplies of raw material and coal mines to the north, south and west of Sydney.

TABLE 550.—Cement Works.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	3	5	5	5	5
Average Number of Employees*	642	1,143	465	801	973
Total Horse-power installed...	12,705	29,227	31,309	44,231	44,258
Value of Land and Buildings	£ 241,815	641,130	672,905	642,943	591,038
Value of Plant and Machinery	£ 655,258	1,506,435	1,246,837	1,049,194	956,660
Salaries and Wages paid ...	£ 143,176	327,308	123,216	195,442	269,917
Value of Fuel and Power used	£ 61,838	259,110	92,563	178,212	216,983
Value of Materials used ...	£ 193,107	499,819	111,799	244,083	345,998
Value of Output ...	£ 592,707	1,744,792	459,841	1,103,680	1,469,636
Value of Production ...	£ 337,762	985,863	255,479	681,385	906,655
Cement Made ...	tons 159,979	414,913	116,943	321,689	438,267

\* Average over whole year.

The output of cement declined by 72 per cent. between 1928-29 and 1931-32, but has risen during the last five years, and in 1937-38 was 5 per cent. greater than the quantity produced in 1928-29.

GLASS AND GLASS BOTTLE WORKS.

Substantial progress has been made in recent years in the manufacture of glass and glass bottles in New South Wales. Particulars of the factories are shown below:—

TABLE 551.—Glass and Bottle Works.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments...	34	37	27	38	38
Average Number of Employees*	2,040	1,802	1,412	3,025	2,916
Total Horse-power installed ...	1,840	2,588	4,117	7,525	7,562
Value of Land and Buildings ...£	262,953	336,791	370,037	491,209	546,736
Value of Plant and Machinery ...£	139,990	217,719	296,764	391,330	385,627
Salaries and Wages paid ...	£ 346,780	423,101	243,301	543,240	575,887
Value of Fuel and Power used ...£	108,751	87,557	86,436	118,385	131,517
Value of Materials used ...	£ 387,744	441,793	205,481	534,912	589,137
Value of Output ...	£ 1,142,279	1,331,288	766,776	1,632,759	1,888,020
Value of Production ...	£ 645,784	801,938	474,859	979,462	1,167,366

\* Average over whole year.

The number of employees increased from 1,802 in 1928-29 to 2,916 in 1937-38 and the value of the land, buildings and equipment from £554,510 to £932,413.

‡ See text on page 590 regarding classification of establishments in which more than one industry is conducted.

## BRICK, TILE AND POTTERY WORKS.

Owing to the abundance of clay, brickworks have been established in many parts of the State. In a number of cases the industry is associated with tile-making and pottery. Particulars of these industries are shown below:—

TABLE 552.—Brick, Tile and Pottery Works.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-28.
Number of Establishments...	175	203	101	153	172
Average Number of Em- ployees* ... ..	4,271	4,692	939	4,293	4,875
Total Horse-power installed	13,414	18,052	10,105	18,582	18,982
Value of Land and Build- ings ... .. £	951,595	1,348,954	713,015	1,024,724	1,029,698
Value of Plant and Machinery... .. £	1,192,522	1,654,901	787,291	1,158,383	1,253,806
Salary and Wages paid	£ 912,108	1,173,170	182,125	835,439	1,038,841
Value of Fuel and Power used ... .. £	311,394	429,568	47,740	285,463	340,140
Value of Materials used... £	246,995	440,025	55,787	317,116	385,844
Value of Output ...	£1,947,118	2,715,326	349,768	2,043,376	2,516,743
Value of Production ...	£1,388,729	1,845,733	246,241	1,440,797	1,790,759

\* Average over whole year.

The local factories are capable of supplying all the bricks and roofing tiles required for use in New South Wales. Oversea imports of flooring and mosaic tiles and glazed tiles for walls and hearths amounted to 337,768 square yards, valued at £104,185 in 1937-38.

Owing to the depressed condition of the building industry the output of the brick, tile and pottery works diminished to a remarkable extent between 1928-29 and 1931-32. The decline and subsequent revival are illustrated in the following statement showing the output of the principal products since 1928-29:—

TABLE 553.—Output of Bricks, Tiles, etc.

Products.	1928-29.	1931-32.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Bricks... .. 000	437,168	28,521	108,075	277,697	303,260	316,718	351,639
Firebricks ... .. 000	8,642	5,875	10,850	15,206	15,918	22,595	23,230
Tiles—roofing... 000	20,414	1,094	4,927	12,953	14,255	15,533	17,521
„ other ... .. £	40,896	6,313	7,162	15,562	19,183	30,397	32,792
Types... .. £	250,151	49,221	158,783	182,417	252,609	310,026	396,467
Pottery ... .. £	256,873	90,339	109,320	152,282	183,138	169,825	168,744



METAL AND MACHINERY WORKS, ETC.

Marked expansion has occurred in recent years in the group of factories engaged in the treatment of industrial metal and the manufacture of machinery, conveyances, etc., and at the present time New South Wales factories are supplying a large proportion of the local requirements for consumers' goods and an increasing proportion of capital goods. It is expected that the proportion of locally manufactured goods will increase, as new industries, including the rolling of steel sheets for automobile bodies, have commenced operations since 1937-38, and plans have been completed for the building of aluminium rolling mills and for the construction of aeroplanes for defence purposes. A proposal is also under consideration for the establishment of the tin plate industry either in New South Wales or South Australia.

A comparative statement relating to the metal and machinery works is shown below:—

TABLE 554.—Metal and Machinery Works, 1911 to 1937-38.

Year.	Number of Establishments.	Average Number of Employees.*	Machinery in use—Total horse-power installed.	Salaries and Wages Paid.	Value of Materials and Fuel Used.	Value of Output.	Value of Production (i.e., added to raw materials).
1911 ...	934	29,066	37,313	£000 3,426	£000 7,986	£000 13,829	£000 5,843
1920-21...	1,262	45,603	132,263	9,897	23,789	37,064	13,275
1925-26...	2,075	58,179	163,406	13,082	29,872	50,341	20,469
1928-29...	2,170	62,090	199,475	15,045	31,922	54,995	23,073
1929-30...	2,144	54,574	200,234	13,314	26,610	46,274	19,664
1930-31...	1,981	41,402	195,789	9,160	16,897	29,831	12,934
1931-32...	1,956	38,981	234,919	7,845	16,332	27,730	11,398
1932-33...	1,957	43,902	233,224	8,489	20,875	33,774	12,899
1933-34...	2,059	49,750	259,299	9,416	24,934	40,230	15,296
1934-35...	2,200	57,810	282,784	11,163	30,111	48,402	18,291
1935-36...	2,298	66,277	293,601	13,174	35,636	57,777	22,141
1936-37...	2,401	73,464	311,043	14,795	42,124	67,996	25,872
1937-38...	2,545	81,472	337,431	17,451	47,701	76,808	29,107

\* Average during the whole year.

The growth of the metal and machinery group dates from 1913 when the Broken Hill Proprietary Company Limited commenced the construction of works at Newcastle for the treatment of iron ore on a large scale, with the ultimate object of supplying the total Australian requirements of pig-iron and ingot steel. Production commenced in 1915, at a most opportune time for Australian industry, as the outbreak of war in 1914 prevented the importation of sufficient iron and steel from overseas, and there would have been widespread industrial dislocation if the plant established at Newcastle had not been ready and competent to supply the local demand. The year 1918 saw the commencement of the various subsidiary industries that have been built around the steelworks and the history of the industry has been since then one of continued progress with the exception of the depression years 1930-31 to 1933-34. An outstanding event in the history of the industry was the export early in 1939 to Great Britain of steel plates and galvanised iron sheets.

The following table gives particulars for 1937-38 of the various classes of industry included in the metals and machinery group. Details of a number of the items manufactured are shown on page 618.

TABLE 555.—Metal and Machinery Works—Classes 1937-38.

Industries.	No. of establishments.	Average Number of Employees.*	Total Horse-power installed.	Value of Land and Buildings.	Value of Plant and Machinery.	Salaries and Wages Paid.	Value of Materials, Fuel & Power Used.	Value of Output.
Smelting, Refining, etc., Iron and Steel	167	13,643	179,086	£000	£000	£000	£000	£000
Engineering (not Marine or Electrical)	353	10,119	19,399	2,467	6,511	3,499	17,765	24,975
Extracting and Refining other Metals...	10	1,056	32,204	1,343	1,089	2,288	3,366	7,000
Electrical Machinery, Cables ...	144	6,495	7,462	194	687	299	8,338	9,680
Tram and Railway Rolling Stock ...	42	13,464	28,071	907	480	1,130	1,973	3,967
Motor Vehicles (including Busses and Repairs) ...	1,205	10,134	8,069	3,053	591	1,804	1,882	4,720
Ship and Boat Building ...	50	3,655	19,404	1,411	1,655	914	547	1,710
Galvanised Iron, Tinsmithing ...	104	5,907	17,034	953	1,338	1,351	3,522	5,241
Wireworking (including Nails)	42	2,925	5,078	479	469	647	2,240	3,417
Wireless Apparatus ...	45	4,224	2,126	388	282	633	1,588	2,604
Other ...	383	9,850	18,898	1,717	1,123	1,936	3,908	7,204
Total ...	2,545	81,472	337,431	16,137	17,003	17,451	47,701	76,808

\* Average number during the whole year.

The output and the horse-power of machinery of the iron and steel works exceed those of any other group in this class. The number of employees is greater in railway and tramway workshops, but nearly all of these are Government establishments concerned with repairs to a greater extent than manufacture. Of the motor vehicle works 1,131 are repair shops, employing, on the average, about six persons, including the working proprietors.

#### IRON AND STEEL WORKS.

The great expansion that has occurred in the metal and machinery works group is bound up in the remarkable progress of the iron and steel industry in New South Wales.

A brief review of the history of the industry is presented in the following pages.

Early records disclose the fact that an iron and brass foundry was established in Sydney in 1833, and was apparently the first commercial iron works in Sydney. The business flourished and in 1870 was casting about 10 tons of metal weekly and throughout the period maintained a reputation for soundness of work.

In 1848 a company called the Fitzroy Iron Mining Company, named after the then Governor, erected a small blast furnace at Nattai near Mittagong, which was a particularly suitable site for the establishment of an iron works. The area selected included a small but rich deposit of brown iron ore and seams of coal, whilst good limestone could be obtained within 30 miles. With high optimism the immediate district was named "New Sheffield" and skilled workmen were brought from England to operate the iron works. For some years smelting operations were apparently of a spasmodic nature and there are no records of the quantity of pig-iron produced in earlier years. It has been estimated that the value of pig-iron produced up to the end of 1874 was £15,434, but this is probably a conservative estimate. Records show that during the period 5th February, 1876 to 16th March, 1877, 3,273 tons of pig-iron were produced at Mittagong. This was the peak achievement of

the Fitzroy plant. Although its pig-iron was of excellent quality, it passed through many vicissitudes in the hands of various owners and was finally abandoned in 1888. It is of interest in view of the present expansion in exports of iron and steel, that in 1867 the Fitzroy plant exported 230 tons of pig-iron to San Francisco. The agents reported that the pig-iron had given every satisfaction, and that they could safely dispose of 200 to 300 tons per month at a price 2 to 4 dollars per ton more than any other iron imported into California.

In 1874 a company was formed for the purpose of erecting a blast furnace at Lithgow to be known as The Eskbank Ironworks, and the foundations were laid on 1st January, 1875. The furnace had a capacity of approximately 100 tons per week and the first pig-iron was produced about the end of December, 1875. Financial difficulties caused this blast furnace to cease operations in 1882, after producing 8,844 tons of pig-iron. The rolling mills were kept in operation, but mainly to re-roll old iron rails.

In 1886 Mr. William Sandford took over, extended and actively carried on the Eskbank Iron Works, the plant being mainly engaged in re-rolling old rails, working up scrap iron and steel into merchant bar, and producing sheet iron, nuts, spikes, bolts, etc. On 15th January, 1894, the first sheet rolling mill to be operated in Australia was opened and in 1899 arrangements were completed for the erection of an open hearth steel furnace and the first steel made in Australia was produced in April, 1900.

In October, 1905 a contract was signed with the New South Wales Government for the supply of all Government requirements of iron and steel for a period of seven years. This created the immediate necessity of again producing pig-iron from Australian ore after a lapse of twenty-three years, and led to the erection of plant for increased steel production.

The erection of the new blast furnace was commenced in 1906 and it was "blown in" on 30th April, 1907. Apart from securing the contract with the New South Wales Government, the firm of William Sandford Limited had hoped that an iron bonus would be granted by the Federal Government. As this was not granted, during 1907 the company sought further capital from the public to enable them to carry on, as the amount subscribed was insufficient, the New South Wales Government was asked for an advance of £70,000. This request was not acceded to and the bank took possession and the works were closed down in December, 1907.

The works were purchased by Messrs. G. & C. Hoskins Limited, and re-opened in January, 1908, and the new owners decided to concentrate on the production of steel. The existing furnaces were replaced by larger and more modern units and the rolling mills and other equipment were either remodelled or replaced with new equipment.

The works continued to progress and from time to time additions were made to the plant and equipment until it was a completely equipped iron and steel works employing more than 2,000 workers.

With future expansion of the industry in view, an area of 400 acres was purchased at Port Kembla and plans were made for an entirely new plant to be erected to replace the works at Lithgow. In January, 1927, the erection was commenced at Port Kembla of a modern blast furnace on American lines. This was the commencement of the iron and steel works at Port Kembla and within the next few years the steelworks at Lithgow were gradually transferred to Port Kembla.

In the meantime the Broken Hill Proprietary Company Limited had been making investigations into the possibility of establishing iron and steelworks at Newcastle and in January, 1913, preliminary work was started on the preparation of the site at Port Waratah, Newcastle. Within the next two years nearly £1,500,000 was spent on construction work. In March, 1915 the blast furnace was "blown in" and one month later the open hearth furnaces commenced operations, the first steel ingots produced being rolled into blooms and billets on 9th April, and the first steel rails made on 24th April, 1915.

The Newcastle works came into operation at a most opportune time for Australia. Owing to the outbreak of war it was impossible to meet ordinary industrial requirements with imported iron and steel, and in addition the Federal Government wished to push on with the construction of the trans-continental railway. The Newcastle works entered into contracts with State and Federal Governments for the supply of 106,000 tons of rails. In addition to meeting the industrial requirements of manufacturers and distributors, 16,000 tons of steel rails and 16,000 tons of munition steel were exported overseas for war purposes.

In order to cope with the demand for steel many extensions were made to the plant and a third large blast furnace was put into commission in August, 1921.

In January, 1919 the Austral Nail Company Proprietary Limited, started the erection of a mill for the production of black and galvanised fence wire, wire nails, etc., this was the first of the group of subsidiary industries which have grown up round the steelworks and which now include the manufacture of wire, wire netting and nails, black and galvanised steel sheets, steel wire rope, steel welded pipes, steel castings, railway tyres and axles, etc. These subsidiary industries are a source of strength to the steelworks as they provide a regular outlet for a large portion of the steel manufactured, and in normal times employ more than 4,000 men.

In the meantime the works at Port Kembla, which had commenced operations in 1927, came under the control of a new company formed in 1928 and registered as the Australian Iron and Steel Limited. Under the management of this company the works extended rapidly and in 1931 the Lithgow plant was closed and the whole of the operations were concentrated at Port Kembla.

In October, 1935, the Broken Hill Proprietary Company Limited purchased the whole of the ordinary shares in Australian Iron and Steel Limited and from then on controlled both the Newcastle and Port Kembla steel works. Subsidiary industries are also developing around the Port Kembla works and a mill for the production of black and galvanised steel sheets has been operating since 1935, spun cast iron pipes are also made under the de Lavaud patent and in January, 1939, the production of rolled sheet steel for automobile bodies was commenced.

Plans are under consideration for the construction of a mill for the production of tin plate and when this plant is operating local factories will be capable of supplying practically all the Australian requirements of iron and steel, in addition an export trade is being built up and in the first six months of 1939 contracts were made for the supply of between 150,000 to 170,000 tons of steel to Great Britain.

The steelworks at Newcastle and Port Kembla are amongst the most modern and efficient works in the world and the organisation is such that in addition to the coke works and iron and steel furnaces they own and control large deposits of iron ore, limestone, coal and other minerals and operate a fleet of eight ore carrying ships for the transport of iron ore and other raw materials, and for the carriage of finished products of the steel works.

*Production of Iron and Steel.*

The following table shows the production of steel and pig iron in New South Wales since 1928-29:—

TABLE 556.—Output of Iron and Steel 1928-29 to 1937-38.

Year ended 30th June.	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.	Year ended 30th June.	Pig Iron.	Steel Ingots.	Steel Rails, Bars and Sections.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1929	461,110	432,773	353,921	1934	487,259	518,326	431,765
1930	308,369	314,917	256,696	1935	698,493	696,861	585,838
1931	232,783	228,363	188,708	1936	783,233	820,395	671,244
1932	190,132	221,488	178,740	1937	913,406	1,073,479	837,445
1933	336,246	392,666	295,523	1938	929,676	1,159,075	905,078

Production fell away during the years 1929-30 to 1931-32, but a rapid recovery ensued, and in 1933-34 the output was greater than in any pre-depression year. Expansion continued in each succeeding year and in 1937-38 the output of 1933-34 was exceeded by nearly 91 per cent. in pig iron, 123 per cent. in ingot steel, and 109 per cent. in steel rails, etc.

A feature of recent activity has been the growth of exports of iron and steel from New South Wales. The quantity (exclusive of scrap iron and of re-exports) was 445,600 cwt., valued at £262,919 in 1933-34; 1,245,250 cwt., valued at £428,800, in 1934-35; 804,675 cwt., valued at £445,249, in 1935-36; 1,235,377 cwt., valued at £683,953 in 1936-37; and 1,712,480 cwt., valued at £940,340 in 1937-38. In this year the quantity sent to New Zealand was 1,418,686 cwt., valued at £808,188.

*Metal Extraction.*

In addition to the iron and steel works at Newcastle and Port Kembla there were in 1937-38 ten other establishments for the treatment of ores and the extraction of metals. The quantities of gold, silver, copper and other metals extracted are shown below, together with the source from which the ores, concentrates, etc., were obtained. The pig iron produced in the iron and steel works is included:—

TABLE 557.—Metal Extraction 1937-38.

Metals.	Quantities of Metals extracted from Ores, Concentrates, etc., the produce of—						
	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	North Territory New Zealand, and Pacific Isles
Gold ... oz. fine	86,698	14,631	29,687	1,600	17,388	5,984	116,013
Silver ... .. oz.	51,051	24,750	65,128	632	25,353	95,618	113,461
Copper ... .. tons	1,481	4	3,083	185	22	305	...
Tin ... .. "	1,097	443	504	...	25	813	47
Iron—Pig ... .. "	...	...	...	929,676	...	...	...
Antimony ... .. "	46	277	...	...	...	...	...
Platinum ... .. oz.	25	...	...	...	...	...	29

## WOOLLEN AND TWEED MILLS.

The woollen goods required in the State, with the exception of a small proportion imported overseas, are manufactured in Australia, and the yarn used in knitting mills is supplied by Australian factories.

Woollen mills have been established in Sydney, Goulburn, Albury, Lithgow, Liverpool and Orange. In 1937-38 there were twenty-one establishments in this group, employing on the average 2,893 males and 3,594 females. In some of the factories all the processes, from scouring the greasy wool to weaving tweed and cloth, were carried out. Others were concerned with spinning, or topmaking, or weaving only, and tops were made for export as well as for local use.

Details of employment, output, and other particulars relating to woollen and tweed mills, at intervals since 1921, are shown in the following table:—

TABLE 558.—Woollen and Tweed Mills.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ... ..	9	14	15	20	21
Average Number of Employees* ... ..	1,628	2,963	3,862	6,289	6,487
Total Horse-power installed ... ..	4,398	7,389	8,097	12,752	11,482
Value of Land and Buildings ... ..	£ 224,474	540,680	615,320	702,487	796,605
Value of Plant and Machinery ... ..	£ 384,662	1,023,682	1,021,546	1,123,032	1,106,119
Salaries and Wages paid ... ..	£ 235,668	469,019	609,911	850,435	935,364
Value of Fuel and Power used ... ..	£ 23,517	57,941	81,187	118,842	127,795
Value of Materials used ... ..	£ 745,818	1,511,049	1,239,400	2,667,891	2,656,712
Value of Output ... ..	£ 1,437,647	2,144,234	2,146,026	4,135,221	4,238,429
Value of Production... ..	£ 603,282	775,244	825,459	1,361,488	1,453,022
Materials treated—					
Scoured Wool ... ..	in. 3,603,448	3,748,343	10,232,957	14,992,758	15,194,809
Cotton Yarn ... ..	332,501	272,005	270,623	†235,310	†263,428

\* Average over whole year.

† Includes Raw Cotton and Silk.

The quantity of scoured wool processed in New South Wales in combing, spinning and weaving mills and in hat and cap factories in 1937-38 was 15,380,080 lb., the estimated greasy weight being 29,781,000 lb. The quantities used in the various processes are shown below:—

	Scoured wool. lb.
Used for making tops .. ..	11,449,317
Carded, or used for making felt, etc. .. ..	3,745,492
Used in hat and cap factories .. ..	185,271
Total .. ..	<u>15,380,080</u>

The quantity of tops made in New South Wales was 9,676,748 lb. and noils 844,620 lb. The tops used in New South Wales factories, including tops imported from Victoria, amounted to 8,543,928 lb. The quantity of tops exported overseas from New South Wales in 1937-38 amounted to 3,161,952 lb., valued at £428,343, and exports of noils were 369,444 lb., valued at £30,020. The quantity of tops sent to Canada was 1,576,440 lb., and to Great Britain 217,715 lb. Exports of tops have expanded since 1929-30 when the quantity was only 353,766 lb.

The quantity of yarn made in New South Wales in 1937-38 was 9,852,726 lb., and 6,786,687 lb. were used in weaving mills to make 10,995,617 square yards of woollen and worsted cloth and 813,629 square yards of flannel. The output of the mills included 134,499 pairs of blankets and 8,071 rugs and shawls.

The output of woollen and worsted cloth and blankets in New South Wales during the last ten years is shown below; also the output of cotton tweed, which has been made for the most part in factories for cotton goods:—

TABLE 559.—Output of Cloth, Tweed, Blankets.

Year.	Cloth, Woollen and Worsted.	Cotton Tweed.	Blankets.
	sq. yds.	sq. yds.	pairs.
1928-29	5,793,900	*	87,735
1929-30	6,151,100	*	75,739
1930-31	5,934,700	1,039,900	40,178
1931-32	7,458,900	1,575,079	66,245
1932-33	8,441,000	1,779,503	77,330
1933-34	9,877,700	1,295,506	112,147
1934-35	9,084,100	1,867,439	114,373
1935-36	11,471,300	2,021,963	119,154
1936-37	11,701,500	1,774,599	119,698
1937-38	11,809,246	1,984,802	134,499

\* Not available.

HOSIERY AND KNITTING FACTORIES.

Marked progress has been made in the production of hosiery and knitted goods. In 1920-21 there were 33 establishments with 1,425 employees; the value of materials and fuel used amounted to £573,128, and the output was valued at £872,476. In 1937-38 there were 76 establishments employing 5,452 persons, including 4,108 women and girls, the value of materials and fuel was £1,566,709, and the value of the output was £2,738,377.

The following statement shows a comparative review of the operations of the hosiery and knitting factories during 1928-29, and at intervals to 1937-38:—

TABLE 560.—Hosiery and Knitting Mills.

Particulars.	1928-29.	1931-32.	1934-35.	1936-37.	1937-38.
Number of Establishments ..	67	64	76	75	76
Average Number of Employees*	4,492	4,112	4,257	4,968	5,452
Total Horse-power Installed	1,978	2,430	2,314	2,442	2,832
Value of Land and Buildings	£ 665,628	506,073	568,119	612,532	660,426
Value of Plant and Machinery	£ 541,795	457,317	506,057	591,942	624,258
Salaries and Wages paid	£ 619,780	506,276	540,164	621,240	710,391
Value of Fuel and Power used	£ 26,920	29,994	30,085	30,494	35,184
Value of Materials used	£1,413,195	908,414	1,223,782	1,224,170	1,531,525
Value of Output	£2,732,950	1,849,321	2,152,045	2,348,132	2,738,377
Value of Production	£1,292,835	910,913	893,178	1,093,468	1,171,668
Yarn used—					
Wool	lb. 1,273,522	1,169,773	1,570,552	1,649,004	1,709,419
Cotton	1,942,479	2,019,641	1,809,051	2,192,147	3,366,270
Silk	102,653	127,483	118,767	212,085	533,427
Artificial Silk	2,282,590	1,350,917	2,596,231	2,726,309	2,758,273
Articles Produced—					
Socks and Stockings	doz pairs 1,142,192	815,987	930,839	1,074,309	1,381,565
Other Garments	£ 1,297,679	1,021,786	1,289,483	1,250,285	1,530,293

\* Average over whole year.

## WOOL-SCOURING AND FELLMONGERING.

Only a very small proportion of the wool clip of New South Wales is scoured locally, as oversea manufacturers generally prefer to buy wool in the grease and to treat it in accordance with the purpose for which they require it. The oversea exports of wool in 1937-38 were greasy 296,233,178 lb., scoured 18,551,590 lb., tops 3,162,000 lb., and noils, etc., 369,000 lb.

Particulars of the operations of the wool scouring and fellmongering works at intervals since 1928-29:—

TABLE 561.—Woolscouring and Fellmongering.

Items.	1928-29.	1931-32.	1934-35.	1936-37.	1937-38.
Number of Establishments ...	31	30	33	29	29
Average Number of Employees*	564	832	972	878	783
Total Horse-power Installed ...	2,726	2,960	3,497	3,457	3,121
Value of Land and Buildings £	174,034	134,817	156,202	158,526	137,914
Value of Plant and Machinery £	156,767	127,804	123,923	109,251	93,638
Salaries and Wages paid ... £	150,594	184,434	217,049	176,896	176,734
Value of Fuel and Power used £	25,716	39,399	35,254	31,475	34,074
Value of Materials used ... £	1,972,092	1,296,287	1,627,913	1,414,782†	1,037,423†
Value of Output ...	2,175,240	1,580,977	2,107,619	1,712,973†	1,279,982†
Value of Production ...	177,432	245,291	444,452	266,716	208,485
Materials Treated—					
Greasy Wool ... lb.	28,547,411	28,737,336	33,011,306	36,995,079	31,949,422
Skins ... No.	2,040,259	4,907,844	4,284,957	3,484,551	3,442,298
Articles Produced—					
Scoured Wool ... lb.	19,649,577	28,922,555	29,241,613	29,492,996	26,271,253
Pelts ... No.	1,647,472	2,775,906	2,924,827	2,459,243	2,395,551

\* Average over whole year.

† Exclusive of value of large quantity of wool treated on commission basis.

In the fellmongering establishments 3,442,298 skins were treated, and 11,109,750 lb. of scoured wool were produced in 1937-38 the balance being the output of the scouring works. In addition 5,018,197 lb. of scoured wool were produced during 1937-38 in wool washing plants attached to woollen mills. The total output of scoured wool in New South Wales for 1937-38 was 31,289,450 lb.

## TANNERIES.

Skins and hides are available in large quantities, and the tanning industry provides nearly all the raw material needed for local requirements and a fairly extensive oversea trade in leather. The oversea export of sole leather amounted to 17,126 cwt., valued at £90,253, in 1937-38 and the value of other leather exported was £328,597. Supplies of fancy leather are obtained partly by importation. The quantity of glazed kid imported was 66,892 square feet in 1937-38.

The following tables give particulars of the tanneries for the year 1920-21 and at intervals thereafter:—

TABLE 562.—Tanneries.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	80	69	65	62	61
Average Number of Employees* ...	1,209	1,174	1,193	1,523	1,587
Total Horse-power Installed ...	3,394	3,749	4,165	4,937	5,027
Value of Land and Buildings £	265,166	253,423	245,214	284,859	299,305
Value of Plant and Machinery £	172,132	164,981	160,276	201,001	207,137
Salaries and Wages paid ... £	202,724	267,453	237,633	301,895	336,196
Value of Fuel and Power used £	17,855	22,816	26,434	28,294	29,869
Value of Materials used ...	£1,684,791	1,587,055	961,368	1,441,748	1,447,800
Value of Output ...	£2,103,525	2,089,373	1,422,301	2,020,925	2,055,427
Value of Production ...	£400,879	479,502	434,499	550,883	577,758

\* Average over whole year.



The hides and skins treated in the tanneries in 1937-38 consisted of 604,988 cattle hides, 514,977 calfskins, 4,427 other hides, 2,471,676 sheep-pelts, 1,316,609 sheepskins, 753,874 goat skins, and 8,693 other skins. The leather produced was as follows:—6,495,590 square feet of dressed and upper leather from hides, 2,431,378 square feet of upholstery leather, 16,657,463 square feet of dressed leather from skins, 11,076,387 lb. of sole and harness leather, and 168,756 lb. of other leather.

A comparative statement of the materials treated and the principal products of the tanneries is shown below:—

TABLE 563.—Leather Products.

Year.	Materials Treated.				Principal Products.		
	Hides.	Sheep Pelts and Skins.	Other Skins.	Bark.	Leather.		Dassils.
					Dressed and Upper.	Sole, Harness, etc.	
No.	No.	No.	tons.	sq. ft.	lb.	lb.	
1929-30 ...	778,432	2,750,969	518,754	9,191	14,768,638	10,085,177	2,025,747
1930-31 ...	689,859	3,107,890	516,247	8,468	14,970,207	8,324,244	1,802,509
1931-32 ...	931,355	3,629,673	370,904	9,265	18,324,710	9,886,403	1,881,338
1932-33 ...	919,045	3,800,475	414,899	9,385	20,782,794	10,241,184	1,737,865
1933-34 ...	982,330	4,773,503	428,333	9,580	24,956,425	11,085,644	2,105,761
1934-35 ...	1,136,820	3,715,623	428,636	10,270	27,718,603	11,772,813	1,232,457
1935-36 ...	1,128,348	3,531,345	553,531	9,428	26,186,702	11,897,799	933,251
1936-37 ...	1,086,349	3,358,901	590,184	9,231	27,513,478*	10,810,444	1,360,288
1937-38 ...	1,124,392	3,788,285	762,567	8,787	25,584,431*	11,076,387	1,732,855

\* Includes upholstery leather.

HAT AND CAP FACTORIES.

There has been considerable expansion in the industry organised for the manufacture of hats and caps. The Australian products have gained the premier place in local markets and some are exported to New Zealand. In 1937-38 the employees numbered 1,658, of whom 989 were females. There were 24 establishments listed under this classification, and 23 were situated in the metropolitan area.

Particulars of the operations in the hat and cap factories in various years since 1921 are as follow:—

TABLE 564.—Hat and Cap Factories.

Items.	1920-21.	1923-20.	1931-32.	1936-37.	1937-38.
Number of Establishments	28	31	27	25	24
Average Number of Employees* ...	1,433	1,868	1,502	1,625	1,658
Total Horse-power installed	982	894	815	1,254	1,225
Value of Land and Buildings ...	£ 174,315	412,094	195,432	208,565	213,616
Value of Plant and Machinery ...	£ 88,817	147,103	80,898	93,447	92,996
Salaries and Wages paid ...	£ 185,394	314,616	199,725	239,766	256,028
Value of Fuel and Power used ...	£ 7,574	11,416	9,790	10,706	12,159
Value of Materials used ...	£ 393,372	509,393	245,065	322,985	347,638
Value of Output ...	£ 747,545	1,058,126	626,370	705,850	747,192
Value of Production ...	£ 346,599	537,317	371,515	372,159	387,395
Hats and Caps made	No. 2,284,572	2,860,322	2,533,596	3,455,520	3,746,604

\* Average over whole year.

## BOOT AND SHOE FACTORIES.

The manufacture of boots and shoes in New South Wales was extensive even before the beginning of the present century, and many varieties of footwear are made in the local factories. The bulk of the output is used in the State, and quantities are exported, principally to New Zealand, New Guinea, Papua, and Fiji.

Particulars of the operation of boot and shoe factories since 1921 are shown in the following table:—

TABLE 565.—Boot and Shoe Factories.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	101	103	92	92	93
Average Number of Employees*	4,459	5,110	3,861	5,292	5,432
Total Horse-power installed ...	1,815	1,978	1,781	2,197	2,178
Value of Land and Buildings £	371,985	538,339	377,479	423,776	435,672
Value of Plant and Machinery £	184,549	255,323	223,235	225,455	233,678
Salaries and Wages paid... £	628,541	888,314	543,899	719,054	781,306
Value of Fuel and Power used £	10,365	13,226	13,604	15,040	15,409
Value of Materials used ... £	1,496,068	1,424,791	860,788	1,329,117	1,392,520
Value of Output ... .. £	2,540,222	2,665,943	1,634,148	2,387,792	2,563,647
Value of Production ... .. £	1,033,789	1,227,926	759,756	1,043,635	1,155,718
Leather Used—					
Sole ... .. lb.	4,822,678	4,873,665	4,006,499	6,239,347	5,614,296
Upper ... ..sq. ft.	7,282,176	7,773,595	6,810,325	9,708,326	9,328,103
Articles Produced—					
Boots and Shoes ... pairs	3,232,413	3,908,103	3,173,294	4,610,205	4,617,821
Slippers, etc. ... ..	609,398	1,200,843	1,496,215	3,021,392	3,234,895
Uppers, N.E.I. ... ..	41,925	62,244	31,799	16,490	18,355

\* Average over whole year.

The number of factories for the manufacture of boots and shoes was 93 of which 89 were situated within the metropolitan area and 4 in the remainder of the State. The establishments for making of rubber shoes and goloshes are not included in this group, but are classified as rubber works (see page 629).

The output of boots, shoes and slippers declined from 5,109,000 pairs in 1928-29 to 4,089,000 pairs in 1930-31, then it began to expand, and in 1937-38 was the largest on record. The improvement has been due to some extent to reorganisation in the distributing trade.

The figures in the table are exclusive of particulars of boot repairing establishments, which in 1937-38 numbered 638, with 1,110 employees. Materials and fuel to the value of £140,022 were used, including 836,750 lb. of sole leather and 15,989 square feet of upper leather; the output, valued at £416,242, included a number of boots and shoes.

FLOUR MILLS.

The amount of mill-power for grinding and dressing grain is ample for manufacturing the flour consumed in the State, and there is a considerable export trade.

Details concerning flour-milling at intervals since 1921 are as follow:—

TABLE 566.—Flour Mills.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	60	56	53	49	52
Average Number of Employees* ...	918	1,094	1,182	1,193	1,205
Total Horse-power installed ...	8,415	9,372	9,027	10,014	9,822
Value of Land and Buildings £	561,688	894,901	730,852	807,409	839,268
Value of Plant and Machinery £	572,456	884,194	776,444	677,807	666,999
Salaries and Wages paid ... £	219,964	312,880	291,447	281,006	297,057
Value of Fuel and Power used £	37,746	70,282	79,838	71,689	72,854
Value of Materials used ... £	4,951,650	5,498,861	3,582,629	5,220,035	5,575,702
Value of Output ... £	5,590,405	6,276,317	4,607,595	6,085,342	6,396,629
Value of Production ... £	601,009	707,174	945,128	793,618	748,073
Wheat Treated ... bus.	11,596,000	21,478,000	23,745,000	22,137,000	22,413,000
Articles Produced—					
Flour ... .. †tons.	244,818	449,011	490,662	464,498	476,816
Bran, Pollard, Sharps, etc. ,,	100,545	185,993	217,506	201,794	206,631
Wheat Meal, etc. ... cwt.	21,863	75,289	69,871	129,138	128,825
Flour exported oversea ... †tons.	36,367	183,200	210,702	186,776	202,210

\* Average over whole year. † 2,000 lb.

The average annual production of flour during the three years ended June, 1938, was about 488,198 tons, and the average annual export—oversea and interstate—was approximately 231,100 tons, or 47 per cent.

BISCUIT FACTORIES.

There are in the State fourteen establishments engaged in the manufacture of biscuits, of which thirteen are within the metropolitan area. The output of biscuits was 42,056,053 lb., with a value of £1,457,412, in 1937-38. An export trade in biscuits is maintained with the islands of the Pacific and Eastern countries, the total oversea exports amounting to 2,024,069 lb. in 1937-38. Small quantities are imported from abroad, the quantity in 1937-38 being 153,653 lb.

Details relating to the biscuit factories for 1921 and other years are given below:—

TABLE 567.—Biscuit Factories.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	10	11	11	13	14
Average Number of Employees* ...	1,783	1,832	1,743	2,374	2,508
Total Horse-power installed ...	1,276	1,280	1,427	4,561	4,614
Value of Land and Buildings £	164,031	226,962	247,665	343,800	366,782
Value of Plant and Machinery £	135,285	132,521	145,753	175,903	227,768
Salaries and Wages paid ... £	221,791	273,660	238,321	330,559	360,225
Value of Fuel and Power used £	23,614	37,172	28,680	33,294	38,295
Value of Materials used ... £	936,747	786,824	507,090	725,339	809,772
Value of Output ... .. £	1,358,266	1,510,415	1,018,512	1,441,608	1,579,600
Value of Production ... .. £	397,905	686,419	482,742	682,975	731,533
Materials Treated—					
Flour ... tons (2,000 lb.)	12,210	13,808	9,865	14,748	15,369
Sugar... .. tons	3,024	3,455	2,402	3,254	3,402
Biscuits produced ... lb.	38,308,360	43,289,522	30,619,396	41,154,653	42,056,053
„ exported oversea lb.	4,479,651	2,662,229	1,436,664	2,344,858	2,024,069

\* Average over whole year.

## SUGAR MILLS.

Sugar cane is cultivated in the lower valleys of the northern coastal rivers of New South Wales, and the cane is crushed at three large mills, situated, respectively, at Harwood Island, on the Clarence River, at Broadwater, on the Richmond, and at Condong, on the Tweed.

TABLE 568.—Sugar Mills.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	3	3	3	3	3
Average Number of Employees* ...	159	111	124	195	260
Total Horse-power installed ..	1,504	2,935	3,301	4,071	4,415
Value of Land and Buildings	£ 106,070	133,870	134,000	230,000	232,755
Value of Plant and Machinery	£ 425,283	538,046	540,813	924,339	938,610
Salaries and Wages paid ...	£ 63,003	77,995	62,261	81,424	100,634
Value of Fuel and Power used	£ 8,636	7,749	9,144	13,814	15,845
Value of Materials used ...	£ 303,651	259,355	336,798	466,747	515,050
Value of Output ...	£ 476,405	367,983	512,581	690,634	766,624
Value of Production ...	£ 164,118	100,879	166,639	210,073	235,729
Cane crushed ... .. tons	131,313	147,412	179,153	275,659	361,724
Articles produced—					
Raw Sugar, 94 Net titre tons	15,580	17,434	23,297	38,158	47,077
Molasses ... .. gals.	649,800	914,000	940,600	1,329,660	1,754,527

\* Average over whole year; mills in operation about 4 or 5 months annually.

Since July, 1915, there has been an embargo on the importation of foreign sugar, except with the permission of the Minister for Trade and Customs. The Government of Queensland, in terms of an agreement with the Commonwealth Government, purchases the raw sugar produced in New South Wales and Queensland and makes arrangements for its refining and distribution at prices fixed by the agreement. The term of the current agreement extends to 31st August, 1941.

*Sugar Refinery.*

There is one sugar refinery in the State. It is situated at Pymont, Sydney, and it treats raw sugar from the North Coast and Queensland mills. During the year 1937-38 the quantity of raw sugar treated was 2,942,820 cwt., and it gave an output of 2,854,940 cwt. of the refined article, valued at £4,611,356.

The three mills and the refinery provided employment for 1,118 persons during the period of operation in the year 1937-38.

## BUTTER FACTORIES.

Butter-making is one of the chief industries connected with the preparation of articles of food, and 95 per cent. of the butter made in New South Wales is made in factories. Employees in butter factories numbered 1,104 in 1937-38 and the output was 115,930,292 lb. of butter, as compared with 143,208,000 lb. in 1933-34, when the quantity was the highest yet recorded.

The annual production of butter depends largely on seasonal conditions in the dairy-farming districts, but the general trend has been towards an increased output, and there has been a marked improvement in quality. Nearly 90 per cent. of the butter made in factories is graded as choicest by official graders.

The butter factories are organised for the most part on a co-operative basis, and each dairy-farmer who supplies cream is paid according to the amount of butter obtained from it. The factories are under the supervision of Government officials, who are trained for the purpose of instructing the dairy-farmers and factory managers. By this means the quality of the butter produced in New South Wales factories is maintained at a high standard.

Butter is an important item of the export trade, and the marketing of butter for both local consumption and export is regulated under an arrangement known as the Australian Stabilisation Scheme, which is described in the chapter "Dairying Industry."

Details concerning butter factories and their operations in various years since 1921 are as follow:—

TABLE 569.—Butter Factories.

Items.	1920-21.	1928-29,†	1931-32,†	1936-37.	1937-38.
Number of Establishments ...	126	108	105	98	£8
Average Number of Employees*	1,002	1,021	1,077	1,128	1,104
Total Horse-power Installed ...	5,298	9,799	13,242	17,316	18,790
Value of Land and Buildings £	308,189	627,717	599,802	550,077	552,857
Value of Plant and Machinery £	395,668	663,756	661,630	614,181	699,190
Salaries and Wages paid	225,392	284,729	286,124	277,057	294,031
Value of Fuel and Power used £	61,655	69,169	75,639	70,823	76,430
Value of Materials used ...	£ 8,017,379	6,925,551	5,830,785	5,496,376	6,753,482
Value of Output ...	£ 8,974,967	7,557,363	6,455,893	6,114,513	7,371,271
Value of Production ...	£ 895,933	562,643	549,469	547,314	541,359
Butter Produced ... cwt.	713,078	819,050	1,057,569	928,347	1,035,092
Exported oversea † cwt.	248,833	137,998	352,351	181,837	280,123

\* Average for whole year.

† Includes 4 creameries.

‡ Exclusive of exports oversea via Queensland ports.

The quantities of butter produced as shown above include butter made from cream imported from other States, viz., 8,098 cwt., in 1928-29, 5,308 cwt. in 1931-32, 6,219 in 1936-37, and 5,761 in 1937-38.

The 98 butter factories mentioned in the foregoing table include six factories in which cheese is made as well as butter.

There were also 58 other establishments engaged in the treatment of dairy produce, viz., 30 cheese factories, 24 bacon and ham factories, and 4 factories manufacturing condensed milk and milk products. Particulars of the operations of these factories for the years 1931-32 and later years were:—

	1931-32.	1933-34.	1934-35.	1936-37.	1937-38.
Number of employees ...	549	603	603	671	706
Value of land and buildings...	£218,406	208,141	223,410	243,317	256,133
Value of plant and machinery	£205,889	197,228	193,838	212,182	221,339
Salaries and wages paid ...	£136,529	130,373	125,924	143,735	153,322
Value of materials and fuel ...	£945,723	961,064	966,072	1,177,883	1,353,417
Value of output ...	£1,171,933	1,201,860	1,244,002	1,523,174	1,714,079
Value of production ...	£226,215	240,796	277,930	345,291	360,662

In addition there were in 1937-38 three factories in which cheese was treated after manufacture.

Bacon, hams, butter, and cheese are made on farms as well as in factories; information as to the total production and details as to supervision of factories, marketing of the products, etc., are shown in the chapter of this Year Book relating to the dairying industry.

## MEAT-PRESERVING AND REFRIGERATING.

The production of preserved meat has fluctuated considerably, and was at a peak of nearly 10,000,000 lb. in 1918-19 and 1919-20. The annual production in recent years was about 5,000,000 lb.

Almost all the frozen and chilled meat is exported overseas, and the condition of world markets, as well as the seasons, affects the operations of refrigerating works. The importation of meat into the United Kingdom, the principal market for Australian meat, is subject to regulation in terms of the Ottawa Agreement.

The following table shows the production of establishments treating meat by canning, freezing and chilling during 1928-29 and later years:—

TABLE 570.—Meat Preserved and Refrigerated.

Products.	1928-29.	1931-32.	1934-35.	1936-37.	1937-38.
<b>Preserving Works—</b>					
Tinned Meat ... lb.	4,251,040	5,814,100	5,478,974	5,355,370	5,298,672
Other Products ... £	70,524	78,432	28,808	39,594	35,368
<b>Refrigerating Works—</b>					
<b>Carcases Frozen for Export—</b>					
Cattle ... .. No.	36,411	20,972	68,118	29,512	42,332
Sheep ... .. No.	319,995	947,661	812,556	664,422	642,721
Lambs ... .. No.	358,582	1,103,879	1,314,087	1,380,020	1,321,614
Pigs ... .. No.	3,474	11,458	7,040	3,191	3,815
<b>Carcases Chilled—</b>					
Cattle ... .. No.	14,999	21,255	29,219	94,229	104,298
Sheep ... .. No.	13,732	55,700	42,760	287,462	332,816
Lambs ... .. No.	10,495	20,405	41,505	195,757	196,819
Pigs ... .. No.	14,533	13,341	12,513	39,335	50,315

Since 1928-29 there has been marked increase in the freezing of lambs for export, and there was a substantial increase in the quantity of chilled meat in 1937-38.

## BREWERIES.

In 1937-38 six establishments in the State were classed as breweries, and four were within the metropolitan boundaries. The tendency to concentration in large units has been very marked in this industry.

TABLE 571.—Breweries.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	17	8	5	6	6
Average Number of Employees *	1,127	1,275	811	937	976
Total Horse-power Installed ...	5,736	6,757	7,671	7,194	8,755
Value of Land and Buildings £	714,157	843,365	845,267	911,038	924,447
Value of Plant and Machinery £	924,181	1,038,768	869,217	785,003	759,557
Salaries and Wages paid ... £	286,688	387,017	226,194	263,323	287,046
Value of Fuel and Power used £	66,848	78,000	63,388	73,876	82,271
Value of Materials used £	1,316,561	1,381,494	571,585	770,895	994,389
Value of Output ... £	2,515,224	3,215,957	1,911,468	2,805,612	3,311,512
Value of Production ... £	1,131,815	1,756,463	1,276,495	1,960,841	2,234,852
<b>Materials Treated—</b>					
Malt ... .. bus.	832,856	992,385	586,106	869,735	1,010,520
Hops ... .. lb.	831,656	935,989	539,455	758,681	886,909
Sugar ... .. tons	5,477	5,505	3,054	5,184	6,405
Ale, Beer, Stout produced gals.	25,470,404	29,420,920	17,346,770	26,916,376	31,630,132

\* Average over whole year.

† Excluding waste beer 634,967 gallons.

TOBACCO FACTORIES.

Nine tobacco factories were in operation during the year 1937-1938, all within the metropolitan area. The industry is highly organised, all but a small proportion of the output being produced in four large establishments. Conditions of employment in the tobacco factories are maintained at a high standard.

Most of the tobacco treated is imported from the United States of America. The Australian leaf treated in 1937-38 represented nearly 18 per cent. of the total used in manufacture. The quantity of leaf produced in New South Wales has decreased in recent years owing to disease amongst the plants and to difficulties in the marketing of the product. The production was 3,649 cwt. in 1937-38, as compared with 25,066 cwt. in 1930-31.

The following table shows details of the operations of tobacco factories in New South Wales at intervals since 1921:—

TABLE 572.—Tobacco Factories.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	16	8	9	9	9
Average Number of Employees*	2,358	2,492	2,263	3,214	3,280
Total Horse-power installed ...	1,044	1,870	2,070	6,125	5,178
Value of Land and Buildings £	291,604	527,350	572,815	632,652	636,323
Value of Plant and Machinery £	226,043	363,150	425,977	584,496	630,060
Salaries and Wages paid ... £.	356,781	468,904	454,421	592,227	627,858
Value of Fuel and Power used £.	11,697	12,598	15,730	21,206	24,062
Value of Materials used ... £	3,493,517	3,345,869	3,862,098	4,519,541	4,770,342
Value of Output ...	£ 4,240,746	4,863,300	4,834,876	5,871,269	6,149,544
Value of Production ...	£ 325,532	1,504,833	957,048	1,330,522	1,355,140
Materials Treated—					
Australian Leaf ... lb.	876,007	504,633	793,803	2,404,289	2,426,255
Imported Leaf ... ..	9,546,861	13,362,076	9,901,645	10,824,197	11,136,625
Articles produced—					
Tobacco ... .. lb.	6,622,540	10,134,242	8,628,575	10,503,136	10,864,732
Cigars ... ..	146,433	83,057	53,338	59,227	54,582
Cigarettes ... ..	5,072,903	5,117,501	2,354,242	4,178,406	4,466,067

\* Average over whole year.

Large quantities of tobacco and cigarettes are exported, mainly to other Australian States. The records of the interstate movement are not complete, but returns supplied by the principal firms engaged in the trade cover the following quantities of Australian produce in 1937-38, viz.:—2,899,000 lb. of tobacco and 2,512,000 lb. of cigarettes exported from New South Wales to other States; and 762,100 lb. of tobacco and 507,000 lb. of cigarettes imported interstate into New South Wales.

The annual consumption in New South Wales of Australian-made tobacco during the three years ended June, 1938, was estimated as follows:—Tobacco, 5,960,300 lb.; cigars, 106,300 lb.; cigarettes (factory made), 2,137,700 lb.; total, 8,204,300 lb. The annual consumption of imported tobacco, cigars and cigarettes was about 90,000 lb. Tobacco used by smokers for making their own cigarettes is recorded as tobacco, and an extension of this practice tends to reduce the proportion of tobacco consumed in the form of cigarettes made in factories.

SAWMILLS.

Sawmilling is an important industry in many parts of the State, the majority of the mills being situated in the forest areas. Moulding and planing are undertaken at some mills, also the cutting of wood-paving blocks. In the metropolitan district sawmills are conducted in connection with yards where imported timbers are treated and joinery work is done.

Details concerning the sawmilling industry at intervals since 1921 are as follow:—

TABLE 573.—Sawmills.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	496	477	349	429	425
Average Number of Employees*	4,977	3,982	1,436	4,803	4,925
Total Horse-power installed ...	19,724	23,235	18,222	27,158	27,337
Value of Land and Buildings £	811,830	986,290	699,159	705,467	709,841
Value of Plant and Machinery £	908,192	813,170	546,454	606,470	630,347
Salaries and Wages Paid... £	926,276	888,891	268,060	850,787	962,781
Value of Fuel and Power used £	24,405	35,123	22,787	44,376	52,818
Value of Materials used ... £	2,732,656	3,295,133	877,911	2,743,062	3,048,239
Value of Output ... .. £	4,103,924	4,891,185	1,319,415	4,278,193	4,703,882
Value of Production ... .. £	1,346,863	1,560,929	418,717	1,490,755	1,602,825
Logs Treated—					
Hardwood ... .. cub. ft.	14,844,000	12,299,200	4,501,000	†12,857,903	†15,169,604
Softwood Native " "	5,075,100	5,523,500	2,322,600	6,607,637	6,087,487
" Imported " "	576,900	369,900	425,100	6,341,825	11,130,717
Sawn Timber Produced—					
Hardwood ... .. sup. ft.	117,781,800	94,696,500	34,251,000	§98,213,459	§126,108,753
Softwood Native " "	40,366,700	41,636,900	17,851,300	48,849,325	48,518,002
" Imported " "	5,262,200	3,196,300	3,992,500	62,478,596	114,287,561

\* Average over whole year.  
623,537 cubic feet in 1937-8.

† Includes imported hardwood 154,526 cubic feet in 1936-37, and  
§ Includes 1,133,600 superficial feet produced from imported  
hardwood in 1936-7, and 6,585,002 superficial feet in 1937-38.

The native logs treated during 1937-38 consisted of 14,546,000 cubic feet of hardwoods and 6,087,500 cubic feet of soft woods; the quantities of sawn timber produced therefrom being 119,523,751 super. feet, and 48,518,002 super. feet respectively. The output of the sawmills was affected by slackness in the building trades from 1928-1929 to 1932-33, and there was a substantial improvement in later years owing to greater activity in building and construction. The output of imported softwoods expanded from 3,200,000 super. feet in 1928-29 to nearly 114,300,000 super. feet in 1937-38. As a result of increases in customs duties on imported sawn timber a greater proportion is imported unsawn and treated in local mills.

#### RUBBER WORKS.

The demand for rubber goods in New South Wales is being supplied to an increasing extent with local products. The value of oversea imports of rubber goods (excluding crude rubber) was £1,660,500 in 1925-26. Three years later it declined to £1,020,700, and in 1937-38 it was only £157,422. The imports of crude rubber in these years were:—36,610 cwt. in 1925-26, 117,090 cwt. in 1928-29, and 182,146 cwt. in 1937-38.

TABLE 574.—Rubber Works.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments ...	20	83	92	93	95
Average Number of Employees*	1,035	2,775	1,786	2,723	3,454
Total Horse-power installed ...	1,069	13,667	17,364	21,669	22,392
Value of Land and Buildings £	121,848	843,814	955,674	805,590	816,805
Value of Plant and Machinery £	166,195	836,947	821,567	526,292	588,338
Salaries and Wages paid ...	£ 162,015	670,200	350,840	551,855	712,883
Value of Fuel and Power used	£ 12,339	94,678	68,270	85,536	93,457
Value of Materials used ...	£ 343,504	1,566,265	891,916	1,859,017	2,133,826
Value of Output ... ..	£ 634,690	3,149,467	1,696,488	2,710,042	3,106,542
Value of Production ... ..	£ 278,847	1,488,524	736,302	765,489	879,259
Tyres made ... .. No.	†	670,952	399,051	611,006	631,890
Goloshes and Rubber Shoes made prs.	†	2,294,682	2,167,291	2,752,454	2,924,638

\* Average over whole year.

† Not available.

The recorded value of the output of the rubber works represents, for the most part, the value at which the products of the large establishments are transferred to their selling organisations.



ELECTRIC GENERATING STATIONS.

Production and supply of electric light and power has extended rapidly in recent years. The establishments include undertakings of the State and local authorities, of which further details are shown in the chapter "Local Government" of this Year Book.

Large works, controlled by the Commissioner for Railways, in Sydney, Newcastle and Lithgow, supply electricity for transport and for the railway and tramway workshops as well as for industrial and domestic use. A Government undertaking is maintained at Port Kembla, whence power is supplied for harbour works, etc., and current is transmitted to constructional works in the vicinity and to a number of towns along the South Coast and in the Southern Highlands. Another scheme is operated by means of power available from the waters discharged through the Burrinjuck Dam for irrigation purposes. The current is supplied in bulk and by retail over a wide area which embraces Wagga Wagga, Cootamundra, Junee, Cowra, and the Federal Capital.

The largest of the municipal electricity works is the undertaking administered by the Sydney County Council, from which electricity is distributed over a large portion of the metropolitan district. Two hydro-electric schemes, viz., one in the Dorriggo Shire and the other at Nymboida, have been established by local governing bodies in the north-eastern areas, and current from the latter is reticulated through a considerable part of the North Coast district.

For the purpose of comparative factory statistics particulars of the electricity industry are confined to the operations of electric generating stations; and do not include particulars of transmission and distribution. The amount shown as the value of output of the industry is the amount received from the sale of electricity less transmission and distribution costs.

For 1936-37 and later years the statistics of electricity generation exclude plants generating power solely for use within the factory in which they are located. Such plants generated approximately 6 per cent. of the total electricity produced in the State.

The development in electric generating stations since 1921 is shown by the details given in the following table. The establishments in 1937-38 consisted of 6 owned by the State, 43 by local bodies, 53 by companies:—

TABLE 575.—Electric Generating Stations.

Items.	1920-21.	1923-29.	1931-32.	1936-37.	†1937-38.
Number of Establishments ...	117	126	118	106	107
Average Number of Employees*	1,292	2,180	1,857	1,982	1,970
Total Horse-power of Prime Movers installed ...	194,624	558,131	859,629	869,650	929,331
Value of Land and Buildings	£1,381,092	2,938,924	4,815,101	4,738,036	4,674,398
Value of Plant and Machinery	£2,531,358	8,354,176	10,251,153	9,947,002	10,599,687
Salaries and Wages paid	£ 327,157	676,195	504,068	545,446	581,105
Value of Fuel and Power used	£ 590,373	1,431,186	1,115,075	1,065,563	1,191,111
Value of Materials used	£ 54,995	238,422	154,909	224,485	196,276
Value of Output ...	£1,697,763	4,956,461	5,178,785	4,993,892	5,244,866
Value of Production ...	£1,052,395	3,286,853	3,908,801	3,703,844	3,857,479
Coal used ... tons	510,088	882,355	741,130	1,010,869	1,099,711
Electricity generated—					
In Electric Generating Stations, 1,000 units				1,542,381	1,697,661
In Factories for Own Use 1,000 units ...	342,536	959,985	1,075,706	84,452	119,153

\* Average over whole year.

† Exclusive of establishments generating electricity for own use.

The following is an analysis of the disposal of electricity from electric generating stations for the year 1937-38:—

UNITS OF ELECTRICITY GENERATED, 1937-38.

	1000 units
Bulk Sales for subsequent distribution ... ..	254,392
Bulk Sales to large industrial concerns ... ..	472,330
Railways and Tramways (traction, etc.) ... ..	364,893
Domestic Light and Power ... ..	177,421
Small Industrial and Commercial Power and Lighting	116,171
Street Lighting ... ..	26,299
Used in own works outside generating station ... ..	15,746
Used in generating Station ... ..	74,384
Not classified ... ..	58,806
Electricity Lost [... ..]	137,219
Total Electricity sold, used or lost ... ..	1,697,661

In addition to the foregoing, 119,153 thousand units of electricity were generated in factories for their own use, thus the total quantity of electricity generated in 1937-38 was 1,816,814,000 units.

Bulk sales of electricity for subsequent distribution are made to a number of undertakings, principally local government bodies, for distribution to the public in the area under their control. Particulars of their operations are shown in the chapter Local Government of the Year Book.

GAS WORKS.

The gas works in 1937-38 consisted of one governmental concern, 13 country, municipal or shire works, and 24 operated by gas companies.

Despite the substantial progress that has been made in the installation of electric plants for purposes of illumination, power, and cooking, the use of gas has increased during the last five years.

TABLE 576.—Gas Works.

Items.	1920-21.	1928-29.	1931-32.	1936-37.	1937-38.
Number of Establishments...	46	48	47	42	43
Average Number of Employees* ... ..	1,642	1,668	1,039	1,140	1,201
Total Horse-power installed	6,572	8,679	8,986	15,424	17,104
Value of Land & Buildings £	1,066,074	874,702	854,593	841,979	794,206
Value of Plant and Machinery ... ..	£ 1,892,835	2,907,445	2,985,924	3,121,449	3,171,020
Salaries and Wages paid	£ 437,318	373,412	266,331	260,924	292,072
Value of Fuel and Power used ... ..	£ 112,995	247,331	183,844	194,325	190,977
Value of Materials used	£ 829,906	1,130,072	743,931	659,226	712,638
Value of Output ... ..	£ 2,264,644	2,867,142	2,142,583	2,169,599	2,335,719
Value of Production	£ 1,921,743	1,489,739	1,214,808	1,316,048	1,432,104
Materials Treated—					
Coal ... .. tons	564,122	661,878	515,508	560,174	577,030
Shale ... .. tons	27,298	...	...	...	...
Oil ... .. gals	3,700,462	1,851,132	2,194,034	2,347,186	1,970,263
Articles Produced—					
Gas 1,000 cub. feet	8,131,712	10,683,530	9,320,868	10,378,000	10,677,000
Coke ... .. tons	346,360	435,816	336,846	398,342	433,731
Tar ... .. gals.	9,591,830	13,244,818	10,950,449	12,063,000	12,083,000
Sulphate of Ammonia					
tons.	1,961	6,546	4,966	5,120	5,560

\* Average over whole year. A number of men engaged on maintenance work were included in 1928-29, but such employees were excluded in later years.

In addition to the coke and sulphate of ammonia made in gas works, considerable quantities are made in other establishments in which coal is treated. The total quantity of coke produced by all plants in 1937-38 was 1,477,736 tons, and of sulphate of ammonia 17,768 tons.

## MINING INDUSTRY.

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NEW SOUTH WALES contains extensive mineral deposits of great value and variety. Coal was discovered as early as 1796, though under the industrial conditions prevailing at that time its importance was not fully realised. World-wide interest, however, was excited by the announcement in 1851 that gold had been discovered in New South Wales. It attracted a rapid flow of immigration to the country and promoted the development of its resources. In later years copper, tin, and silver-lead deposits were opened up. Coal and silver-lead have proved to be the richest sources of mineral production.

### SUPERVISION OF MINING.

The general supervision of the mining industry in the State and the administration of the enactments relating to mining are functions of the Department of Mines under the control of a responsible Minister of the Crown. In the mining districts Wardens' Courts, each under the sole jurisdiction of a Warden, determine suits relating to the right of occupation of land for mining and other matters in regard to mining operations.

The occupation of land for the purpose of mining is subject to the Mining Act of 1906 and its amendments. Any person may obtain a miner's right which entitles the holder, under prescribed conditions, to occupy Crown land, not otherwise exempted, for mining purposes and to mine therein, and to occupy as a residence area, land not exceeding a quarter of an acre within the boundaries of a town or village, or 2 acres elsewhere. A holder of a miner's right may apply also for an authority to prospect on or to occupy exempted Crown lands, and, in the event of the discovery of any mineral, he may be required to apply for a lease of the land or to continue prospecting operations. Such authority may be granted for any period not exceeding twelve months, but the term may be extended upon application to two years to enable completion of prospecting operations. Another form of occupation of Crown land in connection with mining is under the right conferred by a business license, which entitles the holder to occupy a limited area within a gold or mineral field for the purpose of carrying on any business except mining.

A business license confers the right to only one holding at a time. Holders of miners' rights may take possession of more than one tenement, but are required to hold an additional miner's right in respect of each tenement after the first of the same class. The term of a miner's right or business license is not less than six months and not more than twenty years. It may be renewed upon application, and is transferable by endorsement and registration. The fee for a miner's right is at the rate of 5s. per annum, and for a business license £1 per annum, or one-half the annual fee for six-monthly terms.

The number of miners' rights issued in New South Wales increased from an annual average of 8,943 in the quinquennium 1925-29 to 15,516 in 1930 and to 27,701 in 1931, which was the largest number in any year since

1897. The number then decreased and was 12,088 in 1937, and 9,971 in 1938. Business licenses issued numbered 224 in 1937, and 135 in 1938. The number declined in nearly all the years since 1906.

Crown lands may be granted as mining leases, which authorise mining on the land, or as leases for mining purposes which authorise the use of the land for conserving water, constructing drains, etc., and railways, erecting buildings and machinery and dwellings for miners, generating electricity, dumping residues, and for other works in connection with mining, but do not allow mining or the removal of minerals from the land. Except in the case of special leases, which may be granted in certain cases, the maximum area of a mining lease varies according to the mineral sought, viz., opal,  $\frac{1}{2}$  acre; gold, 25 acres; coal, shale, mineral oils, petroleum, or natural gas, 640 acres; other minerals, 80 acres.

Private lands are open to mining subject to the payment of rent and compensation and to other conditions as prescribed. The mining wardens may grant to the holders of miners' rights authority to enter private lands, but, except with the consent of the owner, the authority does not extend to land on which certain improvements have been effected, e.g. cultivation, or the erection of substantial buildings. An authority may be granted for a period up to two years, and during its currency the holder may apply for a mining lease of the land. Leases of private lands for mining purposes may be granted also. The maximum areas of private lands that may be leased are:—Gold, 25 acres; opal, 150 ft. square; coal and shale, 640 acres; and other minerals, 80 acres. The owners of private lands, with the concurrence of the Minister for Mines, may lease areas under agreement to holders of miners' rights.

Dredging leases may be granted in respect of Crown and private lands, including the beds of rivers, lakes, etc., and land under tidal waters.

#### Land occupied for Mining.

The area under mining occupation in New South Wales at 31st December, 1938, was approximately 454,622 acres, as against 435,735 acres in 1937. The area is not stated definitely, as the area held under miners' rights is estimated by the mining registrars in some cases, where the holders are not required to register the areas they occupy.

TABLE 577.—Mining Leases, etc., 1937 and 1938.

Nature of Holding.	1937.			1938.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	acres.	acres.	acres.
Leases—						
Mining	171,646	94,711	266,357	122,712	94,359	217,071
Mining Purposes	7,057	1,802	8,859	6,756	1,793	8,549
Agreements	...	49,828	49,828	...	49,766	49,766
Authority to Enter	...	32,934	32,934	...	20,499	20,499
Authority to Prospect	11,317	...	11,317	10,477	...	10,477
Miners' Rights and Business Licenses	9,692	...	9,692	8,160	...	8,160
Applications for Leases—						
Mining	12,400	5,119	17,519	82,879	4,105	86,984
Mining Purposes	412	406	818	793	393	1,186
Dredging	*6,879	...	6,879	*3,502	...	3,502
Applications for Authority to Prospect	31,310	...	31,310	47,706	...	47,706
Other Mining Titles	722	...	722	722	...	722
Total	251,435	184,300	435,735	233,707	170,915	454,622

\* Includes Private lands.

The annual rent for mining leases of Crown lands is 2s. per acre, and of private lands 20s. per acre in respect of the surface actually occupied. The rent for dredging leases is 2s. 6d per acre in respect of Crown lands, and it is assessed by the wardens in open court in respect of private lands.

Under the Mining (Amendment) Act, of 1924 royalties are payable to the Crown in respect of the minerals won, except in certain cases where they have been obtained from private lands held without reservation of minerals to the Crown. The royalty on coal and shale is charged at the rate of 6d. per ton, and on other minerals at the rate of 1 per cent. of the value.

In regard to mining on private lands held without reservation of minerals to the Crown, royalty is collected by the Department of Mines on behalf of the owner at the rate of 6d. per ton of coal and shale, and 1½ per cent. of the gross value of other minerals, except gold. The Department retains one-sixth and one-ninth respectively of these amounts, and pays the balance to the owner of the minerals. The royalty on gold is payable to the Crown in all cases.

Royalty may be remitted under certain conditions as prescribed by the Mining Acts, *e.g.*, if the gross annual output of minerals, other than coal and shale, won from Crown land under mining lease does not exceed £500. In many cases rents may be deducted from the royalties.

The royalty received in 1937 amounted to £321,637, of which £2,714 was paid in respect of output under permits, and the balance from land under lease. In 1938 the respective amounts were £218,824 and £2,477.

#### ENCOURAGEMENT OF PROSPECTING.

In the year 1878 a sum of £7,000 was voted by Parliament to encourage prospecting for minerals and to assist miners to open up new fields. In subsequent years, at irregular intervals until 1886, further small sums were voted and expended. In accordance with a resolution of Parliament, amounts were voted each year from 1887 to 1931. The vote was administered by the Prospecting Board, which consisted of the Under-Secretary for Mines as Chairman, the Government Geologist, the Chief Inspector of Mines, an Inspector, the Chief Mining Surveyor, and a Geological Surveyor. Miners desiring a grant had to satisfy the Board that the locality to be prospected was likely to yield the mineral sought, and that the mode of operation was suitable for its discovery. The amount advanced was to be refunded in the event of the discovery of payable mineral by means of the aid.

No amounts have been voted since 1930-31, but assistance has been given to prospectors from State Unemployment Relief Funds and from Commonwealth Grants.

The following statement shows a summary of the amounts allotted from the Prospecting Vote (or other funds provided for that purpose) to prospectors for the various minerals:—

TABLE 578.—Grants to Prospectors.

Period (years ended 30th June).	Amounts allotted to Prospectors for—						
	Gold.	Silver and Lead.	Copper.	Tin.	Coal.	Other Minerals.	Total.
	£	£	£	£	£	£	£
1887-1900	245,791	13,026	9,267	4,684	4,090	7,587	284,445†
1901-1905	80,636	5,108	10,136	7,828	40	1,430	105,178†
1906-1910	38,822	7,986	20,765	3,146	310	871	71,900†
1911-1915	50,209	7,557	8,939	5,870	...	4,837	77,412†
1916-1920	32,976	4,325	10,057	3,978	90	5,829	57,255†
1921-1925	44,926	8,009	3,709	8,478	1,713	4,578	71,413†
1926-1930	36,780	12,027	3,582	12,293	1,055	6,395	72,132†
1931-1935	94,469	1,405	17	3,031	...	2,486	101,398*
1936	30,044	360	...	2,034	...	2,092	34,530*
1937	21,230	353	111	1,318	...	2,063	25,075*
1938	11,884	881	83	5,497	...	2,241	20,586*
Total ...	687,757	61,037	66,666	58,157	7,298	40,409	921,324

† Wholly from prospecting votes. \* Partly from Unemployment Relief Funds and partly from Commonwealth Grant.

In each year some of the prospectors fail to complete the works for which aid has been granted, and the amounts allotted are not paid in full. The total amount expended from Prospecting Votes appropriated from Consolidated Revenue Fund was £634,035 at the end of 1932. No Prospecting Vote has been appropriated since 1930-31.

With the object of encouraging unemployed persons to engage in prospecting, provision was made for the payment of an amount of £1 per week to such persons. The sums expended in this way amounting to £33,298 in 1930-31, to £9,091 in 1932-33, to £461 in 1933-34, and to £4,116 in 1934-35, are not included in the table.

The Government of New South Wales, over a number of years, offered a bonus of £10,000 for the production of 100,000 gallons of petroleum in the State, and, for the discovery of a new mineral field, rewards ranging up to £1,000 according to the output and to the number of miners employed by the discovery. Claims for rewards were considered by the Prospecting Board who allotted £250 in 1932 and £500 in 1934. These bonuses and rewards were discontinued in 1938.

The Commonwealth Government has provided financial assistance over a series of years to encourage prospecting and the development of mineral resources. In 1926 the sum of £60,000 was set aside for the encouragement of prospecting for petroleum oil in Australia, New Guinea and Papua. The amount was increased subsequently to £210,000, of which £205,602 had been expended at 30th June, 1937, including £2,004 in 1936-37. Further provision of assistance in the search for petroleum oil was made in 1936 by the setting aside of £250,000 for the purpose of making advances to persons engaged in drilling operations and the conduct of geological surveys. The purchase of drilling plants and their hire by persons engaged in drilling operations was also sanctioned. Expenditure was incurred in

respect of administrative expenses amounting to £254 in 1935-36, £7,923 in 1936-37, and £6,373 in 1937-38. In the last-named year £88,516 was expended on advances and plant, etc., making £74,889 for 1937-38, and the total expenditure to the 30th June, 1938, £83,066. Information relating to Governmental measures designed to aid in the development of shale oil deposits is shown on page 676. Provision for the assistance of persons engaged in prospecting for precious metals in Australia was made by the Commonwealth Government in 1926, when £40,000 was paid into a Trust Fund. The total expenditure from this fund amounted to £27,000 as at June, 1939. Grants made by the Commonwealth to States in order to stimulate mining and thus absorb unemployed amounted to £423,750 in the three years 1934-35 to 1936-37. The amount allocated to New South Wales was £62,100.

The Government of the Commonwealth has made provision for the payment of a bounty on gold in terms of the Gold Bounty Act, details of which are shown on page 661.

In terms of an arrangement between the Government of the Commonwealth and the Empire Marketing Board, as representing the Imperial Government, certain areas in New South Wales were prospected by geophysical methods in 1928 and 1929, and the surveys showed generally that these methods may be applied successfully. Minor surveys have been undertaken during recent years at Wyalong, Eumaville, and Deepwater.

## PRICES OF METALS.

The prices of the principal metals depend on market conditions in overseas countries, the local demand being small. The quotations in the following table for silver, copper, and tin are the average spot prices on the London Exchange. For lead and spelter the mean of spot and forward prices are given until July, 1937; subsequently spot prices are shown. The prices are quoted in sterling.

TABLE 579.—Prices (in Sterling) of Metals, London, 1901 to 1939.

Year.	Silver Standard)	Lead* (So't, Foreign)	Spelter.*	Copper. (Standard).	Tin (Standard).
	per oz. s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.	per ton. £ s. d.
1901	2 3·2	12 10 5	17 0 7	66 19 8	118 12 8
1911	2 0·6	13 19 3	25 3 2	56 1 9	182 13 5
1921	3 0·9	22 14 4	26 4 1	69 8 7	165 6 7
1926	2 4·7	31 2 3	34 2 8	58 0 8	291 3 0
1929	2 0·5	23 4 11	24 17 8	75 9 7	203 18 10
1930	1 5·7	18 1 5	16 16 9	54 13 7	141 19 1
1931	1 2·6	13 0 7	12 8 11	38 7 9	118 9 1
1932	1 5·9	12 0 9	13 13 10	31 14 8	135 18 11
1933	1 6·1	11 16 1	15 14 11	32 11 4	194 11 11
1934	1 9·2	11 1 0	13 15 6	30 6 5	230 7 5
1935	2 4·9	14 5 8	14 3 6	31 18 1	225 14 5
1936	1 8·1	17 12 7	14 19 10	38 9 7	204 12 8
1937	1 8·1	23 6 1	22 6 1	54 10 7	242 6 7
1938	1 7·5	15 5 4	13 19 10	40 15 0	189 12 1
1939—June	1 7·5	14 11 3	14 0 5	42 0 6	227 12 10

\* Average of spot and forward prices until July, 1937.

By reason of its non-association with other metals and its occurrence in commercial quantities in only a few countries which are not large consumers, the production of tin is specially susceptible to regulation. A scheme of control was first attempted in 1930 on a voluntary basis. In March, 1931, measures were instituted for the restriction of tin production under the supervision of the International Tin Committee. The scheme was first sanctioned by the Governments of the Federated Malay States, Dutch East Indies, Nigeria and Bolivia, and at a later date by the Government of Siam, when the proportion of the world's tin production subject to control was estimated at 95 per cent. Subsequently, other tin-producing countries of less importance, in which there had been some expansion of output, entered the scheme. Production quotas assigned to the various countries were reduced on successive occasions until in June, 1932, the annual rate of production represented about one-third of the output during 1929, which was adopted as a standard tonnage. As a result of curtailed production, the withdrawal from the market of substantial stocks by the International Tin Committee (formed for that purpose in March, 1931), and improved demand, the price of tin rose sharply from March, 1933. Output quotas were increased at intervals from 45 per cent. in June quarter, 1935, to 105 per cent. in December quarter, 1936, and during the greater part of the period the price of tin declined. Agreement towards the end of 1936 with regard to the renewal of the control scheme was accompanied by a substantial increase in price. The new control scheme is to remain in force for a period of five years from the beginning of 1937, and the standard tonnage was increased from 173,661 tons to 199,850 tons. The quotas fixed on the basis of the new standard rose from 100 per cent. in March quarter, 1937, to 110 per cent. in December quarter, 1937, and were then reduced to 70 per cent. in March quarter, 1938, and to 45 per cent. in the second half of 1938 and the first quarter of 1939. It was decided to withhold nearly one quarter of the permissible imports since July, 1938, as a reserve for evening out price fluctuations. On 1st July, 1938, a "buffer pool" (to which the participants contribute, but which is under the influence of the Committee), was created in an attempt to raise the price to between £200 and £230 per ton and to keep it within that range. From the June quarter, 1939, the output quota was reduced by the Committee to 40 per cent. The price of tin rose with the prices of other metals to £283 5s. 7d in March, 1937, its highest point in any month since August, 1927. In common with other metals, however, it suffered protracted decline subsequently, and in April and May, 1938, was lower than in any month since April, 1933. Prices rose sharply in July, and in May, 1939, reached £225 14s. 9d.

The price of silver declined gradually from 5s. per oz. in 1870 to 2s. per oz. in 1902, and was then fairly steady until an increase occurred in 1916. In 1918 the price of silver in London was subject to regulation by the Imperial Government, and when decontrolled in May, 1919, it rose to 7s. 6d. per oz. in February, 1920. Thereafter the price declined until 1931. The protracted decline in price was due largely to lessened demand which resulted from the demonetisation of silver by a number of important countries, and to the increased supplies of the metal thereby released for other than monetary purposes. The production of a substantial proportion of the world's silver output as a by-product of other metals also led to increased supplies as prices of copper, lead and zinc remained favourable.

During the four years 1934 to 1937 agreement existed between the principal silver-producing countries and silver-using countries to limit the amount of silver placed on the market for sale. The agreement, which was designed to mitigate fluctuations in price, was not renewed on expiry.



The movements in the price of silver since the second half of 1934 and in 1935 may be attributed to the policy pursued by the United States. At the end of 1933 the United States Government undertook to buy newly-mined domestic silver at a price considerably in advance of the current market rate, and in May, 1934, passed the Silver Purchase Act authorising the purchase of silver until such time as one-fourth of the total monetary reserves of the United States consists of silver. Largely as a consequence of the operations of the United States Government, the price of silver rose steeply to an average of 2s. 9.9d. in May, 1935, but, influenced by a modification of United States policy, it subsequently declined, at first gradually to 2s. 5.3d. in November, 1935, and then sharply to 2s. 1.6d. in December, 1935, and to 1s. 8.2d. in January, 1936. There has been very little fluctuation in the prices since. The average for 1937 was 1s. 8.1d.; for 1938 it was 1s. 7.5d.; and for May, 1939, 1s. 8.1d.

## PRICES OF COAL.

Prices of coal depend to a great extent upon local factors. Western coal, being of lower calorific value than northern or southern, is the cheapest. The movement in prices is illustrated by the following comparison as at each date of change from 1916 to 1930. This was published in the report of the Royal Commission which investigated the coal industry in 1929-30. The quotations refer to the basis upon which business was usually done for best large coal per ton in each district in the years in which the prices were varied between 1916 and 1930.

TABLE 580.—Price of Coal 1916 to 1930.

Year in which price was changed.	Northern— f.o.b., Newcastle.	Southern— f.o.b., Jetty.	Western— f.o.r., Lithgow.
	s. d.	s. d.	s. d.
1916 ... ..	12 0	12 0	7 3
1917 ... ..	15 0	15 0	10 3
1919 ... ..	17 9	17 6	12 9
1920 ... ..	21 9	21 6	16 9
1927 ... ..	26 1	25 6	15 6
1930 (June) ...	22 10	22 3	13 9

The prices quoted above were observed generally as a basis throughout the trade up to June, 1930. Subsequently competition rapidly intensified and prices fell continuously. Contracts for large supplies between June, 1930 and the end of 1937 were undertaken at substantially lower rates—the reductions ranging from 5s. to 8s. per ton as compared with those stated for June, 1930. In 1938 and 1939, however, owing to increasing demand and higher costs, prices of coal rose appreciably, but remained substantially lower than in 1930. The basis of prices of best large northern coal f.o.b. Newcastle usually ranged between 17s. and 21s. per ton in June, 1939. At the same date southern large coal f.o.b. jetty was selling at between 17s. and 21s. per ton and western large coal f.o.r. Lithgow in the vicinity of 12s. per ton.

Small coal and unscreened coal were usually sold at prices several shillings per ton below those for large coal. These margins have varied from time to time. During the past five years it has become increasingly the practice to screen coal in a variety of new ways.

## STATISTICS OF MINES.

Statistics relating to the mining industry as published in this chapter are obtained from two sources: (1) returns for 1921 and later years collected from mine-owners by the Government Statistician under the Census Act, 1901; (2) the records of the Department of Mines, which, until the year 1921, were the only data available. The particulars recorded by the Department of Mines relate to metals won during each year, including in many instances those won from minerals brought to grass in previous years, whereas the Statistician collects returns of the minerals actually mined during the year.

Moreover, the statistics collected by the Department of Mines sometimes include particulars of ore-dressing operations, and the use of the Department's figures for years prior to 1921 involved duplication in regard to the mining and manufacturing industries. In order to obviate this difficulty, the mine owners were asked to supply special returns to the Government Statistician, showing therein information relating to mining operations only, and excluding all particulars regarding the treatment of ores. It is found, however, that it is almost impossible to give separate details regarding the actual operations of mining, especially when the same company undertakes both mining and ore-dressing, and it is under such conditions that the most important branch of metalliferous mining in New South Wales—viz., silver, lead, and zinc—is usually conducted.

Further difficulty arises in regard to the value of the annual output of the metalliferous mines. The value at the mines and before treatment cannot be determined until the minerals have been subjected to the final process for the extraction of the metallic contents, and such operations extend over a long period and in some cases are conducted in localities outside the State. In view of these difficulties the value of the production of metalliferous mines can be calculated only approximately, and attention is directed to the fact that the values as stated in this Year Book are to be regarded as estimates.

The statistics of mines, other than metalliferous, as recorded for years prior to 1926, include particulars of quarries held under mining title. In the compilation of the returns collected for 1926 and later years, these have been excluded from the statistics of the mining industry; therefore, the figures are not strictly comparable with those for the earlier years.

## EMPLOYMENT IN MINING.

Mining leases and permits contain conditions as to the minimum number of men to be employed. The usual labour conditions in respect of mining leases of Crown lands and of leases or agreements to mine on private lands are as follows:—For coal, shale, mineral oils, petroleum, or natural gas, for first twelve months of term granted, 2 men to 320 acres, thereafter 4 men; for gold, 1 man to 10 acres throughout the full term; for other minerals, 1 man to 20 acres during the first year, thereafter 1 man to 10 acres. For dredging leases the prescribed labour is in the proportion of 7 men to 100 acres. The labour conditions may be suspended in cases where low prices for the products or other adverse circumstances affect the working of a mine.

The approximate number of men employed in mining in various years since 1921 is indicated in the following statement. The number of miners is the sum of the average number employed at each mine in operation during the year, and the number of "fossickers" represents the number engaged, as reported by the wardens in the various mining districts.

TABLE 581.—Number of Miners, 1921 to 1938.

Particulars.	1921.	1926.	1931.	1935.	1936.	1937.	1938.
Miners—							
Coal ... ..	20,973*	24,125	15,584*	12,788	13,515	13,828	14,864*
Metals—							
Gold ... ..	900	378	520	1,626	1,561	1,324	1,172
Silver, Lead, Zinc...	2,035	3,272	1,755	2,429	3,022	3,557	3,818
Tin ... ..	826	671	229	618	520	714	673
Copper ... ..	68	62	8	2	2	17	5
Other Metals ... }	810†	419	140	175	48	130	163
Other Minerals ... }		259	134	226	222	205	196
Total, Metalliferous, etc.	4,639†	5,061	2,786	5,076	5,375	5,947	6,027
Total, Miners ... ..	25,612†	29,186	18,370	17,864	18,890	19,775	20,891
Fossilickers—							
Gold ... ..	52	464	8,767	4,550	3,827	2,694	2,426
Tin ... ..	343	551	687	1,260	1,340	1,210	894
Other ... ..	55	228	657	207	147	257	247
Total, Fossilickers	450	1,243	10,111	6,017	5,314	4,161	3,567

\* Includes shale miners, 189 in 1921; 62 in 1931; and 36 in 1938.

† Includes workers in quarries held under mining title, excluded in later years.

The number of men engaged in coal mining declined steadily from 1924 to 1929 and thereafter very rapidly until 1933 when only 12,910 men were working in coal mines. From 1935 to 1938 the number of employees increased appreciably but remained substantially less than in 1924. In other branches of mining, during the period for which comparable figures are available, the number of employees declined from 5,061 in 1926 to 2,848 in 1931 and then increased progressively to 6,027 in 1938. The most notable increases were in gold mining, and silver, lead and zinc, for which persons employed in 1931 were 520 and 1,755, respectively. The rapid expansion in gold mining was due to a condition of wide-spread unemployment, Government encouragement of prospecting as a relief measure, and the effect of the high premium payable on gold as from 1931. Increased activity in silver, lead and zinc mines followed upon enhancement of prices.

Additional information regarding miners is shown in the following statement:—

TABLE 582.—Employees in Mines, Above and Below Ground—1921 to 1938.

Year.	Coal Mines.				Other Mines.			
	Working Pro-prietors.	Employees above ground.	Employees below ground.	Total.	Working Pro-prietors.	Employees above ground.	Employees below ground.	Total.
1921†	5,385		15,588	20,973†	2,353*		2,286*	4,639*
1926†	73	6,130	17,922	24,125	292	1,654	3,115	5,061
1931	178	4,047	11,583	15,808	472	765	1,739	2,976†
1932	196	3,464	9,916	13,576	616	1,092	1,977	3,685†
1933	284	3,219	9,461	12,964	727	1,189	2,210	4,126
1934	286	3,161	9,899	13,346	746	1,452	2,518	4,716
1935	241	3,069	10,018	13,328	816	1,712	2,687	5,215
1936	244	3,141	10,484	13,869	702	1,639	3,011	5,352
1937	254	3,393	11,046	14,693	687	1,975	3,506	6,168
1938	246	3,783	11,837	15,866	582	1,783	3,316	5,681

\* Including workers in quarries held under mining title, excluded in later years.

† Average number. From 1930 onwards the number employed on last full working day is shown.

‡ Includes shale miners.

The employment of boys under 14 years of age and of women and girls in or about a mine is prohibited, and restrictions are placed upon the employment of youths. In 1937 the number of employees under 21 years of age employed on the last full working day in coal mines was 10,041, of whom 6,402 worked below ground and 401 on the surface. In 1938 the respective numbers were 1,263, 796 and 467. At other mines in the same years the employees under 21 years of age numbered 98 and 50, of whom 10 and 3 worked below ground in the respective years.

## MINING MACHINERY.

The value of the machinery used in connection with mining in New South Wales during the year 1938 was 8,141,917, viz., coal mines £6,605,068, metalliferous mines, £1,515,334, and other mines, £21,515. The value in 1921, 1926, 1931 and in each of the last six years is shown below:—

TABLE 583.—Value of Mining Machinery, 1921 to 1938.

Year.	Coal and Shale Mines.	Metalliferous Mines.	Other Mines.	Total.
	£	£	£	£
1921	6,636,857†	1,481,966†	*	8,118,823†
1926	7,747,139	947,911	41,858	8,736,908
1931	6,736,886	699,679	17,025†	7,453,590
1933	6,683,451	843,637	17,032	7,544,120
1934	6,478,492	872,784	18,671	7,369,947
1935	6,530,433	979,515	22,152	7,532,101
1936	6,399,424	948,732	30,542	7,378,698
1937	6,333,052	1,039,217	27,928	7,450,227
1938	6,605,068	1,515,334	21,515	8,141,917

\* Included with metalliferous mines. † Including machinery in quarries held under mining title, excluded in later years. ‡ Includes Shale mines.

The value of the machinery used in mining for the various metals during 1937 and 1938 was as follows:—Gold, £180,958 and £507,631; silver, lead and zinc, £726,089 and £804,023; tin, £179,338 and £168,614; other metals, £3,732 and £35,065, respectively.

The following statement shows separately the value of the plant used in actual mining operations, that is, in winning and weighing the minerals, hauling them to the surface, ventilating the mines, etc.; and the value of the conveyance plant for transporting the minerals from the surface to wharf or railway:—

TABLE 584.—Value and Purposes of Mining Machinery, 1921 to 1938.

Year.	Machinery in Coal Mines used for—			Machinery in Other Mines used for—			Total Value of Mining Machinery.
	Mining Operations.	Transporting Minerals to Wharf or Railway.	Other Machinery.	Mining Operations.	Transporting Minerals to Wharf or Railway.	Other Machinery.	
	£	£	£	£	£	£	£
1921†	3,614,955	2,561,172	460,730	924,870*	122,481*	434,615*	8,118,823*
1926	4,524,850	2,880,051	342,238	796,461	110,820	82,488	8,736,908
1931†	3,954,708	2,528,302	253,976	680,616	14,531	21,557	7,453,590
1933	3,913,143	2,516,832	253,476	809,236	15,376	36,057	7,544,120
1934	3,812,393	2,419,501	246,598	843,586	16,558	31,311	7,369,947
1935	3,880,682	2,388,024	261,727	916,072	24,427	61,169	7,532,101
1936	3,832,433	2,317,492	249,499	917,947	11,647	49,680	7,378,698
1937	3,794,549	2,282,962	255,571	996,229	16,064	104,852	7,450,227
1938	3,982,658	2,344,951	277,459	1,325,702	24,340	186,807	8,141,917

\* Including particulars of quarries held under mining title which were excluded in later years.

† Shale mines included with coal mines in 1921 and with other mines in 1931.

In the coal mines, the value of the machinery employed in mining operations during 1937 and 1938 represented 60 per cent. of the total value; 36 per cent. was used for transporting the minerals from the surface of the mine to a wharf or railway station. In other mines the proportions were as follows:—Mining operations, 90 per cent.; transporting minerals, 1.5 per cent. In some cases mine owners have constructed railway lines for the purpose of connecting the mines with the State railway system or with wharves.

Particulars of the average horse power of engines used for operating mining machinery during 1921, 1926, 1931 and each of the last six years are shown below:—

TABLE 585.—Horse power of Engines—Average Used in Mines 1921 to 1938.

Year.	Coal Mines.			Other Mines.			Total, Engines all Mines.
	Steam Engines.	Electric Engines.	Other Engines.	Steam Engines.	Electric Engines.	Other Engines.	
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
1921†	47,321	16,138	113	12,136*	1,931*	593*	78,232*
1926	62,891	23,008	511	13,847	2,632	533	103,222
1931†	49,436	22,907	86	3,350	1,528	494	77,801
1933	40,949	24,762	375	4,048	2,325	1,884	74,343
1934	36,880	26,615	200	5,627	2,824	2,604	74,750
1935	35,577	26,554	234	6,690	3,158	2,913	75,126
1936	35,710	26,676	264	6,111	3,724	3,041	75,526
1937	35,975	28,347	362	6,803	4,962	3,811	80,260
1938	34,579	29,141	488	7,971	9,751	3,938	85,868

\* Including particulars of quarries held under mining title, excluded in later years.  
† Shale mines included with coal mines in 1921 and 1938 and with other mines in 1931.

The use of electrically driven machinery has increased very considerably in recent years. In coal mines the average motive force actually used in 1938 amounted to 64,208 horse-power, of which 54 per cent. was steam and 45 per cent. electricity. In 1936 the respective percentages were 57 and 42, whilst in 1937 they were 56 and 44. The quantity of coal cut by machines during 1937 was 2,788,274 tons, or 27.7 per cent. of the total output, and 2,722,049 tons were cut in 1938, representing 28.4 per cent. Of 181 machines in use in 1938, 132 were operated by electricity and 49 by compressed air compared with 108 by electricity and 71 by compressed air in 1937. Filling coal by mechanical means was commenced during 1935 during which year 13,692 tons were filled in this manner. In 1938, the quantity of coal filled mechanically was 619,491 tons as compared with 301,299 tons in 1937 and 134,458 tons in 1936.

In mines other than coal mines, steam power represented 48 per cent. in 1936, electricity 29 per cent., and oil 22 per cent. of the power used. In 1938 the proportions were 37, 45 and 18 per cent., the increasing use of electricity being evident as in the case of coal mines. A number of the mining companies at Broken Hill have erected a central power station for the supply of electrical power and compressed air to the mines. The plant was brought into operation during 1931, oil burning machinery being largely used.

The full capacity of mining machinery in 1937 amounted to 134,540 and in 1938 to 141,306 horse-power, viz., 108,974 and 109,721 horse-power in coal mines and 25,566 and 31,585 horse-power in other mines.

The value of fuel used during 1937 was £382,790, including 238,751 tons of coal valued at £146,271, and electricity to the value of £197,128. In 1938 fuel to the value of £425,203 was used, of which coal (243,664 tons) and electricity were valued at £169,544 and £212,506 respectively.

#### MINES IN OPERATION.

The following statement is a summary of the particulars furnished by mine owners in returns under the Census Act regarding the mines in operation and the minerals mined during 1921, 1926, and each year from 1928 to 1938. The figures are selected items and are not a complete record of either the income or expenditure of the undertakings concerned:—

TABLE 586.—Comparative Statistics—All Mines, 1921 to 1938.

Year.	Mines in Operation.	Persons Employed (average, excluding Fossickers).	Amount of Salaries and Wages Paid.	Value of—			
				Land, Buildings, etc.	Machinery and Plant.	Materials and Fuel Used, etc.	Output.
	No.	No.	£	£	£	£	£
1921*	493	25,612	6,480,988	3,428,735	8,118,823	1,770,320	10,191,975
1926	427	29,186	7,511,862	4,224,676	8,736,908	2,266,410	12,084,083
1928	357	25,551	6,464,788	4,081,725	7,798,545	1,718,760	10,435,522
1929	369	26,562	5,242,393	3,981,000	7,939,024	1,346,519	8,832,874
1930	377	25,010	4,856,579	3,991,991	7,608,630	1,280,654	7,498,565
1931	431	18,370	3,838,763	3,724,217	7,453,590	962,370	5,706,425
1932	496	17,721	3,797,055	3,737,169	7,698,492	1,020,403	5,663,552
1933	569	16,933	3,835,077	3,618,890	7,544,120	949,152	5,848,699
1934	599	17,816	4,181,366	3,591,271	7,369,947	1,033,354	6,363,107
1935	668	17,864	4,560,844	3,742,941	7,532,101	1,093,774	6,991,974
1936	592	18,890	4,895,850	3,666,585	7,378,698	1,176,732	8,429,114
1937	610	19,775	5,836,680	3,723,707	7,450,227	1,406,685	10,351,089
1938	578	20,891	5,969,287	3,686,962	8,141,917	1,557,277	10,047,453

\* Including particulars (excluded in later years) of quarries held under mining title.

The figures in the table include the value of minerals won by fossickers, who numbered 4,161 in 1937 and 3,567 in 1938 and obtained an output valued at £156,748 and £101,072 in the respective years. Fossicking for minerals increased sharply in 1931 as a result of the prevailing depression and did not decline until after 1933, in which year the output of 10,008 fossickers was valued at £147,383. Although the number fell to 6,942 in 1934, a maximum value of output of £164,092 was won. The cost of replacing tools worn out each year and of repairing plant, machinery, etc., is included with the value of materials and fuel used, but many other costs and overhead charges are not included.

Coal mining is the principal mineral industry of New South Wales, as 56 per cent. of the value of minerals produced in 1938 and 60 per cent. during the past five years, was represented by coal. Coal mining in New South Wales, as in other countries, is liable to intermittency, owing to various causes, and in recent years the industry has been affected by reason of the more extensive use of oil and electricity.

In 1928 serious depression was apparent in the coal trade, due mainly to diminished demand for export, and practically all the northern collieries were idle on account of an industrial dispute from 1st March, 1929, to 2nd June, 1930. The value of the output was reduced also by reason of a fall

in price. In 1931 there was a further decline in both output and prices, but in subsequent years production increased steadily while prices were subject to further decline.

Apart from coal mining the Broken Hill silver-lead field is the most important mining activity in the State. In 1921 conditions were unfavourable as prices of metals were low. Moreover, operations at some of the mines were suspended for the greater part of the year in consequence of the partial destruction by fire of the smelting works in South Australia where the products are treated. Between 1921 and 1926 there was a rise in metal prices and a steady increase in the value of the output of the metalliferous mines. A drop in the prices which commenced during 1926 led to a decrease in output in later years. From 1931 the value of metal output rose slowly until 1936, when, influenced by a substantial rise in prices, it surpassed the 1926 value. A further rise occurred in 1937, succeeded by a fall in 1938, as shown elsewhere.

Summaries relating to coal mines and to other mines are shown below:—

TABLE 587.—Comparative Statistics—Coal and Other Mines, 1921 to 1938.

Year.	Mines in Operation.	Persons Employed (excluding Fossilisers).	Salaries and Wages.	Value of—			
				Land, Buildings, etc.	Machinery and Plant.	Materials and Fuel Used, etc.	Output.
Coal Mines.							
	No.	No.	£	£	£	£	£
1921†	143	20,973	5,703,999	3,222,721	6,636,857	1,469,578	9,036,474
1926	141	24,125	6,058,270	3,999,836	7,747,139	1,496,436	9,096,611
1928	153	21,743	5,317,243	3,883,349	6,989,492	1,221,027	8,113,600
1929	180	22,470	4,053,746	3,778,955	7,127,140	824,940	6,294,870
1930	216	21,343	3,731,380	3,804,875	6,932,874	797,689	5,493,150
1931	169	15,522	3,222,379	3,541,988	6,736,886	654,319	4,441,335
1932	169	14,126	3,022,474	2,548,298	6,819,784	587,446	4,076,108
1933	194	12,910	2,972,712	3,412,274	6,683,451	530,541	4,106,613
1934	169	13,245	3,143,158	3,368,189	6,478,402	556,313	4,342,235
1935	161	12,788	3,379,312	3,516,082	6,530,433	584,737	4,585,351
1936	160	13,515	3,492,308	3,465,285	6,399,424	613,305	4,920,908
1937	173	13,828	3,947,598	3,433,439	6,333,082	704,393	5,541,611
1938	173	14,864	3,993,059	3,402,128	6,605,068	757,863	5,653,391
Other Mines.							
	No.	No.	£	£	£	£	£
1921*	350	4,639	726,989	206,014	1,481,966	300,742	1,155,501
1926	286	5,061	1,453,592	224,840	989,769	769,974	2,937,472
1928	204	3,808	1,147,545	198,376	809,053	497,733	2,321,922
1929	189	4,092	1,188,647	202,045	811,884	521,579	2,538,004
1930	161	3,667	1,125,199	187,116	675,756	482,965	2,005,415
1931†	262	2,848	616,384	182,229	716,704	308,051	1,265,090
1932†	327	3,595	774,581	188,871	878,708	432,957	1,587,444
1933	375	4,023	862,365	206,616	860,669	418,611	1,742,086
1934	430	4,571	1,038,208	223,082	891,455	477,041	2,020,872
1935	507	5,076	1,181,532	226,859	1,001,668	509,037	2,406,623
1936	432	5,375	1,403,542	201,300	979,274	563,427	3,508,206
1937	437	5,947	1,889,082	290,268	1,117,145	702,292	4,809,478
1938	405	6,027	1,976,228	284,834	1,536,849	799,414	4,345,957

\* Including particulars of quarries held under mining title, excluded in later years.

† Includes shale mines.

‡ Average number.

The amount of wages, as shown in the foregoing tables, includes the value of explosives sold to employees, viz., coal miners, £117,418, and other miners, £74,041; making a total amount of £191,459 in 1937. The value of explosives included in 1938 was: coal miners, £110,490; other miners, £86,370; total, £196,860.

The materials used in coal mines in 1937 consisted of timber, £136,837, and other materials, £357,591. The values in 1938 were £149,271 and £383,777 respectively. The value of fuel used was £209,965 in 1937 and £224,815 in 1938.

In other mines the value of timber used in 1937 and 1938 was £240,637 and £290,803 respectively; other materials, £288,830 and £308,223, fuel consumed, £172,825 and £200,388.

#### MINERALS WON—AS RECORDED BY THE DEPARTMENT OF MINES.

The particulars relating to the minerals won, as shown in the following pages, have been obtained from the records of the Department of Mines. They differ from those in the preceding tables because the such records include, in many cases, the value of the ores after treatment at the mines, and they relate rather to minerals recovered by treatment during the year than to minerals raised to the surface during the year. From the particulars shown in the annual reports of the Department the output of iron made from scrap, Portland cement, lime, and coke has been deducted, as these items are included in the statistics of factories in the preceding chapter of this volume. The value so deducted was £2,334,269 in 1937 and £2,670,359 in 1938.

The average annual value of the minerals won in New South Wales in each quinquennial period from 1901 to 1935, the annual production in certain years since 1931, and the total production to the end of each period are shown below:—

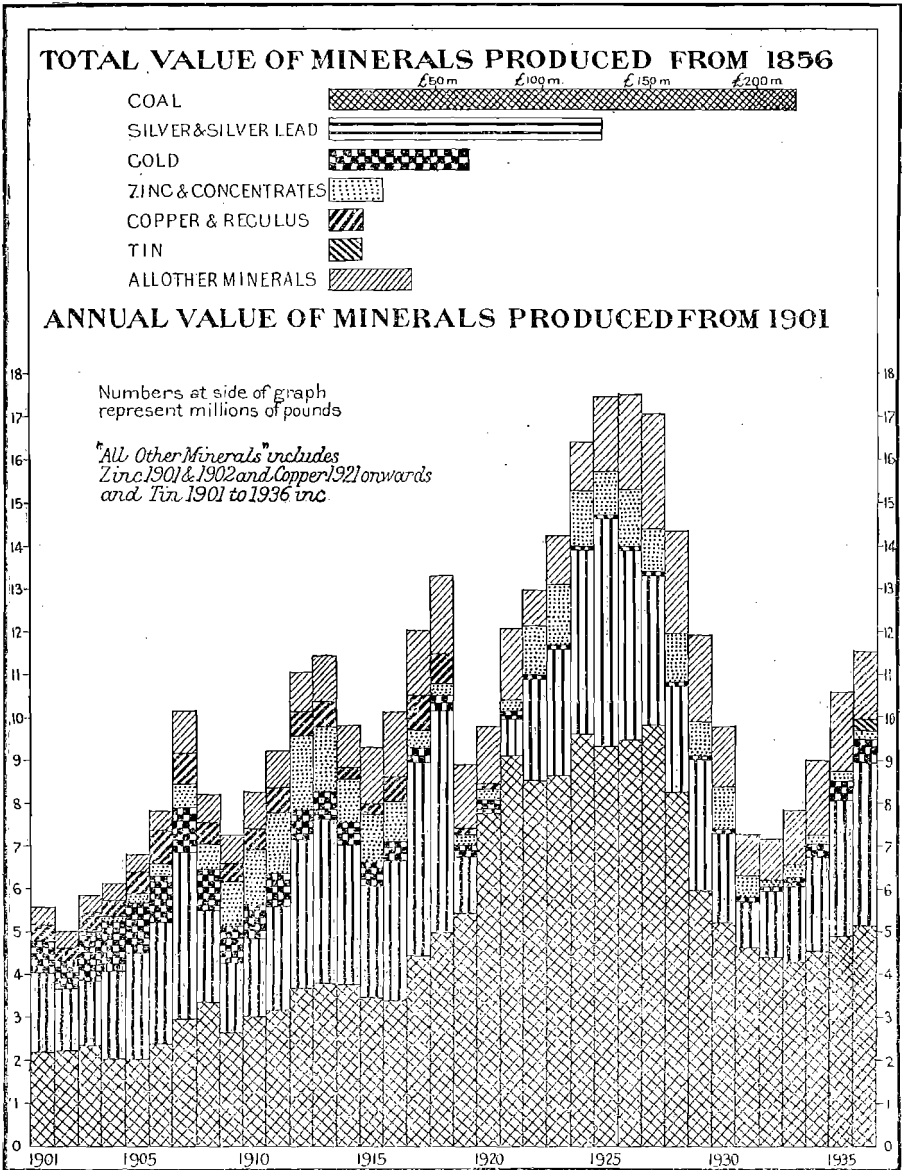
TABLE 588.—Value of all Minerals Won in New South Wales to end of 1938.

Period.	Value of Minerals Won.		Year.	Value of Minerals Won.	
	Average per annum.	Total to end of period.		During year.	To end of year.
	£	£		£	£
To end of 1900	...	132,535,358	1931	7,281,931	459,533,671
1901-05	5,873,176	161,901,240	1932	7,247,966	466,781,637
1906-10	8,330,883	203,555,656	1933	7,843,057	474,624,694
1911-15	10,169,752	254,404,418	1934	8,995,211	483,619,905
1916-20	10,821,478	308,511,806	1935	10,583,792	494,203,697
1921-25	14,622,631	381,624,962	1936	11,520,205	505,723,902
1926-30	14,125,356	452,251,740	1937	13,496,603	519,220,505
1931-35	8,390,391	494,203,697	1938	12,275,987	531,496,492

The total value of £17,509,718 in 1926 was the highest yet recorded. There was a decline of £461,000 in 1927, which may be attributed to a fall in the prices of lead and zinc. In the following years, until 1932, the value declined as a result of depression in the coal-mining industry, and a fall in the prices of the principal metalliferous products. Successive increases in the value from 1932 until 1937 resulted largely from higher prices for metals obtained from the Broken Hill field, though they were due in part to increased coal and quarry production consequent upon economic recovery.



MINERAL PRODUCTION IN NEW SOUTH WALES, 1856 to 1936.



Up to the end of the year 1900 the total value of gold won (£48,422,000) exceeded that of any other mineral, but with the subsequent decline in gold mining and the development of the coal and silver-lead fields, coal advanced rapidly to the head of the list, and the value of the silver and lead surpassed the output of gold. At the end of 1938 the total value of the coal production represented 43 per cent. of the total value, silver and silver-lead 25.4 per cent., and gold 12.6 per cent.

The values of the ores are estimated after assay. Many of the metals are associated in the same mineral matter and it is very difficult to make a reliable estimate of the quantity and value, especially in cases where the ores are exported before final treatment.

The following statement shows the quantity and value of the various minerals won as estimated for the years 1937 and 1938, also the total yield to the end of 1938:—

TABLE 589.—Individual Minerals Won in New South Wales.

Minerals.	Output for year.				Total Output to end of 1938.	
	1937.		1938.		Quantity.	Value.
	Quantity.	Value.	Quantity.	Value.		
		£		£		£
Gold ... .. oz. fine	68,607	7595,855	88,098	7780,958	15,382,301	66,918,568
Silver ... .. "	44,330	3,997	83,822	7,357	45,932,812	6,145,217
Silver-lead ore, etc. ... tons	281,624	4,306,616	317,230	3,513,108	13,657,362	128,907,985
Lead—Pig, etc. ... "	...	...	...	...	326,621	6,442,897
Zinc—Spelter and concentrates ... .. "	219,838	657,967	265,296	230,989	9,149,809	26,330,102
Copper ... .. "	3,627	72,406	1,963	87,905	689,749	15,920,956
Tin ingots and ore ... "	1,143	336,628	1,190	286,768	142,754	16,422,868
Iron—Pig (from local ores) ... .. "	...	...	...	...	1,566,449	7,511,755
Iron oxide ... .. "	677	374	103	43	103,213	95,972
Ironstone flux ... .. "	...	...	...	...	135,087	109,741
Chrome iron ore ... .. "	459	1,536	952	2,564	44,213	136,354
Wolfram ... .. "	45	13,051	93	25,740	2,627	325,246
Scheelite ... .. "	10	3,401	9	2,472	1,746	202,200
Platinum ... .. oz.	46	455	7	52	20,193	128,544
Molybdenite ... .. tons	16	1,139	8	1,759	870	218,126
Antimony ... .. "	144	3,408	144	3,444	19,992	376,875
Manganese ore ... .. "	107	322	218	74	37,835	83,463
Bismuth ... .. "	...	7	...	4	891	244,780
Coal ... .. "	10,051,519	5,823,409	9,570,930	5,603,842	423,040,563	228,855,932
Kerosene Shale ... .. "	...	...	536	337	1,925,689	2,695,458
Alunite ... .. "	334	627	438	821	60,269	212,696
Arsenic ... .. "	...	...	...	...	(a)	193,990
Dolomite ... .. "	23,628	11,814	25,539	32,715	(a)	176,693
Limestone flux ... .. "	144,371	28,317	158,381	35,113	3,408,617	1,401,997
Magnesite ... .. "	19,491	36,552	19,158	41,744	234,945	384,493
Diamonds ... .. carats	200	200	300	300	205,543	147,049
Opal ... .. "	...	3,357	...	4,226	...	1,627,021
Clays ... .. tons	1,176,085	254,776	1,758,963	302,319	...	...
Building material ... .. "	436,548	123,210	463,496	124,088	(a)	*19,279,165
Road material ... .. "	...	1,094,710	...	1,083,286	...	...
Other ... .. "	...	123,349	...	103,293	...	...
Total ... .. "	...	13,496,603	...	12,275,987	...	531,496,492

\* Includes output of quarries under mining title prior to 1925, and of all quarries in later years.

† Value in Australian currency.

(a) Quantity not available.

The production of all the main classes of minerals except coal increased during 1938 in quantity. The chief increases, as compared with 1937, were zinc 45,458 tons, silver-lead 35,606 tons, gold 20,100 ounces, and tin 47 tons. The output of coal in 1938 was £219,627 less in value and 480,589 tons less in production than in 1937.

## GOLD.

Though gold had been found in New South Wales in earlier years, the history of gold-mining in the State dates from 1851, when its existence in payable quantities was proved by E. H. Hargraves, and the principal gold-fields were discovered. The deposits which have been mined include various types, *e.g.*, alluvial gold, auriferous reefs or lodes, impregnations in stratified deposits and igneous rocks, and irregular deposits, as in auriferous ironstone.

Many rich alluvial deposits in which gold was easily accessible were exploited during the twenty years 1851-1870; then it became necessary to introduce expensive methods of mining, and the production declined. During the period of general depression which followed the financial crisis of 1893 greater attention was paid to prospecting for minerals, and with the development of new processes the output of gold showed considerable improvement. In 1904, however, a steady decline commenced, and the yield in 1929, *viz.*, 7,496 oz. fine, was the lowest recorded in any year since 1851. Since 1929 the rise in price of gold and economic stress have attracted greater attention to prospecting, and the yield progressively increased from 7,496 oz. fine in 1929 to 88,707 oz. fine in 1938. Of the gold produced in 1937 and 1938, 7,262 oz. and 5,254 oz., respectively, were obtained from the treatment of silver-lead ores from Broken Hill. The value of the output in 1929 was £31,842, and by 1938 it had increased to £376,772 at standard rate, which was the highest value recorded since 1916. Since 1931 gold has been at a substantial premium, so that the values in Australian currency would be expressed by much higher figures than at standard rate, as shown in the table which follows. The prices paid for gold lodged at the Mint are shown at intervals since 1930 in chapter Private Finance of this issue of the Official Year Book.

In terms of the Gold Bounty Act, 1930-31, the Commonwealth Government undertook to pay bounty in respect of gold produced in Australia in each of the ten years 1931 to 1940, in which the production would exceed the average annual production during the three years 1928 to 1930 (approximately 486,000 oz. fine). The rate of bounty in respect of gold produced during the six months, January to June, 1931, was £1 (Australian currency) per ounce of fine gold in excess of half the average annual production, 1928 to 1930. The rate of bounty in respect of subsequent production was calculated on the basis of 10s. (Australian currency) per oz. fine, and was to be increased if the average rate of exchange for telegraphic transfers from Australia to London fell below 30 per cent., *viz.*, by 1s. for each decrease of 3 per cent. in the rate of exchange, the maximum bounty being £1 (Australian currency). The bounty payable on each year's production of gold was distributed amongst the producers in proportion to the quantity produced.

During the year ended June, 1932, bounty amounting to £2,063 was paid in respect of 14,076½ oz. (fine) of New South Wales gold, and from 1st July, 1932, until payment of the bounty was suspended, the sum of £1,864 was received by producers in New South Wales. Under provisions of the Financial Emergency Act, 1932, the payment of the gold bounty was suspended from 30th September, 1932, until such time as the price of the metal falls below £5 per ounce fine in English currency or £5 10s. in Australian currency.

The following table shows the quantity and value of the gold won in New South Wales to the end of 1938:—

TABLE 590.—Gold Won in New South Wales, 1851 to 1938.

Period.	Quantity.	Value.	Period.	Quantity.	Value.*
	oz. fine.	£		oz. fine.	£
1851-1900	11,399,508	48,422,001	1933	29,252	(c) 226,068
1901-1910	2,252,851	9,569,492	1934	36,123	(d) 307,662
1911-1920	1,145,185	4,864,440	1935	50,102	(e) 439,123
1921-1925	133,335	566,375	1936	60,739	(f) 525,792
1926-1930	70,287	298,557	1937	68,607	(g) 595,855
1931	19,673	(a) 118,623	1938	88,698	(h) 785,966
1932	27,941	(b) 203,622	Total	15,382,301	66,923,576

\* Value in Australian currency. Values at standard rate were (a) £83,565, (b) £118,685, (c) £124,254, (d) £153,412, (e) £212,818, (f) £258,001, (g) £291,421, (h) £376,772.

Towards the end of the nineteenth century a system of dredging was introduced for the purpose of recovering alluvial gold from the beds of the rivers which drain auriferous country, and in 1900 the quantity obtained by the dredges was 7,924 oz. of fine gold, valued at £33,660. During the following decade the quantity amounted to 298,416 oz. fine, valued at £1,267,593. Subsequently the output of the dredges declined, until in 1929 it was only 91 oz. fine, but there was an increase to 15,558 oz. fine in 1938, following a decrease from 1,848 oz. fine in 1932 to 1,363 oz. fine in 1934. Dredges are employed also for the recovery of stream tin; particulars are shown on page 667.

#### SILVER, LEAD, AND ZINC.

The production of lead and zinc in New South Wales is associated closely with the mining of silver, the Broken Hill silver-lead deposits being the main source of the output.

The *Broken Hill field* was discovered in 1833, and it has become one of the principal mining centres of the world. The lode, varying in width from 10 feet to 400 feet, may be traced for several miles. Mining leases held by companies and syndicates extend along its entire length, but operations are confined to an extent of  $3\frac{1}{2}$  miles in the centre. Underneath an outcrop of manganiferous ironstone were found rich oxidised ores, consisting of carbonate of lead and kaolin with silver, and, below these ores, mixed sulphides of lead and zinc with a high silver content. As the depth increased the proportions of silver, lead, and zinc became smaller, and the gangue was found to consist of rhodonite which causes difficulty in the extraction of the metals.

For some years operations were directed towards the recovery of silver in the ores which contained the metal in payable quantities. The other metals were not recovered because the current price for lead was comparatively low and a method had not been devised by which the lead and zinc in the complex sulphide ores could be separated profitably. Consequently huge dumps of residue and low-grade ores accumulated at the mines until the development of new processes for the separation of the sulphides by means of flotation led to their treatment.

Lead and zinc concentrates have been produced in large quantities at Broken Hill. The former contain lead amounting to 60 to 65 per cent., silver 20 to 25 oz. per ton, zinc 7 to 8 per cent., and sulphur 15 per cent. The zinc concentrates contain zinc about 45 per cent., lead 6 per cent., silver 10 oz. per ton, and sulphur 30 per cent. The lead concentrates are treated at Port Pirie in South Australia. Although the greater part of the zinc concentrates is exported to the United Kingdom and other European countries or to Japan, large quantities are treated in Australia at Risdon, Tasmania, and portion at Cockle Creek in the production of sulphuric acid.

During 1937 the output of ore from the Broken Hill mines amounted to 1,467,910 tons, valued at £5,022,005, and in 1938 to 1,583,366 tons, valued at £3,513,427.

Another silver field of some importance, known as *Yerranderie*, is situated in the Burragorang valley. The lodes are small, varying in width from mere threads to 8 feet, but they are exceptionally rich. The bulk of the silver is associated with galena, which contains up to 160 oz. per ton. Second-grade ores contain from 40 to 80 oz. per ton. The *Yerranderie* field is handicapped by the high cost of haulage along a steeply-graded road to the nearest railway, therefore only first-grade ore is despatched from the mines, the lower grades being stacked for concentration or future treatment. There was no production from the *Yerranderie* mines in 1932 or 1933 and in 1934 only 96 tons of ore were raised. Production in 1935 and 1936 respectively consisted of 393 tons and 411 tons of ore raised, 45 tons and 13½ tons picked from mullock heaps, and 143 tons and 84½ tons of concentrates yielded from the treatment of slimes. In 1937 549 tons of ore and concentrates were won, producing silver-lead valued at £10,661, and gold valued at £1,040. In 1938 silver-lead 49 tons, £691, silver 27,870 oz., £2,351, and gold £46 were produced.

What is likely to become one of the largest silver-lead mines in the State is being developed at *Captain's Flat*, where the prospective ore reserves are believed to amount to 5,000,000 tons. An Act was passed in 1930 to authorise the construction of a railway to link *Captain's Flat* with *Bungendore* on the Sydney to Cooma railway. Workings were established but commercial production was delayed. The further development of the field was provided for by an agreement between the Government of New South Wales and the Lake George Mines Ltd. and the Lake George Mining Corporation, Ltd., in December, 1937. In terms of this agreement the Government is proceeding with construction of the railway and the companies with the work of development. The companies were required to expend £600,000 capital within a period of two and a half years, in addition to £300,000 expended prior to the agreement. The completed works are to be capable at first of winning and treating 500 tons of crude ore daily, the output capacity to be increased to 1,000 tons per day as soon as possible. Production of ore at the mine commenced in February, 1939.

In assessing the quantity and value of the metals won from the silver-lead ores mined in New South Wales, the Department of Mines estimates the total value on the basis of the metal produced within the State and the value of the ore, concentrates, etc., not smelted within the State, as declared by the several companies at the date of export from the State. The following table is a summary up to the end of 1938 of the Department's records of the quantity and value of the silver and lead produced in New South

Wales from local ores, and the quantity and value of silver-lead and zinc concentrates produced in the State and despatched elsewhere for treatment:—

TABLE 591.—Silver, Lead and Zinc Won in New South Wales to end of 1938.

Period.	Silver.	Silver-lead Concentrates, Carbonate ore, etc.	Lead-Pig, in Matte, etc.	Zinc Concentrates.
		Quantity.		
	oz.	tons.	tons.	tons.
To 1900	9,572,829	3,020,611	14,680	138,901
1901-1905	4,154,020	1,985,868	17,550	183,782
1906-1910	8,310,962	1,751,751	71,435	1,460,138*
1911-1915	12,460,553	1,694,834	114,375	2,093,783
1916-1920	7,982,192	866,654	80,115	553,628
1921-1925	2,960,993	1,013,376	28,466	1,449,599
1926-1930	33,017	1,377,163	...	1,388,821
1931	50,353	172,380	...	220,982
1932	49,309	209,125	...	188,038
1933	55,882	225,445	...	230,952
1934	55,358	241,486	...	231,780
1935	62,198	243,817	...	243,604
1936	56,994	255,998	...	220,767
1937	44,330	281,624	...	219,838
1938	83,822	317,230	...	265,296
Total ...	45,932,812	13,657,362	326,621	9,089,909
		Valuc.		
	£	£	£	£
To 1900	1,562,501	28,924,613	274,585	157,066
1901-1905	445,051	8,910,586	255,366	440,402
1906-1910	892,414	11,561,794	996,646	3,761,223
1911-1915	1,302,510	14,302,570	1,899,601	6,861,489
1916-1920	1,426,886	12,920,076	2,358,625	2,195,699
1921-1925	471,312	15,360,784	657,574	5,171,152
1926-1930	3,259	15,498,294	...	5,263,786
1931	3,151	1,076,208	...	512,795
1932	3,683	1,563,229	...	155,928
1933	4,559	1,778,648	...	283,845
1934	5,285	2,194,538	...	208,511
1935	8,110	3,181,278	...	230,890
1936	5,142	3,815,643	...	198,460
1937	3,997	4,306,616	...	657,967
1938	7,357	3,513,108	...	230,989
Total ...	6,145,217	128,907,985	6,442,397	26,330,102

\* Includes 2,758 tons of spelter.

The total value of production, as stated above, amounted to £1,592,151 in 1931 when, owing to low prices, mining operations were restricted. There was an expansion of production in the following years and under the influence of higher prices the total value increased from £1,722,840 in 1932 to £4,968,580 in 1937. The 1938 value showed a decrease of £1,216,126 to a total of £3,751,454.

As stated previously, the bulk of the ores produced in the silver-lead mines is exported for treatment to other parts of Australia or despatched in the form of concentrates to overseas countries; therefore the figures shown in the preceding table do not indicate fully the value of the New South Wales

production of the various metals. The Department of Mines has collected records from the various mining and smelting companies and ore-buyers with the object of ascertaining the actual value accruing to the Commonwealth from the silver-lead mines of this State. Thus particulars have been obtained to the end of 1938 regarding the quantity and value of the silver, lead, and zinc extracted within the Commonwealth, and the gross metallic contents of concentrates exported overseas have been estimated on the basis of average assays as follows. In the case of the lead and zinc contents, the quantities have been estimated only when payment was made for them.

TABLE 592.—Silver, Lead and Zinc—Metal Obtained and Concentrates Exported, 1921 to 1938.

Year.	Metal obtained within Commonwealth from ores raised in New South Wales.				Concentrates exported overseas.					Total Value of Production from Silver-lead Ores of New South Wales.
	Silver.	Lead.	Zinc.	Aggregate Value.	Quantity.	Contents by average assay.			Assessed Value.	
						Silver.	Lead.	Zinc.		
1921	oz. fine. 3,624,413	tons. 47,428	tons. 1,425	£ 1,723,864	tons. 47,127	oz. fine. 617,477	tons. 6,539	tons. 19,272	£ 261,238	£ 1,985,102
1926	7,338,477	142,654	39,277	6,730,680	251,294	2,371,264	23,242	96,167	1,501,673	8,322,362
1929	7,619,884	165,364	46,163	5,918,014	156,532	835,697	7,009	76,619	734,261	6,652,275
1930	7,876,894	162,703	53,958	4,579,412	187,228	844,188	14,044	87,913	911,724	5,401,136
1931	6,177,863	129,519	53,832	2,995,029	95,421	460,958	13,405	43,629	257,765	3,252,734
1932	5,806,193	131,422	53,260	3,001,005	57,591	178,034	1,222	30,164	124,719	3,125,724
1933	7,430,479	158,475	53,956	3,579,886	140,203	790,792	18,344	63,849	475,161	4,055,647
1934	7,380,624	153,641	54,629	3,384,193	89,654	826,896	22,142	34,016	345,350	3,729,543
1935	8,422,316	180,958	67,666	4,933,412	147,856	639,630	11,917	72,285	424,929	5,258,421
1936	7,778,514	157,755	57,744	4,608,338	147,969	779,289	18,569	68,011	540,319	5,158,207
1937	8,731,750	184,322	43,254	6,353,963	140,646	1,048,749	13,832	64,785	889,991	7,243,954
1938	8,497,637	181,197	47,370	4,438,183	142,150	1,060,913	15,213	66,359	479,795	,917,933

The silver-lead ores mined in New South Wales contain, in addition to silver, lead, and zinc, a number of other metals, *e.g.*, cadmium, copper, gold, and antimony, but unless these metals are extracted within New South Wales they are not represented in statistics of the mineral production of the State, except by inclusion as zinc concentrates.

Cadmium is recovered at Risdon, Tasmania, as a by-product in the treatment of zinc ores mined at Broken Hill. The quantity extracted during 1937 was 162 tons, valued at £59,042, and during 1938, 147 tons, valued at £60,770.

#### COPPER.

The ores of copper are distributed widely throughout New South Wales. Deposits of commercial value have been mined in the central portion of the State, but the industry has been handicapped severely in many places by the high cost of transport to market, and, as the price fluctuates considerably, operations have been intermittent. Large quantities of low-grade ores are available, and when the market is favourable they may be treated profitably.

The quantity and value of the copper won in New South Wales, as estimated by the Department of Mines, are shown below:—

TABLE 593.—Copper Won in New South Wales, 1858 to 1938.

Period.	Ingots, Matte, and Regulus.		Ore.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	tons.	£	tons.	£	£
1858-1900	95,501	5,474,309	6,101	92,651	5,566,960
1901-1905	33,989	2,011,609	8,578	104,533	2,116,142
1906-1910	41,898	2,869,101	6,872	62,006	2,931,107
1911-1915	36,305	2,169,503	9,870	108,226	2,277,734
1916-1920	21,453	2,355,248	554	8,887	2,364,135
1921-1925	3,863	259,926	129	1,822	261,748
1926-1930	867	58,053	339	3,102	61,155
1931	485	23,298	56	650	23,948
1932	632	21,785	...	...	21,785
1933	706	26,775	...	...	26,775
1934	681	23,530	96*	1,868	25,398
1935	800	28,563	56	1,508	30,071
1936	758	45,415	615†	8,272	53,687
1937	750	50,483	2,877	21,923	72,406
1938	1,280	53,572	682	34,333	87,905
Total	239,968	15,471,175	36,825	449,781	15,920,956

\* Includes 39 tons of ore exported overseas during 1933.

† Concentrates.

Owing to low prices ruling for the metal no copper mines operated during, 1933, and, except in 1937, when nearly 3,000 tons of ore were raised, only small outputs were obtained from copper mines in subsequent years.

## TIN.

Tin, unlike copper, is restricted in its geographical and petrological range, and is the rarest of the common metals of commerce. The lodes discovered in New South Wales are numerous, but they are on a small scale. The maximum depth attained is about 360 feet.

Tin ore occurs in the northern, southern, and western divisions. The areas in which workable quantities have been located are on the western fall of the New England Tableland, with Emmaville and Tingha as the chief centres, and at Ardlethan in the southern district. Alluvial deposits of stream tin in the northern rivers are exploited by means of dredging.

Tin has contributed in a very considerable degree to the total production of the mineral wealth of the State, although its aggregate yield, in point of value, is below that of coal, silver, gold, and zinc, and it was not until 1936 that its aggregate value exceeded that of copper.



Particulars of the output and the value of production of tin are shown below:—

TABLE 594.—Tin Won in New South Wales, 1872 to 1938.

Period.	Ingots.		Ore.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	tons.	£	tons.	£	£
1872-1900	67,055	5,879,803	13,581	908,130	6,787,933
1901-1905	4,319	557,855	1,994	142,977	700,832
1906-1910	5,244	816,061	3,947	377,620	1,193,681
1911-1915	4,268	793,550	7,262	806,815	1,600,365
1916-1920	4,346	1,053,645	6,953	1,005,841	2,059,486
1921-1925	3,628	805,294	2,005	204,073	1,009,367
1926-1930	4,654	1,120,122	54	1,733	1,121,855
1931	777	101,761	17	1,350	103,111
1932	793	120,124	...	...	120,124
1933	1,135	218,244	...	...	218,244
1934	1,161	325,187	18	2,943	328,130
1935	1,075	284,764	21	3,126	287,890
1936	1,076	262,661	38	5,793	268,454
1937	1,116	331,530	27	5,098	336,628
1938	1,162	282,024	27	4,744	286,768
Total ..	101,809	12,952,625	40,944	3,470,243	16,422,868

The total quantity of tin won during 1938 was 1,190 tons, making the total to the end of 1938 142,754 tons.

Owing to a persistent decline in the price of tin the output decreased in 1929 and 1930, but the production has since been restored, as a result of greater activity amongst prospectors and fossickers, and a substantial increase in price which occurred in June, 1933. The value of tin produced in 1937 was the highest since 1920.

There are a number of dredges for the recovery of tin in the northern districts. The quantity of tin so obtained was 527 tons in 1937 and 774 tons in 1938 valued at £99,720 and 120,765 respectively. The total yield by dredging from 1901 to 1938 was 32,126 tons, valued at £4,242,050.

#### IRON AND IRON ORES.

Iron ore of good quality occurs in many parts of New South Wales. The most extensive deposits are at Cadia, where 10,000,000 tons may be recovered economically; at Carcoar, where a large quantity has been produced; and at Goulburn and Queanbeyan, each containing about 1,000,000 tons; at Wingello there are about 3,000,000 tons of aluminous iron ores of low grade. It has been estimated that in the known deposits, excluding Wingello ores, there are 15,000,000 tons which may be recovered by quarrying, and that a much greater quantity may be obtained by more costly methods of mining.

Prior to 1907 iron ore was mined principally for use as flux in smelting other ores, although in 1884, at Mittagong, and in later years at Lithgow, the production of pig-iron from local ores had been attempted without permanent success. Following a reorganisation and remodelling of the Eskbank Ironworks, Lithgow, iron ore was produced on a more extensive scale, mainly from the Cadia and Carcoar deposits. In 1928 new iron and steelworks were opened at Port Kembla, and the Lithgow works have been transferred to the new site. The iron ore used at the Port Kembla and Newcastle iron and steel works is imported from South Australia, and with the cessation of operations at Lithgow the production of local iron ore was suspended.

Until 1907 the output of pig iron was principally from scrap iron, but in the years 1907 to 1910 pig iron produced from local ores amounted to 116,273 tons. In the years 1911-1920 the production was 599,752 tons, and in the next quinquennium 408,864 tons were produced. The output in 1926 and 1927 was 105,201 tons and 118,951 tons respectively, but it declined to 56,776 tons in 1928 as the treatment of local ores diminished with the progress of the new works at Port Kembla. In 1929 production amounted to only 3,911 tons and there was no production during the following years with the exception of 1935, when 4,580 tons were obtained. The bulk of the ore treated in New South Wales is imported, mainly from South Australia. The total production of pig iron from local ores during the years 1907 to 1938 was 1,566,449 tons, valued at £7,511,755. Ironstone flux amounting to 2,432 tons, and valued at £950, was obtained during 1933, but there was no further production.

Further details relating to the operations of ironworks are shown in the chapter relating to factories.

#### *Iron Oxide.*

Iron oxide is obtainable in the Port Macquarie, Moss Vale, Newcastle, Milton, Nowra, and Goulburn districts for use in purifying gas or as a pigment. The output during 1937 and 1938 was 677 and 108 tons, valued at £374 and £43 respectively, mined almost entirely in the Port Macquarie and Nowra districts. The total output to the end of 1938 was 103,213 tons, valued at £95,972.

#### OTHER METALS.

*Platinum.*—Platinum occurs in several districts of New South Wales, but platinum mining is comparatively unimportant. The quantity produced to the end of 1938 amounted to 20,193.5 oz. valued at £128,544, of which 47 oz. valued at £410, were obtained during 1936, 46 oz., valued at £455 during 1937, and 7.5 oz. in 1938.

*Chromite.*—Chromite, or chromic iron ore, is the only commercially important ore of chromium. It is found usually in association with serpentine. The chromite mined in New South Wales is used as a refractory material. The principal deposits are in the Gundagai and Tumut districts, and there are smaller quantities in the northern portion of the State. The quantity produced during 1937 was 459 tons, and during 1938, 952 tons, valued at £1,536 and £2,564 respectively, making a total output of 44,214 tons, valued at £136,354.

*Tungsten ores.*—The tungsten ores, wolfram and scheelite, occur in many localities in New South Wales generally in association with tinstone (cassiterite) bismuth, and molybdenite. These ores are used mainly in the manufacture of special steels for which the demand increased during the war period and declined upon the cessation of hostilities. Owing to the low price offered for the products, there was no production of scheelite between 1920 and 1928 and no wolfram was won between 1925 and 1928. In 1929 a small demand set in for both ores, and in the three years 1929 to 1931 16 tons of scheelite valued at £1,131 and 78 tons of wolfram valued at £4,672 were produced. No scheelite was produced in 1932 and 1933, but there was in these years an output of 24½ tons of wolfram valued at £1,028. The output of scheelite was 12½ tons in 1936, 10 tons in 1937, and 9 tons in 1938, the value in each year being £1,631, £3,401, and £2,472 respectively, while wolfram to the extent of 5½ tons in 1936, 45½ tons in 1937, and 94 tons in 1938, was valued at £560, £13,051, and £25,740 respectively. The total production up to the end of 1938 was 1,747 tons of scheelite, valued at £202,200 and 2,628 tons of wolfram valued at £325,246.

*Molybdenum.*—Supplies of molybdenite, the principal ore of molybdenum, exist in New South Wales. Its main use, however, is for the manufacture of molybdenum steel, and, as in the case of tungsten ores, the demand has become almost negligible. The output to the end of 1938 was 870½ tons, valued at £218,126, of which 3 cwt., valued at £21, were produced in 1936, 16 tons valued at £1,139 in 1937, and 8½ tons, valued at £1,759 in 1938. There was no production in 1935.

*Antimony.*—This mineral may be obtained in a number of districts, in the north-east of the State. Owing to fluctuations in the price of the metal, mining is spasmodic. The total output of antimony to the end of the year 1938 was 19,992 tons, valued at £376,875, of which 92 tons, valued at £1,772, were produced in 1936, 144½ tons, valued at £3,468, in 1937, and 144 tons, valued at £3,444, in 1938.

*Manganese.*—Manganese ores have been discovered in various places but generally in localities which lack facilities for transport. No production was recorded in 1931, but 106 tons won in 1932, 129 tons in 1933, 103 tons in 1934, 148 tons in 1935, 72 tons in 1936, 107 tons in 1937, and 218 tons in 1938 were valued at £340, £448, £309, £444, £243, £322, and £740 respectively. The total production to the end of 1938 was £37,835 tons, valued at £83,463.

*Bismuth.*—Bismuth has been obtained chiefly in the neighbourhood of Glen Innes, and at Whipstick in the South Coast division. In other districts bismuth is associated with molybdenite and wolfram ores. The quantity of bismuth produced in 1936 was 1 cwt., in 1937 ¾ cwt., and in 1938 1 cwt., valued at £17, £7, and £4 respectively. The quantity produced to the end of 1938 was 891 tons of ore, valued at £244,780.

*Mercury.*—Cinnabar, the most important ore of mercury, occurs in numerous localities, but it has not been discovered in a sufficiently concentrated form to enable it to be mined profitably. No production of quicksilver has been recorded since 1916.

## COAL.

The main coal basin extends along the coast from Port Stephens on the north to Ulladulla on the south, and this seaboard of nearly 200 miles enhances the value of the deposits by facilitating shipment and the development of oversea trade. From Ulladulla the basin trends inland to the west and north-west as far as Rylstone, whence the boundary line extends northward beyond Gunnedah, and then runs in a south-easterly direction to Port Stephens. The widest part of the area is between Dubbo and Newcastle, 150 miles, and the basin is deepest in the neighbourhood of Sydney, where the uppermost seam is nearly 3,000 feet below the surface.

From Sydney the measures rise gradually in all directions. They emerge to the surface at Newcastle on the north, at Bulli in the Illawarra district to the south, and at Lithgow, in the Blue Mountains region, to the west, and these three districts contain the important coal mining centres.

The Upper or Newcastle coal measures show the greatest surface development. In the northern field they are known to contain twelve seams, six being worked; in the southern, seven distinct seams are known, and three have been worked; of the seven seams traced in the western field, only three are of commercial value. After many unsuccessful boring operations, the uppermost seam of the Newcastle measures was located under Sydney Harbour in 1691, and it has been worked to a depth of nearly 3,000 feet.

The coal obtained at Cessnock-Maitland is especially suitable for gas making. The coal from Newcastle, Bulli and Lithgow is essentially steam coal. Bulli coal produces a strong coke, specially suitable for smelting purposes by reason of its capacity for sustaining the weight of the ore burden in a blast furnace, and it contains less ash than the western. The coal obtained at the Sydney Harbour Colliery was loaded into oversea steamers from a wharf near the pit's mouth, but this mine has not been worked since 1930.

An isolated basin of upper coal measures has been discovered at Coorabin in the Riverina district, 400 miles from Sydney, but it is worked on a small scale intermittently.

In the western and southern fields the upper coal measures contain deposits of shale suitable for the manufacture of kerosene oil and for the production of gas. Deposits of kerosene shale, though much less extensive, occur in the upper and Greta measures of the northern coal-field.

The middle coal measures outcrop near East Maitland, but do not appear in the western field. Their occurrence in the southern field has not been proved definitely.

The lower or Greta measures outcrop over an irregular area in the neighbourhood of Maitland, and have been traced with intervening breaks as far north as Wingen. They occur as an isolated belt to the north of Inverell, and extend through Ashford, almost to the Queensland border. These measures have been located in the Clyde Valley, in the extreme southern portion of the Illawarra field, but do not occur in the western. The coal of the Greta measures is contained in two seams, and is the purest and generally the most useful obtained in the State, being of a good quality, hard, and economical as regards working. The Greta seams are worked extensively between West Maitland and Cessnock, in the most important coal-mining district in Australia, and at Muswellbrook.

Developments in the commercial production of power oil from coal in Great Britain by the hydrogenation process have focussed the attention of coal producers upon the possibilities of the rehabilitation of the industry by the utilization of coal produced in this State for the production of motor spirit, oils, etc.

Investigations by State and Commonwealth Governments of hydrogenation and low temperature carbonisation processes have been made. Reports issued in 1936 and 1937 showed that the cost of a plant capable of producing 45 million gallons of petrol a year from coal by hydrogenation would be between £11 million and £12 million and the cost of production 17.3d. to 18.12d. per gallon on the basis of a return of 6 per cent. on capital, and from 13.8d. to 14.4d. per gallon on the basis of a 3.5 per cent. return.

Tests of bulk samples of coal made abroad in 1934 demonstrated that coal from the Greta seam is superior to the best British coal for carbonisation at low temperatures and that it yields considerably more tar and coke of higher quality.

A *State coal mine* was opened at Lithgow, in the Western district, in September, 1916. The area of the land containing coal reserved for the Crown amounts to about 40,200 acres, and the available supply of coal has been estimated at 240,000,000 tons. The mine, which was closed in July, 1917, was taken over by the Railway Commissioners in the early part of 1921, and transferred to the jurisdiction of the Minister for Mines on 1st October, 1932. Under the State Coal Mines (Amendment) Act, 1932, control of the mine is vested in the State Coal Mines Control Board, consisting of the Under-Secretary, Department of Mines (Chairman), an officer of the Mines Department, nominated by the Minister for Mines, and a representative of the Department of Railways, nominated by the Minister for Transport.

The output from the mine was 355,894 tons in 1935-36, 377,511 tons in 1937, and 321,542 tons in 1938. The average number of men employed during 1938 was 373.

PRODUCTION OF COAL.

The following table shows the quantity and value of coal raised in New South Wales to the close of 1938, the total production being 423,049,563 tons, valued at £228,855,932.

TABLE 595.—Total Coal Raised in New South Wales to end of 1938.

Period.	Coal Raised.	Value at Pit's Mouth.	Average value per ton.
	tons.	£	s. d.
To 1900	91,476,633	37,315,915	8 1
1901-05	30,917,230	10,703,600	6 11
1906-10	40,624,698	14,240,992	7 0
1911-15	48,831,214	17,759,946	7 3
1916-20	44,830,757	25,847,168	11 6
1921-25	54,469,448	45,086,283	16 7
1926-30	46,170,868	38,628,003	16 9
1931	6,432,382	4,607,343	14 4
1932	6,784,222	4,376,453	12 11
1933	7,118,437	4,306,799	12 1
1934	7,873,180	4,541,923	11 6
1935	8,693,579	4,887,341	11 3
1936	9,199,466	5,126,850	11 2
1937	10,051,519	5,823,469	11 7
1938*	9,570,930*	5,603,842	11 8
Total ...	423,049,563	228,855,932	10 4

\* An extensive industrial dispute occurred in 1938.

The production of coal exceeded 10,000,000 tons in each year from 1920 to 1927, reaching the maximum in 1924 when the production was 11,618,216 tons. In 1928 there was a marked decline in the demand for coal, and in 1929 and 1930 operations were affected also by a prolonged cessation of work in the northern mines. The general industrial depression was a major factor in the restricted production of the following years and the output in 1931 was the lowest since 1904. As a result of widespread recovery in industrial activity, production in 1937 was higher than in 1931 by 3,619,137 tons, and the increase over 1936 was 852,053 tons.

The bulk of the coal is obtained from the northern coal-fields. The output of each district since 1934 is shown in the following table.

TABLE 596.—Coal Raised in Districts, 1934 to 1938.

Year.	Northern Fields.			Southern Fields.			Western Fields.		
	Coal Raised.	Value at Pit's Mouth.	Average per ton.	Coal Raised.	Value at Pit's Mouth.	Average per ton.	Coal Raised.	Value at Pit's Mouth.	Average per ton.
	tons.	£	s. d.	tons.	£	s. d.	tons.	£	s. d.
1934	5,227,647	3,117,471	12 0 5	1,344,669	817,479	12 1 4	1,300,864	576,973	8 10 4
1935	5,679,802	3,336,137	11 8 9	1,558,282	919,274	11 9 6	1,460,495	631,930	8 7 8
1936	6,197,554	3,570,661	11 6 3	1,626,143	952,231	11 8 5	1,375,769	603,958	8 9 3
1937	6,674,362	3,970,229	11 10 7	1,880,440	1,181,311	12 6 8	1,496,717	671,929	8 11 7
1938	6,294,213	3,687,805	11 8 6	1,831,408	1,218,522	13 3 7	1,445,309	697,515	9 7 8

The output of coal in 1936 increased by 500,887 tons, after offsetting against increases of 517,752 tons in the Northern District and 67,861 tons in the Southern District a decrease of 84,726 tons in the Western District. The

1938 output was 480,389 tons lower than that of 1937, due mainly to intermittent stoppages of work at various collieries and to a strike which operated during the greater part of September and October. Of the total output in 1938, 5,397,501 tons or 56.39 per cent. were drawn from tunnels, and 4,173,429 tons or 43.61 per cent. from shafts. Of the coal wrought, 27.7 per cent. was cut by machinery in 1937 and 23.4 per cent. in 1938.

A comparative statement of prices of coal during the years 1916 to 1930 is shown on page 651 and some idea of the subsequent fall in prices may be gleaned from the average values at the pit as shown in the preceding table.

#### *Disposal of Coal.*

The following statement shows the quantity of coal retained for local consumption, and the interstate and oversea exports in 1921 and later years. The bunker coal loaded in Sydney Harbour into interstate steamers in the years 1921, 1926 and 1928 is included in the table under the heading "domestic consumption," because it was not distinguished in the records from the coal taken in that port by intrastate vessels. In this group are included also coal used in the coal mines, miners' coal, dirt, etc., which amounted to 360,171 tons in 1937 and to 354,462 tons in 1938.

TABLE 597.—Local Consumption and Export of N.S.W. Coal.

Year.	Retained for Domestic Consumption	Sent to other Australian States.	Total quantity consumed in Australia.	Exported to Oversea Countries.	Total Production.
	tons.	tons.	tons.	tons.	tons.
1921	5,268,628	2,752,810	8,021,438	2,771,949	10,793,387
1926	6,347,939	2,740,570	9,088,509	1,797,257	10,885,766
1928	6,102,644	2,209,981	8,312,625	1,135,572	9,448,197
1929	5,436,114	1,486,902	6,923,016	694,720	7,617,736
1930	4,994,552	1,451,594	6,446,146	646,999	7,093,055
1931	4,090,554	1,510,416	5,630,970	801,412	6,432,382
1932	4,416,129	1,575,343	5,991,472	792,750	6,784,222
1933	4,587,934	1,699,165	6,287,099	831,338	7,118,437
1934	5,103,221	1,962,805	7,066,026	807,154	7,873,180
1935	5,847,709	1,974,279	7,821,988	876,591	8,698,579
1936	6,070,840	2,217,450	8,288,290	911,176	9,199,466
1937	6,671,002	2,458,002	9,129,004	922,515	10,051,519
1938	6,497,954	2,162,104	8,660,058	910,872	9,570,930
	Per cent. of Total.				
1921	48.8	25.5	74.3	25.7	100
1926	58.3	25.2	83.5	16.5	100
1928	64.6	23.4	88.0	12.0	100
1929	71.4	19.5	90.9	9.1	100
1930	70.4	20.5	90.9	9.1	100
1931	63.6	23.5	87.5	12.5	100
1932	65.1	23.2	88.3	11.7	100
1933	64.5	23.8	88.3	11.7	100
1934	64.8	24.9	81.7	10.3	100
1935	67.2	22.7	89.9	10.1	100
1936	66.0	24.1	90.1	9.9	100
1937	66.4	24.5	90.9	9.1	100
1938	67.9	22.6	90.5	9.5	100

The greatest decline, absolutely and relatively, occurred in the oversea exports, which represented 9 per cent. of the output in 1930 as compared with 25 per cent. in 1921 and 16 per cent. in 1926. There was a diminution in interstate exports also—relatively greater than the foregoing figures indicate, as those for the earlier years do not include Sydney bunker trade.

In 1931 there was a slight increase in exports, but a marked decline in the quantity retained for local consumption. Since 1931 production has increased materially, chiefly because of greater home consumption, which between 1931 and 1936 increased by 2,031,495 tons as compared with increases of 625,825 tons in coal sent to other States and 109,764 tons in exports oversea. Of the increase in 1936, however, 276,967 tons, or 55 per cent., occurred in interstate exports as against 189,335 tons, or 38 per cent., in domestic consumption. Some of the coal sent to South Australia is re-exported to Broken Hill.

Full particulars are not available as to the purposes for which coal is used locally, but statistics of factories and railways with those of the export trade contain information which covers a large proportion of the total production. The following statement shows these details for 1928-29 and the last six years, though they differ from those shown in other tables in so far as they refer to periods of twelve months ending June, and not to calendar years:—

TABLE 598.—Purposes for which N.S.W. Coal was Used, 1929 to 1938.

Coal Used.	1928-29.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
<b>In Factories—</b>							
Fuel in Electricity Works	882,355	783,970	815,291	891,049	1,005,424	1,010,869	1,104,415
.. Other Factories ...	1,318,880	715,054	874,036	1,000,558	1,092,790	1,302,114	1,384,257
	2,201,235	1,499,024	1,689,327	1,891,607	2,098,214	2,312,983	2,488,672
<b>Raw Material in Gas Works</b>	661,878	502,252	508,926	517,347	534,140	560,174	577,030
.. Coke Works	869,257	655,957	903,136	1,241,279	1,284,603	1,401,608	1,536,690
	1,531,135	1,158,209	1,412,062	1,758,626	1,818,743	1,961,782	2,113,720
<b>Total in Factories</b> ...	3,732,370	2,657,233	3,101,389	3,650,233	3,916,957	4,274,765	4,602,392
<b>On Railways for Locomotive Purposes</b> ...	1,212,272	907,291	865,837	906,511	972,890	985,580	1,041,106
<b>Total, Factories and Railways</b>	4,944,642	3,564,524	3,967,226	4,556,744	4,889,847	5,260,345	5,643,498
<b>Exports—</b>							
Interstate*—Cargo ...	1,541,788	1,414,055	1,465,588	1,631,062	1,643,397	1,900,028	2,091,142
.. Bunker	488,200	304,351	333,441	394,907	354,380	404,996	431,383
<b>Total, Interstate</b> ...	2,029,988	1,718,406	1,799,029	2,026,029	1,997,777	2,305,024	2,522,525
<b>Oversea—Cargo</b> ...	311,608	282,969	291,535	304,087	306,356	340,083	392,013
.. Bunker	645,266	531,300	582,965	539,750	582,866	572,026	576,294
<b>Total, Oversea</b> ...	956,874	814,269	854,800	843,837	889,222	912,109	968,307
<b>Total Exports</b> ...	2,986,862	2,532,675	2,653,829	2,869,866	2,886,999	3,217,133	3,490,832
<b>Total, Factories, Railways and Exports</b> ...	7,931,504	6,097,199	6,621,055	7,426,610	7,776,846	8,477,478	9,134,330

\* Approximate.

The quantity of coal used as fuel in factories rose and fell with the general movement in the secondary industries, the requirements of the electric light and power works being an important factor. Comparison of the consumption in factories was affected in 1936-37 by the transfer from electricity works to other factories of generating units in factories that generate electricity for their own use. The demand for coal as raw material in gas works declined between 1928-29 and 1932-33 and has since risen slightly, but the quantity used in coke works, which has fluctuated somewhat, increased rapidly after 1932-33, chiefly as a result of expansion in the iron and steel industry. The quantity consumed by railway locomotives has increased annually since 1932-33, although it

was still lower in 1937-38 than in 1928-29 on account of the electrification of some of the railway services and economy in the use of coal for steam engines. The export trade has for several years been affected by reason of a diminution in the demand due to such causes as the substitution of oil, the lowest total having been recorded in 1929-30. An increasing tonnage has been exported each year since 1930-31.

On the average it appears that local factories absorb nearly 45 per cent. of the output, the railways approximately 11 per cent., and the export trade 33 per cent.

In May, 1929, the Governments of the Commonwealth and of the State of New South Wales, acting in conjunction, appointed a Royal Commission to investigate the position of the coal industry and the causes which had led to a marked decline in the local demand as well as in the export trade. The report of the Commission issued in March, 1930, contains a comprehensive review of the industry. The Commission recommended that coal-mining be placed under the control of a commission with far-reaching powers to regulate all phases of the industry, including conditions of employment; also that advisory committees of experts be appointed to assist the board. Further particulars relating to the recommendations and details regarding the working of the mines are shown in the 1929-30 issue of the Year Book.

#### *Colliery Days Worked.*

The intermittency of operations in the coal-mining industry, due chiefly to irregularity of orders, the frequency and magnitude of industrial disputes and over-development, is indicated by the following table showing the weighted average number of days worked by coal mines in the main coal-mining districts in various years since 1913:—

TABLE 599.—Colliery Days Worked, 1913 to 1938.

Year.	Northern.	Southern.	Western.	Total.
	days.	days.	days.	days.
1913 ...	234	227	261	233
1917 ...	201	207	221	204
1921 ...	221	234	217	223
1925 ...	197	194	257	202
1927 ...	175	203	229	187
1928 ...	159	175	209	168
1929 (a) ...	79	228	244	132
1930 (a) ...	92	149	195	119
1931 ...	134	129	194	141
1932 ...	150	158	194	157
1933 ...	172	175	192	175
1934 ...	177	198	202	184
1935 ...	198	216	222	205
1936 ...	196	201	207	198
1937 ...	209	220	224	213
1938 (a) ...	179	196	192	184

(a) Extensive industrial disputes occurred in these years.

The maximum number of days which it is possible to work is 274, but the average has rarely approached this total.



Between 1921 and 1927 the number of persons engaged in coal-mining increased steadily from 20,973 to 24,483. At the same time there was a definite downward trend in the average number of days worked on the northern and southern fields and for New South Wales as a whole.

The effects of the prolonged stoppage of the principal northern collieries from March, 1929, to June, 1930, are discernible in the decreased average number of days worked on the northern field in those years, and in the increased number of days worked in the southern and western districts, due to diversion of trade. The averages for 1938 were low on account of an industrial dispute during the greater part of September and the early part of October.

The comparatively high and steady average in the western mines is accounted for by the fact that in the large State colliery and in collieries supplying the cement-making industry work has been much more regular than in the other collieries producing for the open market.

#### *Output of Coal per Man Day.*

The approximate average output of coal per man-day worked is shown below for various years since 1913:—

TABLE 600.—Coal Output per Man Day.

Year.	Per Employee Below Ground.				Average For All Employees.			
	Northern.	Southern.	Western.	Total.	Northern.	Southern.	Western.	Total.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1913 ...	3.25	2.75	4.01	3.18	2.44	2.12	3.29	2.41
1917 ...	3.36	2.88	4.29	3.33	2.46	2.20	3.56	2.50
1921 ...	3.17	2.69	4.62	3.17	2.34	2.00	3.74	2.36
1925 ...	3.25	2.86	3.55	3.21	2.42	2.12	2.76	2.41
1927 ...	3.34	2.78	3.77	3.27	2.50	2.14	2.94	2.48
1928 ...	3.58	2.87	4.38	3.53	2.61	2.21	3.34	2.62
1929 ...	3.67	2.60	4.07	3.45	2.66	2.08	3.16	2.58
1930 ...	4.09	2.90	4.19	3.80	2.96	2.23	3.27	2.81
1931 ...	4.20	3.28	4.23	4.04	3.01	2.48	3.33	2.96
1932 ...	4.27	3.26	4.72	4.15	3.06	2.81	3.16	3.03
1933 ...	4.42	3.44	5.28	4.34	3.15	2.58	4.22	3.17
1934 ...	4.65	3.14	5.29	4.40	3.35	2.44	4.28	3.26
1935 ...	4.64	3.41	5.08	4.42	3.40	2.62	4.17	3.33
1936 ...	4.86	3.39	5.11	4.55	3.58	2.64	4.18	3.44
1937 ...	4.88	3.35	5.45	4.55	3.57	2.59	4.34	3.42
1938 ...	5.05	3.43	5.55	4.71	3.74	2.51	4.55	3.51

In considering fluctuations in the annual average output per man day, due allowance must be made for the frequent changes occurring through the closure of old mines and the opening of new mines with varying efficiency, and for the increasing age of workings. Since 1930 depressed trade and substantially reduced prices have tended to divert production to the more economical workings.

#### OIL SHALE.

Oil-bearing mineral, which is a variety of torbanite or cannel coal, known locally as kerosene shale, has been found in many localities in New South Wales, the most important deposits being in the Capertee and Wolgan Valleys.

The production of oil shale from the opening of the mines in 1865 to the end of 1938 amounted to 1,925,589 tons, valued at £2,695,458, of which all but 7,217 tons, valued at £8,204, had been produced by the end of 1922. From 1900 until 1922 annual production ranged between 15,474 tons in 1915 and 86,018 tons in 1912, but the maximum production since 1922 amounted to only 2,691 tons in 1932. There was no production in the years 1925 to 1929, inclusive, nor from 1933 to 1937, but in 1934 a quantity of 200 tons was obtained for experimental purposes, and in 1938, as a prelude to more extensive operations, 536 tons were won.

The resumption of shale mining in 1931 and 1932 was an outcome of a grant of £100,000 made available by the Commonwealth Government for the employment of surplus coal miners. The Shale Oil Development Committee was formed to administer the grant, and arrangements were made to subsidise holders of shale oil leases to enable them to provide work, but as this policy resulted in the employment of only a few of the miners, the Committee was incorporated as a limited company and commenced mining operations at Newnes, in the Wolgan Valley, in August, 1931. About two months later a quantity of shale was despatched abroad, and the retorts at Newnes were brought into operation for the extraction of oil at the mine. Over the whole period of the Committee's mining operations—1st November, 1931 to 16th April, 1932—3,980 tons of oil shale were mined and 176 tons of lower grade shale from adjoining leases were purchased; 3,885 tons of oil shale were treated in the retorts for a yield of 381,196 gallons, or an average of approximately 98 gallons of crude oil per ton of shale. In the same period the quantity of coal mined was 2,795 tons.

On 28th June, 1932, the oil works at this locality were transferred to a private organisation, which abandoned the project in November, 1932. A committee, known as the Newnes Investigation Committee, comprising an independent chairman and six members (three nominated by the Commonwealth and three by the State Government) was set up, to investigate the possibilities of the industry. In 1934 the Committee reported that reserves of shale of workable thickness were 2,000,000 tons, with a probable reserve of a further 3,000,000 to 4,000,000 tons, and that the cost of establishing the industry on a sound basis was estimated at £600,000.

Following further investigation, the Commonwealth Government in 1937 arranged for the sale to a private company, the National Oil Proprietary Ltd., of an option to purchase which it held over equipment on the Newnes-Capertee shale oil field and undertook to afford assistance to enable the company to commence operations. Of the capital required to launch the new venture, £166,000 is to be provided by the company, £334,000 by the Commonwealth Government and £166,000 by the New South Wales Government. The amounts provided by the Governments are to take the form of loans bearing a low rate of interest. Among other concessions, protection over imported petrol to the extent of existing customs and excise duties is to be granted by the Commonwealth Government for a period of 20 years on a maximum annual output of 10,000,000 gallons of petrol. In the event of a reduction of the customs duty of 7d. per gallon on imported petrol and the excise duty of 5½d. per gallon on petrol produced from imported crude oil, the full measure of protection is to be maintained by the payment of a bounty.

#### DIAMONDS.

Diamonds and other gem-stones occur in various places in New South Wales, but an extensive field has not been discovered. The finest of the New South Wales diamonds are harder and whiter than the South African, and are equal to the best Brazilian gems.

The following table shows the output of diamonds as recorded, but it is probable that the actual output was much greater. The majority of the diamonds have been obtained from the mines in the Bingara and Copeton districts:—

TABLE 601.—Diamonds Won in N.S.W.

Period.	Carats.	Value.	Period.	Carats.	Value.
		£			£
1867-1900	100,103	55,535	1931-35	1,148	1,121
1901-1905	54,206	46,434	1936	650	650
1906-1910	16,651	12,374	1937	200	200
1911-1915	16,003	13,353	1938	300	300
1916-1920	11,973	12,573			
1921-1925	3,232	4,183			
1926-1930	1,077	1,226			
			Total ..	205,543	147,949

## OPAL.

Precious opal occurs in two geological formations in New South Wales, viz., in tertiary vesicular basalt and in the upper cretaceous sediments. The most important deposits are in the upper cretaceous rocks at White Cliffs and Lightning Ridge. Gems from the latter field are remarkable for colour, fire, and brilliancy. The opals from vesicles in the tertiary basalt at Tintenbar in the North Coast division resemble the Mexican gems.

The following table shows the estimated value of precious opal won in New South Wales:—

TABLE 602.—Opal Won in N.S.W., 1890 to 1938.

Period.	Value.	Period.	Value.
	£		£
1890-1900	456,599	1932	1,233
1901-1905	476,000	1933	4,231
1906-1910	305,300	1934	3,283
1911-1915	154,738	1935	5,070
1916-1920	105,547	1936	6,110
1921-1925	51,740	1937	3,357
1926-1930	47,409	1938	4,226
1931	2,178		
		Total ...	1,627,021

The output of opal was greatest during the five years ended 1903, when the average value was £115,000 per annum.

## ALUNITE.

Alunite, or alumstone, occurs at Bullahdelah, about 35 miles from Port Stephens, in a narrow mountain range which for more than a mile is composed mainly of alunite, of greater or less purity. Owing to the nature of the occurrences, it has not been possible to estimate the ore reserves of commercial value. Four varieties of alunite are recognised at the mines, but operations were confined mainly to the light-pink ore, the average yield being about 80 per cent. of alum.

In 1926 the output of alunite was 580 tons valued at £2,320 and the no further production until 1935 when 570 tons taken from dumps re £1,069. The production was 738 tons in 1936, 334 tons in 1937, and 431 in 1938, valued at £1,384, £627 and £821, respectively. The total production since 1890 was 60,269 tons, valued at £212,696.

#### OTHER MINERALS.

*Marble.*—Beds of marble of great variety of colouring and with high ornamental markings, are located in many districts of New South Wales. Much of the marble is eminently suitable for decorative work.

*Limestone.*—Immense supplies of limestone are distributed widely throughout the State. The commercial value of the deposits depends mainly on their accessibility and proximity to market. The bulk of the limestone is raised for the manufacture of cement in localities where coal and shale are readily available.

*Fireclays.*—Fireclays of good quality are found in the permo-carboniferous coal measures, and excellent clays for brick-making, pottery, etc., may be obtained in the State, chiefly in Sydney and Wollongong districts.

*Magnesite.*—Magnesite is distributed widely, but few deposits are of commercial value. Large quantities have been mined at Fifield, Attunga, and Barraba. The output during 1937 was 19,494 tons, valued at £36,552, and 19,158 tons, valued at £41,744, were mined in 1938.

*Diatomaceous earth* occurs in several localities. The principal deposits are situated at Cooma, Barraba, Coonabarabran, and Wyrallah. The output in 1937 was 2,997 tons, valued at £5,994, and in 1938, 3,451 tons, valued at £3,184.

*Other Mineral Deposits.*—Other mineral deposits known to exist but not worked extensively include asbestos, barytes, fluor spar, Fuller's earth, ochre, graphite, gypsum, slate, and mica. Quartzite for the manufacture of silica bricks is obtainable in large quantities.

#### QUARRIES.

The Hawkesbury formation in the Metropolitan district provides excellent sandstone for architectural use. The supply is very extensive, and the stone is finely grained, durable, and easily worked. In the north-western portion of the State and in the northern coal districts good building stone is obtainable.

Syenite, commonly called trachyte, is found at Bowral. For building purposes it is solid, and takes a beautiful polish.

Granite occurs at many places in the State, and it has been quarried generally in places near the coast, whence transport is cheaper than from less accessible localities. The pylons of the Sydney Harbour Bridge are faced with granite quarried at Moruya.

Basalt or blue metal, suitable for ballasting roads and railway lines and for making concrete, is obtained at Kiama and other localities.

The following statement shows the output of the quarries and clay, gravel and sand pits during the years 1937 and 1938, as recorded in returns collected from the owners under the Census Act of 1901:—

TABLE 603.—Output of Quarries, 1937 and 1938.

Stone, etc.	1937.		1938.	
	Quantity.	Value.	Quantity.	Value.
	tons.	£	tons.	£
<b>Building and Construction</b>				
Stone—				
Sandstone ... ..	23,699	29,492	32,149	38,995
Granite ... ..	18,859	12,625	18,690	12,981
Basalt ... ..	46,103	18,051	220,362	58,346
Dolerite ... ..	98,228	23,983	90,052	27,666
Trachyte, etc. ... ..	2,019	3,523	1,811	3,355
Limestone ... ..	4,228	1,939	522	3,156
Marble ... ..	268	1,743	4,186	2,167
Macadam, Ballast, etc.—				
Sandstone ... ..	723,392	143,623	504,895	83,079
Granite ... ..	83,013	25,369	75,015	24,854
Bluestone, Basalt, etc. ... ..	1,727,263	362,932	1,349,399	288,144
Ironstone ... ..	18,447	4,060	18,572	2,377
Trachyte ... ..	5,318	1,935	6,794	2,609
Limestone ... ..	33,970	6,252	25,740	4,682
Gravel ... ..	2,773,933	486,552	3,459,383	587,891
Sand ... ..	421,363	38,416	494,533	38,979
Shale ... ..	135,761	21,874	279,108	41,202
Andesite ... ..	104,643	8,977	94,564	7,805
Porphyry ... ..	45,930	3,062	27,296	1,814
Other... ..	107,489	14,967	35,933	4,917
Limestone—				
For Cement ... ..	496,370	194,443	611,300	113,121
For Burning ... ..	69,976	21,064	81,715	34,841
For Flux ... ..	142,218	27,549	156,531	30,229
Shale for Cement... ..	70,844	8,968	75,347	9,839
Clays—				
Brick ... ..	1,264,433	141,248	1,536,638	171,842
Pottery ... ..	27,100	6,679	27,329	6,388
Earthenware ... ..	81,552	12,531	82,493	13,843
Kaolin ... ..	10,807	8,331	9,231	6,894
Fire Clay ... ..	50,959	11,546	55,426	14,675
Silica ... ..	23,698	17,269	19,985	13,919
Other... ..	200	20	3,025	788
Shell Grit ... ..	4,105	3,112	3,506	3,489
<b>Total ... ..</b>	<b>8,616,186</b>	<b>1,662,135</b>	<b>9,401,530</b>	<b>1,654,887</b>

Of the value of output shown above, the portion won from quarries using power machinery or employing four hands or more was £1,616,063 in 1937 and £1,604,611 in 1938.

The output of the quarries was large in the years 1926 to 1929 when there was great activity in building, road construction, etc. A marked decline then occurred, and both volume and value of output were at a minimum in 1932. There was substantial recovery in the following years, the value of clay production increasing from £35,731 in 1932 to £185,802 in 1936, of

road materials from £383,544 to £806,860, and of limestone from £35,551 to £99,134. The production of building stone has varied somewhat in recent years with the demand for stone used in the construction of reservoirs. The output of the quarries, as recorded for each year since 1927, is shown below:—

TABLE 604.—Value of Quarry Output, 1927 to 1938.

Year.	Output.		Year.	Output.	
	Quantity.	Value.		Quantity.	Value.
	tons.	£		tons.	£
1927	6,043,859	1,521,500	1933	3,484,950	836,568
1928	6,268,636	1,500,082	1934	4,629,665	875,413
1929	6,313,050	1,373,855	1935	6,142,119	1,052,989
1930	3,779,012	940,836	1936	7,259,871	1,261,301
1931	3,218,619	634,420	1937	8,616,186	1,662,135
1932	2,580,394	563,409	1938	9,401,530	1,654,887

#### INSPECTION OF MINES.

The inspection of mines with a view to safeguarding the health and safety of miners is conducted by salaried officers of the Department of Mines in terms of the Coal Mines Regulation Acts, which apply to coal and shale mines, and the Mines Inspection Acts, which apply to other mines.

The Coal Mines Regulation Acts prescribe that every coal mine must be under the control and direction of a qualified manager, and daily personal supervision must be exercised by him or by a qualified under-manager. In mines where safety-lamps are used a competent person must be appointed as deputy to carry out duties for the safety of the mine, especially in regard to the presence of gas, the sufficiency of ventilation, the state of the roof and sides, and the supervision of shot-firers.

The Acts contain general rules for the working of coal mines in regard to such matters as ventilation, sanitation, the inspection and safeguarding of machinery, safety lamps, explosives, security of shafts, etc. It is provided that a person may not be employed in getting coal or shale at the face of the workings of a mine unless he has had two years experience or work in company with an experienced miner. Special rules are established in each mine for the safety, convenience, and discipline of the employees.

A Royal Commission, appointed in July, 1925, conducted an inquiry into conditions operating in the coal mines of New South Wales, with special reference to ventilation, the presence of gas, and the use of safety lamps. As a result of its recommendations the Coal Mines Regulation Act was amended with the object of minimising the risks attached to this class of mining, and Courts of Coal Mines Regulations may be constituted to determine matters relating to the safe working of the coal mines. The Governor may appoint a District Court judge, a stipendiary or police magistrate, or a mining warden to sit as a Court. Courts have been proclaimed at East Maitland, Newcastle, Muswellbrook, Gunnedah, Sydney, Wollongong, Lithgow, and Mudgee.

The Mines Rescue Act, 1925, makes provision for rescue operations in coal and shale mines by the establishment of rescue stations, rescue corps, and rescue brigades. In four districts, viz., the Western, Southern, Newcastle, and South Maitland, central rescue stations have been established, and the mine owners in each district are required to contribute to a fund for their upkeep. The rates of contribution for the year 1939, based on the 1938 output, were as follow:—Western, 0.65; Southern, 0.6; Newcastle, 0.43; and South Maitland 0.25 per ton of coal raised during the preceding year. The amount contributed was £16,014 in 1937 and £17,233 in 1938, the amounts contributed in each year being calculated on the output of the preceding year.

In the mines, to which the Mines Inspection Acts relate, a qualified manager, exercising daily personal supervision, must be appointed if more than ten persons are employed below ground, and the machinery must be in charge of a competent engine-driver. General rules are contained in the Act, and the inspectors may require special rules to be constituted for certain mines.

Certificates of competency to act in mines as managers, under-managers, deputies, engine-drivers, and electricians are issued in accordance with the Acts relating to inspection.

Particulars regarding persons killed or reported as seriously injured in mining accidents during the last ten years are shown below:—

TABLE 605.—Mining Accidents, 1929 to 1938.

Year.	Accidents.				Per 1,000 Employed.			
	Coal and Shale Miners.		Other Miners.		Coal and Shale Miners.		Other Miners.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1929	12	89	10	55	·53	3·96	·82	4·51
1930	16	73	14	63	·77	3·53	1·04	4·69
1931	7	66	13	35	·45	4·19	·78	2·11
1932	13	68	18	28	·60	4·74	1·34	2·09
1933	10	61	18	30	·75	4·56	1·43	2·39
1934	15	56	19	43	1·11	4·16	1·27	2·87
1935	11	61	12	132*	·82	4·57	·79	8·72
1936	13	60	14	189*	·91	4·22	·93	12·58
1937	26	68	19	250*	1·74	4·54	1·26	16·58
1938	11	65	17	265*	0·69	4·10	1·10	17·17

\* Includes minor fractures, etc., not previously reported as serious.

The accident rates are not based on the number of employees as shown on page 653. They relate to the total number of persons who are subject to the provisions of the Mining Acts, including persons engaged in connection with treatment plant at the mines, and in quarries held under mining titles. The particulars relating to all quarries are included in the figures for the years subsequent to 1924, with the exception of road workers engaged part time in obtaining gravel, etc. No allowance was made in calculating the rates for variations in the average number of days worked in each year. Particulars of the average time worked in coal mines are shown on page 674.

Allowances paid during 1937 to beneficiaries under the provisions of the Miners' Accident Relief Act amounted to £13,546, and in 1938 to £12,232. The beneficiaries at the end of each year were: widows, 175 and 167; mothers, 9 and 8; sisters, 3; permanently disabled persons, 138 and 129; and children, 15 and 22 respectively.

In the chapter relating to Industrial Arbitration, particulars are given regarding industrial diseases in mines and the compensation provided in cases of accident or illness.



## AGRICULTURE.

### AGRICULTURAL ADMINISTRATION.

The Department of Agriculture was created by the Government in 1890, to advance the interests of farmers and fruit-growers in the State and to deal with matters essential to agriculture. The Department collects information, by scientific investigation and experiments, relating to the causes of the failure of crops, improved methods of cultivation, means of combating pests, the use of fertilisers, drainage and irrigation, and the transport of produce. It promotes marketing schemes and fosters a community spirit amongst farmers.

The Council for Scientific and Industrial Research is also active in the investigation of agricultural problems and the Federal Departments of Commerce and of Trade and Customs in co-operation with the States exercise functions affecting agriculture, *e.g.*, oversea marketing of products and assistance to producers.

Boards have been set up to organise marketing and generally assist such industries as dried-fruit growing, apple and pear growing and citrus culture, etc., and there are a number of organisations seeking to advance farming interests, of which typical examples are the Agricultural Bureaux, the Farmers and Settlers' Association, the Wheatgrowers' Union of New South Wales and the Fruitgrowers' Association. A number of periodicals devoted to agricultural subjects are published and circulated throughout the State.

#### *Australian Agricultural Council.*

The Australian Agricultural Council is a permanent organisation set up with a view to uniformity of action throughout the Commonwealth, in relation to questions of marketing, organisation and control of agricultural production. The Council consists of the Ministers representing the agricultural administration of the States and the marketing administration of the Commonwealth, and other State or Federal Ministers may be co-opted as required. A permanent technical committee, known as the Standing Committee on Agriculture, advises the Council and guides its deliberations. Its members comprise the permanent heads of State departments of agriculture, members of the executive of the Council for Scientific and Industrial Research, the Secretary of the Department of Commerce, and the Federal Director-General of Health.

It is a function of the Agricultural Council to foster the welfare and development of the agricultural industries generally, the improvement of the quality of agricultural products and the maintenance of high standards. It seeks, as far as may be, to relate the type and volume of production to available markets, to develop systems of organised marketing, and broadly, to co-ordinate Australian agricultural activities into a national system.

The Standing Committee on Agriculture is concerned in devising means to secure co-operation in, and co-ordination of, agricultural research throughout the Commonwealth, and in the administration of quarantine in respect of pests or diseases of plants and animals. It advises the Federal or State Governments, either directly or through the Council, regarding research on agricultural problems, and control by quarantine.

The inaugural official meeting of the Australian Agricultural Council was held at Canberra on 28th May, 1935.

## DEVELOPMENT OF AGRICULTURE.

A brief historical note on the growth of agriculture was published at pages 707 and 708 of the Official Year Book, 1921.

Until the end of the nineteenth century pastoral pursuits were predominant in New South Wales and agricultural production barely sufficed for local needs. Wheat growing expanded rapidly after 1897 from which date the wheat export trade developed. The completion of the Burrinjuck Dam in 1913 and of other works connected with the Murrumbidgee Irrigation Area and post-war settlement set new agricultural activities in train. Wheat became an export commodity second only to wool; the cultivation of rice was developed to produce more than enough for Australian requirements; viticulture and fruit-growing and in the last few years the cultivation of oats have expanded. But wheat-growing remains by far the most extensive agricultural activity.

The growth of cultivation since 1891, in quinquennial periods, is shown in the following table:—

TABLE 606—Area under Cultivation, 1891 to 1938.

Years ended 30th June—	Area under—		Acres per Inhabitant under—	
	All Crops and Sown Grasses.	Crops only.	All Crops and Sown Grasses.	Crops only.
	acres.	acres.		
	<i>Average Area per Annum.</i>			
1891-95	1,398,199	1,048,554	1·18	0·88
1896-00	2,252,649	1,894,857	1·73	1·46
1901-05	2,942,506	2,436,765	2·10	1·74
1906-10	3,575,873	2,824,253	2·34	1·84
1911-15	5,187,850	4,025,165	2·93	2·27
1916-20	6,011,049	4,615,913	3·09	2·37
1921-25	6,593,048	4,665,362	3·04	2·15
1926-30	7,149,119	5,014,364	2·93	2·09
1931-35	8,424,349	6,012,593	3·25	2·33
	<i>Area in each Year.</i>			
1928	7,175,367	4,994,515	2·95	2·05
1929	7,641,853	5,440,762	3·08	2·19
1930	7,736,500	5,499,408	3·07	2·18
1931	8,959,974	6,809,510	3·52	2·68
1932*	7,649,880	5,107,049	2·98	1·99
1933*	8,608,869	6,330,370	3·32	2·44
1934*	8,725,850	6,281,477	3·34	2·40
1935*	8,177,170	5,684,558	3·10	2·16
1936*	8,452,774	5,730,315	3·18	2·16
1937*	8,820,129	5,951,043	3·29	2·20
1938*	9,509,661	6,464,624	3·50	2·38

\*Year ended 31st March.

From 70 to 75 per cent. of the area under crop is sown with wheat, and as other individual crops are of relatively small extent as shown by the graph on page 701 the fluctuations in the area under crops are due mainly to variations in the extent of wheat-growing. The area of land under sown grasses (3,045,037 acres in 1937-38) is steadily increasing, and for the greater part, consists of lands in the coastal districts, cleared and sown with grasses for the maintenance of dairy stock. The cultivation of grasses in inland areas, however, has increased rapidly in recent years (from 173,377 acres in 1932-33 to 764,588 acres in 1937-38) mainly in the Tablelands, the Western Slopes and the Riverina, where the practice is being adopted as a means of increasing the carrying capacity of holdings used for pastoral purposes and mixed farming.

Particulars obtained in 1938 indicate that the aggregate area, which, in the opinion of the occupiers, was suitable for cultivation after the removal of any standing timber, was 30,508,390 acres, out of a total area of 174,137,436 acres of alienated and Crown lands used for agricultural and pastoral purposes. Only a very small portion of the Western Division of the State is regarded as suitable for agriculture because the rainfall is inadequate.

The following table shows the distribution of agricultural and pastoral lands during the season 1937-38. The various divisions are shown on the map forming the frontispiece of this Year Book:—

TABLE 607.—Distribution of Agricultural and Pastoral Lands, 1937-38.

Division.	Alienated and Crown Lands.									
	Total area of division.	Under occupation for Agricultural and Pastoral Purposes in Holdings of one acre and over.							Suitable for Cultivation.	
		Under crop.	Under sown grasses.	New land cleared and prepared for ploughing.	Fallow land etc.	Pre-viously cropped	Balance of area.	Total.	Area.	Proportion under crop.
	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	000 acres.	per cent.
<b>Coastal—</b>										
North Coast	6,965	129	1,620	2	4	28	2,969	4,753	584	22.1
Hunter and Manning Metropolitan	8,396	126	443	6	9	19	4,303	4,905	453	27.8
South Coast	5,968	58	209	3	4	17	2,009	2,299	405	14.3
Total ...	22,287	349	2,280	12	19	68	9,518	12,246	1,603	21.8
<b>Tableland—</b>										
Northern ...	8,060	101	32	7	10	30	6,352	6,532	497	20.3
Central ...	10,716	446	146	37	173	256	6,706	7,764	1,893	23.6
Southern ...	7,062	51	63	3	9	42	5,633	5,801	562	9.1
Total ...	25,847	598	241	47	192	323	18,691	20,097	2,952	20.3
<b>Western Slopes—</b>										
North ...	9,219	632	57	63	134	144	7,288	8,318	2,128	29.7
Central ...	7,723	1,227	96	64	507	654	4,515	7,063	4,481	27.4
South ...	11,239	1,430	212	51	879	979	6,022	10,173	5,315	26.9
Total ...	28,181	3,239	365	178	1,520	1,777	18,425	25,554	11,924	27.6
<b>Central Plains—</b>										
North ...	9,579	297	30	52	72	68	7,242	7,761	1,669	17.0
Central ...	14,811	368	8	41	171	229	13,108	13,925	3,762	9.8
Riverina ...	17,004	1,546	121	56	942	1,107	12,983	16,755	7,346	21.0
Total ...	41,394	2,211	159	149	1,185	1,404	33,333	38,441	12,777	17.3
Western ...	80,319	17	...	4	6	16	77,756	77,799	1,252	1.4
All Divisions	198,028	6,464	3,045	300	2,922	3,593	157,723	174,137	30,508	21.2

In addition to the area of land under crops in 1937-38 as shown above, 389,722 acres of new land were cleared and grubbed for ploughing, 2,922,182 acres were ploughed and worked during the year, and 3,592,709 acres of

previously cropped land were not ploughed in this season. These particulars embrace both alienated and Crown lands, but the area of Crown lands under cultivation of any kind is relatively small.

#### NUMBER OF AGRICULTURAL HOLDINGS.

The total number of holdings of one acre and upwards used for agricultural, dairying, or pastoral purposes in 1937-38 was 75,923, and areas of one acre or more in extent were cultivated on 53,609 holdings. Only 10,577 holdings were used mainly for agricultural purposes. In addition, 17,675 holdings were used for agricultural and pastoral pursuits combined, 4,072 for agriculture with dairying, 1,592 for all three pursuits combined, and a limited amount of cultivation of a non-commercial character was conducted in connection with other activities. On 22,314 holdings there was no cultivation or less than 1 acre under crop.

The number of holdings on which land was cultivated and the number on which the various kind of crops were cultivated at intervals since 1905-06 are shown in the following statement:—

TABLE 608.—Number of Cultivated Holdings, 1906 to 1938.

Kind of Crop.	Number of Holdings upon which Crop was grown.						
	1905-06.	1915-16.	1925-26.	1930-31 †	1935-36 †	1936-37 †	1937-38 †
Wheat ... ..	19,049	22,453	17,074	18,171	17,220	17,484	18,563
Maize ... ..	17,475	14,869	15,196	15,435	17,727	17,671	17,674
Barley ... ..	1,755	2,538	1,916	1,667	1,328	1,262	1,337
Oats ... ..	10,740	13,723	16,851	18,098	20,627	20,635	21,992
Rice ... ..	...	...	...	270	504	320	319
Lucerne ... ..	...	...	7,033	7,448	10,825	11,052	10,085
Potatoes ... ..	8,552	4,643	3,679	2,492	4,093	3,990	3,592
Tobacco ... ..	98	97	111	86	89	74	58
Sugar-cane ... ..	1,113	694	955	917	823	814	844
Grapes ... ..	1,530	1,388	1,809	1,592	1,505	1,559	1,554
Orchards† — Citrus	2,385	5,787	5,758	4,638	3,997	4,133	3,897
Other ... ..	6,846	8,760	7,218	5,538	5,281	6,579	6,222
Bananas ... ..	...	...	214	754	1,745	1,750	1,697
Market Gardens ...	2,842	3,301	2,393	1,603	1,506	1,599	1,603
Number of Cultivated Holdings*	46,349	50,728	49,668	49,391 †	52,339 †	53,612 †	53,609 †

\* Holdings on which more than one crop was grown are included once only. † Excluding crops of less than one acre, which were included in 1925-26 and earlier years. † Orchards are included in both groups if citrus, as well as other fruits, are grown. The number of orchards of one acre or more was 7,520 in 1935-36, 9,022 in 1936-37 and 8532 in 1937-38. The increase in 1936-37 was due to the inclusion of approximately 1,500 small orchard areas not previously recorded.

The number of farms on which wheat is sown is subject to seasonal fluctuations, and it has declined in the past thirty years, notwithstanding a large increase in the area devoted to this crop. Many small areas are grown for green food for use on the farms. The holdings on which these crops are grown are relatively more numerous than the wheat farms, though the area under wheat is many times greater than the area of any other crop. Moreover, portion of the area under wheat—varying from one-fourth to one-seventh—is cultivated on the “shares” system, by which a number of growers may be engaged in cultivating one holding.

#### AGRICULTURAL PRODUCTION.

The area under cultivation in New South Wales in the season ended 31st March, 1938, was 6,464,624 acres and 5,536 acres were double-cropped,

so that the total area of the crops, as shown below, was 6,470,160 acres. Particulars as to the area and yield of the various crops are as follows:—

TABLE 609.—All Crops, Area and Production, 1937-38.

Name of Crop.	Area.	Production.	Average Yield Per Acre.
Grain—	acres.	bushels.	bushels.
Wheat ... ..	4,464,664	55,104,000	12·3
Maize ... ..	125,049	3,403,140	27·2
Barley (Malting) ... ..	6,070	87,420	14·4
" (Feed) ... ..	5,472	79,440	14·5
Oats ... ..	255,144	3,395,130	13·3
Rye ... ..	5,012	67,290	13·4
Rice ... ..	23,737	2,268,907	95·6
Hay—		tons.	tons.
Wheaten ... ..	348,339	349,618	1·00
Barley ... ..	815	868	1·07
Oaten ... ..	312,337	317,814	1·01
Rye ... ..	717	824	1·15
Lucerne... ..	97,354	156,185	1·60
Green Fodder (Fed-off) ... ..	638,409	£ 1,258,709	.....
Root Crops—		tons.	
Potatoes ... ..	21,372	50,833	2·38
Sweet Potatoes ... ..	391	1,719	4·39
Onions ... ..	162	356	2·20
Turnips ... ..	4,366	29,789	6·82
Other ... ..	447	1,803	4·03
Miscellaneous Crops—		bushels.	bushels.
Broom Millet—			
Seed ... ..	} 2,913	10,470	3·59
Fibre ... ..		12,619	4·33
Tobacco (Dried Leaf) ... ..		3,649	5·98
Sugar Cane—		tons.	tons.
Crushed... ..	10,716	361,724	33·76
Stand-Over ... ..	10,137	.....	.....
Grapes—		gallons.	
Wine Varieties ... ..	7,442	2,690,315	.....
Table Varieties ... ..	3,209	5,076	.....
Drying Varieties ... ..	4,631	cwt. 145,868	.....
Young Vines For Wine ... ..	703	.....	.....
Other... ..	965	.....	.....
Orchards—		bushels.	
Productive ... ..	57,671	5,851,356	.....
Young Trees ... ..	13,569	.....	.....
Bananas—		cases.	cases.
Productive ... ..	11,965	1,153,371	96
Young Stools ... ..	2,749	.....	.....
Pineapples—			
Productive ... ..	165	15,142	92
Young Plants ... ..	64	.....	.....
Market Gardens ... ..	7,268	£ 398,217	£ s. d. 54 16 0
Tomatoes ... ..	2,029	½-cases. 602,975	½-cases. 297
Pumpkins and Melons ... ..	4,738	tons. 13,852	tons. 2·93
Nurseries ... ..	924	£ 128,509	£ s. d. 139 2 0
Other Crops ... ..	17,835	.....	.....
Total ... ..	6,470,160	.....	.....

NOTE.—Land under crops which failed is reckoned in the average.

Wheat is, by far, the most extensive crop. A large area is sown for hay and green feed. Other cereal crops grown fairly extensively are oats and maize, and the rice crop is large though it is produced from a relatively small area. All but about five per cent. of the total area under crop was used for one or other of the five leading crops in 1937-38.

A comparative statement of the area and production of the principal crops of New South Wales is shown below:—

TABLE 610.—Principal Crops, Area and Production, 1915-16 to 1937-38.

Crop.	1915-16.	1925-26.	1935-36.	1936-37.	1937-38.
<b>Wheat (grain)—</b>					
Area ... .. acres	*4,188,865	2,925,012	3,851,373	3,982,864	4,464,664
Total yield ... .. bush.	66,764,910	33,806,000	48,822,000	55,668,000	55,104,000
Average yield p.a. ... bush.	15·9	11·6	12·7	14·0	12·3
<b>Maize (Grain)—</b>					
Area ... .. acres	154,130	120,955	119,849	116,286	125,049
Total yield ... .. bush.	3,773,600	3,278,350	3,324,780	3,302,520	3,403,140
Average yield p.a. ... bush.	24·5	27·1	27·7	28·4	27·2
<b>Oats (grain)—</b>					
Area ... .. acres	58,636	101,097	279,622	235,817	255,144
Total yield ... .. bush.	1,345,698	1,615,650	4,735,740	3,967,560	3,395,130
Average yield p.a. ... bush.	23·0	16·0	16·9	16·8	13·3
<b>Rice—</b>					
Area ... .. acres	...	1,556	21,705	23,357	23,737
Total yield ... .. bush.	...	61,098	2,163,520	2,276,530	2,268,907
Average yield p.a. ... bush.	...	39·3	99·7	97·5	95·6
<b>Hay†—</b>					
Area ... .. acres	1,108,919	750,605	658,810	747,927	759,562
Total yield ... .. tons	1,573,938	866,275	837,386	917,499	825,309
Average yield p.a. ... tons	1·42	1·15	1·27	1·23	1·69
<b>Green Feed Crops—</b>					
Area ... .. acres	162,945	479,464	610,401	645,713	638,409
<b>Potatoes—</b>					
Area ... .. acres	19,589	22,731	22,743	24,909	21,372
Total yield ... .. tons	44,445	43,137	62,382	66,255	50,833
Average yield p.a. ... tons	2·27	1·90	2·76	2·66	2·38
<b>Sugar-cane—</b>					
Area cut ... .. acres	6,030	8,688	10,416	10,231	10,716
Total yield ... .. tons	157,748	297,335	280,472	275,169	361,724
Average yield p.a. ... tons	26·16	34·22	26·93	26·90	33·76
<b>Fruit—</b>					
Area ... .. acres	63,823	89,003	97,860	104,429	104,243
<b>Market Gardens—</b>					
Area ... .. acres	10,967	8,985	7,026	7,335	7,268
Total yield ... .. £	400,860	682,726	349,261	382,195	398,217
Average yield p.a. ... £	36·6	76·0	49·7	52·1	54·8
<b>All other Crops—</b>					
Area ... .. acres	26,843	35,445	55,876	58,652	59,996
Total Area‡ ... acres	5,800,747	4,543,541	5,735,681	5,957,520	6,470,160

\* The large area in 1915-16 was sown in response to a national appeal.

† Including area double-cropped.

‡ small orchard not previously recorded.

§ Includes approximately 4,000 acres

*Value of Agricultural Production.*

The estimated value of the agricultural production of the State during the last five seasons and the proportionate value of each crop to the total value are shown in the following table, the values being based on prices realised on the farm or at nearest railway siding. The net value of agricultural production is shown in Table 614.

No deduction has been made from these values for cost of materials used in production of grain, and the fodder used for farm stock is included at its farm value.

TABLE 611.—Value of Agricultural Production, 1934 to 1938.

Crop.	Value at Place of Production.					Proportion per cent.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£					
Wheat (grain) .. ..	*7,013,260	*7,149,580	*8,137,000	12,989,200	9,293,800	49.0	47.2	48.4	55.5	45.5
Maize .. ..	339,490	458,816	614,180	708,670	716,080	2.4	3.0	3.8	3.0	3.5
Barley .. ..	17,830	22,370	28,680	41,330	28,360	0.1	0.2	0.2	0.2	0.1
Oats .. ..	291,370	342,280	394,680	413,290	480,980	2.0	2.3	2.3	1.8	2.4
Rice .. ..	337,600	336,080	354,620	379,720	380,220	2.4	2.2	2.1	1.6	1.9
Hay and Straw ... ..	2,088,900	2,476,670	2,227,210	3,021,410	3,547,380	14.6	16.3	13.3	12.9	17.4
Green Food .. ..	1,014,330	1,054,040	1,179,050	1,280,920	1,258,710	7.1	6.9	7.0	5.5	6.2
Potatoes .. ..	143,660	320,570	334,580	404,160	212,020	1.0	2.1	2.3	1.7	1.0
Sugar-cane .. ..	325,430	346,820	384,820	410,010	439,240	2.2	2.3	2.3	1.8	2.4
Grapes .. ..	234,680	202,510	243,670	313,520	526,400	1.7	1.3	1.5	1.3	1.6
Wine, Brandy, etc. ..	83,480	71,260	95,810	110,110	116,170	0.6	0.4	0.6	0.5	0.6
Fruit—Citrus .. ..	574,960	496,400	584,060	653,180	659,950	4.0	3.3	3.5	2.8	3.2
Other .. ..	1,018,690	1,040,980	1,147,840	1,601,060	1,681,190	7.1	7.0	6.8	6.8	8.2
Market-gardens... ..	301,550	336,670	349,260	382,200	398,220	2.1	2.2	2.1	1.6	1.9
Other Crops .. ..	516,810	506,310	629,970	706,790	836,410	3.7	3.3	3.8	3.0	4.1
Total .. ..	14,801,990	15,161,230	16,795,980	23,415,570	20,430,130	100	100	100	100	100

\* Including Commonwealth Government bounty amounting to £911,094 in 1933-34; £1,121,600 in 1934-35; and £564,368 in 1935-36.

The value of agricultural production in New South Wales depends mainly on the wheat crops, the value of wheat (grain and hay) in 1937-38 being £10,719,120 or more than 52 per cent. of the total. The value of the other individual crops, except fruit, is comparatively small.

Due principally to an upward trend in prices of wheat, the value of agricultural production increased in each year from 1934-35 to 1936-37. In the latter year the value £23,415,570 was the highest since 1924-25 when it was £28,785,000.

Wheat prices declined in 1937-38 and the value of agricultural production decreased by 12½ per cent.

The cost of materials, excluding those used in maintenance of buildings, fences, etc., was approximately £4,170,000 in 1936-37. The principal items were: Fodder for stock, £2,209,000; seed, £1,155,000; fertilisers, £605,000; sprays, etc., £94,000; and water, £107,000. After deducting these, the net value of production was £16,260,000 to the farmer.

*Value of Production per Acre.*

The following table shows the annual value of agricultural production and the average value per acre since 1887.

TABLE 612.—Agricultural Production per Acre, 1887 to 1938.

Years ended 30th June—	Average Annual Area Cultivated.	Average Annual Value of Production.	Average Value per Acre.
	acres.	£.	£ s. d.
1887-91 ... ..	858,367	4,030,611	4 13 11
1892-96 ... ..	1,147,733	3,812,393	3 6 5
1897-1901 ... ..	2,114,250	5,592,620	2 12 11
1902-06 ... ..	2,515,268	6,302,903	2 10 1
1907-11 ... ..	2,933,021	8,565,164	2 18 5
1912-16 ... ..	4,507,748	12,867,474	2 17 1
1917-21 ... ..	4,349,814	16,986,250	3 17 8
1922-26 ... ..	4,680,110	22,328,630	4 15 5
1927-31 ... ..	5,467,982	16,842,398	3 1 7
1932-36* ... ..	5,826,754	15,656,024	2 13 9
1932* ... ..	5,107,049	14,546,650†	2 17 0
1933* ... ..	6,330,370	17,474,220†	2 15 2
1934* ... ..	6,281,477	14,301,990†	2 5 6
1935* ... ..	5,684,558	15,161,280†	2 13 4
1936* ... ..	5,730,315	16,795,980†	2 18 7
1937* ... ..	5,951,043	23,415,570	3 18 8
1938* ... ..	6,464,624	20,430,130	3 3 2

\* Season ended 31st March.

† Including Wheat Bounty.

The comparatively high value of production per acre shown in the ten years prior to 1897 was due to the fact that agriculture was on a smaller scale, and crops produced by intense cultivation formed a larger proportion of the total than in recent years. The higher values shown between 1912-16 and 1922-26 were due mainly to the higher level of prices received for produce, but the influence of this factor is affected by variations in the yield per acre. A comparative statement of the average farm value per acre of various crops is shown below:—

TABLE No. 613.—Farm Values of Crops per Acre,

Crop.	Average Values per Acre.						
	Ten Years ended 1913-14.	Five Years ended 1933-34.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat for Grain	1 17 1	1 12 2	1 10 7	1 16 9	2 2 3	3 5 3	2 1 8
Maize for Grain	4 6 11	4 10 5	2 17 11	3 19 5	5 7 6	6 1 11	5 14 6
Oats for Grain	2 4 9	1 6 7	1 8 7	1 18 10	1 8 3	1 15 1	1 17 9
Hay	3 8 9	3 0 7	2 17 8	3 5 3	3 7 6	4 0 9	4 13 4
Potatoes	11 2 5	8 11 0	7 3 0	16 6 0	17 8 0	16 4 6	9 18 5
Sugar-cane†	21 9 4	34 2 5	32 9 11	45 16 1	36 18 11	40 1 6	45 13 1
Vineyards†	16 12 4	23 2 5	22 7 11	19 6 5	23 19 8	28 5 5	29 10 9
Orchards†	10 17 9	23 10 11	20 6 5	21 4 5	24 7 2	28 1 8	27 3 9
Market-gardens	31 7 5	61 13 8	53 4 10	50 5 7	49 14 2	52 2 2	54 15 10

† Productive area only.

The average value of production per acre measures the effect from year to year of yield obtained and prices realised, *i.e.*, the combined effect of season and market on the average returns obtained by farmers from their



holdings. To make the analysis complete such factors as the cost of production, the general level of prices, drought, and other causes of loss, should be taken into consideration. Low prices were predominant as a factor in the levels to which the average value per acre of principal crops declined in recent years.

*Gross and Net Values of Agricultural Production.*

In the absence of actual records of farm sales and purchases there is considerable difficulty in valuing agricultural production. But the estimated values in each of the last ten seasons is shown below:—

TABLE 614.—Agricultural Production—Gross and Net Values, 1929 to 1938.

Year ended 31st March.	Gross Production valued at Principal Markets.	Difference between Principal Market and Country Prices.	Gross Production valued at Place of Production.	Seed used and Fodder for Farm Stock used in Agricultural Work.	Net Production valued at Farm or nearest rail siding.	Value of Principal Materials used.	Net Value of Production after deducting Materials.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(Thousand £.)							
1929*	23,800	4,444	19,356	2,724	16,632	1,001	15,631
1930*	18,839	3,570	15,269	2,922	12,347	974	11,373
1931*	17,196	4,868	12,328	1,579	10,749	973	9,776
1932	18,368	3,821	14,547	1,027	13,520	551	12,969
1933	22,441	4,967	17,474	1,698	15,776	652	15,124
1934	18,606	4,304	14,302	1,841	12,461	737	11,724
1935	19,439	4,278	15,161	1,774	13,387	600	12,787
1936	20,805	4,009	16,796	1,982	14,814	675	14,139
1937	28,079	4,663	23,416	2,202	21,214	699	20,515
1938	25,112	4,682	20,430	3,364	17,066	806	16,260

\* Year ended 30th June.

In estimating the net value of production as shown above, no account has been taken of depreciation on machinery and plant owing to the difficulty in arriving at a reasonably reliable measurement of the amount of depreciation. Depreciation in each of the respective years since 1929 is estimated as £1,085,000, £1,088,000, £1,096,000, £1,053,000, £953,000, £887,000, £861,000, £849,000, £904,000, and £995,000.

The second column provides a relative measure of the importance of agricultural production to the community by valuing all items on a common basis. It includes the value of transport, handling and marketing services rendered after the products leave the railway siding nearest the farm up to the point of sale in metropolitan markets. It has, however, the disadvantage of including values for such services on products which remain on the farms or are sold to neighbouring landholders.

The third column includes what may be called "costs of marketing" (freights, handling charges, commissions, etc.) that would have been paid if all products had been sold in the principal markets; the ratio to the total in the second column varies under the influence of changes in the volume and composition of agricultural production as well as changes in price levels, freights, commissions, etc.

The figures in the fourth column are those published in Table 611 and are inclusive of the estimated value of seed and fodder used in the course of production. The value placed on these is shown in the fifth column and

the effect of deducting them is shown in the sixth column, which represents, as nearly as may be with existing data, the approximate money return to farmers for agricultural products, though it is inclusive of agricultural products used as stock feed in other rural industries valued at £4,608,000 in 1937-38.

The seventh column represents approximately the value of the principal non-rural materials used in agricultural production, and the eighth is the net value of agricultural production excluding the approximate value of the principal goods and services provided by non-rural industries. It represents approximately the aggregate incomes of farmers and their employees from agricultural production without deductions for interest, depreciation, etc., on farm properties, implements, machinery, etc.

#### PRICES OF AGRICULTURAL PRODUCTS.

The prices realised for agricultural produce in New South Wales, when not regulated by an authority, vary with the seasons, or, as in the case of wheat, with world markets, and, therefore, show very great fluctuations. In times when export prices fall steeply and remain at low levels for an extended period (as between 1931 and 1936) the prices of all agricultural products are apt to fall on account of the general collapse of values.

In wheat and flour alone there is a regular external trade. Prices of flour, bran and pollard, are generally determined by the Flour Mill Owners' Association of New South Wales. But since December, 1938, these have been under the supervision of a Wheat Products Prices Committee appointed by the Government of New South Wales. A Government levy was added to the price of flour, as part of a plan to assist wheat growers, from 30th March, 1931, to 31st May, 1934, and from 7th January, 1935, to 24th February, 1936, and the existing levy dates from 5th December, 1938. Details as to the rate are shown on page 728.

The following quotations represent the average prices obtained for farm products (local and imported) in the various Sydney markets. The average for the year represents the mean of the prices ruling during each month, and does not take into account the quantity sold during the month. The prices ruling in each month, i.e., the mean of the daily quotations, are shown in the "Statistical Register." Except in the case of wheat, the figures are those quoted by the middleman, and not those obtained by the producers:—

TABLE 615.—Wholesale Prices of Agricultural Products, 1911 to 1938.

Commodity.		1911.	1921.	1931.	1934.	1935.	1936.	1937.	1938.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat (f.a.o.) ..	bush.	3 3 6	0 8 8	0 2 5½	0 2 8½	0 3 2½	0 4 2½	0 5 0½	0 3 5½
Flour (at Mill) ..	ton	3 9 10	19 6 7	9 11 4*	3 5 7*	10 19 10*	10 17 10*	12 6 2	9 5 4*
Bran .. ..	bush.	0 0 11½	0 1 7½	0 0 0½	0 0 10½	0 1 0½	0 1 3	0 1 4	0 1 3
Pollard .. ..	"	0 0 17½	0 3 8½	0 2 7½	0 2 7	0 2 5½	0 2 4½	0 3 4½	0 3 10
Oats .. ..	"	0 2 7½	0 3 5½	0 2 7½	0 2 7	0 4 2½	0 4 9½	0 5 6½	0 4 9½
Maize .. ..	"	0 3 0	0 5 8½	0 3 7½	0 3 13	0 4 2½	7 4 3	4 18 1	9 3 10
Potatoes (local) ..	ton	5 11 4	6 0 2	6 10 9	6 17 10	9 4 1	7 4 3	4 18 1	9 3 10
Onions .. ..	"	5 15 10	5 12 1	7 0 7	10 6 4	9 14 7	13 17 7	11 9 6	10 5 2
Hay—									
Oaten .. ..	"	4 14 5	7 11 10	5 19 0	7 2 9	7 15 2	7 7 1	8 19 8	9 16 2
Lucerne .. ..	"	3 5 0	5 15 6	4 8 1	4 0 3	5 3 3	5 12 5	5 16 11	6 12 11
Chaff—									
Wheaten .. ..	"	4 0 11	6 8 8	3 18 3	4 9 1	4 11 1	4 14 4	5 13 4	6 14 3

\* Includes Flour Tax, see page 728.

The combined price variations since 1901 of agricultural produce in Sydney markets, weighted according to the average consumption in New South Wales in the three years 1911-13, are shown below. The prices in 1911 have been adopted as base and called 1000. The index, being weighted on the basis of consumption in New South Wales, is to be viewed rather from the standpoint of prices paid by consumers than of prices paid to producers.

TABLE 616.—Wholesale Price Index Number—Agricultural Produce, 1901 to 1938.

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	834	1914	1135	1927	1767
1902	1265	1915	1648	1928	1456
1903	1181	1916	1163	1929	1707
1904	789	1917	1127	1930	1428
1905	972	1918	1377	1931	1061
1906	929	1919	1990	1932	1137
1907	1003	1920	2430	1933	1122
1908	1343	1921	1750	1934	1114
1909	1134	1922	1633	1935	1279
1910	1012	1923	1720	1936	1299
1911	1000	1924	1475	1937	1487
1912	1339	1925	1680	1938	1523
1913	1069	1926	1892		

From 1921 to 1929 the agricultural price level was relatively stable at a high figure despite marked seasonal fluctuations, but in May, 1930, there occurred a collapse in the wheat markets of the world unprecedented in the period of 40 years since the commencement of the oversea trade in wheat from New South Wales. The heavy fall was fully reflected in the local price of wheat, which in turn affected the prices of wheat products and of other grains. Seasonal factors and general depression affected the prices of other commodities, and the index of agricultural prices fell rapidly to 997 in March, 1931, and remained in the vicinity of the level of 1911 until after mid-year. The index numbers fluctuated generally between from 10 to 12 per cent. above the 1911 average during most of 1932 and 1933 and declined again between September, 1933, and June, 1934, when the index reached the lowest post-war level. Thereafter prices of agricultural produce followed an irregular upward course, due mainly to rising prices of wheat. The movement was emphasised in the closing months of 1936, and by the end of this year was within 10 per cent. of the average of the years 1926 to 1929. The price of wheat remained at a high level until the late months of 1937, when it commenced to decline steadily. This was offset by rising prices of chaff, hay and potatoes until July, 1938, when the index number was 76 per cent. above the basic level. Beneficial rains caused pastures to revive in the latter part of the year, and, as the fall in wheat persisted, the index number declined again.

AGRICULTURAL MACHINERY.

The following statement shows the area cropped, the total value of the agricultural machinery used, and the value of such machinery per acre of crop, in divisions of the State in the year 1937-38. The value of machinery

relates to such of the farm machines and implements as are used for agricultural purposes as distinct from pastoral and dairying activities.

TABLE 617.—Agricultural Machinery, 1926-27 and 1937-38.

Division.	Area under Crop 1937-38.	Value of Agricultural Machinery and Implements.		Average value of Machinery per acre of crop 1937-38.
		1926-27.	1937-38.	
	Acres.	£	£	£ s. d.
Coastal ... ..	348,988	1,063,655	1,308,893	3 15 1
Tableland ... ..	597,720	1,198,154	1,345,753	2 5 0
Western Slopes ... ..	3,289,540	4,607,176	5,071,192	1 10 10
Central Plains and Riverina ... ..	2,210,987	2,911,523	3,255,048	1 9 5
Western ... ..	17,389	56,685	69,759	4 0 3
Total ... ..	6,464,624	9,837,193	11,050,645	1 14 2

In the coastal and tableland districts the areas under cultivation are small, including many small holdings highly developed for fruit-growing, dairying and market gardening; on the tablelands, slopes and plains the implements in use serve large areas under wheat and oats. In the Western Division there is a small area under irrigation.

The value of agricultural machinery and implements declined from £10,955,923 in 1929-30, to £8,486,935 in 1934-35 or by approximately 23 per cent. in five years. Adverse conditions prevailing in the industry in these years apparently prevented the normal installation and replacement of agricultural machinery. With an improvement in the agricultural situation the value of machinery and implements in use has increased in each year since 1934-35, and in 1937-38 reached the record—£11,050,645—an increase of £2,563,710, or 30 per cent. in the last three years.

*Power-driven Machinery and Tractors on Farms.*

Particulars of the power-driven machinery and of other machines and implements used on farms in New South Wales as at the 30th June, 1930, were shown on page 196 of the Year Book for 1930-31.

Information was collected as to the number of tractors on holdings in March, 1937 and 1938. At the latter date there were 11,507 tractors on 10,532 holdings in the State, of which 5,362 were on 4,865 holdings in the Western Slopes division. The increase in 1937-38 was 2,571 tractors or 29 per cent.

The progress in the adoption of mechanical traction in rural activities is illustrated in the following statement, showing the number of tractors in use in each statistical division at 30th June, 1930, and 31st March, 1937 and 1938:—

TABLE 618.—Tractors used on Farms, 1930, 1937 and 1938.

Division.	Tractors.			Number of Tractors Per 1,000 Holdings.		
	1930.	1937.	1938.	1930.	1937.	1938.
	No.	No.	No.	No.	No.	No.
Coastal ... ..	447	895	1,182	15	28	38
Tableland ... ..	617	947	1,440	41	66	100
N.W. Slopes ... ..	731	1,340	1,674	166	313	390
C.W. Slopes ... ..	1,097	1,532	1,898	253	346	428
S.W. Slopes ... ..	1,109	1,434	1,790	135	179	224
N.W. Plains ... ..	212	455	583	112	237	300
C.W. Plains ... ..	304	316	422	122	128	170
Riverina ... ..	1,592	1,916	2,345	217	264	322
Western ... ..	133	101	173	71	55	91
Total ... ..	6,242	8,936	11,507	82	117	151

The area under crop was 17.5 per cent. greater in 1937-38 than in 1929-30, and the increase in the number of tractors used on farms was 84.3 per cent. In 1938 there were tractors on 15 per cent. of the holdings as compared with 8 per cent. in 1930, and the number of tractors per thousand acres of crop was 1.14 in 1930 and 1.78 in 1938.

PERSONS ENGAGED IN AGRICULTURE.

The following table provides an interesting comparison of the number of persons returned by land-holders as being constantly engaged on rural holdings with agriculture as their principal activity. The number includes working proprietors, unremunerated members of the family working on the holding, and permanent employees.

TABLE 619.—Agricultural Labour and Machinery, 1914 to 1938.

Year.	Persons Permanently Engaged.*	Area under Crop.	Value of Machinery Used.	Year.	Persons Permanently Engaged.*	Area under Crop.	Value of Machinery Used.
	No.	acres.	£		No.	acres.	£
1913-14	59,813	4,568,841	5,029,938	1926-27	41,650	4,595,711	9,837,193
1914-15	58,020	4,808,627	5,159,959	1927-28	42,293	4,994,515	10,849,513
1915-16	56,904	5,794,835	5,362,027	1928-29	38,275	5,440,762	10,883,551
1916-17	52,758	5,163,030	5,449,657	1929-30	38,049	5,499,408	10,955,923
1917-18	48,386	4,460,701	5,615,995	1930-31	38,224	6,809,510	10,526,391
1918-19	43,823	3,890,844	5,696,916	1931-32	37,260	5,107,049	9,526,396
1919-20	47,392	3,770,155	6,128,753	1932-33	40,279	6,330,370	8,869,795
1920-21	48,896	4,464,342	7,120,381	1933-34	39,716	6,281,477	8,607,639
1921-22	47,268	4,445,848	7,884,713	1934-35	38,725	5,684,558	8,486,935
1922-23	48,154	4,694,088	8,536,164	1935-36	38,796	5,730,315	9,039,026
1923-24	46,823	4,808,046	8,799,353	1936-37	40,490	5,951,043	9,949,677
1924-25	46,278	4,911,148	9,427,730	1937-38	40,303	6,464,624	11,050,645
1925-26	43,365	4,541,423	9,588,318				

\* Landowners, members of their families and employees engaged principally in cultivating the soil.

The decline between 1914 and 1919 in the number of persons engaged in agriculture was probably due mainly to enlistments for military service, although the adverse conditions ruling in the industry exercised a depressing influence. This latter cause doubtless operated to a marked extent during the severe drought which prevailed between 1918 and June, 1920. The number increased after the demobilisation of large numbers of the expeditionary forces, although in 1919-20 there was an almost complete failure of the wheat crops of the State, and agricultural operations were considerably restricted.

Further decline occurred subsequently and the number of persons engaged permanently in agriculture is now about one-third less than in the years immediately preceding the war although the area under crop is 40 per cent. greater. The explanation apparently lies in the more extensive use of tractors and in the improvement in agricultural machinery by which the capacity of the ploughs, harvesters, reapers and binders and other plant has been increased in such a way that less man power is required to cultivate the greater area of land. Moreover the speedier means of transport by reason of the substitution of motor vehicles for the horse-drawn and the extension of railway facilities have enabled the farmers to effect a considerable saving in labour. The decrease between 1928 and 1929 may be ascribed in part to a change in the basis of classification,

and there was a marked decline during the depression until 1931-32. Fluctuations in the total area under crop, due mainly to seasonal conditions, also influence the number of persons permanently engaged in agriculture.

Data as to the number of casual and itinerant workers are not obtainable and it is impossible to gauge to what extent, if at all, the decrease in the number of persons permanently engaged in cultivating the soil is offset by an increase in number of casual employees. Data as to wages paid to casual employees, however, show that the proportion of rural work performed by casual employees is relatively small and, although there has been a steady increase in the earnings of casual employees in rural industries in the last seven years the information does not indicate any large degree of substitution of casual for permanent labour. Wages paid to casual employees were about 9 per cent. greater in 1937-38 than in 1936-37.

Particulars of the classes and total wages of persons engaged in rural industries are shown in the chapter "Rural Settlement" of this Year Book, and in the section "Rural Industries" of the Statistical Register of New South Wales. The number of persons recorded at the Census of 1933 as being engaged in agriculture is published in the chapter "Employment" of this Year Book.

#### FERTILISERS.

In New South Wales superphosphate is the only artificial fertiliser used extensively, the soils in the wheat areas being generally deficient in phosphoric acid. Tests of manuring conducted on the farmers' experiment plots indicate that benefits derived from the application of superphosphate to wheat-lands, as a general rule, are most marked in the southern portion of the wheat-belt, viz., the South-western Slopes and the Riverina. The beneficial results gradually diminish throughout the western districts which form the central portion of the wheat-belt, and the advantage gained by the use of this fertiliser is least in the north-western districts. The results may be affected, however, by the fact that in the south fallowing is more common than elsewhere.

The average quantity of superphosphate used on crops fertilised with this manure only was 65 lb. per acre in 1937-38. The number of farms on which superphosphate was used on crops was 24,670 in 1937-38, as compared with 22,292 in 1935-36 and 23,033 in 1936-37.

The following table shows the area of land and the quantity of manure used on crops during the year 1937-38:—

TABLE 620.—Manures used on Crops, 1937-38.

Division.	Area under Crop.	Total Area of Crops Manured.	Manures Used.	
			Natural.	Artificial.
	acres.	acres.	loads.	cwt.
Coastal ... ..	348,988	158,710	186,419	400,181
Tableland ... ..	597,720	296,866	19,297	225,321
Western Slopes ... ..	3,289,540	2,112,041	5,678	1,091,451
Central Plains ... ..	664,809	312,085	577	122,038
Riverina ... ..	1,546,178	1,397,010	12,816	886,308
Western ... ..	17,389	10,264	1,175	24,473
Whole State ... ..	6,464,624	4,286,976	225,962	2,749,772

The total area of crops treated with natural manures in New South Wales was relatively small, being only 32,826 acres, including areas on which both natural and artificial manures were used. The greater part of the natural manures is used in the metropolitan division.

The quantities of the principal kinds of artificial fertilisers used in 1937-38 were 2,418,027 cwt. of superphosphate and 164,303 cwt. of bone-dust, in manuring 4,173,410 acres and 27,430 acres respectively.

The application of manures to agricultural lands is practised most extensively in the southern districts. In the relatively inextensive agricultural areas in coastal districts more than 45 per cent. of the area sown was manured in 1937-38. Ignoring the duplication of area in cases where the same land was manured more than once in the year for different crops, the proportions in the coastal divisions ranged from 27 per cent. on the north to over 82 per cent. on the south. A summary relating to the use of artificial manures in the northern, central, and southern sections of the hinterland (excluding the Western Division) is shown below. These are mainly wheat-growing districts:—

TABLE 621—Artificial Manures used in Various Districts, 1937-38.

Sections of the Tablelands, Slopes, and Plains.*	Total area under crop. (Excluding Pastures.)	Area treated with artificial fertiliser.	Artificial fertiliser used.	Proportion of area fertilised to area under crop.	Average amount of fertiliser used per acre.
1936-37—	acres.	acres.	cwt.	per cent.	cwt.
Northern ...	859,935	25,178	21,500	2·93	0·85
Central ...	1,882,249	1,111,905	542,733	59·07	0·49
Southern ...	2,849,165	2,509,740	1,424,254	88·09	0·57
1937-38—					
Northern ...	1,029,753	52,384	35,864	5·08	0·68
Central ...	2,041,373	1,342,639	661,951	65·77	0·49
Southern ...	3,027,121	2,715,628	1,627,303	89·71	0·60

\* See map in frontispiece of volume.

The following table shows the total area cultivated, the total area manured, and the nature of the manures employed, in various years:—

TABLE 622.—Area of Crops Manured, 1908 to 1938.

Season.	Total Area under Crop.	Total Area of Crops Manured.	Manures Used—		Proportion of Area Manured to Area under Crop.
			Natural.	Artificial.	
		acres.	loads.	cwt.	per cent.
1907-08	2,570,137	423,678	144,021	267,120	16·48
1913-14	4,568,841	2,226,742	166,753	1,010,596	48·74
1915-16	5,794,835	2,753,431	177,788	1,132,446	47·52
1920-21	4,464,342	1,998,429	160,361	998,191	44·76
1925-26	4,541,423	2,635,433	268,930	1,709,557	58·03
1929-30	5,499,408	3,896,692	130,009	2,523,469	71·51
1930-31	6,809,510	4,550,794	142,416	2,631,441	66·83
1931-32	5,107,049	2,267,004	153,777	1,382,303	44·39
1932-33	6,330,370	3,238,716	185,710	1,752,136	51·16
1933-34	6,281,477	3,301,538	175,810	1,900,955	52·56
1934-35	5,684,558	3,367,725	193,992	1,908,810	59·24
1935-36	5,730,315	3,587,838	210,169	2,134,719	62·61
1936-37	5,951,043	3,816,709	237,931	2,403,571	64·14
1937-38	6,464,624	4,286,976	225,962	2,749,772	66·32

The quantity of superphosphate used on the areas sown with wheat was 1,326,832 cwt. in 1932-33, 1,432,904 cwt. in 1933-34, 1,343,959 cwt. in 1934-35, 1,360,665 cwt. in 1935-36, 1,509,322 cwt. in 1936-37, and 1,755,774 cwt. in 1937-38 when it was equal to 56 lb. per acre manured for wheat growing.

The figures for years prior to 1930-31 do not indicate the exact ratio between the area under crop in any season and the area manured to produce that season's harvests. For some crops the soil is prepared and the crop is harvested during the period from 1st July to 30th June, which until 1930-31 was taken as the season, in compiling agricultural statistics but for other products, *e.g.*, wheat, the most extensive crop—the land under crop in any season is manured between January and June of the preceding period. Nevertheless the table supplies evidence that the practice of manuring the soil was increasing steadily up to 1930-31. In the following year, however, there was a sharp decline in the acreage manured, due principally to adverse economic conditions, but the acreage was increased considerably in 1932-33 and has since expanded steadily.

Information regarding the use of artificial manures on pastures for each year since 1927-28 is shown in the chapter "Pastoral Industry." In 1937-38 an aggregate area of 875,730 acres on 5,267 holdings was treated with 817,599 cwt. of fertiliser.

Under the Financial Relief Act, 1932, the Commonwealth Government, with the object of enabling primary producers (other than growers of wheat for grain) to continue the use of fertilisers notwithstanding low prices for their products, provided for payment of a subsidy of 15s. per ton in respect of fertiliser used in lots of one ton or more during 1932-33. Assistance of a similar nature was provided by the Commonwealth Government in 1934-35 and later years. The rate of subsidy was 15s. per ton for fertiliser used for the production of primary produce (other than wheat) in the years 1934-35 and 1935-36. In later years the rate was 10s. per ton taking into account quantities of not less than half a ton and excluding quantities exceeding 20 tons (10 tons in 1938-39) used on any one farm. The principal uses to which fertiliser was applied in these cases were the topdressing of pastures, the cultivation of oats, and the manuring of fruit trees, vegetables and sugar-cane. The sums received by farmers in New South Wales under these provisions were £19,903 in 1932-33, about £23,000 in 1934-35, £56,211 in 1935-36, about £40,500 in 1936-37, and about £32,500 in 1937-38.

The sale of artificial manures is regulated by the Fertilisers Act, 1934, which repealed the Fertilisers Act, 1904. The vendor of fertilisers is required to sell under a registered brand or name, and to furnish to the purchaser a warranted statement as to their nature and chemical composition. Provision is also made for inspection and analysis of fertilisers, summary proceedings against offenders, and the publication of an annual list of fertilisers showing the prices, the average unit value of constituents of commercial value, and the registered brands.



SHARE-FARMING.

The system of share-farming, introduced towards the end of the last century, has been an important factor in rural development in New South Wales. Under the system the owner provides suitable land and sometimes seed and fertiliser, and the farmer generally provides the necessary plant and labour. The contract usually is that the land be operated for a specified purpose and a fixed time. Various arrangements are made for sharing the produce. Sometimes the parties to the agreement take equal shares of the produce up to a specified yield, and any excess goes to the farmer as a bonus. In other cases the owner takes one-third and the farmer two-thirds of the total product.

The following table shows particulars regarding the areas used for cultivation or 'dairying' on shares during 1920-21 and each of the last ten years:—

TABLE 623.—Share-farming, 1920-21 to 1937-38.

Season.	Holdings used for Share Farming.	Share-farmers.	Area Farmed on Shares.		
			Cultivation.	Dairying.	Total.
	No.	No.	acres.	acres.	acres.
1920-21	1,668	2,731	614,351	121,976	736,327
1928-29	3,281	4,402	840,972	343,942	1,184,914
1929-30	3,458	4,672	898,863	356,147	1,255,010
1930-31	3,720	5,033	1,018,591	396,863	1,415,454
1931-32	4,083	5,603	863,083	464,093	1,327,176
1932-33	6,606	9,119	1,599,191	554,151	2,153,342
1933-34	5,916	8,091	1,377,323	614,600	1,991,923
1934-35	5,877	7,765	1,179,832	661,543	1,841,375
1935-36	6,331	8,401	1,169,931	736,062	1,905,993
1936-37	6,490	8,380	1,214,170	765,788	1,979,958
1937-38	6,846	8,796	1,359,217	576,272	2,135,489

During the last decade the number of holdings used wholly or in part for share-farming has increased from 3,281 to 6,846 and the area farmed on shares from 1,184,914 acres to 2,135,489 acres. In 1928-29 the system was used for agriculture exclusively on 2,301 holdings, and for dairying (only) on 273 holdings. Corresponding numbers in 1937-38 were 4,147 and 248. Holdings with share-farmers engaged in agriculture and dairying in combination (including dairy farms on which only fodder crops for dairy cattle were grown) numbered from 707 in 1928-29 to 2,451 in 1937-38.

Practically the whole of the area cultivated on the share-system is devoted to wheat-growing. The system was well developed in 1915-16, when the area farmed on shares exceeded one-fifth of the total area under crop in the State. During the next three years the returns from wheat-growing were small on account of droughts and market difficulties, and share-farming diminished more rapidly than other systems of cultivation. Subsequent experience was largely affected by seasonal conditions, but there was

a substantial increase in share-farming between 1921 and 1933. In 1932-33 the area farmed in this manner was larger than in any other season, representing one-fourth of the total area under crop in the State. There was a decline of about 312,000 acres in the next two years, but the area in 1937-38 was nearly as large as in 1932-33 and the proportion of total area under crop was 22½ per cent.

Of the areas cultivated in 1937-38 on the shares-system 732,774 acres were in the Western Slopes Division and 475,443 acres were in the Central Plains and Riverina.

#### DATES OF PLANTING AND HARVESTING.

The usual dates of planting and harvesting the principal crops of the State in the main districts in which they are sown are as follows:—

Crop.	Most Usual Months of—	
	Planting.	Harvesting.
Wheat ... ..	April-June ... ..	November-December.
Maize ... ..	September-December ... ..	January-August.
Oats ... ..	March-May ... ..	December.
Barley ... ..	May ... ..	December.
Rice ... ..	October ... ..	May.
Potatoes—early ... ..	July-August ... ..	November-December.
„ late ... ..	November ... ..	July.
Sugar-cane ... ..	September ... ..	July-December.
Tobacco ... ..	November-December ... ..	March-April.
Broom Millet ... ..	September-October ... ..	January-February.

It should be noted that the foregoing statement shows only the most usual dates and that planting and harvesting occur before and after the periods specified, divergences being due to the variety of seed planted, the geographical position of the district, and variations in seasonal conditions.

#### INDIVIDUAL CROPS.

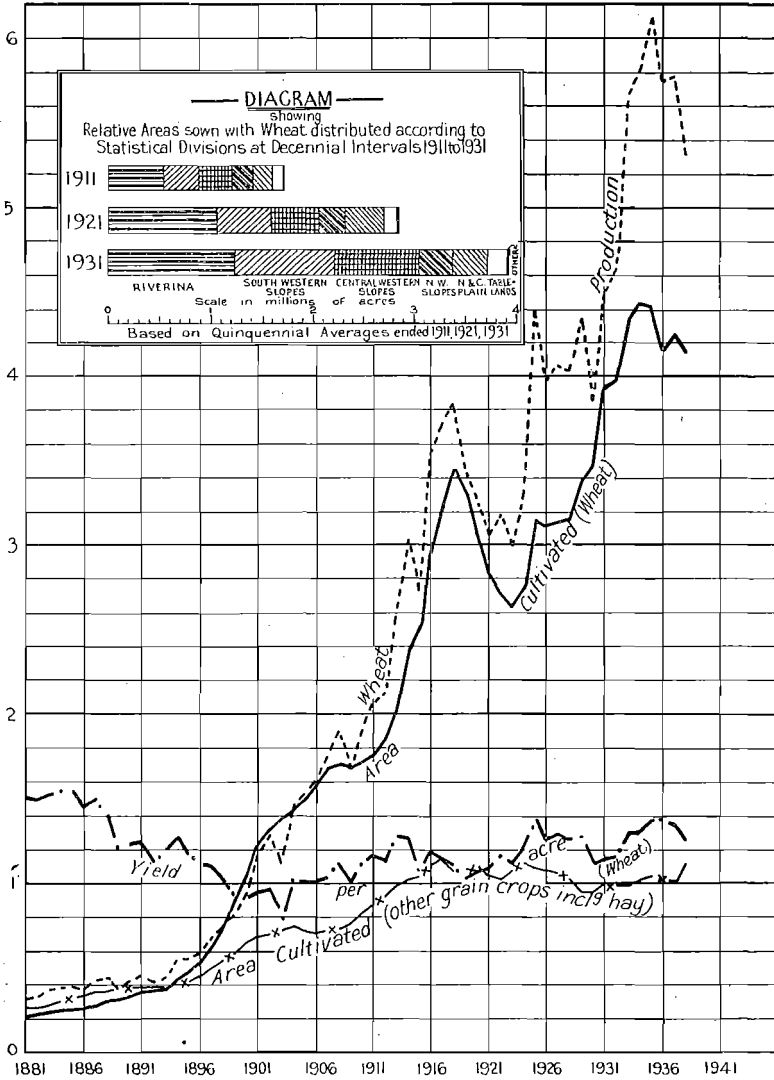
##### WHEAT.

Wheat is the staple agricultural product of New South Wales, and its cultivation provides a means of livelihood for a large section of the population. It is the principal activity on probably one-eighth of the rural holdings of the State, and three-quarters of the average area under crop is devoted to wheat. The farm value of wheat-crops (other than those used as green fodder) in 1937-38 was £10,719,120, including £9,298,800 from grain and £1,420,320 from wheaten hay.

The mild climate of New South Wales makes it possible to work the soil on scientific lines throughout the year, and admits of the utilisation of paddocks for pastoral purposes after the crop has been harvested. The time of sowing varies according to district and seasonal conditions, but is seldom earlier than March or later than August. Harvesting generally begins in November and may extend until February.

**WHEAT GROWING IN NEW SOUTH WALES.**

**Area, Production and Average Yield, 1881-1938.**



The graph has been prepared on the basis of quinquennial averages ended in each year as shown.

The numbers at side of graph represent : for wheat area, millions of acres ; for wheat production, tens of millions of bushels ; for yield of wheat per acre, tens of bushels, and for area of other crops, millions of acres.

## The Wheat Belt.

A description of the nature and extent of the wheat belt of New South Wales was published on pages 573 and 574 of the Year Book for 1928-29.

The extension of the limits of wheat-growing in New South Wales formed the subject of special reports by the Government Statistician in 1905, 1913, and 1923.

## Development of Wheat Growing.

Wheat growing as an industry in New South Wales has expanded steadily since 1890. The area sown exceeded 1,000,000 acres in 1897-98 and 2,000,000 acres in 1904-05 and was doubled during the next ten years. From the latest figures available it is estimated that an area of 30,508,390 acres is suitable for cultivation, and of this area 4,464,664 acres, or about one-seventh, was actually sown with wheat for grain in 1937-38.

The following statement shows the area under wheat for grain and for hay, together with the total production, average yield per acre, and quantity exported since 1897-98, the first season in which there was a surplus of wheat for export:—

TABLE 624.—Wheat—Area, Production, and Exports, 1898 to 1938.

Season.	Area under Wheat.				Yield.		Average yield per acre.		Wheat and Flour exported in each year following harvest.
	For Grain.	For Hay.	Fed-off.*	Total.	Grain.	Hay.	Grain.	Hay.	
	acres.	acres.	acres	acres	thousand bushels.	thousand tons.	bushels.	tons.	thousand bushels. †
1897-98	993,350	213,720	†	1,207,070	10,560	182	10.6	.85	582
1898-99	1,310,503	312,451	†	1,631,954	9,276	177	7.0	.57	487
1899-00	1,426,166	414,813	†	1,840,979	13,604	341	9.5	.32	865
1900-01	1,530,609	332,143	†	1,862,752	16,174	348	10.6	1.05	4,788
1901-02	1,392,070	312,568	†	1,704,638	14,800	287	10.6	.92	2,914
1902-03	1,279,760	320,588	†	1,600,348	11,585	70	1.2	.24	154
1903-04	1,561,111	286,792	†	1,847,813	27,334	452	17.5	1.58	9,772
1904-05	1,775,955	284,307	†	2,060,262	16,464	207	9.3	.73	5,661
1905-06	1,939,447	313,582	†	2,253,029	20,737	305	10.7	.97	5,338
1906-07	1,866,253	316,945	16,744	2,189,942	21,818	403	11.7	1.27	6,246
1907-08	1,390,171	365,925	129,813	1,885,909	9,156	198	6.6	.54	962
1908-09	1,394,056	490,823	104,202	1,989,086	15,483	427	11.1	.87	4,836
1909-10	1,990,180	380,734	5,825	2,376,739	28,532	566	14.3	1.49	12,111
1910-11	2,123,826	422,972	61,458	2,613,256	27,914	468	13.1	1.11	14,423
1911-12	2,380,710	440,243	80,731	2,901,684	25,088	423	10.5	.96	10,172
1912-13	2,231,514	704,221	31,557	2,967,292	32,487	780	14.6	1.11	17,116
1913-14	3,205,397	534,226	23,393	3,763,016	38,020	588	11.9	1.10	20,038
1914-15	2,758,024	569,431	816,561	4,143,016	12,831	355	4.7	.62	785
1915-16	4,188,865	879,678	53,702	5,122,245	66,765	1,212	15.9	1.38	23,514
1916-17	3,800,604	633,065	53,101	4,498,310	36,598	814	9.6	1.28	21,962
1917-18	3,329,371	435,180	63,385	3,828,436	37,712	485	11.3	1.11	12,550
1918-19	2,400,669	613,544	204,161	3,227,374	18,325	517	7.6	.84	19,694
1919-20	1,474,174	716,770	877,596	3,068,540	4,388	355	3.0	.49	427
1920-21	3,127,377	520,555	15,420	3,663,352	55,625	822	17.8	1.58	41,746
1921-22	3,194,949	467,363	24,735	3,687,047	42,767	575	13.4	1.23	21,798
1922-23	2,942,857	593,184	350,968	3,892,009	28,668	649	9.7	1.09	8,074
1923-24	2,945,335	695,022	283,305	3,924,262	33,176	703	11.3	1.01	11,976
1924-25	3,550,078	383,479	21,647	3,960,204	69,767	537	16.8	1.38	38,741
1925-26	2,925,012	449,803	286,552	3,661,367	33,806	444	11.6	.99	16,951
1926-27	3,352,736	311,213	36,160	3,700,109	47,541	394	14.2	1.27	13,697
1927-28	3,029,950	369,960	622,385	4,022,295	27,042	343	8.9	.93	15,516
1928-29	4,090,083	375,270	19,605	4,484,958	49,257	390	12.0	.94	21,063
1929-30	3,974,004	381,071	48,914	4,404,049	34,477	311	8.7	.82	14,621
1930-31	5,134,000	520,993	17,992	5,673,945	65,877	678	12.3	1.30	44,122
1931-32	3,632,945	292,234	20,008	3,995,187	54,966	376	14.9	1.29	38,769
1932-33	4,803,943	290,556	24,535	5,119,034	78,870	396	16.4	1.56	40,779
1933-34	4,584,092	324,129	30,561	4,938,782	57,067	385	12.4	1.19	21,503
1934-35	3,892,768	271,272	26,017	4,190,057	48,678	342	12.5	1.26	30,471
1935-36	3,851,373	224,632	49,651	4,125,656	48,822	267	12.7	1.19	25,546
1936-37	3,982,864	293,854	28,417	4,305,135	55,068	352	14.0	1.20	28,450
1937-38	4,464,664	348,339	28,491	4,841,494	55,104	350	12.3	1.00	26,360

\* Includes area sown for green food. In 1927-28 and previous years, all areas fed-off were included in this column. In 1928-29 and subsequent years, areas with an estimated fed-off value of less than that indicated in the next paragraph were treated as having failed entirely, and the acreage was allocated to grain or hay according to the purpose for which sown.

† Information not available.

‡ Flour has been expressed at its equivalent in wheat.

Of the 41 harvests recorded in the foregoing table, average yields have been as follow: 3 under five bushels per acre, 9 between five and ten bushels per acre, 24 between ten and fifteen bushels per acre, and 5 over fifteen bushels per acre. The average annual area harvested for wheaten hay decreased heavily during the post-war period from 625,560 acres in the five years ended 1916 and 519,890 acres in the five years ended 1926 to 280,565 acres in the quinquennium ended 1936. In 1928-39, 1930-31 and 1937-38 areas with a fed-off value of less than 15s. per acre were classified as failed, and included with the areas sown for hay or grain. The value adopted was 7s. 6d. per acre in 1931-32 and 10s. per acre in later years to 1936-37.

Excluding the war years, and with variations attributable to weather conditions preceding and at the time of sowing, the area sown for grain tended to expand in comparison with pre-war years until 1928-29. In 1930, in response to a national appeal, the area sown with wheat for grain exceeded the previous record (1915-16) by over half a million acres. Excessive rainfall prevented many farmers from sowing in 1931-32, but in the following season, with conditions favourable and growers apparently seeking to offset low prices by increased production, the area sown increased to within 6½ per cent. of that of 1930-31. Wheat cultivation then decreased, probably in reaction to the long period of low prices, and in 1935-36 the area under wheat for grain was 20 per cent. less than in 1932-33. Improving prices led to a slight increase in 1936-37 and a further increase of nearly half a million acres in 1937-38, when the area sown was the fourth largest on record and 16 per cent. greater than in 1935-36.

*Wheat Districts.*

The statistical divisions of New South Wales are shown on the map as the frontispiece of the Year Book.

The principal wheat-producing divisions of the State, arranged in order of importance, are the Riverina, the south-western slopes, the central-western slopes, the north-western slopes, the central plain, the central tableland, and the northern plains. A diagrammatic illustration of the relative areas of the wheat lands in the respective statistical divisions of the State in quinquennial periods ended 1911, 1921 and 1931 is shown as an inset to the graph published at page 701 of this issue. The average area harvested for grain and the average yield in each division for the period of ten years 1928-29 to 1937-38 are shown in the following summary:—

TABLE 625.—Wheat Area and Production—Decennial Averages, 1929 to 1938.

District:	Northerne.		Central.		Southern.		Total.	
	acres.	bus.	acres.	bus.	acres.	bus.	acres.	bus.
Coastal ... ..	*	*	*	*	*	*	2,010	27,146
Tableland ... ..	10,927	151,137	190,433	2,874,697	3,514	57,404	203,974	3,083,238
Slopes ... ..	379,616	5,537,758	888,884	10,900,339	1,054,465	14,849,185	2,322,965	31,427,282
Plains ... ..	170,498	2,072,233	305,972	2,517,072	1,231,073	15,704,466	1,707,543	20,293,821
Western Division	*	*	*	*	*	*	9,684	39,113
Total ... ..	560,141	7,811,178	1,385,289	16,332,108	2,289,052	30,611,055	4,246,176	54,870,600

\* Comparable divisions not available.

Although the proportions vary seasonally, on the average approximately 55 per cent. of the area harvested for grain is in the southern districts, 33 per cent. in the central districts, and 12 per cent. in the northern districts. Thus the wheat belt is divided into three portions, of which the northern normally receives the greater part of its rainfall in the summer, and the southern in the winter; the rainfall of the central districts is non-seasonal in character. Differences of soil, geographical features, cultural methods, and other factors play a considerable part in determining the yields of the various divisions.

The following statement shows that wheat is most extensively grown in the southern districts, and that in recent years the best results usually have been secured in the northern areas:—

TABLE 626.—Wheat Areas and Yields, 1929 to 1938.

Divisions.	Area Harvested for Grain.		Yield of Grain.		Yield of Grain per Acre.							
	Average 1928-29 to 1937-38.	1937-38.	Average 1928-29 to 1937-38.	1937-38.	Average 1928-29 to 1937-38.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	acres.	acres.	1,000 bus.	1,000 bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.
Coastal	2,010	3,550	27	54	13·5	15·0	17·9	11·9	14·0	7·1	15·0	15·1
†Northern	560,141	796,934	7,811	9,295	13·9	16·4	12·9	17·7	14·3	10·0	13·4	11·7
†Central	1,385,289	1,504,241	16,382	16,387	11·8	14·8	15·2	11·7	11·6	9·9	13·0	10·9
†Southern	2,289,052	2,152,201	30,611	29,324	13·4	14·7	17·9	11·6	12·7	15·2	14·8	13·6
Western	9,684	7,738	39	45	4·1	7·2	6·8	1·8	1·4	0·4	5·6	5·8
Total ..	4,246,176	4,464,664	54,870	55,105	12·9	14·9	16·4	12·4	12·5	12·7	14·0	12·3

† Includes Tablelands, Slopes, and Central Plains.

Generally speaking, the use of fertilisers and the practice of fallowing were most extensive in the southern districts, where, until recently, the average yield was usually greatest. This was due in a large part to the more dependable nature of the winter rains. But, as a post-war development, substantial areas with rather uncertain rainfall were brought into cultivation in the western Riverina, and the generally poor results in the new areas have had an appreciable effect in reducing the average yield in the southern districts. Although in six of the nine seasons since 1929-30 the yield per acre in the northern areas was substantially higher than in the central or southern sections, seasonal conditions contributed to that result in most years. With these considerations taken into account it is probable that the well-established and important sections of the southern district may retain place as the part of the wheat belt in which the cereal is most successfully grown. But notable progress has been made in the northern districts as may be seen in the increase in the average yield from 9.6 bushels per acre in the decennium ended 1923-24 to 13.9 bushels per acre over the ten-year period ended 1937-38.

#### *Rainfall Index in Wheat Districts.*

The following summary provides a monthly index of rainfall in the wheat districts of the State since 1926. The index is derived from the ratios of the average rainfall of eleven districts to the normal rainfall in the same districts weighted in accordance with the average area sown with wheat in

each district. The normal rainfall for each month is represented by 100, and the index shows, therefore, the percentage of actual to normal rainfall in each month:—

TABLE 627.—Rainfall Index in Wheat Districts, 1926 to 1939.

Month.	Rainfall Index—New South Wales Wheat Districts. (Percentage of Normal).													
	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938	1939
January	59	111	197	20	44	69	13	143	169	117	184	154	74	38
February	28	22	411	148	36	37	99	7	310	104	207	37	81	221
March ...	256	38	162	99	48	270	180	53	35	24	131	105	9	287
April ...	267	71	137	141	67	204	181	86	117	199	67	41	75	280
May ...	153	60	54	33	82	312	43	74	4	28	48	56	68	48
June ...	75	39	76	36	111	227	72	65	72	33	107	63	83	115
July ...	79	53	119	27	103	90	87	127	163	115	203	31	94	...
August ...	97	69	27	111	124	50	129	50	137	68	96	113	141	...
September	101	63	100	95	43	91	141	152	71	114	53	83	30	...
October	61	153	88	79	234	46	57	102	255	116	52	109	139	...
November	15	135	32	102	95	123	112	190	218	27	15	73	54	...
December	136	57	19	118	248	97	59	176	66	68	215	73	9	...
	Average yield of wheat per acre.*													
Bushels	14.2	8.9	12.0	8.7	12.8	14.9	16.4	12.4	12.5	12.7	14.0	12.3	12.9	† ...

\* Season ended March of following year. † Subject to revision.

The significant months as regards the effect of rainfall on wheat yields are from April to October—especially April, May, and September. The wheat districts extend over practically the whole length of the hinterland, and seasonal conditions vary widely as between districts. The incidence of fallowing and fertilising, temperatures and winds also play a large part in modifying the effects of rainfall on yields.

In the following table the rainfall index for the northern, central, and southern sections of the wheat belt is shown in comparison with the average yields per acre from fallowed and stubble lands in the seasons 1937-38 and 1938-39:—

TABLE 628.—Rainfall Index and Average Yield in Various Wheat Districts, 1937 and 1938.

Month.	Rainfall Index 1937—Wheat Districts. Normal for each month=100.				Rainfall Index 1938—Wheat Districts. Normal for each month=100.				
	North-ern.	Central.	South-ern.	Total.	North-ern.	Central.	South-ern.	Total.	
January ...	...	98	97	190	154	90	99	60	74
February ...	...	82	82	9	37	75	61	90	81
March ...	...	159	110	84	105	20	9	7	9
April ...	...	31	39	44	41	67	77	76	75
May ...	...	34	56	61	56	204	79	34	68
June ...	...	64	81	55	63	54	75	95	83
July ...	...	85	19	26	31	94	109	87	94
August ...	...	99	136	106	113	189	118	141	141
September ...	...	59	63	96	83	48	27	27	30
October ...	...	96	83	122	109	124	177	126	139
November ...	...	146	109	43	73	108	80	32	54
December ...	...	73	53	81	73	10	21	3	9
Average yield of wheat per acre—									
Fallowed land bus..	14.8	14.2	15.3	15.0	23.5	13.1	12.2	13.0	
Stubble land bus....	11.4	8.6	9.4	9.6	21.0	9.5	8.2	12.7	

\* Preliminary.

*Average Yield of Wheat.*

Viewed over a long period of years, the average yield of wheat in New South Wales is subject to marked fluctuations by reason of the widely divergent nature of the seasons, but reference to table 624 will show that these fluctuations have been much less marked since 1920-21 than formerly. The highest yields have usually been recorded in seasons following the worst droughts, and besides giving proof of the advantages of fallowing have gone far to make immediate compensation for the losses sustained. The lowest yield on record—that of the 1902 season—was only 1.2 bushels per acre. It was followed by a yield of 17.5 bushels per acre; and after a severe drought in 1918-20, an average of 17.8 bushels per acre was obtained. The lowest average yield in any season since 1919-20 was 8.7 bushels per acre in 1929-30.

The average annual yield has improved steadily since the commencement of wheat-growing for export in 1897. The higher averages obtained prior to this expansion are due probably to the fact that the smaller area under cultivation in these early years embraced a larger proportion of land specially suitable for wheat-growing. In decennial periods the average yields of New South Wales were as follows:—

TABLE 629.—Wheat Yields, Decennial Averages 1872 to 1938.

Period.	Average Yield per acre.	Period.	Average Yield per acre.
	bushels.		bushels.
1872-1881	14.71	1912-1921	11.62
1882-1891	13.30	1922-1931	12.02
1892-1901	10.02	1928-1937	12.69
1902-1911	11.04	1929-1933	12.92

In calculating these averages the area which was sown for grain but failed is included, while the area fed off or used for green fodder is excluded.

Although the yield is largely influenced by the nature of the seasons, it is apparent that, as scientific methods of cultivation are becoming more widely adopted and land is properly fallowed, tilled, and manured, the average is increasing. Another favourable factor exists in the improvement of wheat types by plant-breeding.

The yield of wheat per acre in New South Wales is usually lower than in some of the large wheat-producing countries. Averages for the five years 1932-33 to 1936-37 are shown below, but an extraordinary succession of unfavourable seasons in Canada and the United States in this period renders the averages shown much below the normal experienced in these countries. Over the seventeen years ended 1938 the average yields per acre were 14.7 bushels in Canada, 11.6 bushels in the United States, 12.3 bushels in Argentina, and 11.9 bushels in Australia.

TABLE 630.—Average Wheat Yields in Principal Countries.

Country.	Average Yield per acre.	Country.	Average Yield per acre.
	bushels.		bushels.
Canada ... ..	11.9	Australia ... ..	12.2
United States ... ..	9.1	New South Wales ... ..	13.7
Argentina ... ..	12.9	Russia (U.S.S.R.) ..	8.8*

\* Partly approximation.



*Fallowing and the Wheat Yield.*

Since 1923-24 statistics have been collected of the yield of grain from the areas of new land, fallowed land, and unfallowed land sown with wheat. It was intended that land should not be classed as fallow unless it had been cultivated by ploughing during the year preceding the sowing, but it is doubtful whether the collection has been made on this basis in all cases. Summer fallow is practised to some extent.

The following table provides a comparison of the yields obtained from the various classes of land in 1937-38 in each of the divisions described on page 703:—

TABLE 631.—Wheat Yield from Fallowed and Unfallowed Land, 1937-38.

Division.	Area, †			Total Yield.			Average Yield per Acre.		
	New Land.	Fallowed Land.	Stubble Land.	New Land.	Fallowed Land.	Stubble Land.	New Land.	Fallowed Land.	Stubble Land.
	acres.	acres.	acres.	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
Coastal ...	599	740	2,211	13,659	6,231	33,600	24.8	8.4	15.2
Northern* ...	128,639	121,352	546,943	1,271,373	1,790,109	6,233,214	9.9	14.8	11.4
Central* ...	86,188	601,658	816,395	862,662	8,534,922	6,989,241	10.0	14.2	8.6
Southern* ...	47,200	1,514,113	590,888	556,170	23,221,953	5,545,704	11.8	15.3	9.4
Western ...	783	3,351	3,604	3,906	23,562	17,694	5.0	7.0	4.9
Total ...	233,409	2,241,214	1,960,041	2,707,770	33,576,777	18,819,453	10.3	15.0	9.6

\* Includes Tablelands, Slopes, and Central Plains.

† Including areas which failed.

The average yields on fallowed land were far in excess of those from other land throughout the wheat belt. The climatic conditions prevailing in the various wheat districts and the methods adopted by farmers differ in a marked degree, consequently the results shown above do not represent fully the benefits which accrue from fallowing. Still, it is apparent that even with present extent of fallow the improvement in the wheat yield has been appreciable.

The average yields per acre from fallowed and unfallowed lands respectively in the northern, central, and southern districts of the State in each year for which records have been obtained are as follows:—

TABLE 632.—Wheat Yields on Fallowed and Stubble Land, 1924 to 1938.

Year.	Northern Districts.*		Central Districts.*		Southern Districts.*		Whole State.	
	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
1923-24 ...	8.3	6.8	10.4	8.5	15.3	12.2	14.1	9.6
1924-25 ...	19.4	16.1	19.1	14.7	19.9	13.9	19.7	14.8
1925-26 ...	9.3	7.5	15.3	10.7	13.2	10.1	13.5	10.0
1926-27 ...	15.1	14.3	16.4	12.7	15.2	12.3	16.0	13.0
1927-28 ...	5.8	3.6	9.0	5.7	11.7	7.5	11.2	5.9
1928-29 ...	16.7	14.3	14.5	9.7	13.7	9.2	13.9	10.6
1929-30 ...	19.2	15.0	7.9	4.2	11.7	6.5	10.8	7.3
1930-31 ...	16.3	14.7	15.8	12.8	15.2	9.9	15.4	11.8
1931-32 ...	20.1	16.4	18.6	13.5	16.7	11.6	17.1	13.4
1932-33 ...	16.6	12.8	19.3	13.7	20.6	15.1	20.2	14.1
1933-34 ...	21.4	17.0	14.0	10.3	14.0	7.8	14.3	10.7
1934-35 ...	18.0	13.3	13.1	10.2	13.8	9.3	13.8	10.7
1935-36 ...	13.2	9.3	13.1	7.2	17.0	9.9	15.8	8.5
1936-37 ...	16.8	12.8	15.0	11.4	16.0	11.8	15.8	11.9
1937-38 ...	14.8	11.4	14.2	8.6	15.3	9.4	15.0	9.6

\* Includes Tablelands, Slopes, and Plains.

The following statement shows the approximate areas of new land, fallowed land, and stubble land sown with wheat harvested for grain, including that which failed entirely in New South Wales during each of the past ten seasons :—

TABLE 633.—Areas of Wheat Sown on Fallowed and Unfallowed Land, 1929 to 1938.

Season.	New Land.	Fallowed Land.	Remainder, Stubble Land.	Total.*	Proportion Fallowed to Total Area.
	acres.	acres.	acres.	acres.	per cent.
1928-29 ... ..	192,865	2,010,751	1,872,938	4,076,554	49.3
1929-30 ... ..	190,715	1,638,683	2,072,380	3,901,778	42.0
1930-31 ... ..	297,618	1,708,104	3,117,413	5,123,135	33.3
1931-32 ... ..	123,661	1,473,678	2,062,609	3,659,948	40.3
1932-33 ... ..	175,232	1,852,243	2,776,468	4,803,943	38.6
1933-34 ... ..	180,088	2,152,276	2,251,728	4,584,092	46.9
1934-35 ... ..	133,018	2,242,764	1,516,986	3,892,768	57.6
1935-36 ... ..	127,249	2,199,006	1,525,118	3,851,373	57.1
1936-37 ... ..	180,729	2,144,932	1,657,203	3,982,864	53.9
1937-38 ... ..	263,409	2,241,214	1,960,041	4,464,664	50.2

\* Approximate.

The ratio of fallowed land to the total sown for grain in 1937-38 was 15.2 per cent. in the northern districts, 40.0 per cent in the central districts, and 70.4 per cent. in the southern areas.

On the average, about half the total area cropped for grain is fallowed land, but in response to a "grow more wheat" campaign in 1930 a large proportion of stubble land was cropped again in lieu of being fallowed. This factor, together with the exceptionally heavy rains in 1931, reduced the sowings of 1931-32. In 1932-33 a substantially increased acreage was sown under all three headings, and in 1933-34 a normal proportion of the total area comprised fallowed land. More fallowed land was used in 1934-35 than in any previous season when the proportion sown on fallows was 57.6 per cent., and with one exception (58.9 per cent. in 1927-28) the highest on record. The proportion was high in the later seasons, viz., 57.1 per cent. in 1935-36, and 53.9 per cent. in 1936-37 was fallowed land. The percentage of fallowed land was lower in 1937-38, where there was a marked rise in the price of wheat, and an increased proportion of new land as well as stubble was sown.

#### *Varieties of Wheat Grown.*

Plant-breeding has been a continuous process since the time of Farrer, involving the introduction and subsequent replacement of new varieties of wheat as, step by step, progress has been made in evolving types more serviceable from the standpoint of climate and soil, disease resistance, quality and productivity. In this work the Department of Agriculture has co-operated with wheat-growers in cultivating experimental plots on farms throughout the State.

Much attention has been given to milling and baking quality. In consequence weak, soft flour wheats of low gluten content have been replaced extensively by new varieties. The number of varieties recommended for cultivation has been reduced, and this has resulted in greater uniformity

in the f.a.q sample, with consequent advantages in marketing. In 1938-39 about 70 per cent. of the area sown was of the five leading varieties as compared with 56 per cent. in 1929-30.

Particulars of the principal varieties grown in each season are published in the part "Rural Industries and Settlement" of the Statistical Register. Changes since 1934-35 are illustrated in the following comparisons:—

TABLE 634.—Varieties of Wheat Grown, 1935 to 1939.

Variety.	Season.			Variety.	Season.		
	1934-35.	1936-37.	1938-39.		1934-35.	1936-37.	1938-39.
	acres.	acres.	acres.		acres.	acres.	acres.
Apollo ... ..	...	*	793	Ghurka ... ..	29,179	75,692	67,284
Aussie ... ..	31,317	23,640	*	Gular ... ..	...	11,484	95,260
Baringa ... ..	38,400	287,474	266,499	Marshall's No. 3	74,585	57,836	*
Bena ... ..	71,659	47,168	*	Nabawa ... ..	1,135,719	879,688	747,749
Beneubbin ... ..	...	102,977	746,093	Penny ... ..	81,544	32,331	*
Bobin ... ..	449,313	173,651	146,285	Pusa No. 4 ... ..	42,393	67,712	133,358
Canberra ... ..	24,947	16,090	*	Pusa No. 111 ... ..	...	...	17,557
Canimbla ... ..	16,465	21,114	*	Rajah ... ..	21,705	11,308	*
Currawa ... ..	28,010	16,733	*	Ranee ... ..	165,647	173,214	206,020
Dundee ... ..	111,679	524,237	816,233	Riverina ... ..	30,028	17,667	*
Duri ... ..	12,137	10,367	*	Totadgin ... ..	...	2,235	25,164
Federation ... ..	54,672	14,977	*	Turvey ... ..	62,927	37,644	*
Ford ... ..	513,399	890,959	994,110	Waratah ... ..	360,783	280,410	286,089
Free Gallipoli ... ..	202,640	56,024	*	Yandilla King ... ..	200,790	103,267	40,430
Geeralying ... ..	28,992	62,590	101,480	Other Varieties	336,668	258,985	430,187
				Total ... ..	4,125,598	4,257,492	5,120,600

\* Information not collected.

In 1939 eleven principal varieties were recommended by the Department of Agriculture and, of these, four were for use in defined localities only. The seven main varieties were Ford, Dundee and Bencubbin (mid-season); Gular, Pusa No. 4 and Geeralying (very early maturing); and Ghurka (late maturing).

Beneubbin, which is replacing the hitherto popular Nabawa and Baringa, grows well under dry conditions. It is highly resistant to flag smut, moderately resistant to stem rust, and produces heavy yields of bright grain of moderately good flour strength. Ford, adapted for cultivation over a very large part of the wheat belt, is also a disease-resistant, heavy yielding wheat milling into a medium strong flour. Dundee is a productive mid-season variety of good baking quality and strong straw. Pusa No. 4 and Gular mill into flour of the highest baking quality produced in New South Wales. Both are somewhat susceptible to disease and rather light in yield but command a premium above that of wheat of fair average quality.

The adoption of the newer varieties has led to an increased average yield per acre and the satisfactory harvests in recent years of low and irregular rainfall were due largely to the development of drought-resisting varieties of wheat. Moreover, marked improvement in the milling and baking qualities of the grain produced has facilitated marketing abroad at prices above those secured for ordinary filler wheats. The trend is towards concentration upon relatively few varieties of wheat of high quality. This will facilitate grading into well-defined classes and with this project in view arrangements have been made for the separate handling of a "hard white" milling wheat.

*Size of Wheat Areas.*

The following table illustrates the recent development of wheat-growing in respect of number and average size of areas sown per holding:—

TABLE 635.—Number and Average Area of Wheat Farms.

Year.	Wheat sown for Grain, Hay, and Green Food.			Holdings on which wheat was sown only for hay or for green food.	Wheat sown for Grain.		
	Holdings.	Total Area sown with Wheat.	Average Area per Holding devoted to Wheat.		No. of Holdings	Areas sown for grain.†	Average area per holding.†
1900-01	No. 20,149	acres. 1,862,752	acres. 92	No. *	No. *	acres. *	acres. *
1905-06	19,049	2,253,020	118	*	*	*	*
1915-16	22,453	5,122,245	224	*	*	*	*
1920-21	17,790	3,663,352	206	2,132	15,658	3,127,377	200
1925-26	17,074	3,661,367	214	2,797	14,277	2,925,012	205
1926-27	17,135	3,700,109	216	1,204	15,931	3,352,736	210
1927-28	16,817	4,022,295	239	2,710	14,107	3,029,950	215
1928-29	17,134	4,484,958	262	1,128‡	16,006	4,090,083	256
1929-30	16,382	4,404,049	269	1,177‡	15,205	3,974,064	261
1930-31	18,171	5,673,945	312	1,247‡	16,924	5,134,960	303
1931-32	16,875	3,995,187	237	945‡	15,930	3,682,945	231
1932-33	19,029	5,119,034	269	1,068‡	17,961	4,803,943	268
1933-34	18,745	4,938,782	263	1,409‡	17,336	4,584,092	268
1934-35	17,583	4,190,057	238	1,462‡	16,121	3,892,768	241
1935-36	17,220	4,125,656	240	1,297‡	15,923	3,851,373	242
1936-37	17,484	4,305,135	246	1,110‡	16,374	3,982,864	243
1937-38	18,563	4,841,494	261	1,291‡	17,272	4,464,664	259

\* Not available.

† Excluding area cropped for hay.

‡ Areas with fed-off value less than 15s. per acre in 1928-1931, and less than 7s. 6d. per acre in 1932, less than 10s. per acre from 1933 to 1937 and less than 15s. per acre in 1937-38 have been classified as failed entirely and included in the third column of the table.

The expansion in area between 1928 and 1930 was due mainly to an increase in average areas sown, and there was a marked increase in the number of growers in 1930-31. Depressive market conditions and the unusually small area of fallowed land available were responsible for a severe diminution in acreage, and the number of growers in 1931-32. The anticipation of a Government bonus, and the persistently low prices received for wool probably induced many additional farmers to grow wheat in 1932-33, with the result that there was a substantial increase in both acreage and the number of growers. There was a moderate decline from 1933-34 to 1935-36, then both the area sown and the number of wheat-growers increased again.

Formerly a considerable number of growers sowed wheat and cropped it for grain, hay or green food, according to seasonal conditions, but this practice has declined latterly.

The following table provides a summary of the areas of holdings on which wheat was grown for grain in the seasons 1936-37 and 1937-38 arranged in groups according to the area cropped for grain:—

TABLE 636.—Wheat Holdings in Area Series, 1936-37 and 1937-38.

Area cropped for Grain.	1936-37.				1937-38.			
	Holdings.	Area cropped for grain.	Production of grain.	Average yield per acre.	Holdings.	Area cropped for grain.	Production of grain.	Average yield per acre.
acres.	No.	acres.	bushels.	bushels.	No.	acres.	bushels.	bushels.
1-49	2,136	47,074	598,200	12·7	2,214	48,446	649,881	13·4
50-299	9,308	1,580,516	22,904,964	14·5	9,309	1,563,376	21,916,692	14·0
300-499	3,440	1,266,285	17,016,519	13·4	3,788	1,399,747	16,241,097	11·6
500-999	1,308	830,750	11,351,961	13·7	1,717	1,100,126	11,963,838	10·9
1,000-1,999	161	197,639	2,830,140	14·3	214	265,471	3,054,468	11·5
2,000—and over.	21	60,600	966,216	15·9	30	87,498	1,278,024	14·6
Total	16,374	3,982,864	55,668,000	14·0	17,272	4,464,664	55,104,000	12·3

In this table wheat-farms are divided somewhat arbitrarily into six classes, graded according to the size of the area cultivated for grain. Those where less than 50 acres are cultivated for grain may be considered to be held by growers earning their livelihood principally by other means. In 1937-38 these numbered 2,214 or 12.8 per cent. of the total. Where the areas cultivated range from 50 acres to 299 acres growers may be considered to draw their subsistence from wheat-growing in a degree ranging from partial to complete dependence—these numbered 9,309, or 53.9 per cent. of the total. Where the area cultivated exceeds 300 acres hired labour is usually employed in connection with the whole of the operations, or more than one grower is concerned. Areas of this kind numbered 5,749 and represented 33.3 per cent. of the total.

In all, areas of less than 30 acres in extent were sown with wheat for grain on 1,433 farms. The total number of areas under 100 acres in extent sown with wheat for grain was 3,939: from 100 to 199 acres, 3,939; from 200 to 299 acres, 3,645; from 300 to 399 acres, 2,446; and from 400 to 499 acres, 1,342; then the number diminished rapidly as the area increased. In 1937-38 there were 30 wheat crops of 2,000 acres and over in extent. A number of large crops, however, are farmed on the shares system, and in some cases more than one share-farmer is engaged.

The difference in the average yields in area series are not usually very pronounced, and are affected by such factors as rainfall and location. In recent years the areas over 2,000 acres in extent have been the most productive.

A table showing the number, area and production from wheat crops in area series in each division of the State is published in section "Agriculture" of the Statistical Register of New South Wales. This shows that

the crops of 2,000 acres and over in extent in 1937-38 were distributed as follows:—In Riverina 8, North-Western Slopes 8, South-Western Slopes 4, Central-Western Slopes 5, North-Central Plain 2, Central Plain 2, and Central Tableland 1.

In 1937-38 the quantity of wheat harvested was less than 1,500 bushels on 6,764 holdings, or nearly 40 per cent. of the holdings on which wheat was grown for grain. With wheat at about 3s. 4½d. per bushel (as in 1937-38), 1,500 bushels would return the farmer about £253 gross at country railway. It is obvious that the majority of these, and probably many of the 3,720 growers who harvested between 1,500 and 3,000 bushels of wheat—if dependent upon wheat-growing—would not gain a reasonable livelihood from the season's activities. On many holdings where a very large quantity was harvested it represented the production of the owner and several share-farmers.

Details of the distribution of the 1937-38 harvest in production series, by divisions, are:—

TABLE 637.—Wheat Crops in Production Series, 1937-38.

Division.	Number of Holdings on which Wheat Harvested was—					Total.
	Under 1,500 Bushels.	1,500 to 2,099 Bushels.	3,000 to 5,999 Bushels.	6,000 to 8,999 Bushels.	9,000 or more Bushels.	
Coastal ... ..	91	3	2	1	2	99
Northern Tablelands ... ..	133	23	19	7	1	183
Central Tablelands ... ..	838	281	249	101	74	1,543
Southern Tablelands ... ..	119	9	1	1	1	131
North Western Slopes ... ..	1,025	464	510	183	123	2,305
Central Western Slopes ... ..	1,082	719	855	334	244	3,234
South Western Slopes ... ..	1,174	943	1,201	444	294	4,056
North Central Plains ... ..	469	128	106	59	52	814
Central Plains ... ..	546	144	78	23	9	800
Riverina ... ..	1,262	999	1,182	376	252	4,071
Western Division ... ..	25	7	4	...	...	36
Total—New South Wales ... ..	6,764	3,720	4,207	1,529	1,052	17,272
Production— Thousand bushels ... ..	3,860	8,056	17,485	10,883	14,820	55,104

#### *Wheat Growing in Conjunction with Grazing and Dairying.*

A special compilation of wheat statistics for the season 1932-33 was undertaken by this Bureau to assist a Royal Commission on the Wheat, Flour and Bread Industries, and a similar survey was made in respect of the year 1935-36. Tables presenting the information in respect of each statistical division are published in the Part "Rural Industries and Settlement" of the Statistical Registers, 1933-34 and 1935-36 and the results were summarised in the "Official Year Book, 1935-36."

This review shows that there are relatively few farms devoted exclusively to wheat-growing, and that many wheat-growers derive a substantial proportion of their livelihood from supplementary farming activities. In 1935-36 there were in New South Wales (exclusive of the Coastal Divisions) only 1,318 holdings on which wheat for grain was grown without

sheep, pigs or a registered dairy, and it is possible that some of these may have been applied to supplementary forms of agriculture or to other activities such as the raising of cattle for slaughter. It is also apparent that wheat for grain is grown on many holdings on which agriculture is subsidiary to the major purposes to which they are devoted. The following comparison shows the extent to which wheat-farming is combined with some other important forms of rural activity.

TABLE 638.—Wheat-growing in Association with Other Rural Industries, 1932-33 and 1935-36.

Holdings Growing Wheat for Grain.*	1932-33.	1935-36.
<b>1. Holdings growing wheat—</b>		
(a) Number ... ..	17,892	15,861
(b) Area of holdings ... .. acres ...	26,964,192	24,337,567
(c) Area sown with wheat ... .. acres ...	4,802,019	3,849,216
(d) Production ... .. bushels...	78,835,329	48,806,592
<b>2. Holdings which produced wheat and depastured sheep—</b>		
(a) Number ... ..	14,562	13,605
(b) Number as proportion of 1 (a) ... .. per cent.	81.4	85.8
(c) Sheep on these holdings ... .. No. ...	15,844,206	13,381,878
(d) 2 (c) as proportion of all sheep* ... .. per cent.	30.2	26.4
<b>3. Holdings which produced wheat and had registered dairies—</b>		
(a) Number ... ..	2,283	1,740
(b) Number as proportion of 1 (a) ... .. per cent.	12.8	11.0
(c) Cows on these holdings ... .. No. ...	61,766	49,371
(d) 3 (c) as proportion of all cows in registered dairies* ... .. per cent.	34.9	30.5
<b>4. Holdings which produced wheat and pigs—</b>		
(a) Number ... ..	.....	5,418
(b) Number as proportion of 1 (a) ... .. per cent.	.....	34.2
(c) Pigs on these holdings ... .. No. ...	.....	58,934
(d) 4 (c) as proportion of all pigs* ... .. per cent.	.....	49.1

\* Exclusive of Coastal Division.

The figures and percentages shown relate to all holdings on which wheat for grain was grown, and the sheep, dairy cows and pigs thereon, in New South Wales exclusive, in all cases, of the Coastal Divisions.

*Consumption of Wheat in New South Wales.*

Estimates of the average annual consumption of wheat in New South Wales in periods from 1892 to 1929 were published on page 552 of the Year Book for 1929-30. These were based upon total recorded production, less net exports, with due adjustment for recorded stocks and for seed wheat.

Additional data have been obtained since the year 1927 which enable estimates to be made of consumption exclusive of seed wheat and of wheat retained for use in the locality in which it is grown. Direct returns are now collected as to the quantity of seed wheat used; these show an average of approximately 1 bushel per acre.

For the purpose of the estimates, the wheat year is considered to extend from 1st December to 30th November, and at the latter date returns of stocks are obtained. As, however, in some years considerable quantities of new season's wheat arrive on the market in the latter half of November and as records of wheat in transit are difficult to obtain it is not possible to estimate closely the consumption of individual years.

It is estimated that the average annual consumption of wheat in New South Wales at the present time is 17,000,000 bushels plus a varying annual requirement for seed wheat. This total includes an annual average of 12,750,000 bushels converted into flour for home consumption and 4,250,000 bushels used for various other purposes—principally poultry feed. The amount required for seed varies from year to year with fluctuations in the area sown and may range from a little under 4,000,000 bushels to a little over 5,000,000 bushels. On the average, seed requirements may be estimated at 4,500,000 bushels and the total annual requirement at 21,500,000 bushels under present circumstances.

*Marketing of Wheat.*

As interstate trade in wheat and flour is comparatively small, the maintenance and further development of the wheat industry in New South Wales are dependent largely on world demand, on the efficiency of production, the facilities for gaining access to overseas markets, and on the maintenance of such internal conditions that it will pay local farmers to grow wheat. The price of wheat for export is determined by world's parity, which fluctuates with the world supply and demand. The market for the exportable surplus of local wheat is found chiefly in Europe, but quantities of flour are sent to the countries and islands of the Pacific and Indian Oceans. For some years after 1930 large quantities of wheat were shipped to China and Japan but this market has diminished. The market for Australian wheat in Europe is affected by the competition of great wheat-producing countries nearer the market—the United States, Canada, the Argentine, and Russia—which derive advantages from shorter distances and lower ocean freights. These advantages, however, are counteracted to some extent by the greater land haulage necessary from the interior to the coast of some of these countries. In recent years greatly increased production by many European countries, and the imposition of tariffs and import quotas, have diminished international trade in wheat.

The movement of wheat and flour oversea and interstate from New South Wales is shown below. The particulars for the respective years relate to the twelve months ending 30th November, and therefore represent the movement:



following each harvest. Flour is expressed at its equivalent in wheat, viz., 48 bushels of grain to 2,000 lb. flour.

TABLE 639.—Exports of Wheat and Flour Oversea and Interstate, 1923 to 1938.

Year ended 30th Nov.	Export Oversea.		Net Export Interstate.*		Total Net Export.			Recorded Stocks at 30th Nov.
	Wheat.	Flour.	Wheat.	Flour.	Wheat.	Flour.	Grand Total.	Wheat and Flour.
Expressed in thousand bushels of wheat.								
1923 ...	2,020	6,844	2,065	1,170	4,085	8,014	12,099	2,229
1924 ...	5,433	6,103	3,985	1,246	9,418	7,349	16,767	2,223
1925 ...	31,824	7,299	3,013	1,272	34,837	8,571	43,408	1,863
1926 ...	9,250	6,370	1,878	1,306	11,128	7,676	18,804	1,676
1927 ...	12,813	7,703	4,957	1,769	17,770	9,472	27,242	4,870
1928 ...	4,306	6,165	1,386	1,275	5,692	7,440	13,132	2,750
1929 ...	17,120	7,879	2,912	1,948	20,032	9,827	29,859	5,158
1930 ...	4,633	7,141	2,128	1,377	6,761	8,518	15,279	5,356
1931 ...	33,836	9,341	1,973	574	35,809	9,915	45,724	5,453
1932 ...	25,920	10,285	3,970	661	29,890	10,946	40,836	2,640
1933 ...	34,669	11,256	7,611	1,031	42,280	12,287	54,567	6,110
1934 ...	10,430	11,513	4,015	1,335	14,445	12,848	27,293	13,302
1935 ...	16,324	12,666	2,928	1,084	19,252	13,750	33,002	5,980
1936 ...	16,442	8,828	5,969	888	22,411	9,716	32,127	2,719
1937 ...	19,513	9,187	5,210	920	24,723	10,107	34,830	3,272
1938 ...	16,807	10,836	4,017	899	20,824	11,735	32,559	4,134

\* Partly estimated.

Owing to the difficulty of obtaining accurate records of interstate movements of wheat and of stocks of wheat and flour, the above figures are in some degree approximate. It is not possible to use them in conjunction with the recorded crop to estimate annual consumption in New South Wales, because the recorded crop also is necessarily an approximation.

The market fluctuations in the quantity of wheat exported annually are due mainly to changes in the size of harvests. There was an upward trend in the exports of flour until 1935-36, when the quantity declined in a marked degree. There was a steady improvement in the last two years.

Further particulars of the flour trade of New South Wales are shown in the following table relating to years ended 30th June which do not, however, correspond very closely to wheat seasons:—

TABLE 640.—Flour Trade of New South Wales, 1931 to 1938.

Particulars.	Year ended 30th June.						
	1931.	1933.	1934.	1935.	1936.	1937.	1938.
Wheat gristed ...	21,656,919	23,221,423	24,033,438	27,041,903	25,276,714	22,137,426	22,413,017
Flour expressed in tons (2,000 lb.).							
Flour produced ...	440,439	525,051	495,779	555,173	523,281	464,498	476,881
Flour exported—							
Oversea* ...	132,708	238,466	209,055	273,071	231,067	187,351	202,210
Interstate† ...	26,151	26,095	33,375	31,690	24,568	24,902	25,028
Flour imported—							
Oversea ...	29	53	22	37	24	5	8
Interstate† ...	8,144	6,907	6,841	7,132	6,814	6,844	6,836

\* Including ships' stores.

† Approximate.

The average quantity of flour consumed in New South Wales in the period, was approximately 268,000 tons per annum. The estimated consumption per head of population is shown in the chapter entitled "Food and Prices," and some further details regarding flour-milling are shown in chapter "Factories" of the Year Book.

*Destination of Wheat Exports.*

The following table covering the oversea export of wheat during 1928-29 and the past five years indicates in some measure the fluctuations in the marketing of this commodity from year to year but should be read in conjunction with the next succeeding table showing exports of flour from the State:—

TABLE 641.—Wheat Exports, Destination, 1929 to 1938.

Destination.	Quantity of wheat (grain) exported oversea from New South Wales. (Year ended 30th June).					
	1928-29.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
United Kingdom	6,633,858	6,339,662	7,093,840	14,222,126	10,264,723	11,541,512.
Irish Free State	377,864	3,477,490	1,520,358	2,643,215	2,773,382	305,692
Belgium .....	405,161	18,666	250,185	1,547,918	...	58,800
Netherlands.....	435,778	41,112	...	46,666	1,243,407	...
France .....	312,576	...	...	...	...	1,845,305.
Germany .....	385,545	...	...	...	345,827	...
Greece .....	545,538	...	...	...	...	...
Italy .....	1,523,346	36,868	...	1,129,113	4,577,513	332,065
Malta .....	443,203	...	54,160	22,396	...	67,200
Sweden.....	370,830	...	...	...	...	...
Egypt .....	445,077	...	...	...	...	...
Union Sth. Africa	97,543	...	...	...	...	...
Chili and Peru	746,720	376	...	...	...	...
India .....	2,295,186	...	...	...	5	...
China .....	619,035	303,137	3,869,807	3,197,511	760	...
Japan .....	2,722,358	56,003	2,452,377	173,988	519,065	29,867
New Zealand ...	231,302	5,128	7,875	177,798	66,723	80,177
Other Countries	345,485	34,380	29,165	39,592	459,438	*2,054,797
<b>Total</b>	<b>18,936,405</b>	<b>10,312,822</b>	<b>15,277,767</b>	<b>23,200,323</b>	<b>20,250,843</b>	<b>16,315,415</b>

\*Including Norway, 192,062; Portugal, 915,782 and U.S.S.R. (Russia) 891,897.

In recent years shipments of wheat to the United Kingdom have exceeded the exports to all other countries. A duty of 2s. per quarter on wheat from other than Empire sources was of considerable assistance to Australian producers in the British market, but it was removed as from 1st January,

1939, under the Anglo-American trade agreement. The trade with the continent of Europe and Eastern countries has been variable in both quantity and distribution.

A similar table with reference to the oversea export of flour is shown hereunder, the quantities being converted into the equivalent in bushels of wheat:—

TABLE 642.—Flour Exported—Destinations.

Destination.	Quantity of flour exported oversea from New South Wales. (Year ended 30th June).					
	1928-29.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Equivalent in bushels of wheat.					
United Kingdom ...	527,362	2,388,917	1,430,494	1,744,931	2,050,909	2,224,200
New Zealand .....	78,569	48,708	21,078	19,258	23,488	26,749
Egypt .....	4,177,953	323,942	101,765	133,538	133,000	43,578
Sudan .....	125,049	401,368	267,492	380,026	227,993	278,955
Hong Kong .....	25,039	633,055	1,300,267	837,045	569,993	1,012,866
Malaya .....	1,066,298	1,007,794	1,391,760	1,319,212	1,493,474	1,446,012
Philippine Islands ...	356,902	420,026	1,018,637	1,425,481	1,304,929	939,109
China .....	2,832	1,790,133	26,220	31,683	54,683	450,091
Neth'lands E. Indies	1,176,480	1,307,678	1,471,752	1,455,793	1,225,959	1,234,237
Fiji .....	200,606	124,212	133,966	168,512	197,167	193,682
New Caledonia .....	195,979	147,749	165,238	167,740	152,548	165,339
Other Countries .....	861,433	1,407,748	5,750,642	3,288,814	1,459,943	1,580,576
Total .....	8,793,602	10,001,330	13,079,311	10,972,033	8,894,086	9,595,394

There is a fairly regular trade with such countries as Malaya, the Philippine Islands, the Netherlands East Indies and Pacific Islands, and these shipments represent an appreciable proportion of the export trade in flour. In the last few years the development of flour milling in China, Egypt, and Manchukuo has resulted in a shrinkage of exports to these countries.

*Grading of Wheat.*

The Wheat Act passed early in 1927 provided for the establishment of grades and standards of wheat in accordance with the recommendations of a Wheat Standards Board, but action to establish grades has not yet been taken. The silo authorities have, however, made provision for the separate storage of a superior class for milling wheat known as "New South Wales Hard White."

Wheat for export is marketed on the basis of a single standard known as f.a.q. or fair average quality. In New South Wales the standard is determined by a committee of experts under supervision of the Grain Trade Section of the Chamber of Commerce, representatives of the Farmers and Settlers Association and the Department of Agriculture. Samples obtained from each of the wheat districts are weighed in proportions based on production, and an average is struck, to be used as a standard in wheat export transactions. Distinction is maintained between white and red wheats and no mixtures of white and red varieties are accepted for bulk handling. The Schopper weighing machine has been used in fixing standards since 1936.

The following comparison shows the standard adopted in New South Wales for each of the past fifteen seasons, and the date on which it was fixed in each year:—

TABLE 643.—Wheat, F.A.Q. Standard, 1925 to 1939.

Year.	Date Fixed	Weight of Bushel of Wheat. f.a.q.*	Year.	Date Fixed.	Weight of Bushel of Wheat. f.a.q.*
		lb.			lb.
1924-25	10th Feb., 1925	60½	1932-33	30th Jan., 1933	61¾
1925-26	22nd Jan., 1926	62½	1933-34	16th Feb., 1934	59
1926-27	31st Jan., 1927	61½	1934-35	31st Jan., 1935	61½
1927-28	19th Jan., 1928	60½	1935-36	24th Jan., 1936	64
1928-29	12th Jan., 1929	63	1936-37	5th Feb., 1937	62
1929-30	31st Jan., 1930	61¾	1937-38	3rd Feb., 1938	64
1930-31	2nd Feb., 1931	59½	1938-39	26th Jan., 1939	64½
1931-32	27th Jan., 1932	61½			

By McQuirk scale up to 1934-35. By Schopper scale from 1935-36. Tests show that by Schopper scale a bushel weighs ½lb. more than by the McQuirk scale and 1¼lb. more than by chronometer measure.

In certain seasons, when a substantial quantity of the grain is pinched or damaged by adverse seasonal conditions, a "second" grade is determined. Second grade standards were fixed for wheat grown in 1930-31, 1931-32, 1933-34 and 1934-35, with the weight per bushel varying from 3½ lb. to 4 lb. below the f.a.q. standard weight for those seasons.

Wheat of excellent quality was produced in 1935-36 and the f.a.q. standard determined for that season (64 lb. to the bushel) was higher than that fixed for any year since 1898-99. Although growing conditions were relatively unfavourable in 1937-38, the f.a.q. standard for these seasons was the same as in 1935-36 and the standard for 1938-39, fixed at 64½ lb., was even higher.

The weights shown above are those used for guidance in determining whether particular lots of wheat are at or above fair average quality, but not as a measure of quantity. Wheat is normally sold in New South Wales by weight (bushel of 60 lb.), and not by volume.

During the 1930-31 and previous seasons between 60 per cent. and 70 per cent. of the wheat was bagged on the farm and carted to the nearest railway station, whence, if intended for export or metropolitan use, it was carried by rail to Sydney. In recent seasons, however, the proportion of bagged wheat so handled has declined; only 27½ per cent. of the wheat received at rail in 1937-38 was in bags, and the bulk wheat has shown a corresponding increase.

For the shipment of wheat in Sydney Harbour special facilities—wharfage with sheds, elevator and modern mechanical equipment—have been provided so that the grain may be transferred expeditiously from railway truck to ship's hold. Bagged wheat is handled in large quantities at Pyrmont, and both bagged and bulk cargoes are loaded at Glebe Island. There is also a terminal elevator at Newcastle.

*Bulk Handling.*

The circumstances leading to the erection of bulk handling facilities were described at page 584 of the Year Book for 1928-29.

The Grain Elevator system at 30th June, 1938, comprised a concrete and steel shipping elevator at Sydney, with a storage capacity of 7,500,000 bushels at one filling, a terminal elevator at Newcastle, with a capacity of 800,000 bushels at one filling and 175 elevators situated at the more important wheat receiving stations throughout the State. These country elevators, which have direct access to rail, have a storage capacity at one filling of 23,223,000 bushels. No new plants were opened in 1937-38, but the storage capacity of two country silos was increased by 50,000 bushels each. Operated for the first time, the Newcastle elevator received 1,179,209 bushels in 1937-38.

The Terminal Elevators, Sydney and Newcastle, have been built and equipped for receiving, handling and shipping classified wheats, and facilities for cleaning and conditioning are provided. Electric power is used. The Terminal Elevator at Sydney is connected with the railway system of the State by four lines of rail, and has a receiving capacity of 6,000 tons (approximately 224,000 bushels) per day, and a shipping capacity of 12,000 tons (approximately 448,000 bushels) per day of eight hours. At Newcastle the rates are 2,000 tons and 12,000 tons per day respectively.

The country plants, with few exceptions, are equipped for receiving wheat in bulk from farmers' waggons and loading into bulk trucks. The more modern plants are fitted with weighbridges for inward weighing, and the majority of plants are equipped with outward scales. The storage capacity of the individual country plants varies from 30,000 bushels to 350,000 bushels. They are built of reinforced concrete and steel with corrugated galvanised iron coverings, and practically all of them are capable of receiving classified or graded wheat in bulk. Kerosene-burning engines are used for operating the machinery where electric power is not available. Country plants are capable of receiving or delivering grain at the rate of 70 tons per hour.

Wheat is generally transported from the farms to the silos in bags fastened by clips or sewn, the bags being emptied and returned to the farmer for use in subsequent seasons. As the system is becoming more firmly established, farmers are acquiring bulk waggons. For conveyance from the country stations to the terminal, special railway trucks are provided.

Upon delivery of his wheat at the silo, the owner receives a bulk wheat warrant showing particulars of the quantity and quality of the wheat, and the place where it was originally received. The warrant is a negotiable document transferable by endorsement of the owner, and delivery of the wheat is made on the production of the warrant, properly endorsed, and the payment of prescribed fees.

The loan expenditure on the works constructed to 30th June, 1938, was £5,162,151, including an amount of £30,836 expended from the Unemployment Relief Fund. The system was first put into operation in 1920-21, and has been developed steadily, as shown by the following table:—

TABLE 644.—Grain Elevators—Wheat Received, 1921-1938.

Season.	Number of Plants Available in Country Districts.	Storage Capacity of Plants Available in Country Districts.*	Wheat Received.			Proportion of Wheat Received in Elevators.	
			In Country Elevators.	In Terminal Elevators from Non-Silo Stations.	Total.	To Total Crop.	To Total Quantity Received at Rail.
		bushels.	bushels.	bushels.	bushels.	per cent.	per cent.
1920-21	28	5,450,000	†	†	1,941,694	3·5	4·1
1921-22	28	5,450,000	†	†	4,336,833	10·1	12·7
1922-23	54	11,550,000	†	†	4,596,563	16·0	22·7
1923-24	58	12,550,000	5,410,574	1,028,232	6,438,806	19·4	25·4
1924-25	61	13,250,000	16,334,813	1,437,058	17,771,871	29·7	35·1
1925-26	62	13,500,000	8,295,436	841,185	9,136,621	27·0	34·9
1926-27	66	14,100,000	12,244,726	515,772	12,760,498	27·0	34·5
1927-28	73	15,180,000	6,177,720	169,459	6,347,179	23·5	32·3
1928-29	84	15,630,000	14,777,954	385,561	15,163,515	30·8	36·7
1929-30	90	15,863,000	8,739,874	146,869	8,886,743	26·2	34·2
1930-31	99	16,373,000	22,948,114	697,295	23,645,409	35·9	41·3
1931-32	105	16,615,000	23,877,542	2,123,344	26,000,886	47·6	52·0
1932-33	111	17,183,000	33,954,534	500,877	34,455,411	43·7	51·7
1933-34	119	17,693,000	21,229,928	566,575	21,796,503	38·2	46·9
1934-35	149	21,083,000	21,509,227	Nil.	21,509,227	44·2	54·6
1935-36	158	21,773,000	24,811,726	295,897	25,107,623	51·4	62·8
1936-37	175	23,123,000	29,087,579	142,981	29,230,560	52·5	64·2
1937-38	175	23,223,000	32,533,478	146,566	32,680,044	59·3†	72·6†

\* At one filling.

† Subject to revision.

The quantity of wheat handled in bulk naturally fluctuates with variations in the size of the wheat crop.

The quantity of wheat shipped in bulk during recent seasons was as follows—

	Bushels.		Bushels.
1930-31	15,246,970	1934-35	11,719,395
1931-32	16,319,494	1935-36	13,959,993
1932-33	24,286,105	1936-37	18,199,430
1933-34	9,832,179	1937-38	16,845,744

Handling charges for wheat received into elevators after 1st October, 1935, were reduced substantially under a new scale which came into operation as from that date. From farmer's waggon through country elevator the charge was reduced from 2d. to 1d. per bushel, and if transferred to the terminal elevator from 2½d. to 1½d. per bushel. For wheat received at a terminal elevator from non-silo stations and subsequent loading out the rate became ½d. in lieu of 1d. per bushel if in bulk, and 1d. in place of 1½d. per bushel if in bags. These services include fixing quality, elevating, binning and weighing in and out (and, in the case of bagged wheat, the bundling and re-consigning of bags) as well as storage to the last day of February, then a storage charge of ¼d. per bushel per week was incurred. In 1934-35 storage charges commenced from 1st August. The handling charges for wheat received into the elevators were again altered as from 1st October, 1936, an additional ½d. per bushel being charged in respect of all handling services. The storage period was, however, extended to the 31st March, when a storage charge of ¼d. per bushel per week was incurred.

The silo management pays rail freight incurred by it in handling the grain, and this, together with all fees and other charges, is paid by the holder of the warrant upon delivery of the wheat from the silo. Wheat of second grade was received in 1936-37, subject to its being fit for milling with chondrometer weight of 56 lb. or more per bushel.

The financial operations in connection with the silos in the years ended 30th June, 1937 and 1938, were as follows:—

TABLE 645.—Grain Elevators: Receipts and Expenditure.

	Receipts.		Expenditure.	
	1936-37. £	1937-38. £	1936-37. £	1937-38. £
Handling and storage fees ... ..	329,019	311,686	Maintenance and working expenses ...	101,653
Repayments to previous years' Votes, ...	79	46	Rates ... ..	37
Sundry fees ... ..	5,697	6,546	Wheat adjustments ...	2,086
Sales of damaged grain	3,794	1,120	Receipts returned ...	1,489
Profit on sale of wheat (1932-33) ... ..	...	3,088	Rent, wheat stacking sites ... ..	...
Rent, wheat stacking sites ... ..	...	842	Loss of freight on bulk wheat ... ..	...
Railway freight repayments ... ..	440,668	383,355	Railway freight ...	405,127
Total ... ..	779,257	706,683	Total ... ..	510,392
				513,783

The amounts shown refer to cash received and expended in the periods covered. Excluding payments for railway freight, for which the silo management is agent only, the receipts in 1937-38 were £323,328, expenditure amounted to £115,060 and a cash balance of £208,268, representing net earnings, was available to meet interest charges, depreciation, etc. In 1936-37 the corresponding figures were: Receipts £338,589, expenditure £105,265, and the balance, £233,324.

*Wheat Arrivals at Railway Depots.*

As a rule small quantities of new season's wheat become available towards the end of November, the actual time varying under seasonal influences. Usually, most of the crop intended for sale is sent to rail for transport before the end of February. The following comparison shows the quantity of wheat received at country railway stations in bags and in bulk during

the seasons 1936-37 and 1937-38. Adjustments made in order to discriminate between old and new seasons' wheat render the totals approximate only:

TABLE 646.—Wheat Received at Rail—Monthly 1936-37 and 1937-38.

Four Weeks ended—	Quantity of Wheat Received during Four Weeks.	Total Quantity of Wheat Received to end of Four Weeks.	Four Weeks ended—	Quantity of Wheat Received during Four Weeks.	Total Quantity of Wheat Received to end of Four Weeks.
Season. 1936-37.	thousand	bushels.	Season. 1937-38.	thousand	bushels.
To November 28	8,859	8,859	To November 27	13,733	13,733
December ... 26	19,170	28,029	December ... 25	27,289	41,022
January ... 23	14,290	42,319	January ... 22	2,799	43,821
February ... 20	836	43,155	February ... 19	290	44,111
March ... 20	370	43,525	March ... 19	140	44,251
April ... 17	352	43,877	April ... 16	134	44,385
May ... 15	329	44,206	May ... 14	46	44,431
June ... 12	386	44,592	June ... 11	78	44,509
July ... 10	295	44,887	July ... 9	70	44,579
August ... 7	212	45,099	August ... 6	70	44,649
September.. 4	71	45,170	September... 3	231	44,880
October ... 2	173	45,343	October ... 1	103	44,983
October ... 30	172	45,515	October ... 29	39	45,022
November.. 20	...	45,515	November.. 26	16	45,038

\* Net after deducting withdrawals.

The proportion of railway receipts for the season delivered at railhead by mid-February was 93.5 per cent. in 1935-36, 94.8 per cent. in 1936-37, and 98.0 per cent. in 1937-38.

#### Wheat Freights.

In the conditions governing the marketing of wheat abroad, the shipping space offering and its cost are very important factors. The greater part of the wheat exported overseas is carried by tramp cargo vessels which have been chartered for the purpose, though considerable quantities are transported as "parcels" by the regular overseas shipping services. Rates of freight are often subject to substantial variation throughout a season, and frequently there is a wide range in concurrent quotations.

The average rates of ocean freight from Sydney to the United Kingdom for the year ended November and in the principal exporting months of successive recent seasons have been as follow:—

TABLE 647.—Wheat Freights, Sydney to United Kingdom, 1926-27 to 1938-39.

Season.	Average Ocean Freight per Bushel of Wheat.*								
	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	Year ended Nov. †
	English Currency.								
	d.	d.	d.	d.	d.	d.	d.	d.	d.
1926-27 ...	16½	16½	15	15½	15	12¾	12½	13	13½
1927-28 ...	12	13	11	10	10	11	11½	11½	11½
1928-29 ...	13¾	13¾	13	12½	11	9½	8½	8	10½
1929-30 ...	8¾	8½	8½	7½	7½	8½	8½	9	9
1930-31 ...	10	10½	10½	10½	10	9¾	9¾	9½	9¾
1931-32 ...	9¾	9¾	9½	9½	9½	9	8½	7½	9
1932-33 ...	9	9½	9½	8½	8	7¾	7½	7½	8
1933-34 ...	8½	8½	8½	8½	7¾	7¾	8	8½	8½
1934-35 ...	9	8½	8½	7½	7½	8	8	8½	8½
1935-36 ...	9½	9½	9½	9½	9½	9½	9½	9½	9½
1936-37 ...	—	10	12	12½	13½	13½	14½	15	13½
1937-38 ...	15	15	13½	12	11½	10½	10½	10½	11½
1938-39 ...	10½	10½	10½	10½	10½	10½	10		

\* For entire cargoes shipped during month irrespective of date of arrangement of charter.

† Mean of monthly averages (unweighted).



The rates of freight shown represent the mean of the weekly quotes for complete cargoes as shown in the International Crop Report. The rates per ton were converted into rates per bushel and are expressed in sterling. If freight was prepaid in Australia shippers were required to pay an additional charge in respect of exchange in 1931-32, and following years.

*Prices of Wheat.*

The following table gives the average prices per bushel ruling in New South Wales in each year since 1911. Figures for the years 1898 to 1910 are published on page 717 of the 1933-34 issue. The figures for the years 1865 onward, published in the Year Book for 1919 show a gradual reduction in the value of the cereal down to 1895, when the price was the lowest of the series. In 1896, however, owing to a decrease in the world's supplies, the price rose considerably, and led to an extension of cultivation throughout Australia. In the early years, when local production was deficient, the price in Sydney was generally governed by the prices obtained in the markets of Australian States where a surplus had been produced. Since the development of the export trade, however, it has been determined largely by the prices ruling in the world's market, although marked deficiencies in the local crop (such as occurred in 1920) have at times a determining influence on prices.

TABLE 648.—Wheat Prices, 1911 to 1939.

Year ended Dec.31	Price of Wheat, Sydney.*			Estimated Net Return to Farmer. †	Year ended Dec. 31.	Price of Wheat, Sydney.*			Estimated Net Return to Farmer. †
	February.	March.	Average Value for Year. ‡			February.	March.	Average Value for Year. ‡	
	per bushel.	per bushel.	per bushel.	per bushel.		per bushel.	per bushel.	per bushel.	per bus.
	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.	s. d.
1911	3 5	3 3	3 6	3 1	1926	5 11 <sup>3</sup> / <sub>4</sub>	5 8 <sup>3</sup> / <sub>4</sub>	6 2	5 1
1912	3 9 <sup>1</sup> / <sub>4</sub>	3 8 <sup>1</sup> / <sub>2</sub>	4 1	3 3	1927	5 1 <sup>1</sup> / <sub>2</sub>	5 0 <sup>3</sup> / <sub>4</sub>	5 5	4 6
1913	3 6 <sup>1</sup> / <sub>2</sub>	3 7	3 7 <sup>1</sup> / <sub>2</sub>	3 3	1928	5 2	5 5 <sup>1</sup> / <sub>2</sub>	5 1 <sup>1</sup> / <sub>2</sub>	4 7
1914	3 8	3 9 <sup>1</sup> / <sub>4</sub>	4 1 <sup>1</sup> / <sub>2</sub>	3 2	1929	4 8 <sup>1</sup> / <sub>4</sub>	4 7 <sup>1</sup> / <sub>2</sub>	4 10 <sup>1</sup> / <sub>2</sub>	4 0
1915	5 6	5 6	5 5	5 1	1930	4 8 <sup>1</sup> / <sub>2</sub>	4 5	3 10 <sup>1</sup> / <sub>4</sub>	3 2
1916	5 1 <sup>3</sup> / <sub>4</sub>	5 0 <sup>1</sup> / <sub>4</sub>	4 10	4 0	1931	2 1 <sup>3</sup> / <sub>4</sub>	2 1 <sup>3</sup> / <sub>4</sub>	2 5 <sup>1</sup> / <sub>2</sub>	1 7
1917	4 9	4 9	4 9	2 10	1932	3 2	3 1	3 0 <sup>1</sup> / <sub>4</sub>	2 7**
1918	4 9	4 9	4 9	4 1	1933	2 8 <sup>1</sup> / <sub>2</sub>	2 9 <sup>1</sup> / <sub>4</sub>	2 10 <sup>1</sup> / <sub>2</sub>	2 3**
1919	5 0	5 0	5 1 <sup>1</sup> / <sub>2</sub>	4 5	1934	2 5 <sup>1</sup> / <sub>2</sub>	2 6 <sup>1</sup> / <sub>4</sub>	2 8 <sup>1</sup> / <sub>2</sub>	2 1 <sup>3</sup> / <sub>4</sub> **
1920	8 5*	8 10§	8 7 <sup>1</sup> / <sub>4</sub> §	7 6	1935	2 11 <sup>1</sup> / <sub>4</sub>	3 1	3 2 <sup>1</sup> / <sub>2</sub>	2 5 <sup>1</sup> / <sub>4</sub> **
1921	9 0	9 0	8 8	7 0	1936	3 7	3 8	4 2 <sup>1</sup> / <sub>2</sub>	3 1 <sup>1</sup> / <sub>4</sub> **
1922	5 2	5 11	5 8	4 8	1937	5 0 <sup>1</sup> / <sub>2</sub>	5 4 <sup>3</sup> / <sub>4</sub>	5 2	4 8
1923	5 8	5 7	5 3 <sup>1</sup> / <sub>2</sub>	4 3	1938	4 5 <sup>1</sup> / <sub>2</sub>	4 1 <sup>1</sup> / <sub>2</sub>	3 6 <sup>1</sup> / <sub>2</sub>	3 4 <sup>1</sup> / <sub>2</sub>
1924	4 7 <sup>1</sup> / <sub>4</sub>	4 7	5 5	4 3	1939	2 5 <sup>1</sup> / <sub>2</sub>	2 4		
1925	6 9 <sup>1</sup> / <sub>2</sub>	6 3 <sup>3</sup> / <sub>4</sub>	6 2 <sup>1</sup> / <sub>4</sub>	5 7					

\* Price officially fixed on trucks Sydney of bagged wheat for flour for home consumption, 1915-1921. From 1922 to 1936, Shippers prices for bagged on trucks Sydney; silo wheat ex. trucks, Sydney from 1936-37.  
 † Unweighted average of daily quotes. ‡ Weighted average price of wheat (harvested in season ending in year shown in first column) delivered at country railway sidings and elevators after deducting net cost of bags. § Imported wheat. || Voluntary pool price. \*\* Excluding bounty averaging 4<sup>1</sup>/<sub>2</sub>d. per bushel, in 1931-32, 3d. in 1932-33, 3<sup>3</sup>/<sub>4</sub>d. in 1933-34, 5<sup>3</sup>/<sub>4</sub>d. in 1934-35, and 2<sup>7</sup>/<sub>4</sub>d. in 1935-36.

The Sydney prices quoted up to 1935-36 are per imperial bushel (60 lb.) of f.a.q wheat in three-bushel bags. The bag is sold with the wheat and is included in the weight paid for as wheat. From 1936-37 the prices are per bushel of f.a.q. bulk wheat. The monthly averages represent the mean of daily prices, and the annual average is the mean of the monthly averages. Formerly practically the whole of the wheat marketed was in buyers' hands before the end of March, but in some years the practice of pooling, and more recently the introduction of the wheat elevators and storage by farmers extended the period of marketing. As adequate data were not available

prior to 1927 it was very difficult to determine satisfactorily the estimated net return to farmers. Latterly additional information has been obtained and the averages for 1927 and subsequent years are close approximations applicable to the whole of the harvest on the basis stated in the footnote to the table.

A material increase in world production and the accumulation of large surplus stocks in major exporting countries, reinforced by the rapidly developing world-wide economic depression, carried the price of wheat gradually downwards during 1930. In May the market became so unfavourable that by the end of 1930 wheat was sold in Sydney at 2s. 2d. per bushel, which is the lowest level on record. With the exception of short-enduring spurts, prices remained relatively depressed until early in 1935. Gradually, as world surpluses were progressively reduced by the incidence in important exporting countries of a series of crop failures, and, in some cases, curtailment of the area cultivated with wheat, prices tended to recover. For the season ended November, 1935, the average value was 3s. 2½d. per bushel. A gradual upward trend was maintained in the first seven months of 1936 and crop failures in Canada and the United States caused a sharp advance of about 8d. per bushel in August, 1936 to about 4s. 8d. per bushel. As a result of the change in the statistical position shippers' offers in Sydney were raised to an average of about 5s. 5d. per bushel in March, 1937. Then prices declined, slowly until March, 1938, and sharply thereafter. The average price of silo wheat in Sydney was 2s. 6d. per bushel in December, 1938, and 2s. 5½d. in June 1939. Fluctuations in the rate of exchange in 1930 and 1931, and later, the fixed depreciation of the Australian pound in relation to sterling have had an important bearing on the price of wheat in Australian currency.

Certain data relating to the prices of Australian wheat in local and over-sea markets have been brought together in the following table, which contains some interesting particulars of the course of prices in Australia and the United Kingdom. Owing to the variations in marketing conditions and the lapse of time between local sales and export and between export from New South Wales and import into the United Kingdom, the prices set against each month are not strictly comparable with each other. The prices in all cases are per bushel of 60 lb. of wheat.

TABLE 649.—Wheat Prices, Monthly, 1936-37 and 1937-38.

Month.	Season 1936-37.					Season 1937-38.				
	Ship- pers buying quotes, Sydney	Average value declar'd to Cust- oms, Sydney.	Average price c.i.f. Liver- pool and Lond'n.	Average import value into United King- dom.	Average rate of freight to United King- dom.	Ship- pers buying quotes, Sydney.	Average value declar'd to Cust- oms, Sydney.	Average price c.i.f. Liver- pool and Lond'n.	Average import value. into United King- dom.	Average rate of freight to United King- dom.
	*	*	†	†	†	*	*	†	†	†
December ...	s. d. 5 3½	s. d. 5 0½	s. d. 5 7	s. d. 4 10	s. d. 0 10	s. d. 4 5½	s. d. 4 5	s. d. 4 7½	s. d. 5 1½	s. d. 1 3
January ...	5 1½	5 4½	5 5½	4 10½	1 0	4 5½	4 8	4 8½	4 9	1 1½
February ...	5 0½	5 4½	5 4½	5 6½	1 0½	4 5½	4 6½	4 7½	4 10½	1 0
March ...	5 4½	5 4½	5 8½	5 5½	1 1½	4 1½	4 6½	4 5	4 7	0 11½
April ...	5 5½	5 7½	5 9½	5 7½	1 1½	4 0½	4 3½	4 3	4 6	0 10½
May ...	5 4	5 6½	5 9½	5 8	1 2½	3 11½	4 1	4 1	4 3½	0 19½
June ...	5 2½	5 8½	5 4½	5 8½	1 3	3 8½	3 9½	3 11½	4 1½	0 10½
July ...	5 7	5 8½	5 9½	5 8½	1 2	3 8½	3 9½	3 11	4 0	0 10½
August ...	5 3½	5 9½	5 5	5 6½	1 1½	3 2½	3 4½	3 6½	3 11	0 10½
September ...	5 3	5 5	5 6½	5 5	1 1½	2 10½	3 2½	3 4½	3 8	0 10½
October ...	5 3½	5 3½	5 8½	5 6½	1 1½	2 9½	3 1	3 2½	3 3½	0 10½
November ...	4 7	4 6½	5 0½	5 7½	1 3	2 7	2 7½	2 11	3 0½	0 10½

\* Australian Currency.

† Sterling.

In considering the prices shown above regard should be paid to the following factors:—

(1) The average of shippers' quotes represents the mean of the daily prices for wheat of fair average quality on trucks Sydney, and they are usually for wheat for prompt delivery.

(2) The average values declared to the Customs relate to wheat exported in bags and in bulk, and refer to the month of shipment. Owing to delay in transferring wheat for export to the seaboard, and the incidence of forward buying, the averages in this column are not closely comparable with the prices in the preceding column.

(3) The average prices c.i.f. Liverpool and London are those quoted for New South Wales wheat in the monthly Crop Reports of the International Institute of Agriculture. The quotations are generally those at the close of business for early delivery.

(4) The average import values into the United Kingdom relate to Australian wheat, and represent the total value c.i.f., place of import or, when consigned for sale, the latest market price in England at time of import.

(5) The average rates of freight are those shown in the International Crop Reports.

The margins between the local and the oversea prices are accounted for mainly by ocean freights, but also in part by cost of exchange, insurance, and handling charges, and in part by exporters' profits and overhead expenses. Rates of exchange (telegraphic transfers) varied as follows:—£102 Australian for £100 in London as from 28th January, 1930, rising, by steps, to £108 10s. in October, 1930, and to £130 by the end of January, 1931, and falling to £125 at the beginning of December, 1931. This rate prevailed at the end of June, 1939.

#### *Wheat Pools.*

An account of the compulsory wheat pools and of the basis upon which they were organised is contained in issues of the Year Book for 1921 and previous years. A summary of the final returns is published in the Year Book for 1923 at page 489. Ballots of wheatgrowers on the question of establishing compulsory wheat pools under the Marketing Act were conducted during September in each of the years 1928, 1929 and 1930, the proportion of affirmative votes in the respective years being 44.69 per cent., 60.53 per cent. and 62.84 per cent. In July, 1931, a new ballot was conducted under an amendment of the Act requiring an absolute majority in lieu of a two-thirds majority to carry the proposal. A total of approximately 17,000 valid votes were cast, and of these 42.64 per cent. favoured the proposal.

Voluntary wheat pools were initiated in 1921-22, when 22,785,560 bushels, or about two-thirds the wheat received at rail in that year, entered the pool. The system gradually lost favour with growers, and in 1927-28 the quantity pooled was slightly more than one million bushels, or about one-twentieth of the wheat delivered to rail. A statement showing the results of voluntary pools from 1921-22 to 1927-28 was published at page 36 of the 1933-34 issue of the "Official Year Book." Only very limited quantities of wheat have been marketed through pools in recent years.

*Royal Commission on the Wheat, Flour and Bread Industries.*

On 21st January, 1934, the Commonwealth Government appointed a Royal Commission to inquire into and report upon the economic position of the industries of growing, handling and marketing wheat, manufacturing flour and other commodities and the manufacture, distribution and selling of bread. A short resume of the recommendations of the Commission is published on page 454 of the 1934-35 issue of this Year Book.

*Government Assistance to Wheatgrowers.*

Information regarding measures taken by the Commonwealth and State Governments to assist wheatgrowers during the recent agricultural depression and the grants distributed in the years 1931-32 to 1935-36 is given in earlier issues of this Year Book.

In 1935 endeavour was made to replace the system of annual grants by permanent measures, based on a fixed price for wheat consumed as flour in Australia. Legislation (summarised on page 456 of the Year Book for 1934-35) was passed, but was not brought into operation owing to constitutional difficulties. The recovery of wheat prices in 1936 rendered assistance to wheatgrowers unnecessary for the time being.

But, following on a renewed and serious fall in prices of wheat, the Premier of New South Wales convened a conference of Premiers of Australian States in Sydney on 26th August, 1938. This conference prepared a detailed report analysing several alternative proposals and unanimously adopted a plan which involved joint action by Commonwealth and States. This plan was accepted by the Commonwealth Government and implemented as from 5th December, 1938, under legislation passed by the Commonwealth and each of the six States.

The principle of the plan is that each State fixes a price of flour for home consumption approximately equivalent to the price that would be charged for flour if wheat were 5s. 2d. per bushel at seaboard. This price of flour in New South Wales is usually between £12.10s. and £13 per ton, but in practice fluctuates above and below those amounts. The Commonwealth imposes an excise duty equal to the difference between the millers' price of flour (determined on the basis of day to day prices of wheat, bran and pollard in the open market) and the "home consumption price" of flour. The amount of excise duty is varied from time to time in such a way as to keep the "home consumption price of flour" in close proximity to the price which would obtain for flour if wheat were 5s. 2d. per bushel at seaboard. The amount of excise duty is determined periodically by the Commonwealth Treasurer on the recommendation of an advisory committee which is required by statute to base its recommendations upon the price of wheat at Williamstown (Victoria) and the price of flour in Melbourne.

In New South Wales prices of flour, bran, pollard, bread and other wheat products are supervised by a committee of three Government officers appointed under the Wheat Products (Prices Fixation) Act of 1938. The maximum price of flour (inclusive of tax) is determined having regard to day to day fluctuations in prices of wheat and periodical changes in millers' price of flour, bran and pollard and changes in the rate of excise duty on flour. The millers' price of flour is determined according to a formula based on the prices of wheat, bran and pollard. The prices of wheat, flour, bran, and pollard for export are not regulated by the Government in any way, nor is the marketing of those products regulated by Government action.

From the proceeds of the excise duty on flour for home consumption the Commonwealth makes payments to the States for distribution to growers.

The proceeds of the tax in 1938-39 are to be distributed by the Commonwealth to the States as follows:—(a) as a special annual appropriation of £500,000 for the relief of distressed wheat farmers or to facilitate the transfer of farmers from lands uneconomic for wheatgrowing, the basis of distribution to be decided by the Minister on the advice of the State Minister, and (b) the balance for distribution to growers at a rate per bushel of wheat produced by them.

The Commonwealth Wheat Industry Assistance Act and the complementary taxing Acts were assented to on 2nd December, 1938, and a Commonwealth Wheat Stabilisation Advisory Committee was appointed consisting of five members, including a representative of consumers.

The Commonwealth Act provides that when the price of wheat is less than 5s. 2d. per bushel, f.o.r., Williamstown (Victoria) flour will be taxed at a rate determined by the Minister on the advice of the Advisory Committee according to the principles of the plan as defined in the Act. Stocks of flour (in excess of 1,000 lb.) other than in manufacturers' hands on 5th December, 1938, became subject to the tax under the Flour Tax (Stocks) Act, and under the Flour Tax Act, 1938, all flour manufactured and sold in Australia and under the Flour Tax (Imports and Exports) Act imported flour and flour contents of certain imported manufactures (biscuits, macaroni, etc.,) became taxable as from that date. The rates of excise duty on flour are shown on page 728 of this Year Book.

After a date to be proclaimed (*i.e.*, if and when the export price of wheat exceeds 5s. 2d. per bushel, f.o.r., Williamstown) wheat grown in Australia and sold to a wheat merchant will become subject to a tax (not exceeding 1s. per bushel) under the Wheat Tax Act, 1938. The rate of tax (to be fixed by the Minister on the recommendations of the Advisory Committee) will be that proportion of the excess of the price over 5s. 2d. per bushel, f.o.r., Williamstown, as the quantity of wheat which (in the opinion of the Advisory Committee) will be consumed in Australia bears to the total crop which will be harvested in that year (ended 30th September). (For example, with the export parity 6s. 2d. per bushel, home consumption at 35,000,000 bushels and the harvest at 140,000,000 bushels, the rate of tax would be  $1s. \times \frac{36}{140} = 3d.$  per bushel.) Under the Flour Tax (Imports and Exports) Act, tax at the same rate will be payable on all wheat exported from Australia, not being wheat taxed under the Wheat Tax Act.

The Flour Tax (Wheat Industry Assistance) Assessment Act obliges manufacturers, sellers and users of flour upon which tax is chargeable to furnish monthly returns to the Commissioner of Taxation as well as returns of stocks on 5th December, 1938. Importers of goods taxable under the Flour Tax (Imports and Exports) Act must supply returns at time of entry, and exporters of wheat (when taxable) a return of wheat exported on which tax is payable, at time of entry for export, or in the case of wheat not taxable a certificate that the wheat exported had been sold previously to a wheat merchant. Wheat merchants will be required to furnish monthly returns of wheat purchased on which the tax is chargeable.

The tax on flour is payable by the manufacturer, by the holder of taxable stocks of flour on 5th December, 1938, and by the importer of flour or of goods containing flour. When the Wheat Tax Act is operative wheat

merchants to whom wheat is sold and exporters of wheat on which tax has not been paid already will be responsible for payment of the tax. Exemptions from tax are bran and pollard, breakfast foods made from wheat, flour used for food for animals or birds, flour exported, flour used in the Northern Territory, flour used in the manufacture of cornflour, starch, glucose, sugar, meat products, etc., and infant and invalid foods, and flour for the use of public charitable institutions.

To receive payments from the Wheat Industry Stabilisation Fund, the State must take steps to protect adequately consumers of flour and of other wheat products against excessive prices, and the State's price-fixing legislation must not prejudice the position of wheatgrowers in respect of wheat sold for consumption in Australia. Under the Wheat Products (Prices Fixation) Act, 1938, the State has power to fix and vary (by proclamation) and enforce minimum and maximum prices of flour and wheat products. For ordinary wheaten flour the price delivered at Sydney may not be less than £11 per ton (2,000 lb.) or more than £13 10s. per ton. Provision is made for Advisory Committees to assist in administering the Act.

The Wheat Industry Stabilisation Act, 1938, constitutes the Rural Bank of New South Wales through its Rural Industries Agency the authority for the distribution of the funds paid to the State Wheat Industry Stabilisation Account in the manner provided by the Commonwealth legislation. The Act also provides for the transfer to that account of moneys at credit of the Flour Acquisition Act, No. 10, 1931, Account in Special Deposits Account. About £187,000 is made available from this source to augment the sum of £100,000 allocated by the Commonwealth to New South Wales for the assistance of necessitous farmers in 1938-39. These amounts will enable the payment of 4s. per acre under wheat for grain to wheatgrowers whose crops failed entirely or who harvested less than nine bushels to the acre in 1938-39.

#### *Flour Tax.*

The rates of Flour Tax imposed by the State Government in 1931 and subsequently by the Federal Government as part of plans for assisting wheatgrowers are shown below. Further details are published in the chapter Public Finance.

	Rate per 2,000 lb. net weight of Flour.		
	£	s.	d.
<i>State Flour Tax:</i>			
30th March, 1931, to 31st December, 1931 ..	..	2 15	0
1st January, 1932, to 2nd December, 1933 ..	..	1 10	0
<i>Commonwealth Flour Tax:</i>			
4th December, 1933, to 31st May, 1934 ..	..	4 5	0
7th January, 1935, to 24th February, 1936 ..	..	2 12	6
5th December, 1938, to 15th December, 1938 ..	..	5 15	0
16th December, 1938, to 14th March, 1939 ..	..	5 7	6
15th March, 1939, to 26th April, 1939 ..	..	5 17	6
27th April, 1939, to 8th May, 1939 ..	..	5 5	0
9th May, 1939, to 15th June, 1939 ..	..	5 0	0
16th June, 1939, to 20th July, 1939 ..	..	5 10	0

On 21st July, 1939 the tax was raised to £6 per ton of flour. The Commonwealth Flour Tax is levied on each 2,000 lb. of flour net weight, exclusive of containers. Flour is usually sold commercially in 150 lb. bags at a quoted price per 2,000 lb. (short ton) inclusive of containers. The weight of such bags included in a commercial ton of flour is approximately 30 lb. Hence the actual rate of tax per commercial ton of flour is  $\frac{1970}{2000}$  of the rate of tax per 2,000 lb. net weight of flour.

*World Production of Wheat.*

Wheat is harvested generally between the months of May and August in the Northern Hemisphere and between November and January in the Southern Hemisphere. In certain countries, notably the United States of America and the U.S.S.R., both winter sowing and spring sowing are practised in different areas and to some degree alternatively. A comparison of world's wheat production during each of the six years ended 1936-37, and the average for the quinquennial period 1924-25 to 1928-29 is shown in the following table, compiled mainly from statistics published by the International Institute of Agriculture.

TABLE 650.—World Production of Wheat.

Country.	Annual Production of Wheat.						
	Average 1924-25 to 1928-29.	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37
	Million Bushels.						
Europe—Exporting Countries* ...	345	462	280	456	335	386	470
Importing Countries ...	930	975	1,209	1,290	1,214	1,190	1,010
Total ...	1,275	1,437	1,489	1,746	1,549	1,576	1,480
North America—Canada ...	422	321	443	282	276	282	229
U.S.A. ...	826	942	757	552	526	626	627
Other Countries ...	11	14	13	15	14	14	14
Total ...	1,259	1,277	1,213	849	816	922	870
South America—Argentina ...	249	220	241	286	241	141	249
Other Countries ...	47	43	45	59	49	57	41
Total ...	296	263	286	345	290	198	290
Africa—North ...	100	117	129	114	136	112	98
South ...	8	14	11	10	17	24	17
Total ...	108	131	140	124	153	136	115
Asia—(Excluding U.S.S.R., China, Iran and Iraq.) ...	442	565	501	553	554	577	603
U.S.S.R. ...	757	753	742	1,018	1,117	1,132	1,135
Oceania—Australia ...	144	191	214	177	133	144	152
New Zealand ...	7	6	11	9	7	9	7
Total ...	151	197	225	186	140	153	159
Total Exporting Countries—							
(Excluding U.S.S.R.) ...	2,467	2,681	2,449	2,321	2,096	2,246	2,297
(Including U.S.S.R.) ...	3,224	3,634	3,191	3,339	3,213	3,285	3,432
Total Importing Countries ...	1,064	1,189	1,405	1,482	1,406	1,409	1,220
Grand total of World† (including U.S.S.R.) ...	4,288	4,623	4,596	4,821	4,619	4,694	4,652

\* Excluding U.S.S.R.

† China, Iran and Iraq are excluded.

A general increase in world production has taken place since pre-war years and by far the larger part of the increase originated in new areas in Canada, the United States and the Southern Hemisphere. This was due in part to factors arising out of the Great War, and, in part, to the natural advantages enjoyed by the newer countries in producing wheat by large-scale enterprise.

Since 1929, however, European importing countries have endeavoured to supply an increasing proportion of their cereal requirements from internal sources. Production in the years 1933 to 1937 was comparatively large, and would have been even greater but for the ravages of drought and rust which greatly reduced North American harvests in these years, and the crop in Argentina in 1935-36. World production in 1938-39, estimated at 4,480,000,000 bushels (excluding Russia, China, Iran and Iraq) far surpassed that of any earlier season.

#### *World Wheat Agreement.*

The international wheat agreement at the World Economic Conference held in London in July, 1933, was outlined at page 723 of the Official Year Book, 1933-34.

The specific object of the agreement, which has been extended from time to time, was to adjust the supply of wheat to the effective world demand. In an endeavour to eliminate the abnormal surpluses which had accumulated and depressed the market since 1930, the exporting countries accepted export quotas for the period 1st August, 1933, to 31st July, 1934, and certain importing countries agreed not to encourage any extension of the area sown to wheat, and not to take any governmental action to increase the domestic production of wheat. Information regarding past activities of the International Wheat Advisory Committee and the operation of the Agreement was given in earlier issues of this Year Book.

Although the agreement was extended from time to time it remained virtually in suspense after 1934 because of small harvests in several major exporting countries. But the unprecedented world harvest of 1938-39 caused an accumulation of surplus supplies and wheat prices fell to the low levels of the earlier agricultural depression. In January, 1939, the Wheat Advisory Committee found the wheat situation so critical that without international co-operative endeavour, wheat-growing was likely to remain unprofitable, with drastic consequences to producers and serious repercussions upon purchasing power generally. As a preliminary to convening a world conference the committee has requested wheat producing countries to indicate whether they would be prepared to make an agreement for at least five years for the adjustment of wheat supplies to demand.



The following table, derived mainly from statistics of the International Institute of Agriculture, shows world production, trade and stocks of wheat in each of the last thirteen years. Surplus supplies accumulated between 1926-27 and 1932-33 were consumed in the next four years of moderate harvests, despite the contraction of world import requirements due to expansion in wheat production in importing countries. Stocks increased moderately in 1937-38, and in a remarkable degree in 1938-39 owing to the unprecedented harvest of this year. In recording exportable end-of-season stocks no account is taken of changes in reserve supplies in importing countries.

TABLE 651.—World Production, Trade and Stocks of Wheat, 1927 to 1939.

Season.	World Production*.			Pro- duction in U.S.S.R.	World Exportable Supplies.		World Import Require- ments.	World Export- able End of Season Stocks.
	Importing Countries.	*Exporting Countries.	Total.*		Excluding U.S.S.R.	Including U.S.S.R.		
Millions of Bushels.								
1926-27 ...	999	2,488	3,487	914	961	1,010	831	170
1927-28 ...	1,077	2,583	3,660	797	1,057	1,060	816	248
1928-29 ...	1,077	2,908	3,985	807	1,376	1,376	923	417
1929-30 ...	1,223	2,342	3,565	694	1,051	1,061	628	434
1930-31 ...	1,072	2,769	3,841	989	1,211	1,324	826	499
1931-32 ...	1,189	2,681	3,870	753	1,256	1,321	809	514
1932-33 ...	1,405	2,449	3,854	742	1,218	1,237	629	609
1933-34 ...	1,482	2,321	3,803	1,018	1,074	1,106	545	564
1934-35 ...	1,406	2,096	3,502	1,117	896	898	533	371
1935-36 ...	1,409	2,153	3,562	1,132	682	711	502	245
1936-37 ...	1,220	2,297	3,517	1,135	684	688	599	100
1937-38† ...	1,330	2,488	3,818	...	696	714	524	192
1938-39‡	1,489	2,991	4,480	...	1,186	1,224	568	636

\* Excluding U.S.S.R., China, Iran and Iraq. † Subject to revision. ‡ Preliminary.

**MAIZE.**

Until the closing decade of the last century, when the wheat-exporting industry began to develop, maize was the most extensive crop in New South Wales. During the next twenty years there was a slight increase in the cultivation of maize, and production attained its maximum in 1910-11. Thereafter, due in part in to the sowing of pastures with lucerne and grasses of vigorous growth and high nutritive value, the production of maize declined steadily until, by 1930-31, the area sown with maize for grain was less than one-half the area in 1910-11 and the production little more than

one-third. The experience of maize-growing in New South Wales is illustrated in the graph published on page 733. The following comparison relates to maize-growing since 1906-07:—

TABLE 652.—Maize Area and Production, 1907 to 1938.

Season.	Area under Maize for Grain.	Production.		Farm Value of Crop.	
		Total.	Average yield per Acre.	Total.	Per Acre.
Average—	acres.	bushels.	bushels.	£	£ s. d.
1907-11	188,384	6,030,855	32·0	834,050	4 8 7
1917-21	139,266	3,630,680	25·9	931,000	6 13 8
1922-26	143,870	3,874,670	26·9	813,910	5 13 2
1927-31	119,479	3,167,620	26·5	662,460	5 10 10
1928-29	106,835	2,506,470	23·5	543,150	5 1 8
1929-30	108,219	3,035,850	28·1	758,960	7 0 3
1930-31	105,024	2,766,660	26·3	383,180	3 13 0
1931-32	106,047	2,669,580	25·2	417,120	3 18 8
1932-33	113,333	2,935,140	25·9	587,030	5 3 7
1933-34	117,231	3,133,890	26·7	339,490	2 17 11
1934-35	115,570	3,238,590	28·0	458,810	3 19 5
1935-36	119,849	3,324,780	27·7	644,180	5 7 6
1936-37	116,286	3,302,520	28·4	708,670	6 1 11
1937-38	125,049	3,403,140	27·2	716,080	5 14 6

The decline in the area sown with maize has been accompanied by a decrease in the average yield per acre. The average value per acre declined precipitately in 1930-31, and remained low in 1931-32, the price of maize being adversely affected by the low price of wheat. The area sown has increased in each year since 1932-33, but prices were so low that the farm value of the crop in 1933-34 was the lowest in the past forty years. There was a substantial rise in prices in 1936-37 and the average return per acre rose by 56 per cent. above the average for the five years ended 1934-35. The area sown and the production of maize were greater in 1937-38 than in any of the preceding ten years.

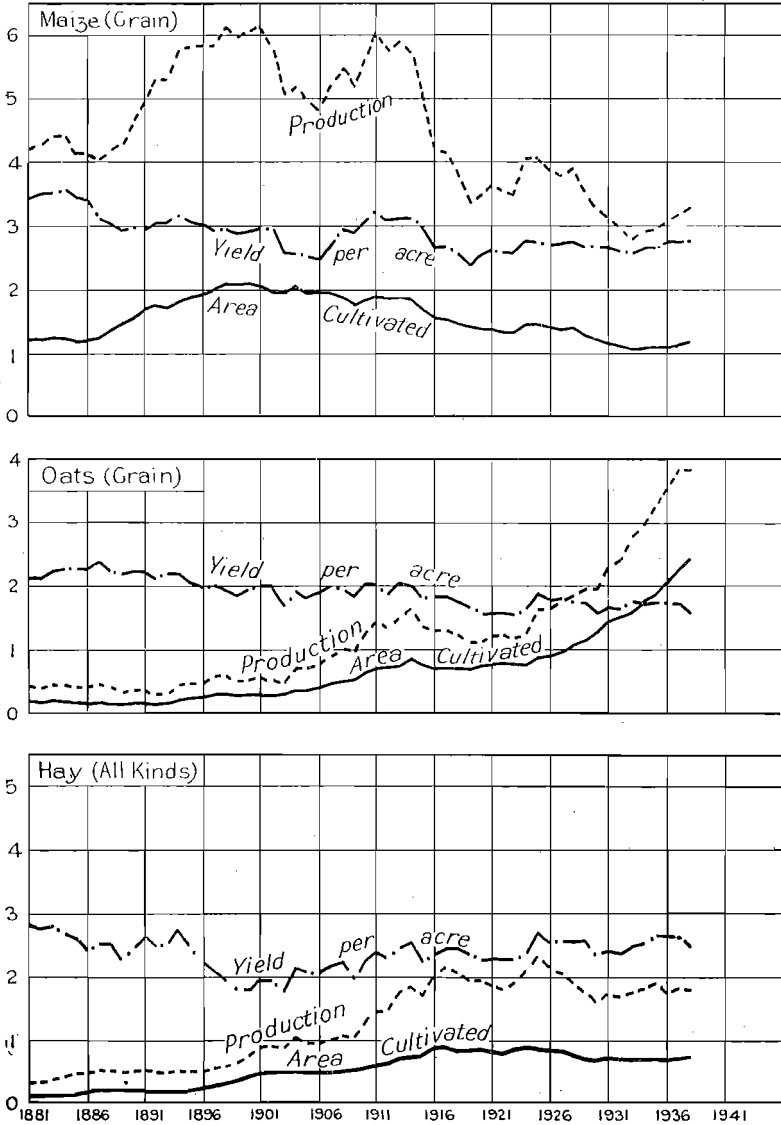
Maize is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted to its growth. Good results are also obtained on the northern tablelands. The following statement shows the area under maize for grain in New South Wales during the seasons 1936-37 and 1937-38, with the production and average yield in each division:

TABLE 653.—Maize in Divisions, 1936-37 and 1937-38.

Division.	1936-37.			1937-38.		
	Area under Maize for Grain.	Yield.		Area under Maize for Grain.	Yield.	
		Total.	Per Acre.		Total.	Per Acre.
Coastal—	acres.	bushels.	bush. els.	acres.	bushels.	bush. els.
North ... ..	47,990	1,571,094	32·7	46,169	1,438,206	31·2
Hunter and Manning ... ..	21,052	621,933	29·5	23,559	690,405	29·3
Metropolitan ... ..	1,425	46,272	32·5	1,751	63,342	36·2
South ... ..	8,754	318,033	36·3	9,768	371,745	38·1
Total ... ..	79,221	2,557,332	32·3	81,247	2,563,698	31·6
Tableland—						
Northern ... ..	20,100	391,605	19·5	25,298	522,009	20·6
Central ... ..	4,044	89,301	22·1	3,946	89,001	22·5
Southern ... ..	118	2,658	22·5	243	5,520	22·7
Total ... ..	24,262	483,564	19·9	29,487	616,530	20·91
Western Slopes ... ..	12,486	255,987	20·5	13,870	219,411	15·8
Central Plains, Riverina, and Western Division.	317	5,637	17·8	445	3,591	7·9
All Divisions ... ..	116,286	3,302,520	28·4	125,049	3,403,140	27·2

PRINCIPAL CROPS OTHER THAN WHEAT.

Area, Production and Average Yield, 1881 to 1938.



The Graphs have been prepared on the basis of quinquennial averages ended in each year as shown.

The numbers at side of the graphs represent 100,000 of acres, millions of bushels of production, and tens of bushels of yield per acre in the case of maize and oats, and millions of acres, 500,000 of tons of production and tens of cwts. of yield per acre of hay.

The principal factors in the local supply of maize in recent seasons are shown in the following table. The particulars relate to calendar years, as the maize crops of the State are harvested between January and August. Complete records are not available of the interstate imports and exports, but it is considered that the quantity unrecorded is not large.

TABLE 654.—Maize Production and Trade, 1924 to 1938.

Calendar Year.	Production.	Import.		Export.		Available for Consumption. * †
		Oversea.	Interstate. †	Oversea.	Interstate †	
1924-28 Annual Av.	bus. 3,928,000	bus. 437,000	bus. 1,525,000	bus. 39,000	bus. 68,000	bus. 5,783,000
1929 ... ..	2,506,000	‡	2,269,000	2,000	6,000	4,767,000
1930 ... ..	3,036,000	60,000	855,000	2,000	10,000	3,939,000
1931 ... ..	2,767,000	‡	596,000	1,000	7,000	3,355,000
1932 ... ..	2,670,000	6,000	173,000	2,000	6,000	2,841,000
1933 ... ..	2,935,000	4,000	504,000	2,000	28,000	3,413,000
1934 ... ..	3,134,000	‡	844,000	2,000	43,000	3,933,000
1935 ... ..	3,239,000	24,000	320,000	‡	59,000	3,524,000
1936 ... ..	3,325,000	24,000	300,000	600	34,000	3,615,000
1937 ... ..	3,302,520	8,000	212,000	‡	36,000	3,486,000
1938 ... ..	3,403,000	48,000	1,034,000	‡	17,000	4,468,000

\* Subject to adjustment for carry over. † Records of interstate movement are incomplete.  
‡ Negligible.

The annual requirements of maize are very variable, depending largely on the nature of the pastoral season, the price, and the quantity available. The large importation in 1929 is attributed to the demand for fodder for sheep and other live stock during a short period of very dry weather. During 1937-38 droughty conditions in pastoral areas of New South Wales necessitated hand-feeding of stock, and local production was supplemented by importations.

The imports interstate are derived almost exclusively from Queensland and the imports oversea mostly from South Africa. A general duty of approximately 2s. per bushel and an *ad valorem* primage duty of 10 per cent. are imposed on imports from overseas. On maize from New Zealand and the United Kingdom the duty is approximately 1s. 5d. per bushel, together with an *ad valorem* primage duty of 5 per cent. in the case of the United Kingdom. Imports from New Zealand are not subject to primage duty.

#### OATS.

Oats is sown in New South Wales mainly as a hay crop, the areas for respective purpose in 1937-38 being as follows:—Oats for hay, 312,327 acres; oats for grain 255,144 acres; and oats for green feed, 203,592 acres. The aggregate area—771,073 acres—was greater by 74,906 acres than in the previous season, and the largest on record.

The elevated districts of Monaro, Goulburn, Bathurst, and New England contain large areas of land on which oats could be cultivated with excellent results, as it thrives best in regions which experience a winter of some severity.

The area sown with oats for grain has increased during the past thirty years, and especially since 1927-28. The grant of assistance by the Commonwealth for artificial manuring, for which oats was an eligible crop, and a revival of horse-breeding, may have been factors in the recent expansion of the activity, but a more important influence has been the increasing attention given to stock raising particularly fat lamb raising. Considerable areas of oats are being grown as a fodder crop for sheep, and with an improvement in grain quality as an outcome of plant breeding activities, the cereal is sold readily to local mills to be treated for human consumption. A graph illustrating the production of oats in New South Wales over the last 58 years is published on page 733 of this volume.

The divisions in which oats was cultivated for grain in 1937-38 were the Riverina Division, with 100,483 acres producing 1,245,459 bushels, an average of 12.4 bushels per acre; the South-western Slopes, where 79,195 acres yielded 1,172,118 bushels of grain, or 14.8 bushels per acre; Central-western Slopes, 29,593 acres, 373,944 bushels, or 12.6 per acre; the Central Tableland with 13,800 acres, 230,433 bushels, or an average of 16.7 bushels per acre; and the Central Plains, where 48,474 bushels were produced from 12,772 acres, with an average of 3.8 bushels per acre. In these five divisions 90 per cent. of the oats was grown.

The following table gives statistics of the cultivation of oats for grain since 1906-07:—

TABLE 655.—Oats, Area and Production, 1907 to 1938.

Period.	Acres under Oats for Grain.	Production.		Farm Value of Oats for Grain.	
		Bushels.	Bushels per Acre.	Total.	Per Acre.
Average Per Annum				£	£ s d.
1907-11	70,303	1,409,040	20.0	151,040	2 3 0
1917-21	78,000	1,208,660	15.5	214,220	2 14 11
1922-26	91,022	1,623,610	17.8	275,870	3 0 8
1927-31 Season.	140,972	2,301,560	16.3	283,440	2 0 3
1928-29	126,743	2,183,880	17.2	254,860	2 0 3
1929-30	181,354	2,528,610	13.9	316,080	1 14 10
1930-31	176,659	3,241,990	18.4	182,360	1 0 8
1931-32	151,600	2,526,450	16.7	126,320	0 16 8
1932-33	163,809	3,513,780	21.5	248,890	1 10 5
1933-34	203,693	3,178,470	15.6	291,370	1 8 7
1934-35	237,405	3,856,680	16.2	342,280	1 18 10
1935-36	279,622	4,735,740	16.9	394,630	1 8 3
1936-37	235,817	3,967,560	16.8	413,290	1 15 1
1937-38	255,144	3,395,130	13.3	480,980	1 17 8

The harvest of 1935-36 was the largest on record. In 1937-38 the total farm value of the grain crop (£480,980) was the highest on record though the average yield of oats per acre (13.3 bushels) was low, and the farm value per acre £1 17s. 8d., was about 38 per cent. below the average for the five years ended 1925-26.

The oats crop is harvested in December, therefore it constitutes the local supply for the calendar year following. The sources from which the local crop has been supplemented, and the quantity available for consumption in recent years, is shown in the following table:—

TABLE 656.—Oats, Production and Trade, 1924 to 1938.

Calendar Year.	Production.	Import.		Export, Oversea and Interstate.	Available for Consumption.†
		Oversea.	Interstate.‡		
	bus.	bus.	bus.	bus.	bus.
1924-28 Annual Av.	1,850,000	215,000	445,000	36,000	2,474,000
1929 ... ..	2,184,000	7,000	432,000	22,000	2,601,000
1930 ... ..	2,529,000	3,000	460,000	17,000	2,975,000
1931 ... ..	3,242,000	1,000	184,000	300,000	3,127,000
1932 ... ..	2,526,000	2,000	66,000	300,000	2,294,000
1933 ... ..	3,514,000	2,000	125,000	103,000	3,538,000
1934 ... ..	3,178,000	3,000	118,000	90,000	3,209,000
1935 ... ..	3,857,000	2,000	99,000	107,000	3,851,000
1936 ... ..	4,736,000	3,000	60,000	203,000	4,596,000
1937 ... ..	3,968,000	4,000	222,000	196,000	3,998,000
1938 ... ..	3,395,000	4,000	943,000	112,000	4,230,000

† Subject to adjustment for carry-over.  
‡ Omitting considerable quantities imported interstate at Newcastle.

A duty of 1s. 6d. per cental, or approximately 7d. per bushel of 40 lb., is imposed on oats imported oversea, together with an *ad valorem* primage duty of 5 per cent. on oats from the United Kingdom and 10 per cent. on oats from other countries. No primage duty is charged on oats from New Zealand. In the years 1926 to 1928 an appreciable part of the supply was obtained from abroad, mainly from New Zealand, but increased local production rendered large imports of oats unnecessary from 1931 to 1936. Drought conditions in pastoral districts and the reduced harvest caused a substantial net importation interstate in 1938.

The market for oats is chiefly in the metropolitan and Newcastle districts, and the demand is affected materially by the price of maize.

The yield per acre in New South Wales is considerably below that of the important producing countries, and the total yield is insignificant in comparison with the world production, which usually exceeds 3,500,000,000 bushels per year.

#### BARLEY.

Barley is produced only on a moderate scale in New South Wales, and supplies for local consumption are imported from other States. Although there are several districts where the necessary conditions as to soil and drainage are suitable for the crop, particularly the malting varieties, barley is grown mainly in the Western Slopes Divisions and in the Riverina. The areas under crop in other districts are small.

Only a small proportion of the barley required for malting is produced in New South Wales, but in co-operation with the brewers a system of seed barley production was inaugurated in 1935-36 which may lead to an increase in the production of malting barley.

Barley was grown for grain on 1,362 holdings in 1936-37 and 1,337 holdings in 1937-38, as compared with 1,229 holdings in 1927-28.

The following table shows the area under barley for grain, together with the production at intervals since 1900-01.

TABLE 657.—Barley—Area and Production, 1901 to 1938.

Season.	Area under Barley for Grain.	Production.		Season.	Area under Barley for Grain.	Production.	
		Total.	Average per Acre.			Total.	Average per Acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1900-01	9,435	114,228	12.1	1928-29	5,024	80,910	16.1
1910-11	7,082	82,005	11.6	1929-30	7,947	113,850	14.3
1915-16	6,369	114,846	18.0	1930-31	11,526	188,610	16.4
1920-21	5,969	123,290	20.7	1931-32	8,349	137,430	16.5
1921-22	5,031	83,950	16.7	1932-33	7,736	154,530	20.0
1922-23	3,899	55,520	14.3	1933-34	10,006	165,120	16.5
1923-24	4,357	71,910	16.5	1934-35	9,480	168,990	17.8
1924-25	6,638	118,300	17.8	1935-36	11,583	214,860	18.5
1925-26	6,614	105,150	15.9	1936-37	12,004	205,890	17.2
1926-27	5,629	100,260	17.8	1937-38	11,542	166,860	14.4
1927-28	5,600	65,850	11.8				

There has been a material increase in area sown in the last few years. The average yield during the last five years was 16.9 bushels per acre, as compared with 16.6 bushels per acre in the preceding quinquennium. Both the area sown for grain and the harvest of grain in 1935-36 were greater than in any year since 1913-14, when the area of 20,610 acres and the yield of 303,447 bushels of barley were the highest on record. Less favourable seasonable conditions rather than a decline in the area cultivated caused the decrease in production in 1936-37 and 1937-38.

Of the area cropped for grain in 1937-38, 6,070 acres yielded 87,420 bushels of malting barley, and 5,472 acres yielded 79,440 bushels of other barley. In addition, 815 acres were cropped for hay and 6,240 acres for green food.

### RICE.

Rice-growing trials were made intermittently in New South Wales and other Australian States from 1891 to 1922 with indifferent success, but in the latter year encouraging results were obtained from trials on the Murrumbidgee Irrigation Area, which is the only locality in the Commonwealth where rice is grown extensively. The history of the industry in its experimental stages is published on page 729 of the Official Year Book, 1933-34. Development was rapid in the five years ended 1929-30, but production expanded beyond the demand in Australia and in order to prevent further expansion to an extent prejudicial to the industry as a whole, a maximum area which may be supplied with water for the irrigation of rice is fixed for each grower.

The area harvested in 1937-38 (23,737 acres) was a record and production closely approached that of the preceding season, which was larger than in any other year. Since the 1926-27 harvest the average yield of paddy rice has varied from slightly less than 70 bushels up to 107 bushels per acre, mainly owing to seasonal causes. About 360,600 tons of rice, with a total farm value of £3,435,000 have been grown on these areas since commercial production began.

The progress in years since 1925-26 was as follows:—

TABLE 658.—Rice-growing, 1926 to 1938.

Season.	Number of Growers.	Area Harvested.	Yield (Paddy Rice).	Farm Value of Yield.	Average per acre.	
					Yield (Paddy).	Farm Value.
		acres.	bus.*	£	bus.	£
1925-26 ...	30	1,556	61,100	12,030	39.21	7.7
1926-27 ...	67	3,958	214,740	48,320	54.27	12.2
1927-28 ...	127	9,891	879,113	181,320	88.88	18.3
1928-29 ...	221	14,027	1,307,520	201,850	93.21	14.4
1929-30 ...	258	19,780	1,829,173	289,620	92.48	14.6
1930-31 ...	270	19,825	1,427,413	259,610	72.00	13.1
1931-32 ...	277	19,574	1,349,653	263,180	68.95	13.4
1932-33 ...	280	22,032	1,901,440	304,820	86.30	13.8
1933-34 ...	292	20,221	2,171,520	337,600	107.39	16.7
1934-35 ...	290	21,738	1,888,430	336,080	86.87	15.5
1935-36 ...	304	21,705	2,163,520	354,620	99.68	16.3
1936-37 ...	320	23,357	2,276,530	379,720	97.47	16.3
1937-38 ...	319	23,737	2,268,907	380,220	95.59	16.0

\* 42 lb. per bushel.

In the earlier years the rice was purchased from growers by rice milling firms, who paid £10 10s., £12, and £11 10s. per ton (f.o.r. Leeton) for marketable paddy rice in successive years 1925-26 to 1927-28. An import duty of 3s. 4d. per cental on uncleaned rice and 6s. per cental on cleaned rice was imposed in 1926. Since 1928-29, rice grown in New South Wales has been marketed by a Rice Marketing Board constituted under the Marketing of Primary Products Act, and the greater part of the crop has been sold for consumption in Australia at a fixed price of £11 per ton, f.o.r. Leeton.



The quantity of marketable rice (paddy) produced, excluding grain retained for seed on the farms, and the amount and value of local rice shipped oversea from Australia in each year since 1928-29, are shown in the following statement:—

TABLE 659.—Rice Exported Oversea, 1929 to 1938.

Year ended 30th June.	Marketable Rice Produced in N.S.W. (Paddy).	Local Rice Exported Oversea from Australia.				Total Value.
		Quantity.			Meal and Flour.	
		Cleaned.	Uncleaned.*			
	cwt.	cwt.	cwt.	cwt.	£	
1928-29	464,560	2,334	385	16,682	12,855	
1929-30	657,240	7,386	4,189	5,652	15,213	
1930-31	521,680	59,961	15,324	7,626	52,443	
1931-32	477,620	73,111	36,559	7,005	64,561	
1932-33	706,940	44,739	26,287	4,369	46,366	
1933-34	798,760	170,736	6,687	4,179	127,470	
1934-35	698,280	194,986	25,551	3,529	149,502	
1935-36	783,600	175,087	8,768	7,832	150,904	
1936-37	840,420	272,645	1,908	18,673	207,217	
1937-38	840,580	244,336	2,522	8,248	215,353	

\* Stated to be after removal of husks, involving loss of from 16 to 20 per cent. of weight of paddy rice.

Most of the rice is exported from New South Wales, but considerable quantities are shipped through Victorian ports. In 1937-38 the rice of local origin exported from New South Wales comprised 197,932 cwt. cleaned, 673 cwt. uncleaned, and 6,770 cwt. of rice meal and flour, and the total value was £177,531.

The annual quantity of paddy rice required for consumption in Australia was estimated by the Rice Marketing Board at between 400,000 and 440,000 cwt., and production in recent years has more than satisfied domestic requirements.

In the evidence submitted to the Tariff Board at an investigation conducted in 1926 it was estimated that there were approximately 53,000 acres of land suitable for rice growing on the Murrumbidgee Irrigation Area. Each year, however, a conference representing the Rice Marketing Board, the rice growers, the Department of Agriculture, and the Water Conservation and Irrigation Commission, fixes for the following season the maximum area each grower may plant. For the season 1931-32 the limit was 90 acres. In the following season the area was increased to 110 acres, in order to compensate for the reduced yields that would be obtained from previously cropped land. In each season since 1933-34 the area has been fixed at 80 acres per farmer.

A rice research station is maintained by the Department of Agriculture at Yanco, where plant breeding, seed selection and general experimental work are undertaken.

#### HAY.

The production of wheaten and oaten hay varies in accordance with the seasonal factors controlling yield, the prospects for grain crops and the market demand for hay. In favourable years considerable stocks are stacked for use in dry seasons. The production of lucerne hay, though subject to considerable fluctuation, is less variable than that of wheaten and oaten

hay. Changes in the proportions of wheaten and oaten hay since 1931-32 may be, to some extent, attributable to the Federal bounty on manures used in cultivation, for which wheat for grain was not an eligible crop. In consequence the tendency to sow wheat and ultimately to use it for hay or for grain according to circumstances may have been discouraged, particularly in view of the bounty payable on wheat (grain). Formerly the greater part of the area cultivated for hay was sown with wheat, but for several years oats was the most extensive hay crop. In 1937-38, on account of the adverse season, the total area of hay crops was 10 per cent. less than in 1936-37 and the area of wheaten exceeded the area of oaten hay. The following table shows the area, production and average yield per acre of hay of each principal kind in recent years (ended 31st March):—

TABLE 660.—Hay—Area and Production, 1926 to 1938.

Kind of Hay.	Annual Average, 1926-30.*	Annual Average, 1931-35.	1935-36.	1936-37.	1937-38.
<b>Wheaten—</b>					
Area ... .. acres	377,463	339,837	224,632	293,854	348,339
Production ... .. tons	376,519	435,467	266,956	352,337	349,618
Yield p.a. ... .. tons	1.00	1.28	1.19	1.20	1.00
<b>Oaten—</b>					
Area ... .. acres	216,797	274,793	328,866	342,334	312,337
Production ... .. tons	243,460	347,934	396,706	389,488	317,814
Yield p.a. ... .. tons	1.12	1.27	1.21	1.14	1.01
<b>Lucerne—</b>					
Area ... .. acres	93,986	110,961	103,478	110,422	97,354
Production ... .. tons	174,405	181,894	171,498	174,104	156,185
Yield p.a. ... .. tons	1.86	1.64	1.66	1.58	1.60
<b>Other Kinds—</b>					
Area ... .. acres	1,296	1,705	1,834	1,317	1,532
Production ... .. tons	1,303	2,127	2,226	1,570	1,692
Yield p.a. ... .. tons	1.01	1.25	1.21	1.19	1.10
<b>Total Hay—</b>					
Area ... .. acres	689,542	727,296	658,810	747,927	759,562
Production ... .. tons	795,687	967,422	837,386	917,499	825,309
Yield p.a. ... .. tons	1.15	1.33	1.27	1.23	1.09

\* Years ended 30th June.

Information as to the quantity of hay on hand on rural holdings was ascertained, for the first time as at 31st March, 1936, when there were 744,930 tons stored on 16,132 holdings. By reason of hand feeding of stock the quantity was reduced to 717,961 tons by March, 1937, and to 496,809 tons a year later. The number of holdings with stocks of hay was 16,765 in 1937 and 15,713 in 1938.

#### SILAGE.

New South Wales is liable at intervals to fairly regular recurrence of long periods of dry weather. Consequently the supply of natural fodder sometimes fails and the necessity arises for conserving the abundant growth of herbage of good seasons, in the form of silage, for use when natural pastures are exhausted. To facilitate such conservation the Department of Agriculture offers free advice concerning the construction of silos. Farmers may sink ensilage pits at small expense.

The possession of stocks of silage is highly advantageous to dairy-farming in the districts of the coast, where the climatic conditions are unfavourable to the growth of winter fodder.

Returns showing the stocks of ensilage on holdings as at 31st March were obtained for the first time in 1936. At that date 206,190 tons of ensilage were stored on 1,671 holdings. Adverse seasonal conditions, particularly in coastal dairying districts, caused supplies to be drawn upon heavily in 1936-37. The quantity on hand at 31st March, 1937, was 199,549 tons on 1,572 holdings and 173,636 tons on 1,684 holdings in 1938. At 31st March, 1938, there were in the coastal divisions 872 holdings with 80,527 tons; on the Tablelands, 167 holdings with 16,905 tons; on the Western Slopes, 486 holdings with 57,842 tons; on the Western Plains and Riverina, 157 holdings with 18,254 tons, and in the Western Division, two holdings with 108 tons.

The following table gives particulars of the silage made in districts for certain periods since 1921-22.

TABLE 661.—Silage made, 1922 to 1938.

Period.	Farms on which Made.	Silage Made.	Value of Silage.	Silage made in Districts.				
				Coastal.	Tablelands.	Western Slopes.	Plains and Riverina.	Western Division.
Average—	No.	tons.	£	tons.	tons.	tons.	tons.	tons.
1922-26 ...	189	24,252	42,278	11,396	3,494	6,760	2,422	180
1927-30 ...	447	42,937	75,612	19,270	4,030	15,064	4,320	253
Season—								
1930-31 ...	669	60,172	86,815	26,576	4,646	23,505	5,320	125
1931-32 ...	628	54,885	77,078	27,644	3,723	15,267	7,901	350
1932-33 ...	738	62,435	88,309	31,996	7,715	13,741	8,983	...
1933-34 ...	892	70,835	96,000	44,433	4,357	18,159	2,386	1,500
1934-35 ...	1,068	88,991	125,010	51,343	7,882	23,119	4,347	2,300
1935-36 ...	1,311	109,731	149,886	77,131	7,452	18,513	5,135	1,500
1936-37 ...	1,350	113,542	170,167	79,776	7,337	18,923	7,454	52
1937-38 ...	1,399	109,628	159,161	86,762	7,095	12,996	2,775	...

Considering the liability of the State to periods of severe drought, the quantity of silage made is small. Latterly, however, there has been a considerable increase as the result of educative propoganda by Departmental officers and farmer organisations.

SUGAR-CANE.

The growing of sugar-cane became established as an industry in New South Wales about 1865. An outline of the early history and development of the industry is given in the Official Year Books, 1911, at page 447, and 1921, at page 753. By 1880 an area of nearly 11,000 acres was under cane and the industry continued to expand steadily until 1895, when the area was 32,927 acres. The peak in production (320,276 tons of cane) was recorded two years later. Then the rapid development of the dairying industry, and, later, of banana-growing, caused a decline in cane cultivation, and in 1918-19 the area under cane had diminished to about one-third of that in 1895.

The great bulk of the Australian sugar-cane is grown in Queensland, but its cultivation is an important enterprise on the far north coast of New South Wales. The cane-fields are confined to the hills and flats of the Tweed and the flats of the Clarence and Richmond Rivers, where the

conditions are favourable, *e.g.*, cheap transport (important because of the bulky nature of the crop), suitable soil, good drainage, adequate rainfall and reasonable freedom from frost.

Successful cane-growing is dependent largely upon the use of high-yielding, disease-resistant varieties and careful cultivation; and the revival of the industry and the satisfactory yields obtained in recent years indicate that growers in New South Wales have employed suitable types and effective methods in the cultivation of sugar-cane. There are few holdings devoted exclusively to cane-growing; usually it is undertaken in association with other agricultural activities and dairying.

The planting of sugar-cane takes place usually from August to early November according to location and soil and climatic conditions. Usually plantings are renewed every fourth or fifth year. Harvesting is a standardised process carried out on a contract basis. The cut cane is crushed in three mills at convenient centres and the raw sugar is purchased by the Queensland Sugar Board in terms of an agreement with the Commonwealth Government. Particulars regarding the operations of these sugar mills and the sugar refinery at Pymont (Sydney) are published on page 638.

The average yield of cane per acre varies considerably from year to year; it depends partly upon seasonal conditions, cultural methods, and variety of cane and specially upon the maturity of the cane—sometimes considerable areas are stood-over for harvesting in the following year. The greatest yield per acre (34.22 tons) was cut in 1925-26. In the last ten years the yield per acre has ranged from 20.12 tons in 1932-33 to 30.03 tons in 1934-35, and the average over the decennium was 25.04 tons, as compared with an average of 25.31 tons per acre for the ten years ended 1927-28. An area of 10,716 acres of cane was cut in 1937-38, producing 361,724 tons of sugar-cane (a record), with the high average of 33.76 tons per acre.

The fluctuations of cane-growing in New South Wales are shown in the following table:—

TABLE 662.—Sugar-cane Area and Production, 1876 to 1938.

Season.	Area under Sugar-cane.			Production of Sugar-cane.		Value of Sugar-cane Produced.†	
	Cut for Crushing.	Not Cut.	Total.*	Quantity.	Average Per Acre.	Total.	Per Acre.
	acres.	acres.	acres.	tons.	tons.	£	£ s. d.
1875-76	3,654	2,800	6,454	.....	.....	.....	.....
1885-86	9,583	6,835	16,418	239,347	24.98	.....	.....
1895-96	14,398	18,529	32,927	207,771	14.43	.....	.....
1905-06	10,313	11,492	21,805	201,988	19.59	161,240	15 12 8
1915-16	6,030	5,228	11,258	157,748	26.16	205,070	34 0 2
1925-26	8,688	10,675	19,363	297,335	34.22	397,690	45 15 6
1928-29	6,783	9,055	15,838	147,414	21.73	215,590	31 15 8
1929-30	7,967	7,458	15,425	174,110	21.85	291,000	36 10 6
1930-31	7,617	8,007	15,624	160,209	21.03	279,700	36 14 5
1931-32	8,272	7,647	15,919	174,153	21.66	300,080	36 5 6
1932-33	7,796	8,349	16,145	156,818	20.12	225,430	28 18 4
1933-34	10,015	6,914	16,929	230,918	23.03	325,430	32 9 11
1934-35	7,572	10,959	18,531	227,424	30.03	346,820	45 16 1
1935-36	10,416	9,794	20,210	280,472	26.93	384,820	36 18 11
1936-37	10,231	10,190	20,421	275,169	26.90	410,010	40 1 6
1937-38	10,716	10,137	20,853	361,724	33.76	489,240	45 13 1

\* Exclusive of areas cut for green food or plants since 1910.

† At place of production.

*Sugar Agreement.*

The sugar industry in Australia is subject to an agreement between the Commonwealth and Queensland Governments, by which an embargo on the importation of foreign sugar into Australia, imposed by the Commonwealth as a wartime measure in 1915, has been continued and the prices of refined sugar are fixed on a uniform basis throughout the Commonwealth. The prices under the current agreement, which extends to September, 1941, are as follows:—£24 per ton for raw sugar to the grower; £33 4s. per ton for refined sugar at wholesale; and 4d. per lb. for refined sugar, retail. Provision is made for rebates to exporters of canned fruits, jams, etc., to reduce the cost of the sugar contents of the foods exported to a parity with world prices of sugar. The Queensland Sugar Board administers the agreement and makes arrangements for the refining and marketing of the sugar produced in Queensland and New South Wales.

Australia is a party to the International Sugar Agreement concluded in London on 6th May, 1937. The aim of the Agreement is to regulate the production and marketing of sugar so that an adequate world supply will be available at prices not exceeding the cost of production (including reasonable profit) by efficient producers. A basic annual export quota, 400,000 tons, was allotted to Australia, and this covers practically all the surplus sugar produced in Australia in excess of home requirements. In 1937-38, the Australian quota was increased to 403,373 tons, because there was an increase of 3 per cent. in consumption in the British Empire, and the quota for 1938-39 was further increased to 443,062 tons.

By reason of the limitation arising from marketing control and the circumstances which led to such regulation it is not likely that cane-growing will be greatly extended in New South Wales.

## TOBACCO.

Tobacco-growing began in New South Wales more than fifty years ago, but has never been extensive, although it is believed that in some places soil and climate are suitable. For many years efforts have been made to encourage cultivation and a tobacco experimental farm is maintained at Ashford. Very little tobacco is grown in the State, except in the North-western Slopes Division, but small areas are under tobacco in the Riverina and near Tumut.

The peak of production was reached in 1922-23, when 27,122 cwt. of leaf were produced; but the quantity has exceeded 20,000 cwt. in only two subsequent years, viz., 1931-32 and 1932-33. In 1937-38 the quantity cured was 3,649 cwt., and the annual average for the ten years ended 1937-38 was 7,844 cwt. Increased tariff protection and an agreement between the Commonwealth Government and Australian tobacco manufacturers for the purchase of locally-grown leaf in 1931-32 stimulated tobacco cultivation, but the agreement was not renewed.

Following upon the recommendation of a committee of inquiry into the tobacco industry in 1933, the Commonwealth Government decided to provide £20,000 annually for five years to assist the States to continue economic and scientific investigations. Of this annual sum £5,000 is allocated to the Council for Scientific and Industrial Research and £2,000 up to a maximum of £3,750 to New South Wales. An important result of the research work of the Council for Scientific and Industrial Research is the discovery of effective means of preventing blue mould, which has been a serious obstacle to the progress of the industry. The State Tobacco Expert is engaged in advising the farmers, and in field experiments.

Particulars of tobacco production in New South Wales in the last twenty years are as follow:—

TABLE 663.—Tobacco-growing—Area and Production, 1917 to 1938.

Season.	Holdings Cultivating Tobacco.	Area Planted with Tobacco.	Production of Tobacco (Dried Leaf).	Tobacco Produced per acre Cultivated.	Value of Tobacco Produced (At Farm).	Average Value per acre Cultivatcd.
	No.	acres.	cwt.	cwt.	£	£ s.
Average 1917-21	105*	1,009	10,293	10·20	79,632	78 18
„ 1922-26	135	1,493	12,234	8·19	95,890	64 6
„ 1927-31	87	688	4,310	6·26	38,128	55 8
„ 1932-36	180	1,931	12,041	6·24	149,414	77 5
1928-29 .....	89	762	5,194	6·82	44,930	58 14
1929-30 .....	61	446	1,934	4·34	17,460	39 4
1930-31 .....	86	547	2,048	3·74	19,400	31 18
1931-32 .....	271	2,869	23,336	8·13	337,210	117 12
1932-33 .....	344	4,105	25,066	6·11	286,480	69 16
1933-34 .....	118	1,187	3,800	3·20	41,040	34 12
1934-35 .....	77	560	2,052	3·66	16,780	29 19
1935-36 .....	89	934	5,953	6·37	65,560	70 4
1936-37 .....	74	851	5,411	6·36	53,820	63 5
1937-38 .....	58	610	3,649	5·98	37,860	62 1

\* Average for four years—particulars for 1919-20 not available.

#### GRAPES.

Between 1920 and 1924 there was rapid expansion in the area devoted to grape-growing in New South Wales, which was largely due to the establishment of the industry on the Murrumbidgee and Curlwaa Irrigation Areas and to the settlement of returned soldiers on agricultural holdings adapted to grape-growing.

The most important viticultural district is in the Riverina Division, where 5,182 acres were grown in 1937-38 for wine-making, 832 acres for table use, 1,813 acres for drying, and 796 acres of young vines. The greater part of these vineyards is in the Murrumbidgee Irrigation Area. The growing of grapes for drying is most extensive in the irrigation areas at Wentworth, where 2,637 acres of vines were devoted to that purpose and 562 acres to other purposes in 1937-38.

In the Hunter and Manning Division the area cultivated for grapes in 1937-38 was 1,529 acres for wine-making, 290 acres for table use, and 90 acres of young vines.

The following dissection of the total area cultivated for grapes shows that the greatest increase in area, relatively and absolutely, has been in grapes of drying varieties.

TABLE 664.—Grapes, Area Grown for Various Purposes, 1921 to 1938.

Varieties of Grapes.	1920-21.*	1925-26.*	1930-31.*	1935-36.†	1936-37.†	1937-38.†
	acres.	acres.	acres.	acres.	acres.	acres.
Table ... ..	2,087	2,464	2,637	2,932	3,267	3,209
Drying ... ..	699	2,298	3,937	3,840	4,390	4,631
Wine ... ..	4,589	6,977	6,771	7,382	7,327	7,442
Total, bearing ... ..	7,375	11,739	13,345	14,154	14,984	15,282
Not bearing ... ..	3,408	2,726	1,269	514	560	703
{ Wine } { Other }			749	490	998	965
Grand Total ... ..	10,783	14,465	15,363	15,158	16,542†	16,950

\* Year ended 30th June. † Year ended 31st March.  
‡ Increase mainly due to more complete statistical collection.

The production of the vineyards according to the purposes for which it was used is shown in the following comparison. The quantities do not relate in every case to the acreages as classified in the preceding table, because the produce of some varieties of vines cultivated usually for a particular purpose may be used ultimately in a different way:—

TABLE 665.—Grapes—Production, 1921 to 1938.

Production.	1920-21.*	1925-26.*	1930-31.*	1935-36.†	1936-37.†	1937-38.†
Table grapes ... cwt.	53,200	76,740	73,600	87,520	102,140	101,520
Dried grapes—						
Sultanas ... ..	3,396	19,386	43,304	76,112	98,041	112,917
Currants ... ..	2,469	6,132	8,506	17,281	21,873	23,094
Raisins & lexias ..	1,052	3,782	3,983	7,046	10,283	9,857
‡Grapes used for wine,	113,880	203,940	235,040	327,020	367,020	379,520
Wine made ... gal.	674,188	1,240,893	1,335,882	2,567,812	2,944,494	2,690,315
Vigneron's Brandy and Spirit ... ..	8,536	9,037	7,764	36,710	§	§

\* Year ended 30th June. † Year ended 31st March.

‡ Includes grapes sent to Victoria to be made into wine; 16,860 cwt. in 1930-31 and 8,840 cwt. in 1935-36. § Includes distilled and beverage wine.

The volume of output shows some variation in accordance with the effect of seasonal conditions on average yields. In 1938-39 more dried vine fruits and wine grapes were produced than in any preceding year—the yield of table grapes was very high, but due to hail damage in the Hunter River District the production of wine was about 9 per cent. below the record of 1936-37. There has been a rapid increase in the production of sultanas and currants.

The approximate quantities of dried grapes packed in the 1938 season were sultanas 113,000 cwt., currants 23,100 cwt. and raisins and lexias 9,900 cwt.

Further information relating to the development of the dried vine fruits industry is published on page 756 of this issue.

Particulars of the production from vineyards in irrigation areas are shown in the section "Water Conservation and Irrigation"

Most of the table grapes are marketed in the urban centres of the State, and in 1937-38 grapes to the weight of 787,000 lb. valued at £14,070 were exported from New South Wales, as compared with 763,800 lb., valued at £14,536 in 1936-37. Special research into the problems of transport have been undertaken. The destinations of the exports in 1937-38 were, in order of importance, British Malaya, Ceylon, the Netherlands East Indies, India, the Philippines and Canada.

The export trade in wine is assisted by a bounty payable by the Commonwealth Government on fortified wine exported oversea. Particulars of the rates at which bounty has been payable under the Wine Export Bounty Act, the quantities on which bounty was paid and the amounts disbursed in New South Wales since the Act of 1924 was passed, are as follow:—

TABLE 666.—Bounty on Wine Exported, 1925 to 1938.

Year ended June.	Bounty on Fortified Wine Exported.		Wine Exported on which Bounty was Paid in New South Wales.	Amount of Bounty Paid.
	Rate per gal.	As from—		
	s. d.		gallons.	£
1924-25	4 0	1 Sept., 1924...	29,538	5,908
1925-26	4 0	.....	163,043	32,609
1926-27	1 9	1 Sept., 1927...	247,858	49,572
1927-28	1 0*	8 Mar., 1928...	168,213	30,330
1928-29	1 0*	.....	31,206	1,784
1929-30	1 9	13 Mar., 1930...	25,295	1,795
1930-31	1 9	.....	33,267	2,821
1931-32	1 4·8	20 July, 1931...	74,284	5,474
1932-33	1 4·8†	.....	88,839	7,382
1933-34	1 4·8	.....	75,260	5,268
1934-35	1 3	1 Mar., 1935...	49,761	3,232
1935-36	1 3	.....	43,959	2,748
1936-37	1 2	1 Mar., 1937 ...	51,692	3,209
1937-38	1 2	.....	81,465	4,637

\* On wine exported to Canada for Canadian consumption—1s. 9d.

† Actual rate paid 5th October, 1932, to 30th June, 1933—1s. 4·2d.

The rate of bounty was fixed at 1s. 2d. per gallon from 1st March, 1937, to 28th February, 1940. In March, 1938, the Federal Cabinet decided to continue the bounty at the rate of 1s. per gallon on fortified wine exported for five years during the period ended 30th April, 1945.

A Wine Grapes Marketing Board, constituted under the Marketing Act, functions mainly as a negotiating body between the growers of the Murrumbidgee Irrigation Area and the wine-makers, and fixes the prices payable to the growers for wine-grapes delivered at the wineries.

#### FRUIT AND VEGETABLE GROWING.

In 1937-38 the area of land on which fruit (including passion-fruit, berry fruits, nuts, grapes, bananas and pineapples) was grown was 104,243 acres (inclusive of 18,477 acres non-bearing) and the farm value of the production was £2,783,710, as compared with an area of 104,429 acres (inclusive of 17,907 acres non-bearing) and a farm value of £2,677,870 in 1936-37.



The importance of fruit and vegetable growing is shown by the following comparison, which relates to the area and value of production of each of the principal classes of crop on holdings of one acre and upwards in extent:—

TABLE 667.—Fruit and Vegetables—Acreage and Production, 1936-37 and 1937-38.

Kind of Crops.	‡1936-37.			1937-38.		
	Area not yet Bearing.	Area in Bearing.	Farm Value of Crop.	Area not yet Bearing.	Area in Bearing.	Farm Value of Crop.
	Acres.	Acres.	£	Acres.	Acres.	£
Orchards—Citrus ...	3,986	24,566	653,180	3,742	23,875	659,950
Other† ...	9,720	34,597	1,008,450	9,827	33,796	907,884
Total	13,706	59,163	1,661,630	13,569	57,671	1,567,834
Vineyards ... ..	1,558	14,984	*423,630	1,668	15,282	*451,400
Market Gardens ... ..	...	7,335	382,200	...	7,268	398,220
Separate Root Crops ... ..	...	28,700	450,370	...	26,739	297,220
Bananas ... ..	2,013	11,560	563,700	2,749	11,965	740,080
Minor Crops of Fruit and Vegetables ..	630	20,908	415,820	491	23,493	527,790
Grand Total ...	17,907	142,650	3,897,350	18,477	142,418	3,982,544

\* Includes value of wine and spirit made from grape juice. † Excludes passion-fruit, bananas, pineapples, and berry fruits. ‡ About 1,500 small orchards with an area of approximately 4,000 acres, were included for the first time in 1936-37.

The cultivation of many classes of fruit is capable of considerable expansion, and there are large areas of suitable soil with climatic conditions ranging from comparative cold on the highlands to semi-tropical heat on the North Coast, so that a large variety of fruits can be cultivated. In the vicinity of Sydney, citrus fruits, peaches, plums, apples, and passion-fruit are most generally planted. On the tablelands, apples, pears, apricots, and all the fruits from cool and temperate climates thrive; in the west and in the south-west, citrus, pome and stone fruits, figs, almonds, and raisin-grapes are cultivated; and in the north coastal districts, bananas, pineapples, and other tropical fruits are grown. Citrus fruits are cultivated extensively, and form the largest element in local fruit production. All orchards and nurseries outside the metropolitan area are required to be registered, for which an annual charge of 1s. per acre or part thereof is imposed. Revenue from this source, less the cost of administration, is expended in the form of advances to fruit-growers' organisations for the benefit of the industry. Receipts in 1937-38 were £5,597, advances totalling £3,797 were made, and an unexpended balance of £4,705 remained at 30th June, 1938.

With the exception of oranges, lemons, mandarins and bananas, the fruit production of New South Wales is far below the demand. In the year ended 30th June, 1938, approximately 2,483,576 cases of fresh fruit, including

200,420 of pineapples and 136,276 of bananas, were imported into New South Wales from other States. The quantity of fruit used for jam and fruit-canning in factories in New South Wales during 1937-38 was 19,306 tons, valued at £232,362. Fresh fruit (including citrus) to the value of £207,517 was exported overseas from New South Wales in 1937-38, in addition to preserved fruits and vegetables, pulp and juice valued at £208,808, and dried fruits valued at £149,209. Good seasons generally produce a glut of stone fruits, for which apparently there is no system of efficient handling.

The extent of cultivation of each important class of fruit on holdings of 1 acre and upwards during the past season and in 1930-31 is shown in the following table:—

TABLE 668.—Fruit Trees, 1930-31 and 1937-38.

Fruit.	1930-31.			1937-38.		
	Number of Trees not yet Bearing.	Trees of Bearing Age.		Number of Trees not yet Bearing.	Trees of Bearing Age.	
		Number.	Yield.		Number.	Yield.
Oranges—			bushels			bushe's.
Seville ... ..	4,905	33,872	38,727	5,974	20,977	24,395
Washington Navel ...	158,380	551,616	746,916	113,795	633,457	579,851
Valencia ... ..	234,560	719,441	834,073	128,773	811,955	922,732
All other ... ..	34,176	391,251	407,069	15,351	182,378	194,783
Total oranges ... ..	432,021	1,696,180	2,046,785	263,893	1,648,767	2,021,761
Lemons ... ..	53,350	210,833	320,156	58,443	210,064	253,012
Mandarins ... ..	100,184	589,839	532,568	20,777	370,333	314,417
Other Citrus ... ..	14,919	27,942	36,219	18,387	36,983	64,469
Apples ... ..	323,802	967,164	908,705	491,893	1,133,602	1,234,802
Pears—						
Williams ... ..	23,240	159,640	172,009	33,813	136,730	204,676
All other ... ..	22,374	141,972	141,961	28,954	156,936	250,934
Peaches—						
Dessert and Drying ..	54,166	302,688	214,600	82,793	314,144	255,954
Canning ... ..	55,685	171,127	209,998	111,071	184,249	253,578
Nectarines ... ..	7,746	32,142	19,403	15,051	42,702	29,527
Plums ... ..	37,559	207,631	148,246	28,376	211,180	145,917
Prunes ... ..	21,616	272,553	197,998	9,296	236,961	307,632
Figs ... ..	6,002	8,629	4,233	3,176	22,019	9,746
Cherries ... ..	78,331	241,724	79,220	45,673	272,410	140,493
Apricots ... ..	16,156	147,789	113,303	24,720	152,843	197,846
Quinces ... ..	9,929	15,969	19,939	6,668	40,337	44,160
Almonds ... ..	9,031	35,898	4,410	28,584	47,428	7,047
Persimmons ... ..	757	9,149	5,920	977	12,615	9,994
Passion Fruit ... ..	†73,369	†203,035	57,595	†138,424	†200,294	44,109
†All other ... ..	...	...	5,642	...	...	6,911

† Vines.

‡ Excluding bananas and pineapples.

The figures shown above include returns from non-commercial orchards, which are, however, of comparatively small extent. Since 1930-31 there has been a check to the expansion in orchards which had been steadily maintained throughout the preceding decade. This is illustrated by a comparison of the figures relating to young trees as well as trees in bearing. Apples, cherries, and certain fruits used mainly for processing are exceptions to the general trend. There has been a marked decline in mandarin growing, also a shift from common oranges to Washington navels and Valentias.

*Citrus Fruits.*

Particulars of citrus orchards are shown in the following statement:—

TABLE 669.—Citrus Fruits—Area and Production, 1901 to 1938.

Season.	Area under Cultivation (Citrus Fruits.)			Production.		Farm Value of Production.	
	Productive.	Not bearing.	Total.	Total.	Average per Productive Acre.	Total.	Average per Productive Acre.
	acres.	acres.	acres.	bushels.	bushels.	£	£ s. d.
1900-01	11,013	3,952	14,965	648,628	59	81,080	7 7 3
1910-11	17,465	2,643	20,108	1,478,306	85	199,300	11 8 3
1920-21	21,990	6,445	28,435	2,009,756	91	477,580	21 14 4
Average— 5 Years ended 1925-26	21,854	8,119	29,973	2,155,313	99	595,900	27 5 4
1930-31	26,140	7,019	33,159	2,677,548	102	826,450	31 12 4
1935-36	26,223	4,806	31,029	2,947,468	112	557,850	21 5 6
1927-28	26,056	7,301	33,357	2,604,983	100	765,240	29 7 5
1928-29	26,366	6,889	33,255	3,031,820	115	913,110	34 12 8
1929-30	27,263	6,747	34,010	2,541,681	93	1,176,400	43 3 0
1930-31	27,161	6,303	33,464	2,935,728	108	515,160	18 19 4
1931-32	26,758	5,508	32,266	3,050,447	114	562,700	21 0 7
1932-33	27,235	5,290	32,525	2,909,142	107	570,510	20 18 11
1933-34	27,504	4,894	32,398	2,908,021	109	574,960	20 18 1
1934-35	25,334	4,401	29,735	3,043,444	120	496,400	19 11 11
1935-36	24,284	3,938	28,222	2,826,284	116	584,660	24 1 6
1936-37	24,566	3,986	28,552	2,784,104	113	653,180	26 11 9
1937-38	23,875	3,742	27,617	2,653,599	111	659,950	27 12 6

The principal divisions for the cultivation of citrus fruits are as follow:— Hunter and Manning, 7,893 acres; Metropolitan, 6,971 acres; Riverina (which includes 5,583 acres within the Murrumbidgee Irrigation Area), 6,888 acres, and Central Tableland, 4,033 acres. Of the last, 3,892 acres within Colo Shire are really within the coastal terrain.

The number of holdings of one acre or more in extent in which citrus fruit, to the extent of fifty trees or more, was cultivated during the year 1937-38 was 3,897, and of these the average area was 7.1 acres, compared with 5,110 in 1930-31, with an average area of 6.7 acres. The area devoted to citrus culture expanded steadily in the ten years ended 1929-30, when the maximum area of 34,010 acres of bearing and non-bearing trees was attained. Since then, owing to the adversities of the industry, citrus growing has been curtailed, and in 1937-38 the area under citrus fruits was about 17½

per cent. smaller than in 1930-31 with the productive area reduced by about 12 per cent. Simultaneously the area under mandarins declined, and navel and Valencias have, to an appreciable degree, replaced oranges of other varieties. Lemon growing, which also diminished year by year until 1935-36, has since increased, and in 1937-38, there were more lemon trees than in any year since 1924-25.

The production of oranges and lemons has attained such proportions that the growers are obliged to seek overseas markets. During 1937-38 the oversea export of citrus fruit from New South Wales was valued at £107,239, and in 1936-37 at £45,364. Formerly most of this export was to New Zealand. But in December, 1932, an embargo was placed on the importation of all fresh fruits from Australia to New Zealand. This was partially relaxed in respect of the produce of South Australia only, in August, 1933. This embargo coupled with increased production seriously affected the local markets. Efforts to develop markets in Canada and Great Britain have met with some success, though prices secured in oversea markets have not been very satisfactory, and a bounty of 6d. per case was paid by the Commonwealth on oranges exported to countries other than New Zealand in 1934 and 2s. per case in 1935 and 1936 subject to certain qualifications. In 1937-38, 8,644 centals of citrus fruits valued at £7,093 were exported to the United Kingdom, and 16,477 centals (£14,944) to Canada.

The Citrus Fruits Bounty Act of 1937 provided for a bounty at uniform rates on the export of oranges, lemons, grape-fruit and mandarins. Common oranges are ineligible for the bounty. The rate varies according to the description of case used. For the orange case (oranges or grape-fruit) and the lemon case (lemons) the rate is 2s. per case. The Australian bushel case and the standard bushel case may be used for oranges, lemons, grape-fruit or mandarins, for which a bounty of 1s. 4d. per case is payable. Half lemon cases in which lemons or mandarins may be exported carry bounty at the rate of 1s. per case. These rates were applied in 1937-38. The bounty in respect of oranges (and lemons, grape-fruit and mandarins in 1937-38) exported from New South Wales was £4,106 in 1934-35, £4,259 in 1935-36, £4,693 in 1936-37 and £6,001 in 1937-38.

Late in 1936 the New Zealand embargo was relaxed to permit of imports from "fly free" areas in New South Wales and Victoria and 9,892 cases were shipped from New South Wales. Under the trade agreement concluded in March, 1937, oranges from "fly free" areas will be admitted to meet the needs of the New Zealand market, subject to the consent of the Minister for Customs of that country. In 1937-38, 71,902 centals of oranges, valued at £69,327 were sent from New South Wales to New Zealand.

Australian oranges shipped to the United Kingdom arrive mainly in the months August to November and compete in the British market with oranges from South Africa, Brazil, and at times the United States of America. Production has expanded rapidly in South Africa and Brazil, where the producers enjoy the advantages of cheap labour and more ready access to market. Hence the Australian producer, as a relatively small factor in the total British supply even in these months of active marketing, cannot secure remunerative returns from export to the United Kingdom unless costs of production and marketing are kept at a very low level.

The New Zealand embargo deprived mandarin growers of their only important export market. To relieve distress amongst such growers the Commonwealth and State Governments each provided an amount of £8,515,

as grants to growers to be used for resoiling, purchasing fertilisers, reworking established mandarin trees with approved citrus varieties, replacing old mandarin trees with other fruit trees, and utilising areas which were under mandarins for any other approved purpose. Mandarin trees in bearing decreased in number from 590,578 in 1931-32 to 386,899 in 1936-37 and 370,333 in 1937-38.

In February, 1935, the Commonwealth Government made available to the Council for Scientific and Industrial Research an annual grant of £2,000 for five years to be expended in citrus research.

Under regulations issued by the Federal Department of Commerce in March, 1939, all establishments used for packing citrus fruits for export must be registered and must conform to a specified standard of hygiene.

*Fruits other than Citrus.*

The following table shows the area of orchards and fruit gardens, including passion fruit but exclusive of citrus orchards, bananas, pineapples, and berry fruits, together with the total value of each season's yield, at intervals since 1900-01:—

TABLE 670.—Non-Citrus Fruits—Area and Value—1901 to 1938:

Season.	Area under Cultivation (Fruits other than Citrus).			Farm Value of Production.	
	Productive.	Not Bearing.	Total.	Total.	Average per Productive Acre
	acres.	acres.	acres.	£	£ s. d.
1900-01	25,766	5,503	31,269	270,080	10 9 8
1910-11	20,498	6,748	27,246	271,930	13 5 4
1920-21	27,302	14,309	41,611	577,480	21 3 0
1921-22	27,838	14,031	41,869	547,950	19 13 8
1922-23	26,314	14,500	40,814	732,390	27 16 8
1923-24	27,220	13,525	40,745	645,820	23 14 6
1924-25	27,694	12,679	40,373	796,390	28 15 2
1925-26	29,621	11,818	41,439	857,380	28 18 11
1926-27	30,403	10,637	41,040	855,540	28 2 7
1927-28	32,492	9,038	41,530	957,550	29 9 6
1928-29	32,323	8,389	40,712	860,710	26 12 7
1929-30	32,284	7,767	40,051	1,006,640	31 3 7
1930-31	32,140	7,499	39,639	709,360	22 1 5
1931-32	32,811	7,536	40,347	461,210	14 1 1
1932-33	32,954	7,014	39,968	903,690	27 8 5
1933-34	32,811	7,393	40,209	670,560	20 8 9
1934-35	33,002	8,016	41,018	753,810	22 16 10
1935-36	32,594	8,600	41,194	809,960	24 17 0
1936-37	35,211§	10,201§	45,412§	1,030,270	29 5 2
1937-38	34,462	10,254	44,716	935,474	27 2 11

§ The increase in area in 1936-37 was due to the inclusion of a number of small orchards not previously recorded.

Approximately one-quarter of the area under fruits other than citrus is situated in the Central Tablelands, where the area occupied in this way is 10,979 acres; 9,079 acres are situated in the south-western slopes and 9,223 acres in the Riverina. The last mentioned acreage includes the orchards of the Murrumbidgee Irrigation Area, which are described in the chapter "Water Conservation and Irrigation."

The number of non-citrus fruit trees (in bearing) of each of the principal varieties in various years since 1910 is shown in the following table.

TABLE 671.—Non-citrus Fruits—Number of Productive Trees, 1910 to 1938.

Season.	Apples.	Pears.	Peaches.	Plums.	Prunes.	Apricots.	Cherries.
Number of Trees of Productive Age.							
1910 ...	476,945	109,178	584,642*	110,791†	...	78,352	114,205
1920 ...	718,350	196,943	690,617	132,385	32,857	109,088	139,212
1925-26 ...	832,110	271,526	568,291	212,721	131,153	134,782	186,925
1930-31 ...	967,164	301,612	473,815	207,631	272,553	147,789	241,724
1931-32 ...	985,226	302,318	465,551	202,101	267,901	148,203	243,689
1932-33 ...	1,015,948	297,445	453,333	204,781	272,893	143,198	251,251
1933-34 ...	1,012,254	290,526	451,228	206,733	263,279	141,983	259,125
1934-35 ...	1,045,824	281,902	451,011	200,989	259,948	143,792	261,359
1935-36 ...	1,048,555	281,534	458,800	199,337	235,009	142,975	268,805
1936-37§	1,121,395	293,808	498,758	218,410	242,482	155,454	276,194
1937-38 ...	1,133,602	293,666	498,393	211,180	236,961	152,843	272,410

\*Including Nectarines.

† Including Prunes.

§See footnote to preceding table.

Whilst the area under fruits other than citrus has varied but little during the past fifteen years, apple and cherry growing has tended to expand in recent years, and a tendency for fewer pears, peaches, and plums to be grown has been noticeable. Prune growing extended rapidly between 1920 and 1930, but declined between 1932-33 and 1937-38.

#### *Apples and Pears.*

Apples are by far the most important non-citrus fruit grown. Apple orchards are most extensive in the Central Tableland division in the Bathurst and Orange districts, in the south-western slopes near Batlow and Tumbarumba, in the Northern Tableland near Uralla, in the highlands of Nattai, Wollondilly and Wingecarribee Shires within the South Coast Division, and in the Murrumbidgee Irrigation Area. Of the production of 1,234,802 bushels of apples in 1937-38 about 30 per cent. (368,849 bushels) were grown in the Central Tablelands division, 289,229 bushels in the South-western Slopes, 147,113 bushels in the Northern Tableland, 173,179 bushels on the South Coast, and 132,777 bushels in the Murrumbidgee Irrigation Area. Pears are also grown in these districts.

Apart from citrus fruits, apples and pears are the only fresh fruits grown in New South Wales which are exported in considerable quantities. Low prices and marketing difficulties, both locally and abroad, jeopardised the livelihood of apple and pear growers throughout the depression and the Commonwealth Government appropriated £125,000 in 1933-34 and 1934-35, for the relief of apple and pear growers, of which £8,225 and £4,023 was distributed to orchardists in New South Wales in the respective years. Further assistance was given in the form of a bounty paid on apples and pears exported, at the rate of 4d. per bushel case in 1935, 4½d. per bushel case in 1936, and 2½d. per bushel case in 1937. Apple and pear export bounty distributed in New South Wales amounted to £3,182 in 1935-36, £2,433 in

1936-37, and £1,400 in 1937-38. In 1935-36 a grant of £1,270 was made by the Commonwealth for expenditure toward the improvement of the apple and pear growing industries. Grants totalling £2,418 were made in 1936-37 and 1937-38, and the Commonwealth Government will provide £1,779 in 1938-39 and £1,359 in each of the following three years for this purpose. The work undertaken includes instruction in packing and the re-working of apple and pear trees and scientific and cultural investigations.

A comparative statement relating the production and oversea export of apples and pears is appended. In this table the quantities exported (recorded in centals) have been converted at the rate of 40 lb. to the bushel for apples and 50 lb. to the bushel for pears. The United Kingdom is the principal market for apples and pears shipped from New South Wales. Quantities are exported also to Hong Kong, Malaya, the Netherlands East Indies and Germany.

TABLE 672.—Apples and Pears—Production and Oversea Export, 1910 to 1938.

Year.	Apples.				Pears.			
	Production.	Quantity Exported.		Total Value of Exports.	Pro-duction.	Quantity Exported.		Total Value of Exports.
		To United Kingdom.	Total.			To United Kingdom.	Total.	
	bus.	bus.	bus.	£	bus.	bus.	bus.	£
1910 ...	474,838	1,360	28,515	8,580	128,168	*	*	*
1920-21 ...	524,303	7,093	19,660	10,568	165,641	*	*	*
1925-26 ...	759,742	9,613	22,288	12,454	278,539	2,376	4,842	4,414
1930-31 ...	908,705	45,223	76,718	33,316	313,970	3,282	12,746	6,672
1931-32 ...	295,288†	78	25,235	14,863	161,469†	...	4,386	3,283
1932-33 ...	1,251,815	336,720	375,873	139,479	336,300	30,942	35,826	13,592
1933-34 ...	838,020	74,815	131,435	53,996	358,479	25,144	38,456	17,021
1934-35 ...	1,235,389	192,890	264,400	113,178	333,905	12,630	24,412	12,068
1935-36 ...	977,901	104,488	148,925	62,656	396,227	15,844	27,006	15,128
1936-37 ...	1,410,685	90,435	134,410	56,849	399,046	11,034	25,914	15,001
1937-38 ...	1,234,802	86,970	134,408	59,987	455,610	14,734	26,448	13,977

\* Not available.

† Poor crops due to thrip ravages.

The Anglo-American trade agreement which came into operation on 1st January, 1939, accords reduced tariff duties (3s. per cwt.) on United States apples between 16th August and 15th April, and pears between 1st August and 31st January. As Australian apples and pears do not arrive in the United Kingdom during these periods it is unlikely that this concession will prejudice the position of Australian growers in the British market.

In recent years headway has been made in organising the marketing of non-citrus fruits. Cool stores on co-operative lines have been established at Batlow, Orange, Young, Leeton, Griffith, and Kentucky. These provide growers with storage chambers which enable them to store apples, pears, etc., during periods of plenty, for sale when supplies are scarce by reason of seasonal changes. In addition to the monetary gain, this system makes it possible for suppliers to ensure greater regularity of supplies of fruit, to make valuable trading connections, and to inaugurate sound marketing undertakings.

*Bananas.*

There was rapid progress of banana culture in the Tweed River district of the North Coast division between 1914 and 1920. Subsequently the infection of the plantations by the disease known as "bunchy top" almost extinguished the industry, and it was not until 1930 that measures evolved by the Bunchy-top Control Board (described at page 599 of the 1933-34 issue of the Year Book) permitted renewed expansion. Between 1929-30 and 1933-34 development was so marked that in the latter year the area devoted to banana culture was more than threefold the area in 1922. Apart from the enhanced prospects of successful culture due to bunchy-top control the renewed expansion of the industry was probably attributable in large measure to the influx of unemployed persons.

The industry has attained such proportions that the production exceeds local requirements, and plentiful supplies have seriously depressed prices. A Banana Market Board constituted under the provisions of the Marketing Act assumed full marketing powers as from 1st July, 1936, and established a sales floor and a banana ripening plant in the City Markets in November, 1937.

At a poll on 24th September, 1938, the growers, by 692 to 667 votes, favoured the dissolution of the Board, so that the Board, though continuing to function, is subject to dissolution. The Commissioner who inquired into the fruit industry reported that in his opinion the Board could not be disbanded without prejudicing the industry and the growers' interests.

The area within New South Wales adapted for banana growing is strictly limited and further extension is unlikely. A reduction in area occurred between 1933-34 and 1935-36, and a tendency not to renew worked-out plantations was noticeable, but in the last two years the total area under bananas increased appreciably as the result of setting new stools.

The following table shows the area cultivated for and the production of bananas in certain years since 1922:—

TABLE 673.—Banana-growing, 1922 to 1938.

Year ended 30th June.	Area.			Production.	
	Bearing.	Not bearing.	Total.	Cases.	Farm value.
	acres.	acres.	acres.	No.	£
1922 ... ..	4,570	898	5,468	433,533	260,120
1925 ... ..	1,002	502	1,504	60,763	47,090
1930 ... ..	1,806	1,534	3,340	117,120	107,840
1931 ... ..	2,621	2,338	4,959	216,756	139,090
1932* ... ..	4,733	2,394	7,127	343,427	181,730
1933* ... ..	6,241	5,034	11,275	533,560	326,810
1934* ... ..	8,643	8,795	17,438	691,627	340,050
1935* ... ..	12,179	3,893	16,072	993,165	306,220
1936* ... ..	11,856	1,173	13,029	1,004,868	331,180
1937* ... ..	11,560	2,013	13,573	1,009,626	563,700
1938* ... ..	11,965	2,749	14,714	1,153,371	740,080

\* Year ended 31st March.



The quantity of bananas imported oversea into New South Wales in 1937-38 was 746 centals valued at £482, including 12 centals from Fiji. The duty on bananas imported oversea is 1d. per lb., but 40,000 centals of Fiji bananas may be admitted annually into Sydney and Melbourne at a duty of 2s. 6d. per cental. Bananas from Norfolk Island are not subject to duty.

*Fruit Canning.*

The Commonwealth Government paid bounty on certain kinds of fruit canned in 1923-24, and on such fruit exported on or before 28th February, 1925. A sum of £3,102 was paid on fruit canned in New South Wales in 1927-28, the last year in which a bounty was paid. In subsequent years the fruit-canning industry in New South Wales received Commonwealth assistance, of an indirect nature, per medium of the Fruit Industry Sugar Concession Committee whose main source of revenue is a payment (£216,000 per annum from 1st September, 1937) under the provisions of the Sugar Agreement between the Commonwealth and Queensland Governments. The Queensland Sugar Board has made ex gratia payments (£17,008 in 1937-38) as special contributions to assist jam exports. The committee grants to fruit canners and jam manufacturers a rebate on the price of sugar used in the process of manufacture, on condition that a predetermined price is paid to the producer of the fruit required. Amounts of £36,441, £39,317, £51,959, £38,913, £41,983 and £38,484 were expended in New South Wales in this connection in successive years ended August, 1938. The amount in 1937-38 comprised domestic sugar rebate, £18,329, export sugar rebate, £13,137, and special export assistance, £7,018. The export of canned fruit is supervised by the Canned Fruit Control Board constituted under Federal legislation.

The following statement of the quantity and value of canned fruit produced in factories in New South Wales shows a great increase in recent years. In the three years ended 1937-38 the output of the canneries was 37.6 per cent. greater in quantity and 33.1 per cent. higher in value than in the preceding three years, and much greater than in any earlier period.

TABLE 674.—Fruit-canning—Quantity and Value, 1925 to 1938.

Year.	Fruit Preserved.		Year.	Fruit Preserved.	
	Quantity.	Value at Cannery.		Quantity.	Value at Cannery.
	lb.	£		lb.	£
1924-25 ... ..	17,019,569	408,101	1931-32 ... ..	7,609,691	136,776
1925-26 ... ..	11,325,850	264,794	1932-33 ... ..	19,447,512	342,099
1926-27 ... ..	8,261,091	182,436	1933-34 ... ..	17,653,693	329,477
1927-28 ... ..	13,922,386	242,537	1934-35 ... ..	21,446,194	392,891
1928-29 ... ..	14,243,747	258,037	1935-36 ... ..	25,208,208	512,793
1929-30 ... ..	17,133,226	271,360	1936-37 ... ..	28,394,451	438,172
1930-31 ... ..	15,812,219	253,205	1937-38 ... ..	26,947,628	465,968

*Dried Fruits.*

The dried fruits industry in New South Wales is of comparatively recent origin—its development followed upon the establishment of the irrigation areas and of orchard settlements in post-war years. The principal settlements where dried vine fruits are produced are in the Murrum-

bidgee, Coomealla, Curlwaa, Goodnight and Pomona Irrigation areas, and small quantities of dried vine fruits are produced in the Junee, Albury and Euston districts. The greater proportion of dried fruits produced in the Murray River districts is packed in Victorian packing houses whose premises are registered with the Victorian Dried Fruits Board, but these quantities are included in the following statement showing the total production of dried fruits in New South Wales in each of the last fourteen seasons.

TABLE 675.—Dried Fruits, Production, 1925 to 1938.

Season.	Dried Fruit.						
	Apricots.	Grapes.*	Peaches.	Pears.	Prunes.	Other.	Total.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1924-25 ...	893	25,133	1,628	412	3,321	206	31,593
1925-26 ...	775	29,301	1,334	303	3,111	65	34,889
1926-27 ...	4,072	50,170	655	165	1,890	39	56,991
1927-28 ...	4,577	35,369	4,782	630	12,657	388	58,403
1928-29 ...	9,097	69,842	3,461	355	17,633	453	100,841
1929-30 ...	6,473	93,673	2,866	265	24,305	410	127,992
1930-31 ...	2,243	55,793	2,647	346	31,784	194	93,007
1931-32 ...	6,260	70,793	1,385	257	2,901†	41	81,637
1932-33 ...	5,147	111,572	2,960	460	36,531	502	157,172
1933-34 ...	7,161	92,851	2,546	348	30,217	517	133,640
1934-35 ...	5,124	82,712	2,481	398	33,088	829	124,632
1935-36 ...	7,022	100,439	2,424	331	26,244	933	137,393
1936-37 ...	3,282	130,197	2,105	249	43,370	677	179,880
1937-38 ...	5,125	145,868	2,300	120	43,229	394	197,036

\* See table 665 for details.

† Failure of crop.

There has been a rapid expansion in the production of dried vine fruits and prunes. The production of dried apricots, peaches, nectarines and pears varies considerably from year to year, and is dependent principally upon prices obtainable at the canneries and in fresh fruit markets. There was a decline in the area devoted to prune growing between 1933-34 and 1935-36, probably in reaction to the poor returns, but in 1936-37 the pack of dried prunes was much greater than ever before. To assist prune growers the Commonwealth provided a bounty of  $\frac{3}{4}$ d. per lb. on prunes exported from Australia during the year 1935 and  $\frac{1}{2}$ d. per lb. in respect of shipments in 1936. The amounts distributed in New South Wales were £4,604 in 1935-36 and £1,634 in 1936-37. No bounty was paid on prunes exported in 1937.

Even larger quantities of dried fruits are grown on the irrigation areas of other Australian States, mainly in Victoria and South Australia. In recent years the production of dried fruits has largely exceeded the Australian demand and, on account of the low prices prevailing abroad, legislation was passed by the States concerned and by the Commonwealth to make provision for organised marketing. In this way the local trade and the less profitable export trade are distributed on an equitable basis amongst the producers in the various States, and the Commonwealth assists in the export and disposal of dried fruits in the oversea markets. This system, involving the regulation of interstate trade, was challenged in the courts, and held by the Privy Council to be in excess of constitutional powers, but State legislation has not been invalidated, and the system hitherto operated under legislative sanction has been continued successfully on a basis of voluntary co-operation of producers and dealers in dried fruits throughout the Commonwealth.

The New South Wales Dried Fruits Board, constituted under the Dried Fruits Act, 1933, has regulated the marketing of dried vine fruits—sultanas, currants, and lexias—since 1928, and of dried tree fruits—dried prunes, apricots, peaches, nectarines and pears—since 1932. All dried fruits must be hygienically packed and properly treated and graded in packing-houses registered with the Board, and boxes containing dried fruits must be properly branded. Growers and dealers are registered and the cost of administration is met principally by a contribution from the growers at the rate of 5s. 6d. per ton of dried fruits produced.

Based upon estimates of Australian production and consumption made in consultation with the other producing States, quotas, uniform with those declared in other States, are declared by the Board fixing the proportion of production of each kind of dried fruit which may be sold within the State.

The quotas determined in the years 1935 to 1938, and the quotas (subject to revision) for 1939 were:—

TABLE 676.—Dried Fruits—Marketing Quotas, 1935 to 1939.

Year.	Currants.	Sultanas.	Lexias.	Prunes.	Peaches.	Apricots.	Nectarines.	Pears.
	Quota for Intrastate Trade—Per cent. of Production.							
1935 ...	17½	17½	70	50	60	52½	67½	67½
1936 ...	30	17	40	75	67½	70	60	55
1937 ...	19	17	47½	62½	66⅔	...	80	37½
1938 ...	15	12½	40	65	55	40	60	25
1939* ...	12½	12½	40	60	50	70	60	25.

\*Subject to revision.

*Vegetables.*

As agricultural and pastoral statistics are collected only in respect of holdings of one acre or more in extent, they do not provide a complete census of vegetable growing. Nevertheless the information obtained may be considered to provide reasonably complete particulars of operations conducted on a commercial basis.

A new vegetable market provided at the Sydney Municipal Fruit and Vegetable Markets at a cost of about £400,000 was opened on 2nd May, 1938, affording greatly improved selling facilities. The interests of the vegetable growing industry are the concern of the Vegetable Growers' Association of New South Wales.

A considerable proportion of the vegetables produced on holdings of one acre and over is grown in market gardens, and data as to individual crops are not available in respect of these. In 1937-38 market garden produce was grown on 1,603 holdings, in areas of one acre or more, the total area being 7,268 acres and the farm value of production was £398,200. The area and production of individual crops, exclusive of areas cultivated in market gardens and on holdings less than one acre in extent, were as follow:—

TABLE 677.—Vegetable-growing, 1936 to 1938.

Vegetables.	1935-36.		1936-37		1937-38.	
	Area of Crop.	Production.	Area of Crop.	Production.	Area of Crop.	Production.
Potatoes—	acres.	tons.	acres.	tons.	acres.	tons.
Early (Summer)	22,743	62,882	24,000	66,255	21,372	50,833
Late (Winter)						
Sweet ... ..	270	1,152	351	1,461	391	1,719
Onions ... ..	85	231	112	299	162	356
Turnips ... ..	2,119	5,979	2,920	10,151	4,366	29,789
Other Root Crops ...	469	1,876	408	1,379	448	1,804
Pumpkins and Melons	4,611	14,981	4,486	13,330	4,738	13,882
Tomatoes ... ..	2,227	530,120	2,057	571,653	2,029	602,975
		£		£		£
Peas ... ..	11,577	94,957	9,686	97,908	11,760	124,239
Beans ... ..	1,597	30,793	1,976	39,574	2,203	43,751
Cabbages ... ..	546	11,766	575	14,906	467	13,153
Cauliflowers ... ..	689	11,783	812	16,867	792	16,585
Other ... ..	447	12,191	495	15,451	479	16,508

### Potatoes.

Potatoes are the most important vegetable crop grown in New South Wales, but the production is not nearly sufficient to meet local requirements and large quantities are imported from other States, principally Tasmania and Victoria. In 1911 there were 44,452 acres under potatoes and the yield (121,033 tons) was the highest on record. There was a progressive decline in the area cultivated for potatoes in the post-war years up to 1929-30, when only 12,785 acres were sown, producing 23,907 tons of tubers, or less than in any year since 1860. A gradual increase occurred in subsequent years, and the area sown in each season has been about 20,000 acres or more.

Greater attention has been given to seed selection and cultural practice in recent years, and in 1935-36 the yield per acre (2.76 tons) was higher than in any year since 1923-24. Production in 1936-37 (66,255 tons) was greater than in any year since 1914, but in 1937-38 it was affected by adverse seasonal conditions. Only a limited proportion of the area suitable for potato growing is so utilized, and marked irregularity of prices acts as a deterrent to material expansion. Potatoes are most extensively grown in the Tableland divisions but considerable areas are in cultivation.

in coastal areas. The following statement provides a comparative summary of potato growing during the past thirty years:—

TABLE 678.—Potatoes—Area and Production, 1906 to 1938.

Season.	Area Sown with Potatoes.	Production of Potatoes.	Average Yield per Acre.	Farm Value of Production.	
				Total.	Average per Acre.
	acres.	tons.	tons.	£	£ s. d.
1906-11 (Ann. av.)...	35,042	92,742	2.65	418,000	11 18 7
1916-21 ,, ...	22,725	47,783	2.10	330,900	14 11 3
1921-26 ,, ...	24,075	51,010	2.12	344,580	14 6 4
1926-31 ,, ...	17,288	36,643	2.12	235,650	13 12 7
1931-32 ... ..	17,522	33,709	1.92	152,110	8 13 1
1932-33 ... ..	20,739	42,403	2.04	113,960	5 9 11
1933-34 ... ..	20,089	43,532	2.17	143,660	7 3 0
1934-35 ... ..	19,662	46,033	2.34	320,500	16 6 0
1935-36 ... ..	22,743	62,882	2.76	394,580	17 8 0
1936-37 ... ..	24,909	66,255	2.66	404,160	16 4 6
1937-38 ... ..	21,372	50,833	2.38	212,020	9 18 5

PLANT DISEASES ACT, 1924.

A brief description of this Act was published at page 606 of the Year Book for 1928-29.

REGISTRATION OF FARM PRODUCE AGENTS.

Under the Farm Produce Agents Act, 1926-32, which is designed to protect the interests of producers, provision is made for the licensing of farm produce agents, *i.e.*, persons engaged in the handling for sale as agent of fruit, vegetables, potatoes and other edible roots and tubers, eggs, poultry, honey and such other commodities as may be prescribed by regulation. Unless selling farm produce, stock and station agents and auctioneers do not come within the definition of farm produce agent, and, unless selling farm produce to other than members, co-operative societies are not required to register.

Licenses, for which the fee is £1, subsist for a calendar year. Applicants must be above the age of 21 years, and, with some exceptions, must furnish a fidelity guarantee bond of £1,000 (or of £2,000 in the case of a firm). Undischarged bankrupts or persons guilty of fraud or convicted of an offence punishable by imprisonment for a term exceeding three months within the preceding five years are not eligible for licenses.

Agents must account for sales within fourteen days of disposal and keep prescribed books (which are open to inspection by the registrar under the Act) and may not purchase produce received for sale without the consent of the client, or destroy produce without official authority. Penalties are provided against the furnishing of false accounts, knowingly or fraudulently spreading false reports calculated to affect prices, misrepresentation, or the buying of farm produce without prior arrangement as to price. Charges for commission are regulated under the Act.

On 1st April, 1939, the number of agents registered was 269, of whom 225 were in the metropolitan area, 15 in Newcastle, and 29 in other country centres.

## WATER CONSERVATION AND IRRIGATION.

The conservation of water for agricultural and pastoral purposes is necessary for the full utilisation of natural resources over a large portion of New South Wales where the rainfall is low and irregular, and the rate of evaporation is high. Considerable progress has been made in establishing water storage and irrigation areas in a number of districts over the past twenty-five years.

The control of water conservation (other than town and domestic supplies) is vested in the Water Conservation and Irrigation Commission which consists of the Minister for Agriculture, as Chairman *ex officio*, and two other members appointed by the Governor. The Commission controls the works for water conservation and conducts investigations relating to water storages throughout New South Wales; it administers the irrigation areas established by the State; exercises statutory control of private irrigation and issues licenses under the Water Act to landholders; establishes water trusts and districts for the supply of water for domestic purposes and stock and irrigation, and constructs works for such trusts and districts. The Commission also controls the use of artesian waters.

Control of the waters of the River Murray for the benefit of the States concerned—New South Wales, Victoria and South Australia—is exercised by the River Murray Commission in terms of the Murray Waters Agreement between these States and the Commonwealth. The Commission consists of representatives of the Governments, the Chief Engineer to the Water Conservation and Irrigation Commission being the representative of New South Wales. The agreement provided for the construction of locks and weirs in the Murray and Murrumbidgee Rivers, Lake Victoria storage in South Australia, and the Hume Reservoir for the purpose of regulating the flow of the Murray River and ensuring an equitable allocation of its flow between the States. The allocations per annum are as follows:—New South Wales, 1,957,000 acre feet; Victoria, 2,219,000 acre feet and South Australia, 1,254,000 acre feet. Any surplus over these quantities may be allocated by the River Murray Commission from time to time. In New South Wales the Water Conservation and Irrigation Commission administers the State's share of the stored waters and carries out schemes for its use.

### IRRIGATION AREAS ESTABLISHED BY THE STATE.

The Irrigation Areas established by the State of New South Wales are the Murrumbidgee, Curlwaa, Coomealla and Hay Irrigation Areas. The system of land administration applying to these areas and the tenures under which the lands are occupied are described in the chapter Land Legislation and Settlement.

The source of water supply for the Murrumbidgee Irrigation Areas is the Murrumbidgee River. A large concrete dam has been constructed at Burrinjuck at the head of the river. Its capacity is nearly 336,613 million cubic feet (771,640 acre feet), the maximum depth of water is 200 feet, and the area of water surface is 12,780 acres. Works in progress for strengthening the dam will ultimately increase its capacity. Water stored in the dam is conveyed along the river channel for a distance of about 240 miles to Berembed Weir where it is diverted into the main canal which, at the off-take, has a capacity of 1,600 cubic feet per second. The main canal has been constructed for a distance of 96½ miles to supply the Murrumbidgee Irrigation Areas by means of a system of reticulation channels. The total

length of the canals, channels and pipe lines is over 1,500 miles. In addition there was approximately 377 miles of channels supplying districts and water trusts adjacent to the Irrigation Areas. At Burrinjuck Dam, hydro-electric power works have been installed which form an important part of the electric power system which is being developed in New South Wales.

A summary of the expansion of the Murrumbidgee Irrigation Areas is provided below:—

TABLE 679.—Murrumbidgee Irrigation Areas, 1924 to 1938.

Year ended 30th June.	Water Distributed.	Area Watered.	Value of Rural Production *	Revenue derived.			
				Water Rates and Charges	Land Lease Rentals	Interest on Advances	Other Revenue.
	acre feet	acres.	£	£	£	£	£
1924	66,433	56,076	600,000	30,957	74,276	111,600	2,602
1925	68,785	58,698	720,000	34,778	74,985	125,452	1,821
1926	81,949	57,810	800,000	38,707	73,287	120,086	650
1927	104,158	59,795	884,000	45,976	73,994	118,794	1,667
1928	139,441	64,938	841,000	54,521	72,355	101,382	2,476
1929	214,170	75,254	970,000	69,227	74,670	83,211	806
1930	301,545	92,503	1,002,000	101,194	82,999	77,472	2,367
1931	173,696	76,384	868,000	56,239	83,914	81,248	1,527
1932	178,914	57,665	882,000	53,647	91,210	81,133	1,002
1933	222,663	77,034	1,116,000	66,829	75,084	61,109	1,495
1934	225,386	89,628	1,026,000	64,520	71,149	41,256	593
1935	213,487	95,735	1,100,000	66,118	46,582	21,258	977
1936	267,890	†	1,184,000	80,056	53,928	42,770	7,283
1937	281,564	†	1,440,000	82,235	49,290	47,567	4,852
1938	368,660	†	1,539,000	107,339	47,386	50,252	4,164

\* Excluding value added in factories. † Information not available.

The decrease in revenue from rentals and interest between 1929-30 and 1934-35 was due to concessions granted by the Government to assist settlers and the inability of settlers to meet fully rates, rentals and interest during the years of depression. Information respecting these concessions is published in the chapter "Land Legislation and Settlement" of this volume.

The capital expenditure connected with the Murrumbidgee Irrigation Areas was £9,720,631 as at 30th June, 1938, of which £9,519,290 was expended on Loan Account. This sum was reduced by £2,100,042 written off for various reasons, including £2,027,227 on account of Soldier Settlement.

The Irrigation Areas of Curlwaa, 10,550 acres, and Coomealla, 35,450 acres, are situated on the Murray River near its junction with the Darling. Water for irrigation is pumped from the Murray River.

The Hay Irrigation Area, 6,456 acres, is on the Murrumbidgee River and derives its supplies by pumping from the river. The main industry is dairying.

#### *Production of Irrigation Areas.*

Comparative statistics of the production of the irrigation areas are shown in the following statement. Farming operations on the Murrumbidgee area commenced in the season 1912-13, and the first section of the Coomealla project became available in 1925.

The total area under occupation (including non-irrigable lands) in these areas as at 30th June, 1938, was:—Murrumbidgee, 321,909 acres (exclusive of town lands); Coomealla, 3,301 acres; Curlwaa, 9,174 acres; and Hay, 5,787 acres.

TABLE 680.—Irrigation Areas—Production 1920-21 to 1937-38.

Particulars.	1920-21.	1930-31.	1936-37.	1937-38.			
				Murrumbidgee.	Hay.	Curlwaa and Coomealla.	Total.
Cultivated Holdings... No.	1,190	1,598	1,595	1,344	12	240	1,596
Area under—							
All Crops ... Acres	31,065	114,441	110,299	117,997	227	4,203	122,427
Grain ... .. "	2,860	75,269	62,614	73,598	...	...	73,598
Hay & Green Food .. "	16,085	16,032	22,256	22,701	227	44	22,972
Sown Grasses ... .. "	...	45	5,142	7,506	98	...	7,604
Grape Vines—							
Bearing ... .. "	1,253	6,301	8,193	5,707	...	2,637	8,344
Not yet Bearing ... "	1,896	1,452	1,090	627	...	562	1,189
Orchards—							
Bearing ... .. "	4,154	10,507	11,939	11,080	...	868	11,948
Not yet Bearing ... "	4,414	4,079	3,345	3,364	...	92	3,456
Live Stock—							
Horses ... .. No.	5,264	6,131	6,633	5,976	122	385	6,483
Cattle—							
Dairy ... .. "	4,007	*2,416	*2,604	*1,629	*271	*66	*1,966
Other ... .. "	5,463	3,163	5,322	4,534	217	168	4,919
Sheep ... .. "	16,927	76,609	176,049	169,332	3,812	21	173,165
Pigs ... .. "	2,564	1,889	1,272	1,387	51	11	1,449
Production—							
Wine ... .. gal.	64,000	904,402	2,454,944	2,279,290	...	...	2,279,290
Sultanas ... .. cwt.	2,923	33,250	75,405	12,621	...	72,724	85,345
Raisins and Lexias .. "	967	2,139	7,966	442	...	7,280	7,722
Currants ... .. "	2,188	5,862	19,279	1,355	...	18,553	19,908
Oranges—							
Washington Navel bush.	49,328	355,629	448,506	400,677	...	69,135	469,812
Valencia ... .. "	21,323	199,990	368,199	322,652	...	62,492	385,144
All other ... .. "	3,455	24,340	26,961	17,414	...	5,251	22,665
Lemons ... .. "	11,062	54,208	54,895	46,343	...	4,669	51,012
Peaches—							
Dessert & Drying .. "	40,433	45,995	40,223	42,946	...	14,557	57,503
Canning ... .. "	172,361	204,848	317,841	351,756	...	2	351,758
Nectarines ... .. "	3,751	4,944	7,340	3,969	...	825	4,794
Apricots ... .. "	58,136	86,079	97,044	149,653	...	13,149	162,802
Prunes ... .. "	10,829	86,698	104,383	94,670	...	169	94,839
Apples ... .. "	3,325	17,278	110,778	132,777	...	782	133,559
Butter ... .. lb.	40,761	374,121	440,974	224,607	475	...	225,082
Bacon and Ham ... .. "	11,413	116,500	4,474	1,420	...	...	1,420
Grain—Wheat ... bush.	24,648	503,664	498,228	640,848	...	...	649,848
Rice ... .. "	...	1,427,413	2,191,090	2,268,907	...	...	2,268,907
Oats ... .. "	9,207	68,247	69,855	45,666	...	...	45,666
Other ... .. "	9,171	4,386	2,559	555	...	...	585

\* Cows in registered dairies only.



The total area under crop increased considerably between 1921 and 1931 because of the extension of grain crops (mainly rice and wheat). In addition to meeting the whole of Australian requirements, production of rice on the Murrumbidgee Irrigation Area supplies an exportable surplus. Further information in relation to rice-growing in these areas is published on page 737.

Between 1931 and 1935 there was a substantial increase in dairying, but subsequently the number of dairy cattle declined. Some settlers changed from dairying to fat lamb raising, and the number of sheep on the area increased by about 35 per cent. during 1935-36 and by 21 per cent. in 1936-37. There was a slight decline in 1937-38.

Oranges, peaches, apricots, apples, and prunes are the principal kinds of fruit produced. The yields of apples, oranges and peaches may be expected to increase rapidly as the young trees become increasingly productive.

The following statement shows the number of fruit trees of the principal varieties, on the irrigation settlements, distinguishing the productive from those not yet bearing:—

TABLE 681.—Irrigation Areas, Fruit Trees, 1920-21 to 1937-38.

Fruit Trees.	1920-21.		1930-31.		1935-36.		1936-37.		1937-38.	
	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.	Pro-ductive.	Not yet Bearing.
Orange—										
Seville ...	1,150	6,283	1,071	812	500	...	1,510	281	1,166	1,261
Washington Navel ...	60,810	70,314	228,445	65,529	245,770	29,684	236,944	26,615	238,166	19,719
Valencia ...	27,425	40,028	121,478	105,874	184,543	45,707	189,539	45,574	194,571	40,278
All other ...	3,134	5,443	14,429	4,476	16,978	2,111	11,060	1,977	10,280	1,403
Lemon ...	13,766	17,881	27,856	14,066	27,113	8,063	28,626	6,459	28,033	6,374
Mandarin ...	1,888	3,571	15,052	7,092	13,508	1,967	12,263	2,147	10,903	1,981
Peach—										
Dessert and Drying ...	31,022	29,664	32,194	2,691	25,757	3,500	24,669	6,070	26,235	8,151
Canning ...	118,811	73,804	100,621	54,153	174,255	80,113	179,474	97,145	180,254	108,373
Nectarine ...	3,739	4,020	4,566	1,079	4,291	1,059	4,229	873	3,980	1,504
Apricot ...	51,624	37,901	101,087	6,201	95,948	7,699	94,020	9,774	93,482	14,332
Prune ...	14,832	62,353	107,402	4,974	92,667	2,482	91,381	2,817	84,611	4,185
Plum ...	8,475	6,812	8,096	823	6,402	1,838	6,850	1,618	6,043	1,658
Pear—										
Williams ...	10,908	15,596	12,932	2,075	13,985	4,961	14,140	9,501	14,092	15,245
Other ...	5,663	3,457	6,925	918	6,394	1,199	6,275	2,583	6,208	2,751
Apple ...	3,452	10,240	51,577	69,003	93,117	57,236	99,091	55,376	105,631	54,252
Fig ...	1,428	2,965	6,359	4,833	9,205	845	8,648	857	9,316	1,236
Almond ...	6,948	8,631	22,785	6,214	20,277	16,633	33,435	19,267	30,325	24,212

The orange is the fruit most extensively grown, and large quantities of peaches are produced, especially for canning, also apricots, prunes, pears and apples. Almond growing has extended. Though the number of fruit trees of all ages has shown little change in recent seasons, the area of trees in bearing increased from 48.5 per cent. of the total in 1920-21 to 72 per cent. in 1930-31 and 77.6 per cent. in 1937-38. There is a considerable area under grapes for wine, table and drying purposes. Further information as to the fruit-growing, canning and drying industries is published in the chapter "Agriculture" of this Year Book.

Crops are cultivated under irrigation in various localities other than irrigation settlements established by the Government. A summary of all crops which were watered artificially—including those to which the foregoing tables relate—indicates that the total area irrigated in 1937-38 was 170,719 acres. The principal crops were as follows:—Wheat, 47,182 acres; lucerne, 25,563 acres; oats, 23,341 acres; rice, 23,737 acres; orchards, 17,388 acres; grapes, 11,120 acres; green food, 11,029 acres; and market gardens, 5,455 acres.

*Lachlan River Water Conservation Scheme.*

A head storage with a capacity of 303,900 acre feet has been provided at Wyangala on the Lachlan River by the construction of a dam. By this means provision has been made to supply requirements for domestic purposes and stock along the full length of the river and effluent streams and for streams which will be diverted for irrigation under licenses. For the utilization of the surplus water, schemes have been prepared for the constitution of irrigation districts under the Water Act in which water will be supplied to landholders for domestic and pastoral purposes and for the irrigation of fodder crops.

## WORKS UNDER THE WATER ACT, 1912-1936.

*Irrigation Districts.*

The Water Act, 1912-1936, makes provision for the constitution of districts for water supply. These differ from the Water Trusts described below in that landholders are required to pay charges for maintenance and operation and to recoup to the State the interest on its expenditure, but are not required to repay the cost of the works constructed by the State.

The following districts have been constituted up to 30th June, 1938:—

TABLE 682.—Irrigation Districts.

Name of District.	River.	Area.	Date of Constitution.	Estimated Cost.*
		acres.		£
Wakool (Provisional) ...	Murray ...	541,753	17 June, 1932	515,000
Benerembah ...	Murrumbidgee ...	121,744	23 Oct., 1936	†41,929
Tabbita ...	do ...	6,316	16 Aug., 1935	†3,649
Berriquin (Provisional) ...	Murray ...	611,600	9 Mar., 1934	438,000
Jemalong (Provisional) ...	Lachlan ...	171,644	28 Sept., 1934	} 140,000
Wyldes Plains (Provisional)	do ...	51,555	28 June, 1935	

\* Subject to revision.

† Actual costs.

At present it is not intended to resume land in these districts and subdivide it for settlement. Water is to be supplied to existing landholders for fodder crops or sown pastures, but not for commercial orchards, vineyards or for rice.

During the year ended 30th June, 1938, water was supplied to all holdings within the Tabbita and Benerembah districts. The works of the Wakool and Berriquin districts were in progress; water supplies were made to most of the holdings in the Wakool district and works for the Jemalong and Wyldes Plains districts were under construction. Two provincial districts, Deniboota and Wah Wah, were constituted in December, 1938.

The works for the Wakool, Berriquin and Deniboota districts are projects for the utilisation of the New South Wales share of the Murray waters conserved in the Hume Dam.

The works for the Berriquin district include the Mulwala Canal, which will branch from the Murray at Yarrowonga Weir. The canal will serve the Deniboota district by a pipe syphon passing under the Edward River, and will supplement the supply of water from the Edward River to the Wakool district. It will be about 100 miles in length and its capacity at the offtake will be 5,000 acre feet per day.

*Water Trusts.*

The Water Act, 1912-1936, vests in the Water Conservation and Irrigation Commission for the benefit of the Crown the right to use and control the water in rivers and lakes in New South Wales. Trust districts may be constituted to supply water for domestic purposes and stock and for irrigation. The Commission may construct or acquire the necessary works. Upon completion the works in each district are transferred to the administration of trustees consisting of persons elected by the occupiers of the land and a representative of the Commission. The trustees levy rates to meet the expenses of maintenance and administration and to repay the cost of the works by instalments.

In March, 1939, there were sixteen trusts for the provision of water for domestic use and stock purposes, one for a town supply and one for flood prevention; the total area was 3,596,411 acres as shown below:—

	Number of Trusts.	Area Benefited.
		Acres.
Murray River ... ..	6	606,515
Murrumbidgee River ... ..	3	1,385,060
Lachlan River ... ..	5	552,915
Darling River, Great and Branch ... ..	1	995,200
Other ... ..	3	56,721
Total ... ..	18	3,596,411

There were, in addition to the foregoing, seven irrigation trusts, covering an area of 16,014 acres.

*Licenses and Permits for Water Works.*

The Water Conservation and Irrigation Commission may issue licenses to authorise landholders to divert water from rivers or lakes for the irrigation of their holdings or for private irrigation schemes.

During 1937-38 applications for 400 new licenses and 252 for renewal of existing licenses for pumps, dams and other works were received, and 288 new licenses were issued. On 30th June, 1938, there were 2,355 licenses in force, the usual term being five years.

Permits which are intended for works for mining and other purposes of a temporary nature, and for irrigation of areas not exceeding 10 acres, have a term up to twelve months, and may be renewed for a further year. There were 253 applications for new or renewed permits for pumps, dams, races, etc., in 1937-38; permits in force at 30th June, 1938, were 86.

Private irrigation authorities are issued where the holdings of two or more occupiers are irrigated from one work, with a term, usually, of five years. Applications (new and renewal) numbered 6 in 1937-38, and 18 authorities were in force on 30th June, 1938.

## ARTESIAN BORES.

The portion of the great Australian artesian basin which extends into New South Wales covers approximately 70,000 square miles, and is situated in the northern and north-western hinterland of the State.

Large supplies of water are obtained from this source and eighty-two Bore Water Trusts and twelve Artesian Wells Districts, covering approximately 5,000,000 acres, have been constituted under the Water Act. The Bore Trusts are administered by trustees in the same way as the Water Trusts described above. In the Artesian Wells Districts the settlers maintain the drains and pay to the State charges assessed by the Local Land Board.

The Water Conservation and Irrigation Commission exercises general control over the use of artesian water with the object of preserving the efficiency of the bores and preventing waste. The Commission may sink artesian bores, improve the supply from existing wells, and construct drains, etc., for the benefit of landholders, and may issue licenses under the Water Act for the construction of bores by private owners.

At 30th June, 1938, 737 artesian bores had been sunk; 453 were flowing, giving an approximate aggregate discharge of 67,349,317 gallons per day; 235 bores were yielding a pumping supply, the balance (49) were failures. The total depth bored was 1,132,322 feet.

The following statement shows the particulars of the Government and private bores in operation at 30th June, 1938:—

TABLE 683—Artesian Bores, 1938.

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Trust Bores, etc. ...	138	51	189	402,835
For Country Towns Water Supply ... ..	3	1	4	6,533
For Improvement Leases ... ..	15	10	25	35,870
Total, Government Bores ..	156	62	218	445,238
Private Bores... ..	297	173	470	627,552

The average depth of successful Government bores is 2,042 feet, and of successful private bores 1,335 feet, and the depth ranges from 89 feet to 4,338 feet.

The deepest bores in New South Wales are in the Moree district, one at Boronga having a depth of 4,338 feet and an outflow of 698,080 gallons per day; another at Dolgelly has a depth of 4,086 feet, and a discharge of 373,052 gallons per day. The largest outflow is at the Yerranbah bore, in the same district, which yields 1,107,870 gallons a day and has a depth of 3,828 feet.

Bore water shows considerable variation in temperature, ranging from 75 degrees Fah. at Tunderbrine No. 1 Bore to 140 degrees Fah. at Thurlow Downs No. 2 Bore.

The flow from 101 bores is used for supplying water for stock on holdings served in connection with bore-water trusts and artesian well districts. The total flow from these bores amounts to 29,774,820 gallons per day, watering districts of an area of 5,005,417 acres by means of 3,282 miles of distributing channels. The average rating of the bore trusts is 1.75d. per acre, including the cost of maintenance and administration.

The majority of the other bores are used by pastoralists for stock-watering only, but in a few instances the supply is utilised in connection with country towns.

The watering of the north-western country by means of bore-water has largely increased the carrying capacity of the land, and has made practicable some pastoral settlement on small holdings previously utilised by companies holding extensive areas.

The flow of artesian water is decreasing and it has been determined that the multiplicity of bores is the chief cause of the decrease and that the limitation of the discharge of water from a bore will prolong its existence. Investigations are being made into the question of making better use of the flow or supplementing it by surface water from head storages.

#### SHALLOW BORING.

Arrangements were made by the Government in 1912 to assist settlers by sinking shallow bores. The scheme is administered by the Water Conservation and Irrigation Commission. The settler selects the site, and the Commission supplies the plant, materials and labour, and the cost is repaid by the settler on terms. Operations were commenced with one plant **only**, but the number has been increased gradually to 35. During the year 1937-38 the Commission received 145 applications to have bores sunk and 69 bores were completed.

Up to the 30th June, 1938, the number of bores sunk by the Commission was 3,563, of which 612 were failures. The total depth of bores was 990,544 feet, the greatest depth of any bore being 2,318 feet. The aggregate charges for sinking amounted to £882,187, approximately.

In 1925 boring by private plants was sanctioned by the Government, the necessary money was advanced to settlers for approved schemes, such advances being repayable by instalments with interest. Ninety-eight bores (including 21 failures) have been sunk under this scheme, the total depth being 50,630 feet, ranging from 150 to 1,500 feet, at an average cost of from 15s. 5d. to 49s. 6d. per foot. There have been no operations under this scheme since 1932-33.

Licenses under the Water Act must be obtained by private contractors for the sinking of bores to a depth of 100 feet or more in that part of the State west of direct lines drawn from Albury to Tamworth, Tamworth to Bingara, Bingara to Inverell, and Inverell to Bonshaw.

Eight hundred and forty-seven licenses were issued up to the 30th June, 1938.

#### GROWTH OF ARTESIAN AND SHALLOW BORING.

The rapid development which has occurred in utilising the underground water resources of the State in recent years is evident from the fact that the number of successful bores of all kinds (exclusive of those sunk by private contract of which the Water Conservation and Irrigation Commission has no record) increased from 458 in 1911 to 3,599 at 30th June, 1938.

## PASTORAL INDUSTRY.

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IN New South Wales the pastoral industry has always been the greatest primary industry and it has contributed more than 40 per cent. of the total value of primary production during the last ten years. The area of holdings used for grazing is approximately 155,900,000 acres.

Some indication of the geographical distribution of the pastoral lands of New South Wales is given in succeeding pages and in the chapter "Rural Settlement." About 90 per cent. of the area of the State utilised for the principal forms of rural activity is devoted to pasturage. Sheep grazing is the outstanding pastoral pursuit and is a feature of rural enterprise on the slopes and plains west of the mountains; but cattle raising also is important, both for dairying and slaughtering in the coastal belt, and for slaughtering in the tablelands and slopes, and the central plains.

### LIVE STOCK.

New South Wales does not possess any indigenous animals which would give rise to a large industry, and of those introduced, sheep only have developed into a prolific source of wealth. Indeed, the development of the sheep industries has been so remarkable that it has, in a sense, precluded the rise of other pastoral activities. Horses have been bred principally for their utility in various industries and for racing purposes, and there is a small overseas trade in remounts, but, generally speaking, horse-breeding has declined. For many years cattle were produced only to supply local requirements of meat and dairy produce, but later an export trade was established, and considerable expansion took place in the number of cattle depastured. Pigs are bred principally as a by-product of the dairying industry, and the number does not fully meet local requirements.

Stock breeders are being encouraged to import pedigree cattle, sheep, milch goats and certain breeds of swine from the United Kingdom by a scheme of assistance introduced on the recommendation of the Australian Agricultural Council in 1935. Since 1st December, 1937, shipping companies have carried the stock at charges which cover only actual out-of-pocket expenses at fixed flat rates, and stock-owners have been granted subsidies of £50 per head of cattle, £25 per head for pigs of specified breeds, and £20 per head for sheep or milch goats imported.

These funds are contributed in equal proportions by the Commonwealth Government, Commonwealth Bank, and State Government. Under certain conditions, persons other than stock-owners are permitted to make importations under the scheme, but in such cases the subsidy is paid to the stock-owner who subsequently purchases the stock from the importer.

Under this scheme 28 applications were received during the twelve months ended 30th November, 1938, and subsidy amounting to £1,025 was paid.

The following table shows the number of the principal kinds of live stock in New South Wales at the end of each decennial period from 1861 to 1921, and at the end of each season since 1927.

TABLE 684.—Live Stock in New South Wales, 1861 to 1938.

Year.*	Horses.	Cattle.	Sheep.	Pigs.
1861	233,220	2,271,023	5,615,054	146,091
1871	304,100	2,014,888	10,278,697	213,193
1881	398,577	2,597,348	36,591,946	213,916
1891	469,647	2,128,838	61,831,416	253,189
1901	486,716	2,047,454	41,857,099	265,730
1911	689,004	3,194,236	48,830,000	371,093
1921	663,178	3,375,267	37,750,000	306,253
1927	623,392	2,818,653	55,930,000	332,921
1928	598,377	2,848,654	50,510,000	301,819
1929	567,371	2,784,615	50,185,000	311,605
1930	534,945	2,686,132	48,720,000	323,499
1931	524,512	2,840,473	53,366,000	334,331
1932	524,751	2,993,586	52,086,000	385,846
1933	528,943	3,141,174	53,698,000	388,273
1934	532,028	3,361,771	52,104,000	367,116
1935	534,853	3,482,831	53,327,000	397,535
1936	542,862	3,388,538	51,936,000	436,944
1937	545,829	3,288,169	53,166,000	390,870
1938	528,625	3,019,581	51,563,000	356,765

\*As at 31st December, 1861 to 1911; 30th June, 1921 to 1931 and 31st March in 1932 and later years.

Particulars of other live stock are shown on a later page.

To obtain an idea of the fluctuations of pastoral pursuits in the State as represented by the number of live stock grazed it is necessary to express the various species in common terms. This cannot be done with exactitude, but, adopting the arbitrary equivalent of ten sheep to each head of large stock, the following comparison is obtained:—

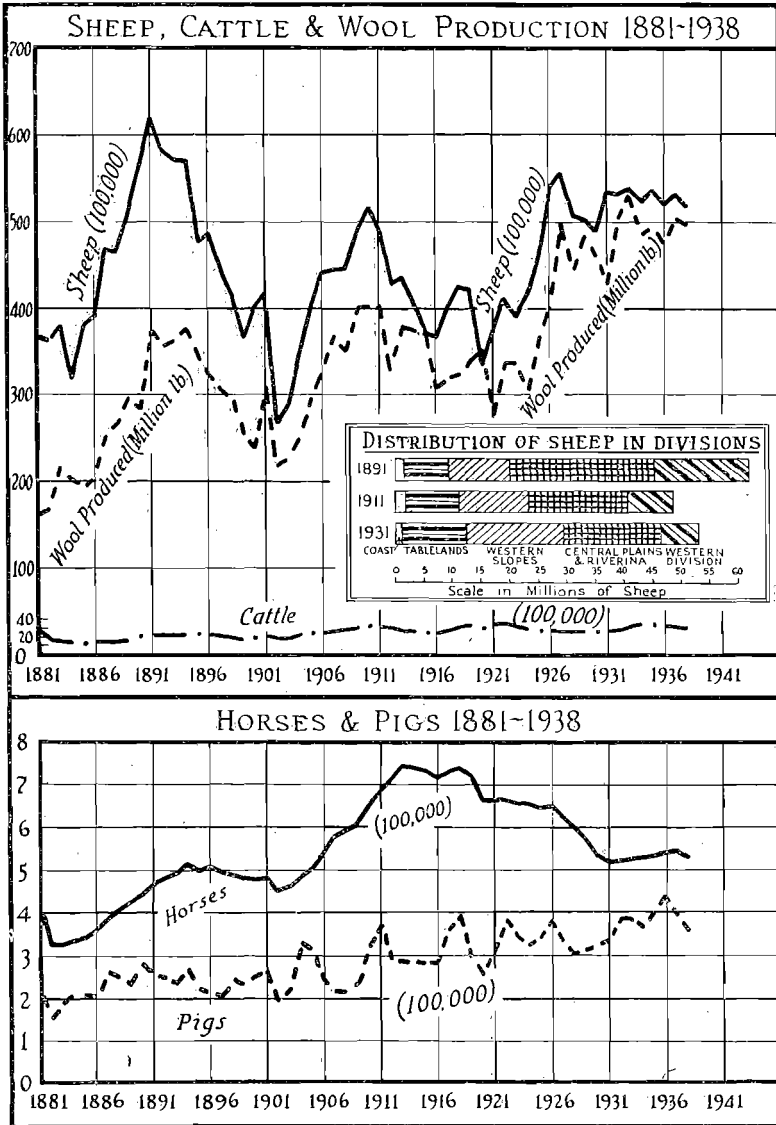
TABLE 685.—Live Stock—Sheep Equivalent, 1861 to 1938.

Year.	Equivalent in Sheep of Live Stock grazed.	Year.	Equivalent in Sheep of Live Stock grazed.
1861	30,666,000	1929*	83,700,000
1871	39,469,000	1930*	80,930,000
1881	66,551,000	1931*	87,016,000
1891	87,816,000	1932†	88,169,000
1901	67,199,000	1933†	90,399,000
1911	87,662,000	1934†	91,042,000
1921*	78,134,000	1935†	93,504,000
1926*	89,740,000	1936†	91,250,000
1927*	90,350,000	1937†	91,506,000
1928*	84,980,000	1938†	87,045,000

\* At 30th June, previous years at 31st December. † At 31st March.

LIVE STOCK AND PRODUCTION OF WOOL, 1881 to 1937-38.

Ratio Graph.



The numbers at the side of the graph represent 1,000,000 lb. of wool (as in grease) produced during year; and 100,000 sheep, cattle, horses, and pigs at end of year.

The diagram is a ratio graph. The vertical scale is logarithmic, and each curve rises and falls according to the rate of increase or decrease. Actual data are shown by means of the numbers at the side of the graph.



The increase in flocks and herds up to 1891 was due to development of idle and partly used lands and was based mainly on sheep grazing. It has been held that in 1891 the State was overstocked having regard to the scanty pastoral improvements on holdings in the hinterland. The influence of seasonal conditions is shown in the fluctuations between 1891 and 1938. The sheep equivalent of live stock grazed reached its lowest point (48,560,000) in 1902 at the culmination of the most severe drought on record and was 70,640,000 at the culmination of another severe drought in 1920. In the latter year, however, there was a proportionately larger number of cattle grazed (3,084,000) as compared with 1,741,000 in 1902.

Relatively favourable seasonal conditions were experienced between 1931 and 1937, but serious drought developed during 1938 over most pastoral districts and the sheep equivalent of live stock receded to 87,045,000, compared with 91,506,000 in the previous year.

Increased conservation of water and fodder, extension of sown grass areas, the use of fertilizers on pastures and the control of the rabbit pest over very extensive areas have had a beneficial influence on the pastoral industry, and there is no indication that the carrying capacity of the pastures was overtaxed in recent years when the flocks and herds were greater than in any earlier period. There are indications that the drought resisting capacity of the industry has been greatly increased in the past fifteen years.

*Comparison—Live Stock in the Commonwealth.*

A comparison of the number of horses, cattle, sheep, and pigs in New South Wales and in the other States of the Commonwealth is shown in the following table. The figures are as at 31st December, 1937, excepting where otherwise specified:—

TABLE 686.—Live Stock in each State of the Commonwealth, 31st December, 1937.

State.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales (a) ... ..	528,625	3,019,581	51,563,181	356,765
Victoria (a) ... ..	359,106	1,880,429	18,863,467	285,259
Queensland ... ..	446,777	5,959,165	22,497,970	282,941
South Australia ... ..	197,334	324,163	8,904,402	66,647
Western Australia ... ..	150,156	745,929	8,717,780	64,062
Tasmania ... ..	31,348	254,473	2,520,967	42,897
Northern Territory ... ..	31,662	891,640	26,856	388
Federal Capital Territory (a) ...	1,225	8,325	263,616	417
Total, Australia ... ..	1,746,233	13,083,705	113,358,239	1,099,376
Proportion per cent. in N.S.W....	30·27	23·08	45·49	32·45

(a) As at 31st March, 1938:

In New South Wales there are more sheep, horses and pigs than in any other State in the Commonwealth, but Queensland has more cattle.

*Distribution of Live Stock.*

The following table indicates the distribution of flocks and herds in New South Wales. It shows the number of live stock, and the number per square mile, in each division at intervals since 1891.

TABLE 687.—Live Stock in Divisions, 1891 to 1938.

Division.	Number of Live Stock (000 omitted).						Number per square mile.			
	1891.	1901.	1911.	1921.†	1931.†	1938.§	1891.	1911.	1931.†	1938.§
<b>SHEEP—</b>										
Coastal Belt ... ..	1,483	1,007	1,559	1,048	1,159	1,383	42·5	44·0	33·3	39·7
Tableland ... ..	7,882	8,859	9,735	7,524	11,304	12,053	195·3	235·2	280·0	313·3
Western Slopes ... ..	10,860	11,072	12,167	9,743	17,270	16,509	236·8	275·2	392·4	374·0
C'l Plains & Riverina ... ..	25,194	14,706	17,433	14,370	16,910	14,363	351·8	269·4	261·3	222·1
Western Division ... ..	16,403	5,523	7,936	5,065	6,723	6,055	130·6	63·2	53·6	53·0
Whole State ... ..	61,831	41,857	48,830	37,750	53,366	51,563	199·2	157·3	172·4	166·6
<b>CATTLE, DAIRYING—</b>										
Coastal Belt ... ..	197	284	653	674	991	971	5·6	18·7	25·9	27·9
Tableland ... ..	67	70	107	73	44	47	1·7	2·7	1·1	1·2
Western Slopes ... ..	37	40	78	59	51	65	1·0	2·1	1·1	1·5
C'l Plains & Riverina ... ..	35	20	48	36	9	11	0·5	0·7	0·1	0·2
Western Division ... ..	7	4	9	2	1	1	0·1	0·1	0·0	0·0
Whole State ... ..	343*	418*	895	844	1,000†	1,095†	1·1	2·9	3·3	3·5
<b>CATTLE, OTHER—</b>										
Coastal Belt ... ..	640	667	915	1,009	736	715	18·3	20·2	21·1	20·5
Tableland ... ..	465	501	550	580	404	487	11·5	13·6	10·0	12·0
Western Slopes ... ..	247	306	422	441	307	445	6·5	11·1	9·0	10·1
C'l Plains & Riverina ... ..	339	115	302	369	234	213	4·7	4·2	3·6	3·3
Western Division ... ..	94	41	110	132	63	65	0·7	0·9	0·6	0·6
Whole State ... ..	1,785	1,630	2,209	2,531	1,834	1,925	5·8	7·4	5·9	6·2
<b>HORSES—</b>										
Coastal Belt ... ..	163	161	207	203	144	145	4·7	5·9	4·1	4·2
Tableland ... ..	92	112	127	112	86	88	2·3	3·1	2·1	2·2
Western Slopes ... ..	76	111	180	168	169	157	2·0	4·8	3·6	3·5
C'l Plains & Riverina ... ..	95	78	140	152	112	115	1·3	2·0	1·7	1·8
Western Division ... ..	44	25	35	28	23	24	0·4	0·3	0·2	0·2
Whole State ... ..	470	487	689	663	524	529	1·5	2·2	1·7	1·7

\* Cows in milk only; dry cows and springing heifers are included in the total of Other Cattle.  
 † Cows in registered dairies only. † At 30th June. § 31st March.

Sheep are depastured principally in the hinterland of the State, and are most numerous in the Western Slopes Division. Dairying cattle and, in fact, all cattle, are most numerous in the coastal areas. Until 1922, horses were most numerous in the Coastal Division; since that year the Western Slopes Division has contained the greatest number.

The totals as stated for the various divisions in 1931 and 1938 are not altogether comparable with those shown for the years 1891 to 1921, as they have been compiled in shire areas, and not in counties as formerly. The change in geographical basis involved considerable alteration in the areas comprising divisions of the Western Slopes and the Central Plains, where large numbers of stock are depastured.

The figures for the years 1891 to 1921, however, afford interesting information as to the localities most susceptible to losses of sheep through drought. The greatest decline between these years was in the Central Plains and Riverina, where the numbers fell from 352 to 222 per square

mile (though this was partly due to the devotion of large areas within those divisions to agriculture), and the greatest relative decline was in the Western Division, where the falling-off was from 131 to 40 per square mile. Denudation of natural timber and shrubs with subsequent erosion by both wind and water, and the depredation of rabbits have contributed to decrease the carrying capacity of the Western Division.

Since 1911 there has been a material expansion in the depasturage of sheep on the Tablelands and Western Slopes where the carrying capacity has been increased by pasture improvement and mixed farming. Increased interest in fat lamb raising may result in a further increase in the number of sheep in these divisions where seasonal conditions are more reliable than in the more westerly districts.

#### FERTILISED PASTURES.

About ten years ago the advantages of the top-dressing of pastures began to be more generally recognised, and 87,686 acres on 689 holdings were treated for this purpose in 1928-29. Adverse circumstances in following years caused the practice to be greatly curtailed, and in 1930-31 only 19,254 acres were manured on 371 holdings. Since 1932-33 the Commonwealth Government has provided a subsidy to encourage the use of fertilisers under an arrangement described on page 698, and the area treated has increased rapidly. Nevertheless, the area dressed with fertilisers is still only a small proportion of the vast pasture lands of the State.

Particulars relating to the use of artificial manures in the improvement of pastures in each season since 1928-29 are shown hereunder.

TABLE 688.—Fertilisers used on Pastures, 1928-29 to 1937-38.

Season.	Holdings Using Artificial Manures on Pastures.	Area Treated with Artificial Manures.	Quantity of Artificial Manures Used.	
			Total	Per Acre.
	No.	Acres.	Cwt.	lb.
1928-29 ... ..	689	87,686	80,979	103
1929-30 ... ..	603	61,797	58,061	105
1930-31 ... ..	371	19,254	20,943	122
1931-32 ... ..	450	26,511	25,187	106
1932-33 ... ..	683	50,979	46,953	103
1933-34 ... ..	986	65,692	65,290	111
1934-35 ... ..	1,794	135,259	128,870	107
1935-36 ... ..	3,426	351,209	334,724	107
1936-37 ... ..	4,836	677,879	618,870	102
1937-38 ... ..	5,267	875,730	817,599	105

There has also been a considerable increase in the areas of pasture under sown grasses. From an average annual area of 350,000 acres, prior to 1900, the total area of land under sown grasses increased to approximately 750,000 acres by 1910; 1,400,000 acres by 1920; 2,200,000 acres by 1930 and 3,045,000 acres in 1938.

#### SHEEP.

The following table shows the number of sheep as recorded in landholders' returns for various years between 1861 and 1906 in comparison with the

adjusted totals since 1911. The figures are approximate, but they illustrate the vicissitudes of sheep-breeding in New South Wales:—

TABLE 689.—Number of Sheep, 1861 to 1938.

Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.
			*			*		
1861	5,615,000	Per cent.	1896	48,818,000	Per cent.	1931†	53,866,000	Per cent.
1866	11,662,000	(+ ) 15·6	1901	41,857,000	(- ) 4·8	1932†	52,986,000	(- ) 0·2
1871	16,278,000	(+ ) 7·1	1906	44,132,000	(+ ) 1·1	1933†	53,698,000	(+ ) 1·3
1876	25,269,000	(+ ) 9·2	1911	48,830,000	(+ ) 2·0	1934†	52,104,000	(- ) 3·0
1881	36,691,000	(+ ) 7·7	1916	36,490,000	(- ) 5·6	1935†	53,327,000	(+ ) 2·4
1886	39,169,000	(+ ) 1·4	1921	37,750,000	(+ ) 0·7	1936†	51,936,000	(- ) 2·6
1891	61,831,000	(+ ) 9·6	1926	53,860,000	(+ ) 7·4	1937†	53,166,000	(+ ) 2·4
						1938†	51,563,000	(- ) 3·0

\* At 30th June each year since 1916 and at 31st March in years 1932 to 1938. (—) Denotes decrease.  
† Excluding Federal Capital Territory (approx. 264,000).

At 31st March, 1938, the number of sheep in the State was 51,563,000. The number was greatest in 1891, and thereafter lowest at the end of 1902 by reason of drought. The main cause of the reduction in the number of sheep between 1891 and 1921 seems to have been a remarkable deterioration of seasons, due to diminished rainfall. This may be illustrated briefly by stating that the weighted average annual rainfall of the State was about  $3\frac{1}{2}$  inches less in the twenty years which followed 1894 than in the preceding quarter of a century, and that this decline was proportionally heaviest in the plain districts of low average rainfall, which in 1891 carried two-thirds of the sheep depastured in the State. The rabbit pest, too, aggravated the effects of dry weather through destruction of natural herbage, and the expansion of the agricultural industry caused land to be diverted from the purpose of sheep-breeding.

The sudden transition from very good to very bad seasons, which occurred in the early nineties, wrought such havoc amongst the flocks depastured on the immense western plains that by 1901 the returns showed a decrease from 16,400,000 to 5,500,000 sheep in the Western Division, and from 25,200,000 to 14,700,000 in the Central Plains and Riverina Division. In 1902 these numbers were further reduced by 1,900,000 and 7,600,000 respectively. In 1938 there were many more sheep in the Tablelands and Western Slopes Divisions than in 1891, though considerably less in the Plains, Riverina and Western Divisions (see table 687).

Estimates based on returns supplied by landholders show the following approximate distribution of the flocks according to sex, also the number of lambs:—

TABLE 690.—Sheep—Sexes and Lambs, 1929 to 1938.

Year.	Rams.	Ewes.	Wethers.	Lambs (under 1 year).	Total.
1929*	622,000	25,076,000	13,832,000	10,655,000	50,185,000
1930*	651,000	25,349,000	14,597,000	8,123,000	48,720,000
1931*	669,000	26,561,000	14,079,000	12,057,000	53,366,000
1932	643,000	26,608,000	13,243,000	12,492,000	52,986,000
1933	658,000	27,391,000	13,845,000	11,804,000	53,698,000
1934	658,000	27,717,000	14,710,000	9,019,000	52,104,000
1935	660,000	27,427,000	14,176,000	11,064,000	53,327,000
1936	702,000	27,472,000	14,693,000	9,069,000	51,936,000
1937	701,000	26,766,000	14,243,000	11,456,000	53,166,000
1938	676,000	26,051,000	14,758,000	10,078,000	51,563,000

\* At 30th June. Later years at 31st March.

The following table shows as nearly as may be the extent of each of the principal factors in the increase and decrease in the number of sheep since 1928-29. Figures for the years 1915-16 to 1927-28 were published in earlier issues of the Official Year Book.

TABLE 691—Sheep—Lambing, Slaughter, Exports, Deaths, 1929 to 1938.

Year ended 31st March.	Lambs Marked.	Sheep and Lambs Slaughtered.	Excess of Imports (+) or Exports (—)	Estimated number of Deaths* (Balance).	Net Increase (+) or Decrease (—)	Sheep at 30th June.	
Thousands (000) omitted.							
1929†	...	12,560	5,380	(—) 2,410	4,540	(+) 230	†50,740
1929-30‡	...	9,887	6,327	(—) 2,075	3,505	(—) 2,020	48,720
1930-31‡	...	14,615	6,254	(—) 820	2,895	(+) 4,646	53,366
1932	...	14,332	6,880	(—) 647	3,800	(—) 380	31st March* 52,986
1933	...	14,221	7,519	(—) 2,453	3,537	(+) 712	53,698
1934	...	10,737	7,164	(—) 1,433	3,734	(—) 1,594	52,104
1935	...	12,996	6,810	(—) 938	4,025	(+) 1,223	53,327
1936	...	11,338	6,037	(—) 1,391	5,301	(—) 1,391	51,936
1937	...	14,331	6,417	(—) 1,207	5,477	(+) 1,230	53,166
1938	...	13,045	6,860	(—) 2,289	5,499	(—) 1,603	51,563

\* The figures in this column represent a balance and are only rough approximations. † Year ended 31st December. ‡ Year ended 30th June.

While the returns as to slaughter and border movement are considered accurate, the numbers of lambs marked are estimates based on landholders' returns and other data. The estimated number of deaths is a balancing column and its accuracy is affected by the degree of approximation in the other items in the table. The numbers shown under this heading, however, have in recent years been checked against recorded totals and represent the approximate annual losses from drought, disease, pest, and natural causes generally.

The effect of adverse seasons on the sheep flocks is apparent in four directions, viz., losses by death attributable mainly to lack of fodder and water, increase in the slaughtering of fat stock, decrease in lambing, and increased export to other States.

The index of rainfall in the years covered by the foregoing table is shown on page 788.

The extent to which sheep-grazing is conducted in conjunction with wheat-farming is shown on pages 712 and 713.

#### *Interstate Movement of Sheep.*

Apart from the seasonal movement of stock to and from agistment in other States, there is a regular export of sheep from New South Wales to Victoria. During the past five years, 9,672,000 sheep were moved from New South Wales to Victoria, and 2,705,000 from Victoria to New South Wales, leaving an excess of exports to Victoria of 6,967,000. In the same period 3,111,000 sheep were imported from Queensland to New South Wales, and 2,592,000 were exported from New South Wales to Queensland, leaving an excess of imports of 519,000 from Queensland to New South Wales. The excess of exports to other destinations during the same period was 605,000, chiefly to South Australia, and the total excess of exports of live sheep from New South Wales was 7,053,000, consisting mainly of sheep sent to market in Victoria from the southern districts of New South Wales.

The following table shows the movement of sheep from and to New South Wales, so far as is recorded, in 1927-28 and later seasons:—

TABLE 692.—Sheep—Exports and Imports—Interstate, 1928 to 1938.

Year ended 30th June.	Sheep from New South Wales.				Sheep to New South Wales.				Excess of Exports.
	To Victoria.	To Queens-land.	To South Australia and by Sea.	Total.	From Victoria.	From Queens-land.	From South Australia and by Sea.	Total.	
1928 ...	000	000	000	000	000	000	000	000	000
1928 ...	2,507	980	122	3,618	938	587	103	1,628	1,990
1929 ...	2,180	723	173	3,076	717	532	33	1,282	1,794
1930 ...	2,744	631	112	3,487	715	361	36	1,412	2,075
1931 ...	1,898	371	136	2,405	640	926	14	1,580	825
1932 ...	2,176	240	315	2,731	520	1,338	6	1,804	867
1933 ...	3,035	436	312	3,833	286	718	17	1,021	2,812
1934 ...	2,077	386	82	2,545	744	584	02	1,396	1,155
1935 ...	1,499	324	94	1,917	413	640	9	1,068	849
1936 ...	2,012	472	86	2,570	601	628	27	1,256	1,314
1937 ...	1,877	665	127	2,669	478	712	20	1,210	1,459
1938 ...	2,207	745	350	3,302	469	541	16	1,026	2,276

### Lambing.

The greater part of the lambing of the State takes place during the autumn and winter months, although considerable proportions of ewes, varying according to the nature of the season, are reserved for spring and early summer lambing. It is possible to breed from ewes twice per year, but it is not considered good policy and is rarely practised, except, perhaps, after severe losses. Seasonal changes play a large part in determining the proportion of ewes mated and of resultant lambs, and cause wide variations in the natural increase.

The lambing season extends almost continuously from March to November and comparatively few lambs are dropped in the months of December, January and February. Special returns obtained in respect of each season's lambing since 1929 (excepting 1931) show considerable variation in the proportion of lambs marked to ewes mated, ranging from 57½ per cent. in 1929-30 to nearly 70 per cent. in 1931-32. Lambing results in recent years are as follows:—

TABLE 693.—Lambing, 1929 to 1938.

Year ended 31st March.	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.
1929*	20,033,600	12,562,000	per cent.
1930*	19,050,000	10,950,000	62·7
1931†	...	...	57·5
1932	20,602,000	14,332,000	...
1933	21,040,800	14,221,200	69·1
1934	17,963,300	10,737,500	67·6
1935	20,648,500	12,996,300	59·8
1936	19,131,800	11,337,500	62·9
1937	21,260,360	14,330,749	69·3
1938	20,481,236	13,044,552	67·4
			63·7

\* Calendar Year.

† Information not collected.

During 1933-34, when following a relatively poor pastoral season autumn and winter rains were unsatisfactory, fewer ewes were mated than for several years. Stimulated by the recovery of wool prices in 1933-34, and helped by somewhat better seasonal conditions, graziers in almost all divisions of the State made efforts to increase their flocks in 1934-35. The decline in 1935-36 was due principally to droughty conditions in the north-west. With the number of sheep at its lowest point for five years, and with favourable wool prices, the number of ewes mated in 1936-37 was the highest recorded for many years. The lambing of 1937-38 approached the average of the previous six years, notwithstanding adverse conditions and a high mortality rate in the Central Plains and Western Division of the State.

Particulars of the lambing in the various divisions in 1936-37 and 1937-38 are shown below.

TABLE 694.—Lambing in Districts, 1937 and 1938.

District.	Year ended 31st March, 1937.			Year ended 31st March, 1938.		
	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.
Coast ... ..	000 234	000 150	per cent. 64·1	000 243	000 165	per cent. 67·9
Tablelands—North ...	516	326	63·2	598	404	67·6
Central ...	1,781	1,300	73·0	1,787	1,192	66·7
South ...	1,090	731	67·1	1,072	665	62·0
Total ...	3,387	2,357	69·6	3,457	2,261	65·4
Western Slopes—North ...	1,862	1,200	64·4	2,010	1,283	63·8
Central ...	2,129	1,456	68·4	2,030	1,268	62·5
South ...	2,266	1,571	69·3	2,278	1,544	67·8
Total ...	6,257	4,227	67·6	6,318	4,095	64·8
Plains—North ...	1,876	1,100	58·6	2,002	1,302	65·0
Central ...	2,814	1,916	68·1	2,272	1,279	56·3
Riverina ...	3,360	2,352	70·0	3,285	2,270	69·1
Total ...	8,050	5,368	66·9	7,559	4,851	64·2
Western Division ...	3,332	2,229	66·9	2,904	1,673	57·6
Grand Total	21,260	14,331	67·4	20,481	13,045	63·7

#### *Breeds of Sheep.*

The principal breed of sheep in New South Wales is the merino. Stud merino flocks are maintained throughout the State and a register is compiled annually giving the history of the flocks, together with the breed of the rams used, the number of sheep sold, and particulars of sheep purchased. Most of the flocks maintained for breeding purposes are registered. At 31st December, 1937, there were over 1,053,854 stud sheep in the 297 registered flocks, comprising 138,128 rams, 604,594 ewes and 311,132 lambs. In that year 157,922 stud rams and 168,572 stud ewes were bred.

Sheep of other pure breeds are not numerous. British breeds of sheep, in numerical importance in 1938, were the Border Leicester 107,552, Romney Marsh 39,649, Dorset Horn 20,815, Southdown 16,297, and a limited number of Suffolk, English Leicester, Lincoln, Ryeland and Shropshire.

Crosses of long-woolled breeds with the merino constitute a relatively small proportion of the sheep in New South Wales, but the number of crossbred sheep tends to increase as greater interest is taken in fat lamb raising for export.

The Corriedale, which numbered rather more than 75,000 in 1920 and 427,297 in 1938, is a breed founded concurrently in Australia and New Zealand about 1875-80. It is an inbred cross between the Lincoln and the merino, and is proving very valuable as a dual purpose (wool and mutton) sheep, well suited to all but the hotter and drier areas of the State. Polworth, a breed evolved in Victoria about 1885, may be termed a fixed comeback, merino rams being mated to Lincoln by merino ewes and the progeny inbred. Popular in the western districts of Victoria, it is becoming established in eastern and central Riverina. The Polworth is considered an ideal farmers' sheep, having a better carcass than the merino and producing saleable wool of comeback type.

The proportion of crossbred and comeback sheep was about 7 per cent. in 1901, prior to the development of the mutton export trade, but it increased to about 30 per cent. in 1919. Thereafter, on account of the more favourable market for merino wool, there was a substantial decline, but over the past ten years crossbred and comeback sheep have generally represented about 15 per cent. of the total.

The numbers of the principal breeds in the State at 31st March, 1938, were 43,617,441 merino, 646,653 other pure breeds, 2,594,148 merino comebacks, and 4,704,939 crossbreds.

#### PRODUCTION OF WOOL.

Wool is produced in New South Wales principally by shearing the live sheep, but also to a considerable extent by fellmongering. Comparatively little is picked from the carcasses of dead sheep on the holding. Many sheep skins are exported oversea and interstate, and the quantity of wool on these is estimated and included in the total production.

Formerly considerable numbers of sheep were washed before being shorn, and, as particulars of the resultant wool were not recorded separately prior to 1876, the estimates of the quantity of wool produced up to that date are approximate.

The output of wool is stated as in the grease, as data as to its clean scoured yield are not available. A small proportion of the shorn wool is scoured before being marketed, and the whole of the fellmongered wool is in a scoured condition. For the purpose of estimating the greasy equivalent of that part of the clip marked as scoured wool, it is usual to take 2.16 lb. of greasy as equivalent to 1 lb. of scoured wool. Very little wool is washed on holdings.



The following table shows, in quinquennial periods since 1876 and annually during the past twelve seasons, the total quantity of wool produced (as in the grease) in New South Wales, together with the aggregate value at Sydney, and the value to growers since 1926-27:—

TABLE 695.—Wool—Quantity and Value, 1876 to 1938.

Average per Year.	Wool Produced (000 omitted).		Season.	Wool Produced (000 omitted).		
	Quantity as in the Grease.	Value at Sydney.		Quantity as in the Grease.	Value at Sydney.	Value at Place of Production.
	lb.	£		lb.	£	£
1876-1880 ...	143,679‡	6,260	1926-27	499,320	35,629	33,234
1881-1885 ...	188,763‡	8,113	1927-28	443,860	36,064	33,874
1886-1890 ...	258,956‡	8,955	1928-29	482,920	33,206	30,879
1891-1895 ...	362,726‡	9,805	1929-30	459,970	20,123	18,099
1896-1900 ...	281,648‡	8,597	1930-31	427,220	15,486	13,705
1901-1905 ...	260,517‡	9,344	1931-32	501,648	17,349	15,233
1906-1910 ...	369,321‡	14,958	1932-33	532,080	18,845	16,659
1911-1915 ...	357,256	15,468	1933-34	484,390	31,889	29,951
1916-1920* ...	328,065	18,507	1934-35	494,981	19,827	18,045
1921-1925* ...	323,635	24,272	1935-36	472,585	27,321	25,408
1926-1930* ...	457,712	30,648	1936-37	503,616	34,106	32,091
1931-1935† ...	488,064	20,679	1937-38	495,027	25,961	24,060

\* Years ended 30th June.

† Years ended 31st March.

‡ Excludes wool exported on skins.

A decline occurred in production between 1911 and 1920 on account of diminution in the number of sheep due to unfavourable seasons. After the breaking of the severe drought in June, 1920, the seasons were favourable up to 1927. The wool production of 1926-27 was more than 23 per cent. greater than in any previous year, and it was at a high level in 1927-28 and 1929-30. Severe drought reduced production in 1930-31. But in 1931-32 production exceeded 500,000,000 lb. for the first time in the history of the State, and there was an increase to 532,000,000 in 1932-33. Subsequently, owing to less favourable conditions production declined and did not again exceed 500,000,000 lb. until 1936-37. Owing to lack of rains in some of the pastoral districts in 1937-38 the yield declined to 495,027,000 lb.

The value of the output exceeded £33,000,000 in 1926-27 and 1927-28, then there was a heavy decline in prices year by year from 19½d. per lb. in 1927-28 to 8½d. in 1930-31, when the value, £13,705,000, was the lowest since 1920-21. Limited world supplies and speculative buying caused a sharp rise to 15½d. per lb. in 1933-34, and the value rose almost to £30,000,000, but in the following season the value of production again

declined. In 1936-37 the average price of wool advanced to 16½d. per lb., production was greater, and the value exceeded £32,000,000. Restricted competition in the wool markets caused prices to fall in 1937-38, and the total value of the output was 25 per cent. less than in the preceding year. The course of wool prices is shown in Table 700.

Particulars of the number of sheep shorn, the average weight of wool per sheep, and the respective amounts of shorn and other wool produced in certain years since 1920-21, are as follow:—

TABLE 696.—Sheep Shorn and Wool Produced, 1921 to 1938.

Year ended 30th June.	Sheep shorn during year.	Average clip per sheep (greasy). †	Weight of Wool Produced (as in the grease).				Total pro- duc- tion.
			Shorn and crutched.	Dead.	Fell- mongered.	Exported on skins.	
Annual Average.	Thousands.	lb.	Thousand lb.				
1921-25 ...	38,378	7.5	286,786	925	23,599	12,325	323,635
1926-30 ...	50,944	8.2	418,405	985	18,548	19,774	457,712
1931-35 ...	53,691	8.2	438,594	1,035	34,109	14,326	488,064
1926 ...	45,550	8.1	368,739	761	14,780	18,210	402,490
1927 ...	51,880	8.8	456,872	680	22,330	19,440	499,322
1928 ...	53,730	7.5	404,375	1,705	19,870	17,910	443,860
1929 ...	50,300	8.8	445,228	862	16,770	20,060	482,920
1930 ...	53,260	7.8	416,813	917	18,990	23,250	459,970
1931 ...	48,840	7.9	385,105	585	22,740	18,790	427,220
*1932 ...	52,240	8.7	454,764	404	34,875	11,605	501,648
*1933 ...	55,612	8.6	478,703	459	39,663	13,255	532,080
*1934 ...	56,878	7.5	427,959	2,428	42,909	11,094	484,390
*1935 ...	54,884	8.1	446,437	1,301	30,356	16,887	494,981
*1936 ...	55,805	7.7	429,701	2,358	24,176	16,350	472,585
*1937 ...	55,485	8.3	459,650	1,423	24,303	18,240	503,616
*1938 ...	54,673	8.2	447,695	1,771	23,951	21,610	495,027

\* Year ended 31st March.

† Including Crutchings. Lambs shorn and lambs wool are included in the average.

The period of shearing is usually between May and November, but some sheep are shorn in the autumn.

#### Average Weight of Fleece.

The average weight of the fleece fluctuates considerably from year to year with variations in seasonal conditions, and it is affected also by changes in the proportion of lambs shorn. The average over the last thirteen years was 8.2 lb. per head (sheep and lambs).

The average weight of fleece shorn from sheep and lambs in statistical divisions of New South Wales in the last four years is shown below.

TABLE 697.—Average Clip, Sheep and Lambs, 1934-35 to 1937-38.

Division.	1934-35.†		1935-36.†		1936-37.†		1937-38 †	
	Sheep.	Lambs.	Sheep.	Lambs.	Sheep.	Lambs.	Sheep.	Lambs.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Tablelands—North ... ..	7.78	2.90	7.02	3.57	8.07	2.85	8.42	3.53
Central .. ..	8.58	2.18	8.10	2.12	8.77	2.21	8.45	2.18
South ... ..	9.11	1.45	8.16	1.35	8.72	1.37	8.64	1.55
Total ... ..	8.49	1.94	7.84	1.88	8.57	1.97	8.49	2.04
Western Slopes—North ... ..	7.71	2.51	7.16	2.57	8.14	2.69	8.18	3.17
Central ... ..	8.49	2.56	8.15	2.54	9.14	2.56	8.53	2.62
South ... ..	8.70	2.37	8.40	2.79	8.78	2.48	8.53	2.31
Total ... ..	8.29	2.47	7.90	2.67	8.65	2.55	8.40	2.61
Plains—North ... ..	8.53	3.47	7.97	3.43	8.28	3.35	9.13	4.31
Central ... ..	9.32	2.97	8.53	2.99	9.41	3.19	9.79	3.23
Riverina ... ..	9.61	2.47	8.95	2.74	9.25	2.62	9.26	2.55
Total ... ..	9.21	2.84	8.55	2.95	9.06	2.94	9.17	3.09
Western Division ... ..	10.38	2.87	9.43	3.25	10.52	3.26	10.16	3.65
New South Wales ... ..	8.88	2.59	8.26	2.75	8.99	2.73	8.88	2.74

† Shearing for year ended 31st March, exclusive of crutchings, which generally constitute between 2 and 3 per cent. of the total wool clip.

As the figures quoted in the preceding table are for greasy wool, comparisons between divisions necessitate allowance for the presence in the fleece of foreign matter such as dust and burr. Generally the greasy wool from the tablelands produces the highest yield of scoured wool. The yield is lower in the Western Slopes, the Plains, Riverina, and Western Division.

#### *World's Sheep and Wool Production.*

The numbers of sheep in the principal countries are shown for the latest year available in the following table, together with the approximate production of wool in the years 1924, 1936-37 and 1937-38. The wool production figures for 1924 have been extracted from publications of the League of

Nations, and the particulars for the other years have been obtained from reports of the Imperial Economic Committee and publications of a more or less official character.

TABLE 698.—World's Sheep and Wool Production.

Principal Countries.	Sheep.		Production of Greasy Wool.		
	Year.	Number.	1924.	1936-37.	1937-38.
		'000.	'000 lbs.	'000 lbs.	'000 lbs.
Australia ... ..	1937	113,000	776,900	982,800	1,010,000
New Zealand ... ..	1937	31,300	246,700	304,000	297,000
United States ... ..	1937	52,600	295,500	448,600	454,600
Canada ... ..	1937	3,300	15,200	19,200	19,000
Argentine... ..	1937	43,800	322,100	385,000	375,000
Uruguay ... ..	1937	17,900	97,000	120,000	116,000
Brazil ... ..	1937	12,900	26,000	37,500	37,500
Union of South Africa ...	1937	43,100	176,000	285,000	246,000
Algeria ... ..	1937	6,300	38,100	17,600	17,200
Soviet Union ... ..	1937	69,000	287,000	202,100	224,000
India, British ... ..	1937	50,000	99,200	100,000	100,000
China ... ..	1937	34,000	71,200	110,000	110,000
United Kingdom ... ..	1937	25,500	98,100	108,000	107,000
Spain ... ..	1937	18,500	79,800	66,000	60,000
France ... ..	1937	10,000	44,100	53,900	55,100
Germany ... ..	1937	4,700	53,100	40,100	43,300
Roumania ... ..	1935	11,800	60,000	42,900	42,900
Italy ... ..	1937	9,100	35,300	30,000	30,000
Yugoslavia ... ..	1937	9,000	26,700	33,600	31,500
Other ... ..	1937	190,700	340,000	493,600	450,900
World Total ... ..	...	736,500	3,183,000	3,879,900	3,827,000

Australia contains approximately 15.3 per cent. of the sheep and produces 26 per cent. of the wool of the world. It has been estimated that about 50 per cent. of the world's wool is produced within the British Empire.

#### WOOL MARKETING.

For many years the whole of the wool grown in New South Wales was shipped for sale in London. As the number of continental buyers increased, however, there developed a tendency, which harmonised entirely with Australian interests, to seek supplies of the raw material at their source, and after the year 1885 local wool sales began to assume importance.

#### *Sydney Wool Sales.*

Sydney is now the largest primary wool market in the world. Wool sales usually commence about September and continue in series on fixed dates over a period of eight or nine months. The sales are attended by representatives of firms from practically every country in which woollen goods are manufactured extensively. From data at present available it is not possible to state what proportion of the wool received in Sydney is sold locally before export.

The following statement compiled from the records of the Sydney Wool Selling Brokers' Association shows particulars of Sydney wool sales since 1921-22:—

TABLE 699.—Sydney Wool Sales, 1921-22 to 1938-39.

Season.	Wool Sold.		Proportion of Wool of each Description Sold.						Average weight per Bale.	
	Weight. as in grease.	Value.	Breed.		Growth.		Condition.		Greasy	Scoured.
			Merino.	Cross-bred.	Pleece, etc.	Lambs.	Greasy.	Scoured.		
	lb. 000	£000	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	lb.	lb.
1921-22	813,886	14,765	73.2	26.8	95.7	4.3	90.7	9.3	330	249
1922-23	268,873	18,922	79.0	21.0	94.3	5.7	93.3	6.7	321	234
1923-24	224,719	21,446	83.9	16.1	96.6	3.4	92.6	7.4	318	228
1924-25	212,664	22,624	85.9	14.1	94.7	5.3	95.1	4.9	327	232
1925-26	346,685	23,776	86.6	13.4	93.7	6.3	95.2	4.8	315	227
1926-27	374,925	26,377	87.9	12.1	94.9	5.1	94.1	5.9	322	203
1927-28	338,476	26,885	90.3	9.7	95.3	4.7	93.7	6.3	306	220
1928-29	350,696	25,113	88.6	11.4	96.0	4.0	95.0	4.1	313	230
1929-30	342,084	14,888	90.1	9.9	95.5	4.5	95.7	4.3	305	231
1930-31	831,476	11,743	90.1	9.9	96.5	3.5	94.9	5.1	309	225
1931-32	378,006	12,727	90.0	10.0	94.5	5.5	94.0	6.0	308	230
1932-33	417,443	14,358	90.1	9.9	94.0	6.0	91.8	8.2	311	236
1933-34	347,587	21,974	90.0	10.0	95.4	4.6	91.5	8.5	304	237
1934-35	387,531	15,359	90.3	9.7	95.2	4.8	93.7	6.3	307	230
1935-36	864,656	20,517	90.4	9.6	95.1	4.9	92.8	7.2	296	230
1936-37	338,181	25,980	91.1	8.9	95.3	4.7	94.6	5.4	300	235
1937-38	336,316	17,621	91.3	8.7	95.6	4.4	95.3	4.7	298	228
1938-39	357,049	15,078	90.9	9.1	97.0	3.0	94.9	5.1	302	233

† Including skin wool.

The figures as to quantity and value in this table are not comparable with records of production, because considerable quantities of wool grown in New South Wales are sold in other States, notably in Victoria and South Australia, while small quantities of wool from the other States, mainly from Queensland, are marketed in Sydney. The wool produced in any season is not always sold in the same season. At the close of sales in June there is usually very little wool remaining unsold in Sydney. The carry over was 29,292 bales in June, 1937, 134,676 bales in June, 1938, and 63,192 bales in June, 1939.

Sydney is the largest wool-selling centre of Australia, the quantity sold at Sydney wool sales being, usually, greater than at the two centres next in importance (Brisbane and Melbourne) combined. Wool is sold also at Albury, on the southern border, and at Newcastle, but these sales are comparatively small in extent.

#### Wool Publicity and Research.

Following upon a resolution passed on 25th June, 1927, at a joint conference of the Australian Woolgrowers' Council and the National Council of Wool Selling Brokers of Australia, a fund has been established to promote pastoral research. A voluntary contribution of 2s. per bale of the 1928-29 clip was invited and to June, 1929, the total receipts amounted to £40,284. The Australian Pastoral Research Trust Limited was registered as a company with an initial capital of £43,000 and an ultimate capital objective of £200,000. At 31st March, 1938, the capital funds in the hands of the Trust amounted to £66,863. Its objects are to promote the growth, development, and best interests of the pastoral and grazing industry, especially through scientific and economic research relating to stock diseases, animal pests, harmful plant life, edible plants, and drought feeding problems. The work of the Trust is co-ordinated with that of the Council for Scientific and Industrial Research.

During the year ended 31st March, 1938, an amount of £2,939 was expended on research, making a total research expenditure of £18,547 since the inception of the Trust.

*Australian Wool Board.*

Intensified competition of rayon and artificial fibres has led to the inauguration of a wool publicity and research campaign. In 1936 the Commonwealth Parliament levied a tax on all wool marketed, the proceeds to be applied in popularising the use of wool, and in research.

An Australian Wool Board of seven members, viz., six nominated by the Australian Woolgrowers' Council and one Government representative, is constituted under the Wool Publicity and Research Act, 1936, to administer the scheme. Proceeds of the tax under the Wool Tax Act, 1936, are to be paid to the credit of the Wool Publicity and Research Fund, and will be at the disposal of the Board.

The rate of tax is prescribed by regulation, but may not exceed 6d. per bale, 3d. per butt or fadge, or 1d. per bag of wool. The tax is payable on all greasy wool (other than dead wool) received for sale by a broker, or received for scouring by a wool-scourer, or purchased (otherwise than from a wool-scourer) by a manufacturer who uses wool in his business. Tax must be paid on wool exported by a dealer or owner. The amount collected in Australia in 1937-38 under the Wool Tax Act, 1936, was £77,523, of which £32,688 was paid in New South Wales.

The scheme will remain in operation until 31st May, 1941, and will continue thereafter unless its discontinuance is favoured by a poll of producers requisitioned in the first six months of 1940 by at least 10 per cent. of the growers, owning at least 15 per cent. of the sheep in Australia.

Similar provision for publicity and research has been made in South Africa and New Zealand, and the Australian Wool Board and representatives of the wool industry of those countries have co-operated in the establishment of an International Wool Publicity and Research Fund, an Executive Committee comprising one or two representatives of the administrative body in each country, and a Secretariat for the administration of the Fund. Contributions are based on the average quantity of wool exported over a period of five years so that the Australian quota is approximately 62 per cent. of the total. The Fund came into operation as from 1st July, 1937, and the Australian contribution for the twelve months ended 30th June, 1938, amounted to £38,945 (Australian currency).

The authority in each country undertakes internal research and publicity, upon which a considerable proportion of the proceeds of the levy in Australia will be expended. During the first two years of its administration the Australian Wool Board allocated the sum of £32,947 for scientific pastoral research, the investigations including sheep diseases, nutrition, external parasites, fertility, poison plants and pasture management.

## PRICES OF WOOL.

The average values of Australian wool per pound have been subject to alternate periods of rising and falling which, on the basis of average export values from New South Wales, have been as follows:—Rising to 1830, falling 1831 to 1849, rising 1850 to 1861, falling 1862 to 1894, rising 1895 to 1907, falling 1908 to 1912, rising 1912 to 1924, falling 1925, rising 1926 to 1928, falling 1929 to 1933, rising 1934 to 1937, and thereafter falling. These periods indicate the general trend only, because in certain years, notably 1900, 1914-15, 1921 and 1922, and 1933-34, prices varied irregularly.

The following statement shows the average prices of greasy wool in New South Wales since 1876. Average prices obtained at Sydney auctions have been recorded by the Sydney Wool Selling Brokers' Association since 1899. Between 1876 and 1899 the table shows the average value of greasy wool as declared in export returns obtained by the New South Wales Customs. All prices are stated in Australian currency:—

TABLE 700.—Prices of Wool, Sydney, 1876 to 1939.

Average Export Value of Greasy Wool f.o.b. Sydney.				Average Price realised for Greasy Wool at Sydney auctions.					
Year ended 31 Dec.	Average Price Per lb.	Year ended 31 Dec.	Average Price Per lb.	Season ended 30 June.	Average Price Per lb.	Season ended 30 June.	Average Price Per lb.	Season ended 30 June.	Average Price Per lb.
	d.		d.		d.		d.		d.
1876	11	1888	8½	1899	7½	1914	9¼	1927	17·0
1877	10⅝	1889	8¾	1900	11¼	1915	8⅝	1928	19·5
1878	10⅛	1890	8	1901	5⅝	1916	10½	1929	16·5
1879	9⅞	1891	7	1902	6⅞	1917	14¾*	1930	10·5
1880	10½	1892	7½	1903	8	1918	14¾*	1931	8·7
1881	10⅓	1893	6⅝	1904	8¼	1919	15*	1932	8·3
1882	10	1894	5¾	1905	8⅝	1920	15¾*	1933	8·5
1883	10⅝	1895	6⅝	1906	9	1921	12½	1934	15·8
1884	10¼	1896	7¼	1907	9¼	1922	12¼	1935	9·7
1885	8½	1897	7	1908	9	1923	17½	1936	14·0
1886	8	1898	7¼	1909	7¾	1924	23½	1937	16·4
1887	8			1910	9½	1925	25½	1938	12·7
				1911	8½	1926	16½	1939	10·3
				1912	8⅝				
				1913	9⅝				

\* Price as appraised under Imperial Wool Purchase Scheme. The average amount to be added to the value of greasy wool in respect of surplus profits is 7·13d. per lb. of which 3·69d. accrued to Australian growers.

These figures since 1899 represent the average price of wool sold during the year, and furnish an accurate guide to the average value per pound (greasy) of the clip produced in individual years, except that allowance for carry over of unsold wool is necessary in three seasons, viz.:—The average price realised for wool produced in 1920-21 was 12¾d.; in 1924-25, 23¾d.; and in 1925-26, 16¾d. The prices shown above are affected over long terms by changes in the proportion of merino to crossbred, and by such variable qualities as length, fineness, and soundness. Over short terms comparison is affected in a small degree by changes in the proportion of natural grease in the wool and by variations in the proportionate quantities of wool of various qualities. The wool sold locally as scoured is of limited range and quantity, and the prices are not sufficiently representative to be of value for comparative purposes.

*Average Monthly Prices of Greasy Wool.*

Data as to the clean scoured prices of principal types of wool have been obtained for successive sales since September, 1924. These have been combined into monthly averages and converted into an index in terms of pence per lb. greasy comparable with the annual averages shown in table 700.

The index (expressed in terms of pence) represents the price of greasy wool per lb. at Sydney auctions, based on the actual prices realised for typical grades of wool.

Averages shown in brackets are nominal, being estimates made on various data in the absence of sales. All prices are stated in Australian currency.

TABLE 701.—Average Monthly Prices of Wool at Sydney Auctions.

Month.	1928-29	1929-30	1930-31	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
July ...	(17.8)	(12.9)	(9.7)	(8.0)	(11.4)	(11.0)	(11.6)	(13.3)	(17.0)	(11.1)
August ...	17.8	(12.4)	(9.6)	(8.5)	(11.6)	(10.5)	(11.4)	(13.5)	(17.2)	(11.0)
September ...	17.8	12.0	9.4	9.1	13.1	9.4	12.1	13.1	15.4	10.4
October ...	16.9	10.7	8.2	8.5	12.8	9.4	12.4	14.0	14.2	10.6
November ...	17.3	12.2	8.4	8.2	14.5	9.4	12.9	16.2	12.6	10.7
December ...	16.9	11.7	7.9	8.4	14.9	9.1	13.0	16.6	13.3	10.5
January ...	17.3	10.7	7.7	8.6	17.7	9.4	13.9	18.0	11.9	10.5
February ...	16.9	9.7	9.0	8.0	16.7	8.7	14.4	17.2	11.4	10.6
March ...	16.0	9.2	10.2	7.8	15.9	8.6	14.6	17.8	11.3	10.3
April ...	15.6	9.8	10.3	7.9	(15.4)	9.5	(14.6)	18.6	11.0	10.0
May ...	14.7	10.3	9.7	8.8	13.5	10.6	14.5	(18.3)	11.3	9.9
June...	12.9	9.9	9.0	10.0	(12.1)	11.1	13.1	17.2	10.8	10.5
Weighted Average price at Sydney auctions ...	16.5	10.5	8.7	8.5	15.8	9.7	14.0	16.4	12.7	10.3

The table discloses considerable fluctuation in the price of wool within seasons. The years of greatest variation in prices were 1929 when, with the advent of the depression, prices declined rapidly, 1933 and 1934 when there was a rapid rise, followed by a sharp decline under the erratic movements referred to on page 784. The range in prices was considerable in 1936-37; the Japanese embargo against Australian wool affected values in the opening months of the season, then the devaluation of the French franc, increased demand due to economic revival, and the subsequent return of Japanese buyers caused prices to raise again. The movement in prices was reversed in 1937-38. There was a marked decline after the opening sales in September and a slow downward trend from January to June, 1938. Throughout the following season there was little variation from the closing quotations of 1937-38. The decline in prices since 1936-37 is attributed mainly to the uncertain outlook in international affairs.

*British Australian Wool Realisation Association Limited.*

Particulars of the formation and activities of this organisation which was liquidated on 15th September, 1932, are contained in the Year Book for 1921 at page 781 and for 1924 at page 586. A summary of payments made to woolgrowers was published on page 630 of this Year Book for 1928-29, and information as to the final distribution made in March, 1932, appeared at page 763 of the 1933-34 issue. The total receipts of growers under the appraisalment section was equivalent to 19.19d. per lb.



*Destination of Wool Shipped.*

The following statement shows the destination of the oversea shipments of wool (excluding wool on skins) from New South Wales. The figures relate to the cargoes actually despatched during the periods specified:—

TABLE 702.—Export of Wool from New South Wales, 1921 to 1938.

Destination.	Oversea Exports of Wool (000 omitted).								
	Greasy.			Scoured.			Tops.		
	1920-21.	1930-31.	1937-38.	1920-21.	1930-31.	1937-38.	1920-21.	1930-31.	1937-38.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ...	80,322	76,084	102,225	18,164	6,123	7,859	422	...	218
Canada ...	127	...	14	60	141	1,134	287	779	1,576
Austria ...	734	...	1,958	293	...	84	...	...	...
Belgium ...	12,144	37,834	41,425	3,362	3,174	2,197	...	...	...
France ...	19,203	73,053	56,496	974	4,054	4,695	...	...	...
Germany ...	5,174	50,353	26,716	185	2,270	868	...	...	...
Italy ...	6,243	15,326	14,013	12	325	69	...	...	...
Japan ...	6,179	69,389	25,147	70	1,057	411	2,466	30	...
Netherlands ...	722	247	3,029	6	25	46	...	...	...
Russia ...	...	...	150	...	...	...	...	...	...
United States ...	15,236	10,343	1,012	3,217	54	5	1,344	35	117
Other Countries ...	3,007	1,973	24,049	68	140	1,184	761	...	1,251
Total ...	149,091	334,602	296,234	26,411	17,372	18,552	5,280	844	3,162

The exports of wool, stated as the approximate greasy equivalent, according to country of destination, is indicated in the following table, also the relative importance of the exports sent direct from New South Wales to each country. There have been striking changes in the distribution of exports. Japan moved from fifth place in 1920-21 to the leading position in 1935-36, but has since receded to its former position, with the United Kingdom in first place, and France, Belgium and Germany in the order named.

TABLE 703.—Oversea Export of Wool, Greasy Equivalent, and Countries of Destination, 1921 to 1938.

Importing Country.	Quantity of Wool Exported from N.S.W. (as in the grease).				Proportion of Total.			
	1920-21.	1928-29.	1936-37.	1937-38.	1920-21.	1928-29.	1936-37.	1937-38.
	000 lb.	000 lb.	000 lb.	000 lb.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	120,591	87,270	135,491	119,750	55.4	22.8	34.0	34.8
Canada ...	879	871	7,200	5,886	.4	.2	1.8	1.7
Austria ...	1,369	...	4,918	2,141	.6	...	1.2	.6
Belgium ...	19,428	59,650	63,530	46,185	8.9	15.6	15.9	13.5
France ...	21,313	82,418	45,622	66,668	9.8	21.6	11.4	19.4
Germany ...	5,575	56,798	23,233	28,597	2.6	14.8	5.8	8.4
Italy ...	6,269	15,922	15,349	14,163	2.9	4.2	3.9	4.1
Japan ...	11,674	63,768	38,942	26,038	5.4	16.7	9.8	7.6
Netherlands ...	735	49	3,898	3,129	.3	.1	1.0	.9
United States ...	25,118	6,893	35,774	1,277	11.5	1.8	9.0	.4
Other Countries	4,803	8,527	24,713	29,447	2.2	2.2	6.2	8.6
Total ...	217,754	382,166	398,670	343,281	100.0	100.0	100.0	100.0

## INDEX OF RAINFALL IN SHEEP DISTRICTS.

The following table shows a monthly index of rainfall in the sheep districts of New South Wales. The index represents the weighted average ratio of actual to normal rainfall in each month, the normal in each month being the average over a long period of years and represented by 100:—

TABLE 704.—Index of Rainfall in Sheep Districts, 1925 to 1939.

Month and Season.	1925-26.	1926-27.	1927-28	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
<i>Spring—</i>														
Sept.	36	117	59	90	79	46	82	166	161	88	142	61	73	37
Oct.	43	45	133	71	83	207	46	63	131	271	128	46	96	148
Nov.	149	14	152	40	100	83	119	117	208	108	31	14	97	77
<i>Summer—</i>														
Dec.	58	137	85	27	96	166	135	54	142	76	92	200	65	9
Jan.	86	118	140	23	75	55	17	126	130	115	173	122	85	69
Feb.	26	19	302	145	43	37	91	17	274	87	161	70	72	149
<i>Autumn—</i>														
March	247	59	157	72	64	255	152	44	22	21	146	124	17	251
April	216	101	128	151	68	210	167	86	106	143	55	33	67	214
May	160	46	45	23	90	280	57	86	15	28	69	42	119	53
<i>Winter—</i>														
June	78	48	94	40	154	193	59	60	74	30	84	71	72	104
July	74	35	123	20	119	94	85	150	165	103	197	36	99	71
Aug.	78	56	19	102	121	43	101	51	136	59	98	113	151	...
Spring	76	59	115	69	87	112	82	115	167	176	100	40	80	87
Summer	57	91	196	65	68	86	81	66	184	93	142	131	74	76
Autumn	208	69	110	82	74	248	122	72	48	64	90	66	68	173
Winter	77	46	79	57	131	110	82	90	125	64	126	71	107	...
Season	104	66	125	68	90	139	92	86	131	99	115	77	85	...
	Average Clip per Sheep (lb.)													
(Year following)	8·8	7·5	8·8	7·8	7·9	8·7	8·6	7·5	8·1	7·7	8·3	8·2	...	

The average weight of wool per sheep shorn in each next succeeding year is shown at the foot of the foregoing table. It is clearly indicated that there is a close relationship between rainfall and the weight of the fleece, years of poor rainfall almost invariably resulting in a decline in the quantity of wool shorn per sheep. Whilst satisfactory seasonal conditions throughout the year are needed for good results, summer and autumn rains exercise a considerable influence upon wool production. Thus bounteous rains in the summer and autumn of the years 1925-26, 1927-28, 1930-31 and 1933-34 preceded higher weights per fleece than in any other years. Though over the whole season rainfall was below average in 1931-32 and 1936-37 moderately good rains occurred in the summer and autumn, and a good weight of the fleece was shorn in the next succeeding years.

## CATTLE.

Apart from dairying, industries connected with cattle, such, for instance, as the production of beef for export, have never existed on a large scale in New South Wales. Local production scarcely meets the requirements of local consumption, and cattle are imported from Queensland. There is a small export trade in frozen and tinned beef. From 1916 to 1922 favourable prices were obtainable for beef, and there was an appreciable increase in the number of cattle depastured and the number in 1922 (3,546,530) constituted a record for the State.

Subsequently the continuance of unfavourable markets led to a diminution in herds; breeding operations were curtailed, importation of live stock from Queensland was restricted, and the herds were heavily depleted.

In recent years, however, renewed interest has been taken in the breeding of cattle for beef for export owing to the marketing developments discussed at a later page. Whereas, the number of cattle in the State (exclusive of cows and heifers in registered dairies), declined from 2,659,308 to 1,726,638, or by 35.1 per cent. between 1922 and 1930, there was an increase of 582,430, representing a gain of 33.7 per cent., in the five years ended 1934-35. Heavy slaughterings and a much reduced net import from other States caused a decline during the three years ended 1937-38.

The following table shows the total number of cattle in the State, including dairy cattle, at various dates:—

TABLE 705.—Total Number of Cattle in New South Wales, 1861 to 1938.

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1906	2,549,944	1930*	2,686,132
1866	1,771,809	1911	3,194,236	1931*	2,840,473
1871	2,014,888	1916	2,405,770	1932†	2,993,586
1876	3,131,013	1921*	3,375,267	1933†	3,141,174
1881	2,597,348	1925*	2,876,254	1934†	3,361,771
1886	1,367,844	1926*	2,937,130	1935†	3,482,831
1891	2,128,838	1927*	2,818,653	1936†	3,388,538
1896	2,226,163	1928*	2,848,654	1937†	3,288,169
1901	2,047,454	1929*	2,784,615	1938†	3,019,581

\* At 30th June. † At 31st March.

Particulars of cattle according to sex and age at 31st March, 1938, and in certain earlier years for which comparable data are available, are shown below:—

TABLE 706.—Cattle According to Sex, 1923 to 1938.

As at 31st March.	Bulls 3 years and over.	Cows and Heifers.			Bullocks and Steers.	Calves under 1 year.	Grand Total.
		In Registered Dairies.	Other.	Total.			
1923*	40,530	878,762	753,652	1,632,414	1,089,129	489,107	3,251,180
1924*	38,045	864,455	671,365	1,535,820	991,265	373,392	2,938,522
1930*	42,456†	959,494	667,259	1,626,753	558,713	458,210	2,686,132
1931*	45,038†	1,006,129	705,372	1,711,501	614,244	469,690	2,840,473
1932	49,846†	1,055,729	768,144	1,823,873	589,794	530,073	2,993,586
1933	52,922†	1,124,006	833,472	1,957,478	562,894	567,880	3,141,174
1934	54,786†	1,155,800	916,227	2,072,027	670,485	564,473	3,361,771
1935	55,028†	1,173,763	969,832	2,143,595	668,615	615,593	3,482,831
1936	55,354†	1,157,584	976,089	2,133,673	625,795	573,716	3,388,538
1937	54,078†	1,128,228	973,280	2,101,508	614,655	517,928	3,288,169
1938	50,906†	1,094,915	867,435	1,962,350	523,884	482,441	3,019,581

\* At 30th June. † Bulls over 1 year old.

This summary shows that there was a substantial decrease in herds until 1930, due principally to declining numbers of bullocks and steers. In each of the next five years cattle for breeding, dairying and slaughtering purposes increased in number, and the total at 31st March, 1935, was within about 2 per cent. of the highest ever recorded (in 1922) and 29.7 per cent. greater than in 1930. The growth in the number of calves is attributable largely to the development of a market for vealers, which has resulted in

the sale of calves which formerly would have been destroyed on dairy holdings shortly after birth. Between 1930 and 1935 the number of bulls increased by 29 per cent., cows and heifers by 31.8 per cent., bullocks and steers by 19.7 per cent., and calves by 34.4 per cent. Between 1935 and 1938 there was a general decrease in the number of cattle due principally to heavy slaughtering, a substantial decrease in net imports from other States, and an unfavourable season in the dairying districts in 1937-38.

### Calving.

In the years prior to 1932 information as to the number of calves dropped during each year was collected. According to the returns the average number was 893,719 per annum in the five years ended 1924-25, and 897,711 in the years 1925-26 to 1929-30, reaching a peak of 947,442 in 1930-31. But the collection has been discontinued because unsatisfactory features rendered the return of doubtful value.

The following statement, showing the number of calves slaughtered for food, and the number surviving at the end of each year, indicates that during the recent years the raising of calves has extended though there was a decline in 1937-38.

TABLE 707.—Calves Slaughtered and Number at end of Year, 1921 to 1938.

Year ended 30th June.	Calves.		Year ended 30th June.	Calves.		Year ended 31st March.	Calves.	
	Slaughtered.	Surviving at end of Year.		Slaughtered.	Surviving at end of Year.		Slaughtered.	Surviving at end of Year.
Av. 1921-25	120,134	486,933	1928	144,850	421,654	1933	208,895	567,880
" 1926-30	158,158	444,747	1929	161,994	455,529	1934	270,466	564,473
" 1925	159,999	422,736	1930	163,195	458,210	1935	370,739	615,593
1926	173,806	458,936	1931	154,684	469,690	1936	443,761	573,716
1927	146,947	429,405	1932	163,934	530,073	1937	486,231	517,928
						1938	457,854	482,441

More than one-half of the cows in the State are in registered dairies, and their progeny is generally not available for beef purposes, therefore, the beef supplies of the State are obtained mainly from the interior divisions augmented by imports from Queensland. Until about 1930-31 approximately 90 per cent. of the bull calves and 70 per cent. of the heifer calves in the dairying districts were killed shortly after birth and not used for human consumption. In recent years, however, the provision of better slaughtering facilities has enabled dairy farmers to find a market for young calves.

### Interstate Movements of Cattle.

By reason of diseases among the cattle of certain districts, and the presence of cattle tick in the north-east of New South Wales and in parts of Queensland, the interstate movement of cattle is closely regulated. In certain cases cattle are quarantined, dipped or sprayed on admission and subjected to special treatment should such become necessary within a fixed period thereafter.

The following statement shows the number of live cattle (so far as recorded) passing into and out of New South Wales during each of the last eight years in comparison with the yearly average for the quinquennial periods ended 1929-30 and 1934-35. The movement is practically all over-land, comparatively few cattle being transported by sea:—

TABLE 708.—Interstate Movements of Cattle, 1926 to 1938.

Year. ended 30th June.	From New South Wales.				To New South Wales.			
	To Victoria.	To Queens- land.	To South Australia and by Sea.	Total.	From Victoria.	From Queens- land.	From South Australia and by Sea.	Total.
Av. 1926-30	No. 122,542	No. 23,032	No. 19,207	No. 164,781	No. 36,689	No. 248,028	No. 1,192	No. 285,909
Av. 1931-35	105,368	13,522	14,630	133,520	34,991	233,269	1,533	269,793
1930-31	100,564	12,614	20,174	133,352	33,732	240,354	302	274,388
1931-32	143,456	14,770	19,658	177,884	40,507	245,344	571	286,422
1932-33	137,970	13,117	12,512	163,599	29,409	154,462	616	184,487
1933-34	89,176	11,459	6,757	107,392	38,102	264,835	4,060	306,997
1934-35	55,674	15,651	14,051	85,376	33,206	261,348	2,115	296,669
1935-36	57,276	33,781	9,386	100,443	48,532	140,953	1,935	191,420
1936-37	69,175	35,732	15,873	120,780	21,938	167,269	741	189,948
1937-38	62,405	30,744	9,008	102,157	17,428	126,804	2,017	146,249

Although the effects of seasonal variations are apparent during this period there is, on the whole, a heavy but fluctuating import of cattle to New South Wales from Queensland, and an appreciable export to Victoria. The interchange with South Australia is small.

During the last five years covered in the table there was an excess of imports from Queensland of about 833,842 cattle, and an excess of exports to Victoria amounting to 174,500. The total net gain to New South Wales from all sources was 615,135.

*Increase and Decrease of Cattle.*

The number of cattle in New South Wales varies under the influence of three factors, viz., importation, slaughtering, and natural increase, or excess of calving over deaths from causes other than slaughtering. The operations in these during recent years is shown in part below:—

TABLE 709.—Increase and Decrease of Cattle, 1927 to 1938.

Year.	Net Imports of Cattle.	Calves reared (surviving at 30th June).	Cattle and Calves died from Disease, Drought, etc.	Cattle Slaughtered (excluding Calves).	Cattle at end of Year.
1926-27	54,370	429,405	76,114	665,647	2,818,653
1927-28	249,292	421,654	70,585	549,677	2,848,654
1928-29	66,546	455,529	48,882	617,000	2,784,615
1929-30	50,643	458,210	69,965	517,121	2,686,132
1930-31	141,036	469,690	43,570	440,266	2,840,473
1931-32	108,538	530,073†	58,614	465,481	2,993,586
1932-33	20,888	567,880†	76,747	494,351	3,141,174
1933-34	199,605	564,473†	83,857	494,610	3,361,771
1934-35	211,293	615,593†	71,375	600,698	3,482,831
1935-36	90,977	573,716†	141,006	652,032	3,388,538
1936-37	69,168	517,928†	133,077	699,467	3,288,169
1937-38	44,092	482,441†	134,721	764,375	3,019,581

† At 31st March.

The figures shown in the table do not balance from year to year because it is not possible to obtain all necessary data relative to calving and to disposal of calves. Nevertheless the table illustrates in a general way the influence of the various factors.

### HORSES.

There was a great advance in horse breeding between 1910 and 1918, owing to the increased demand which arose as a consequence of widening settlement, increased cultivation, prosperous seasons, and defence requirements. During the lengthy drought which terminated in June, 1920, the numbers declined heavily, and the decline continued, especially in the five seasons ended 30th June, 1931 owing to the increased use of motors for transport. A slight increase was recorded for the period 1932 to 1937, but the number declined in 1937-38, owing to an unusually high rate of mortality. The extension of tractor farming, which is discussed on page 694, has resulted in the displacement of horses.

The following table shows the number of horses in New South Wales at the end of quinquennial periods from 1861 to 1916, and annually thereafter:—

TABLE 710.—Horses in New South Wales, 1861 to 1938.

Year.	Horses.	At 30th June.	Horses.	At 30th June.	Horses.
1861	233,220	1916	719,542	1927	623,392
1866	274,437	1917	733,791	1928	598,377
1871	304,100	1918	742,247	1929	567,371
1876	366,703	1919	722,723	1930	534,945
1881	398,577	1920	662,264	1931	524,512
1886	361,663	1921	663,178	1932*	524,751
1891	469,647	1922	669,800	1933*	528,943
1896	510,636	1923	660,031	1934*	532,028
1901	486,716	1924	658,372	1935*	534,853
1906	537,762	1925	647,503	1936*	542,862
1911	689,004	1926	651,035	1937*	545,829
				1938*	528,625

\* At 31st March.

There is a small export trade to India, where the horses are required as remounts for the army. The number of ordinary horses sent there during the year ended 30th June, 1938, was 234, the value being £4,285.

There is comparatively little interstate movement of horses except to and from Queensland, and practically no import by sea. The recorded net import of horses interstate by land in the past five years ended 30th June has been as follows:—1934, 6,284; 1935, 10,474; 8,728 in 1936, 9,778 in 1937, and 6,518 in 1938. The recorded number of horses which died from disease, drought, etc., on rural holdings was 17,920 in 1933-34, 20,755 in 1934-35, 21,813 in 1935-36, 21,662 in 1936-37 and 29,836 in 1937-38.

### Horse Breeding.

Horse breeding operations have decreased since 1913, when the number of foals reared was 79,620. A sudden decrease occurred as a result of the drought which broke in June, 1920, and except for a temporary recovery in 1925 and 1926 the decrease continued until 1931, when the number of foals was only 16,370. During the six years ended June, 1937, a steady increase was maintained. In 1937-38 the number declined owing to unfavourable seasonal conditions.

The following table shows the number of foals recorded at the end of certain years since 1909:—

TABLE 711.—Foals, 1909 to 1938.

Year ended 31st December.	Foals reared (Surviving at end of year).	Year ended 30th June—	Foals reared (Surviving at end of year).	Year ended 30th June—	Foals reared (Surviving at end of year).	Year ended 31st March—	Foals reared (Surviving at end of year).
Av.							
1909-13	73,182	1920	24,755	1926	36,521	1932	22,559
1915	60,337	1921	20,065	1927	28,282	1933	28,925
1916	41,818	1922	29,685	1928	22,922	1934	34,238
1917	49,087	1923	28,616	1929	19,991	1935	40,839
1918	46,832	1924	24,307	1930	16,716	1936	43,092
1919	40,015	1925	39,415	1931	16,370	1937	43,526
						1938	39,510

The increased use of motor power on farms and the consequent depreciation in the value of the horse resulted in the disposal of studs, but latterly there has been a revival in the breeding of utility horses and the type of animals has been improved by the introduction of superior stud animals.

Particulars showing the number, description, and ages of horses in New South Wales as at 30th June, 1930, as collected for the World Agricultural Census, were published on page 770 of the 1933-34 issue of this Year Book. Of the 534,945 horses in the State at that date, 7,467 were returned as stallions, 265,376 as geldings, and 262,102 as mares. Stud stock numbered 4,685 and racing stock 8,432, and there were 299,408 draught horses, 185,380 light horses, and 37,040 ponies; and 472,160 of the total, or 88.3 per cent., were horses aged three years or more.

#### OTHER LIVE STOCK.

Particulars of the number of pigs in the State are shown in table 684 of this chapter, and in the chapter relating to dairying.

The recorded number of goats in New South Wales at 31st March, 1938, was 18,669, including 1,717 Angora goats. Under the provisions of the Dog and Goat Act, 1898, the use of dogs or goats for purposes of draught is prohibited.

In New South Wales camels are used principally as carriers on the Western Plains, but their number, though varying from year to year, is declining. The number at 31st March, 1938, was only 361, as compared with 1,792 at the close of the year 1913.

Donkeys and mules are not used extensively in New South Wales, the numbers in 1938 being 198 donkeys and 27 mules. Most of these are situated in the Western Division, where they are used for purposes of transport. Movements across the border cause marked fluctuations in the number in the State.

#### PRICES OF LIVE STOCK.

The following statement shows the average prices of fat stock in the metropolitan saleyards at Flemington during certain recent years in com-

parison with 1913. The averages stated are the mean of the monthly prices in each calendar year, which are published in the Statistical Register.

TABLE 712.—Average Prices of Fat Stock, 1913 to 1938.

Stock.	1913.	1928.	1929.	1931.	1932.	1935.	1936.	1937.	1938.
Cattle—	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Bullocks and steers—Prime	10 18	13 13	15 2	9 12	9 0	9 15	9 16	11 0	12 2
medium ... ..	10 18	10 10	11 10	7 11	6 16	7 9	7 10	8 7	9 7
Cows and heifers—Prime ...	6 19	10 10	11 10	7 11	6 16	7 9	7 10	8 7	9 7
Sheep—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Merino wethers—Prime ...	19 6	30 9	24 8	12 11	11 1	18 9	22 9	23 8	19 4
Merino ewes—Prime ...	17 4	23 9	19 6	10 6	8 9	16 0	18 10	19 4	15 6
Lambs and suckers, woolly—									
Prime ... ..	15 4	26 4	22 0	12 9	11 1	19 0	21 11	24 7	21 0

Prices of live stock vary from year to year under the influence of seasonal conditions and of the price of wool. In periods of dry weather fat stock are hastened to market and prices decline, but with the advent of relief rains stock are withheld from market for fattening or breeding and prices rise.

As the foregoing table indicates, live stock values declined rapidly between 1928 and 1932; an experience associated with the crisis which affected all forms of rural enterprise throughout the world. Reflecting the marked recovery in wool prices in 1933-34, the market for sheep and lambs improved (apart from a minor check associated with the recession in the price of wool in 1934-35), and in 1937 the average prices for sheep and lambs were about twice the prices in 1932. Many pastoral districts were affected by drought in 1937-38 and the price of wool was low; consequently prices of sheep and lambs declined again. The prices of cattle, on the other hand, were higher than in 1937 owing to a reduction in supplies.

Monthly variations in the prices of typical grades of live stock are shown below:—

TABLE 713.—Monthly Prices of Live Stock, 1936 to 1938.

Month.	Bullocks and Steers. Prime medium weight.			Merino Sheep. Prime wethers.			Prime Lambs and Suckers.		
	1936.	1937.	1938.	*1936.	1937.	1938.	1936.	1937.	1938.
January ...	£ s.	£ s.	£ s.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
February ...	10 19	9 16	12 1	18 7	25 2	17 8	19 2	23 8	20 1
March ...	10 9	9 19	11 1	22 7	23 8	17 9	20 7	23 6	20 11
April ...	8 19	10 4	11 1	22 7	22 9	18 0	20 10	24 8	21 1
May ...	8 11	10 2	11 0	23 3	25 0	19 6	20 5	24 6	22 3
June ...	8 18	10 2	11 8	24 11	28 3	24 0	20 3	27 9	24 6
July ...	9 11	9 18	12 1	29 3	27 11	26 5	22 8	26 10	23 11
August ...	10 4	11 2	14 7	25 11	29 7	26 4	26 9	29 9	23 5
September ...	10 5	12 12	14 17	25 0	25 10	20 0	26 0	29 1	23 0
October ...	9 13	12 14	13 8	20 2	18 10	16 5	22 5	21 8	18 7
November ...	9 17	13 7	11 15	19 5	16 0	13 7	21 9	21 0	16 10
December ...	9 14	12 1	10 19	20 9	16 10	13 4	22 5	20 2	16 10
Average for year ...	9 16	11 0	12 2	22 9	23 8	19 4	21 11	24 7	21 0

\* Prime heavy.



The quantity of wool carried affects the price of sheep considerably. As a general rule sheep at market in January and February have been shorn, during March and April they have growing fleece, from May to August they are woolly, and from September to the end of the year both shorn and woolly sheep are marketed. There is, of course, considerable variation from these periods owing to the fact that shearing usually extends from May to November.

Comparison of the course of prices may be made with the monthly rainfall index and the average monthly prices of wool published on earlier pages.

## SLAUGHTERING.

The slaughter of live stock for sale as food, either for local consumption or for export, is permitted only in places licensed for the purpose.

The following table shows the average number of slaughtering establishments and the number of stock slaughtered in the State in quinquennial periods since 1897 and particulars for each of the last five years. The figures relating to the establishments prior to 1921 are in excess of the actual number, as they include a large number of butchers' shops in country districts.

TABLE 714.—Slaughtering, 1901 to 1937-38.

Period.	Slaughter-houses. No.	Stock Slaughtered in Establishments and on Farms and Stations.							Pigs.
		Sheep.			Cattle.				
		Sheep.	Lambs.	Total.	Bullocks. *	Cows.	Calves.	Total.	
Average—		Thousands.							
5 Years ended—									
December, 1901 ...	1,780	4,898	158	5,026	231	117	22	370	214
„ 1906 ...	1,587	3,760	188	3,948	201	87	20	308	238
„ 1911 ...	1,275	5,780	389	6,169	260	198	42	440	251
June, 1916† ...	1,192	5,279	476	5,755	306	217	64	587	278
„ 1921 ...	926	3,788	337	4,125	275	196	55	466	296
„ 1926 ...	1,077	3,625	809	4,434	397	218	139	754	348
„ 1931 ...	1,078	4,272	1,364	5,636	312	246	154	712	421
March, 1936 ...	1,132	4,581	2,309	6,890	323	218	292	833	488
Year ended—									
March, 1934 ...	1,116	4,427	2,737	7,164	288	207	270	765	461
„ 1935 ...	1,180	4,437	2,373	6,810	349	251	371	971	505
„ 1936 ...	1,124	3,773	2,304	6,077	369	233	444	1,096	596
„ 1937 ...	1,118	3,837	2,580	6,417	372	328	486	1,186	614
„ 1938 ...	1,076	4,183	2,677	6,860	387	377	458	1,222	537

\* Includes a small number of bulls. † 4½ years.

The slaughtering of sheep was not restored to the high pre-war level until 1932-33, when there was renewed activity in the export of mutton and lamb (principally the latter), fostered to some extent by the low price of wool. The number of cattle slaughtered has increased almost consistently throughout the period under review owing to the development of a local market for veal and an increase in exports encouraged by provision of facilities for transport in chilled condition. There has been a gradual increase in the number of pigs slaughtered.

The following summary shows the distribution of slaughtering operations in New South Wales in the year ended 31st March, 1938. For purposes of classification in this table the term "abattoirs" relates to establishments in which 100,000 or more sheep and lambs were slaughtered. The Newcastle District Abattoir is included under the heading "Other Abattoirs," and all

licensed slaughter-houses, except country abattoirs, are included under the heading, "Country Slaughter-houses." The slaughter for consumption on rural holdings is shown under the heading "Station and Farms."

TABLE 715.—Slaughtering, 1937-38.

District and Establishments.	Sheep.	Lambs.	Cattle.			Pigs.
			Bullocks.	Cows.	Calves.	
State Abattoirs ... ..	1,570,662	1,361,519	132,809	120,685	141,383	175,243
Other Abattoirs ... ..	740,674	1,032,462	73,395	62,376	68,542	62,796
Total Abattoirs ... ..	2,311,336	2,393,981	206,204	183,661	209,925	238,039
Country Slaughter-houses ...	901,136	217,942	167,540	185,884	242,128	288,717
Stations and Farms ... ..	970,032	65,334	13,514	7,672	5,801	10,112
Grand Total ... ..	4,182,504	2,677,257	387,258	377,117	457,854	536,868

Country killing for purposes of export or metropolitan consumption is not considerable.

In country towns licensed slaughter-houses are inspected by a local officer appointed and controlled by the Local Government authorities. In Newcastle a public abattoir was established in 1912 under control of a board, elected by the councils of the local areas in the district.

In the metropolitan area stock is slaughtered at the State Abattoirs at Homebush Bay. Animals sold at Flemington are inspected before being killed and those found to be diseased are destroyed, while "doubtful" beasts are marked for further special attention at the abattoirs. There is a staff of inspectors at the State Abattoirs and inspectors are stationed at private slaughtering premises throughout the County of Cumberland. The operations of the inspectorial staff are supervised by the veterinary officers of the Metropolitan Meat Industry Commission, who pay regular visits to the different establishments.

Particulars of stock slaughtered at the State Abattoirs, Homebush Bay, during recent years are shown in the following statement:—

TABLE 716.—Stock Slaughtered at the State (Metropolitan) Abattoirs, 1928 to 1938.

Year ended 30th June.	Cattle.	Calves.	Sheep.	Lambs.	Pigs.
1928 ... ..	225,785	111,693	1,611,191	805,596	179,531
1929 ... ..	230,153	116,757	1,381,506	690,753	176,053
1930 ... ..	190,646	118,478	1,851,434	923,623	187,988
1931 ... ..	157,117	103,252	1,808,259	904,129	184,029
1932* ... ..	175,613	89,156	2,012,245	1,006,122	168,256
1933* ... ..	182,262	88,916	2,268,750	1,134,375	165,627
1934* ... ..	162,226	91,585	1,522,225	1,613,431	167,995
1935* ... ..	197,496	126,332	1,752,247	1,427,294	155,020
1936* ... ..	208,514	146,268	1,369,325	1,404,901	173,032
1937* ... ..	235,986	150,880	1,611,244	1,373,811	184,811
1938* ... ..	253,494	141,383	1,570,662	1,361,519	175,243

\* Year ended 31st March.

Certain aspects of the local meat trade are discussed in the chapter "Food and Prices" of this Year Book.

Prices of Meat, Sydney.

The following table shows the average wholesale prices of meat in Sydney in each month since January, 1935:—

TABLE 717.—Wholesale Prices of Meat, Sydney, Monthly 1935 to 1938.

Month.	Beef (Ox) per lb.								Mutton and Lamb, per lb.							
	1935.		1936.		1937.		1938.		1935.		1936.		1937.		1938.	
	F.	H.	F.	H.	F.	H.	F.	H.	M.	L.	M.	L.	M.	L.	M.	L.
January ...	d. 2.1	d. 4.0	d. 3.1	d. 5.4	d. 2.4	d. 4.5	d. 2.8	d. 5.7	d. 3.5	d. 5.6	d. 4.1	d. 6.1	d. 3.9	d. 6.5	d. 3.6	d. 6.3
February ...	1.9	3.6	2.5	4.9	2.5	4.3	2.8	5.6	2.8	5.4	4.2	6.3	3.3	6.0	3.9	6.3
March ...	1.9	3.7	2.1	4.6	2.5	4.1	3.0	5.5	2.4	5.2	4.1	6.3	3.5	6.1	3.2	5.9
April ...	2.0	3.7	1.9	3.4	2.3	3.9	3.3	5.6	2.4	5.1	3.9	6.2	3.5	6.1	3.5	6.0
May ...	2.0	3.7	1.9	3.4	2.2	3.7	2.9	5.0	3.0	5.6	3.2	5.7	3.2	6.0	3.6	6.2
June ...	2.3	3.8	2.8	4.1	2.3	3.7	3.4	5.5	3.0	5.6	3.8	6.4	4.0	6.7	4.7	7.3
July ...	3.1	4.4	2.8	4.1	2.5	3.9	3.7	5.9	4.1	5.9	4.5	7.0	4.1	6.9	5.0	7.7
August ...	3.0	4.8	2.5	4.4	2.6	4.5	4.1	6.5	4.7	6.5	4.8	8.1	4.3	7.2	4.9	7.2
September ...	3.2	5.3	2.6	4.4	2.9	5.4	4.1	6.9	4.4	5.7	4.3	7.4	4.9	7.2	4.0	6.9
October ...	3.0	5.2	2.4	4.1	3.0	5.9	3.6	6.2	4.0	6.0	4.0	6.6	4.3	6.0	3.1	6.5
November ...	2.6	4.8	2.2	3.7	2.9	5.9	3.3	6.0	4.0	5.9	3.3	5.7	3.8	5.9	3.2	5.9
December ...	2.3	4.8	2.3	4.2	2.7	5.4	3.1	5.4	3.5	5.6	3.5	6.1	3.8	6.5	3.1	6.0
Average ...	2.5	4.3	2.4	4.2	2.6	4.6	3.3	5.8	3.5	5.7	4.0	6.5	3.9	6.4	3.8	6.5

F—Fores; H—Hinds. M—Mutton; L—Lamb.

The average annual wholesale prices of meat in Sydney and of frozen Australian meat in London in pre-war years and in 1921 and later years are shown in the following table:—

TABLE 718.—Wholesale Prices of Meat, Sydney and London.

Year.	Sydney.				London.	
	Beef (Ox).		Mutton.	Lamb.	Beef Hinds (Frozen).	Mutton (Frozen).
	Fores.	Hinds.				
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
	d.	d.	d.	d.	d.	d.
1911 ...	1.7	2.7	2.0	2.7	3.5	3.2
1912 ...	2.1	3.5	2.9	3.7	3.6	3.3
1913 ...	2.4	3.4	3.0	3.9	4.0	4.0
1921 ...	2.2	5.6	4.2	6.8	6.5	7.5
1926 ...	2.3	5.1	4.0	6.2	4.9	4.6
1927 ...	2.8	5.8	3.9	6.2	5.0	4.4
1928 ...	2.8	5.3	4.5	6.7	5.4	5.1
1929 ...	4.3	6.9	4.4	6.4	4.7	5.5
1930 ...	4.5	7.0	3.6	5.6	5.5	4.2
1931 ...	2.4	5.0	2.6	4.6	3.5	3.5
1932 ...	2.3	4.2	2.3	3.9	3.5	3.0
1933 ...	2.6	4.7	2.6	4.3	3.1	3.5
1934 ...	2.3	4.2	3.6	5.7	3.4	4.1
1935 ...	2.5	4.3	3.5	5.7	3.8	3.4
1936 ...	2.4	4.2	4.0	6.5	4.0	4.2
1937 ...	2.6	4.6	3.9	6.4	4.2	4.0
1938 ...	3.4	5.8	3.8	6.5	4.4	3.7

## MEAT WORKS.

Apart from slaughtering, important subsidiary industries in the handling of meat have arisen in the form of refrigerating and meat-preserving works. The extent of these activities, however, is subject to marked seasonal fluctuations. Particulars of the numbers of sheep and cattle handled in the various works, and of the output during the past ten years are shown below:—

TABLE 719.—Meat Works 1929 to 1938.

Year.	Carcases etc. Treated.				Output of Meat Preserving Works.		
	Refrigerating Works.		Meat Preserving.		Tinned Meat.		By-Products, etc
	Cattle.	Sheep.	Sheep.	Meat and Sundries.	Weight.	Value.	Value.
	No.	No.	No.	lb. (000).	lb. (000)	£	£
1928-29	51,410	718,571	55	10,681	4,251	172,627	70,524
1929-30	48,421	1,132,552	1,416	10,979	4,185	162,408	70,238
1930-31	30,261	1,327,692	3,232	10,472	4,158	149,387	31,459
1931-32	42,227	2,127,645	1,046	13,985	5,814	169,581	78,522
1932-33	60,627	1,818,696	13,083	19,881	7,522	187,494	96,555
1933-34	46,206	2,053,430	2,829	11,515	4,910	148,030	53,522
1934-35	97,337	2,210,908	1,790	13,807	5,479	162,596	28,808
1935-36	71,447	1,617,502	762	9,040	4,338	141,635	41,025
1936-37	123,741	2,527,661	11,872	9,945	5,355	186,902	39,594
1937-38	146,630	2,493,970	39,288	7,825	5,299	194,082	35,368

Included in the meat and sundries treated in meat preserving works in 1937-38 were 5,285,551 lb. of beef, 1,229,555 lb. of mutton, and 1,309,501 lb. of sheep and ox tongues.

Further information regarding meat works is contained in the chapter Factories of this Year Book.

## MEAT EXPORT TRADE.

The meat export trade commenced to assume importance in New South Wales toward the end of the nineteenth century, when the export of frozen meat became possible through the provision of refrigerated space in ocean steamers.

The oversea export trade has grown considerably, although its progress has been subject to vicissitudes. Especial attention is given to preparation and transport of meat for export in order to ensure a high standard in the product. Stringent regulations are issued by the Department of Commerce regarding inspection and shipment of meat exported and work is closely supervised by the Commonwealth veterinary authorities. All stock killed for export are examined, and meat which has been in cold storage is re-examined prior to shipment. In all the large modern steamers visiting the ports of New South Wales refrigerated space has been provided.

The beef export trade of Australia has been handicapped until recently by being limited to beef in frozen condition, whereas South American suppliers were able to land large quantities of chilled beef (which commands considerably higher prices) in British markets. During 1932, mainly as a result of the work of Low Temperature Research Station at Cambridge,

a method was evolved whereby chilled meat might be kept for periods sufficiently long for transport from Australia. A number of vessels have been specially equipped for the carrying of chilled cargoes, and exports of chilled beef to the United Kingdom from Australia in 1937-38 amounted to 524,000 cwt., including about 3,000cwt. from New South Wales.

The surplus volume of stock available for slaughter for export depends mainly upon the season, as in periods of scarcity the local demand absorbs the bulk of the fat stock marketed.

The quantity of frozen, chilled and preserved meat exported to all oversea destinations in various years since 1891 is shown below. Ships' stores amounting annually to several millions of pounds in weight, are not included in the table:—

TABLE 720.—Export of Frozen or Chilled Meat, 1891 to 1938.

Year.	Frozen or Chilled.				Preserved.		Value of all Meat Exported.†
	Beef.	Mutton and Lamb.	Total Weight.	Total Value.	Weight.	Value.	
	cwt.	cwt.	cwt.	£	lb.	£	£
1891	*	*	105,013	101,828	6,509,928	85,629	201,421
1896	26,529	559,507	586,036	294,596	14,365,300	187,957	562,389
1901	115,050	351,516	466,566	541,525	10,086,940	209,697	914,573
1906	32,640	455,165	487,805	579,294	3,121,933	62,307	724,048
1911	65,097	535,259	600,356	753,155	20,783,779	401,384	1,291,404
1915-16	7,000	236,099	243,099	562,262	4,087,618	159,711	771,502
1920-21	110,727	166,039	276,766	937,040	4,479,460	235,801	1,225,354
1925-26	44,172	258,444	302,616	999,243	3,786,003	126,884	1,177,712
1927-28	31,464	157,775	189,239	474,933	2,621,283	93,308	631,711
1928-29	63,149	202,173	265,322	702,449	2,534,832	82,928	857,535
1929-30	46,681	308,427	355,108	894,408	2,867,259	117,637	1,051,057
1930-31	19,019	327,757	346,776	663,690	2,494,380	85,669	785,827
1931-32	116,375	665,738	782,113	1,433,036	4,004,221	105,190	1,569,240
1932-33	67,822	533,118	600,940	931,138	5,932,097	150,370	1,112,203
1933-34	44,925	612,584	657,509	1,423,483	3,574,964	99,159	1,553,897
1934-35	141,841	616,320	758,161	1,775,990	3,449,602	93,874	1,923,860
1935-36	92,557	437,071	529,628	1,395,167	3,662,878	120,615	1,572,908
1936-37	123,716	590,991	714,707	1,751,082	3,562,768	113,288	1,928,926
1937-38	161,395	554,319	715,714	1,763,507	4,230,519	144,406	1,978,312

\* Not available.

† Total of foregoing with addition of Bacon and Ham, Pork, and Fresh and Smoked Meat.

### Meat Export Control.

Under the Meat Export Control Act, 1935, an Australian Meat Board has been set up with representatives of the Commonwealth Government, producers, publicly owned abattoirs and freezing works, co-operative mutton and lamb freezing works, and exporters. There are also voluntary State meat advisory committees working in association with the Board. The Act gives the Board power to recommend standards of quality and grades and methods of treatment and handling meat for export, to regulate shipments, arrange shipping and insurance contracts, advise as to the allocation of quantities of meat in any export programme which may be fixed from time to time, advertise Australian meat overseas and foster scientific research. The Board is required to maintain a representative in London. To enable effective export control to be maintained, it is prescribed that meat be exported only under license or Ministerial permit, and returns must be furnished to the Board as required.

A system of uniform standards of quality and grading and labelling of chilled and frozen meats has been introduced. A Meat Export Fund has been constituted to provide for the administrative expenses and research. All levies under the Meat Export Charges Act, 1935, are paid to the fund.

The charges payable under the Act on meat exported (unless specially exempted) are:—For beef—hindquarters, forequarters and crops,  $\frac{1}{2}$ d. each; piece beef, per 165 lb.,  $\frac{1}{2}$ d.; boneless beef, per 110 lb.,  $\frac{1}{2}$ d.; veal, carcasses,  $\frac{1}{2}$ d. each; piece veal, per 70 lb.,  $\frac{1}{2}$ d.; boneless veal, per 50 lb.,  $\frac{1}{2}$ d. On mutton the charge is  $\frac{1}{2}$ d. per carcass or for each 45 lb. weight of part carcasses, and on lamb a similar charge at  $\frac{3}{4}$ d. was reduced to  $\frac{1}{2}$ d. as from 11th August, 1938. Pork carries a charge of 1d. per carcass and for each 100 lb. of portions of carcasses. Though provision is made for a charge of 1d. for each 100 lb. of canned meat, it has been exempted from the levy. All meat exported to the Pacific Islands and as ship's stores is also exempted from export charges.

Charges collected for the year ended 30th June, 1938, amounted to £25,594, of which £6,159 was paid in New South Wales. At that date the unexpended funds of the Board amounted to £39,385. The Board pays £500 annually to the Council of Scientific and Industrial Research to assist its research in matters related to meat export.

In co-operation with other marketing organisations the Meat Board secured an agreement with the Australian Oversea Transport Association relating to ocean freight rates. The freight rate on chilled beef was reduced under the agreement by one-sixteenth of a penny per lb. as from 1st July, 1937, and on other meats the existing rates are to remain unaltered for three years as from that date.

#### *Exports of Meat to Great Britain.*

Since 1933 the British Government has taken action to safeguard the home livestock industry and to raise prices of meat primarily in the interest of British farmers. Supplies of meat to the British market were given special consideration when the Ottawa Agreements were negotiated, and the principle of quantitative restriction of exports (conserving an expanding share to the Empire countries) was accepted. Australia undertook that exports of frozen mutton and lamb from the Commonwealth in 1933 would not exceed the quantity imported into Great Britain during 1931-32, and to endeavour that exports of frozen beef would not exceed the quantity exported in 1931-32 by more than 10 per cent. The British Government agreed that no restriction upon the importation of meat from Australia would apply until after June, 1934. Supplies of foreign frozen mutton, lamb and beef were reduced by progressive quarterly steps to 65 per cent. of the 1931-32 quantities, and importation of foreign chilled beef was not permitted to exceed the 1931-32 level, and in fact was restricted to a figure ranging about 10 per cent. below that level.

As a result of these arrangements there was an improvement in the prices of mutton and lamb. But a material increase in the price of beef was not achieved, partly because supplies from Australia were not fully regulated as intended, and, to some extent, owing to the tendency for the British consumer to use mutton and lamb in place of beef.

After June, 1934, the right of the British Government to regulate supplies from Australia became effective and imports into Great Britain became subject to control as from 1st January, 1935. Thus the quantity which may be shipped from Australia to arrive in Great Britain in certain periods is determined in the light of anticipated supplies to the British market.

The determination of quantities is the subject of constant negotiation between the British and Australian authorities. It was arranged that, beginning with 1936-37, the quantity of mutton and lamb to be imported into the United Kingdom would be fixed for the yearly period, 1st October to 30th September, so as to avoid an unduly large carry-over from one year to another in the event of a late season.

The actual quantities of beef, mutton and lamb imported into the United Kingdom from the Commonwealth in various quarterly periods are shown in the subjoined table.

TABLE 721.—Australian Meat Imported into United Kingdom, 1936 to 1938.

Quarter.	Mutton and Lamb.	Beef and Veal.*	
		Frozen and Chilled.	Of which Chilled.
	Thousands	of cwts.	
1936—1st & 2nd } 3rd } 4th }	1,523	577	100
...		774	113
...		452	83
1937—1st	636	394	40
2nd	378	386	132
3rd	271	994	156
4th	558	648	129
1938—1st	654	394	62
2nd	374	583	182
3rd	188	904	176
4th	715	526	98

\* Includes beef and veal offal.

After discussions between the Australian, British and other interested Governments, the British Government announced in July, 1936, the terms of an arrangement which provides for a duty on foreign meat, the proceeds to be used to subsidise British livestock raisers; the duty-free entry of meat from the Dominions; the gradual reduction of foreign imports to a determined degree, and a corresponding increase in the import quotas of the Dominions.

In the oversea trade in frozen meat frozen lamb has largely replaced frozen mutton. In the year 1911 the oversea exports from New South Wales were 1,149,241 carcasses of frozen mutton and 292,258 carcasses of frozen lamb. In 1937-38 the corresponding numbers were, respectively, 600,124 and 1,366,533.

The following comparison of the imports of meat into the United Kingdom indicates the extent to which the Australian producers have increased their share of the British market. Imports of mutton and lamb from Australia increased from 13.6 per cent. in the quinquennium ended 1931 to 22.2 per cent. of total imports in the five years ended 1936, and

reached 27.5 per cent. in 1938. In similar comparisons the ratios of Australian to total imports of beef were 7.4 per cent., 11.9 per cent., and 18.6 per cent.

TABLE 722.—Imports of Meat into the United Kingdom, 1928 to 1938.

Year.	Beef (000 omitted) Frozen and Chilled.				Mutton and Lamb (000 omitted).			
	South American.	Australian.	Other Countries.	Total.	South American.	New Zealand.	Australian.	Total.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1928	532	51	26	609	113	140	27	281
1929	518	46	19	583	96	137	30	282
1930	506	40	33	579	94	165	41	319
1931	509	57	33	599	92	173	77	355
1932	482	48	38	568	77	196	58	348
1933	447	58	49	554	79	187	65	333
1934	436	79	68	583	63	178	81	324
1935	435	70	68	573	62	182	89	335
1936	446	87	50	583	45	177	75	315
1937	444	114	59	617	63	180	94	340
1938	443	114	56	613	63	184	95	345

\* Including other countries.

### Prices of Meat, London.

The movement of the London prices for Australian frozen meat during the last four years in comparison with 1913 and 1928 is shown below. The monthly quotations represent the averages of weekly top prices and the annual averages are the means of the monthly averages. All prices are in sterling.

TABLE 723.—Prices of Meat, London, 1913 to 1938.

Month.	Frozen Beef (Hinds) per lb.						Frozen Mutton per lb.					
	1913.	1928.	1935.	1936.	1937.	1938.	1913.	1928.	1935.	1936.	1937.	1938.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
January ...	3½	5	3⅞	3⅞	4	4⅜	4½	5¼	4⅜	3⅞	4½	4½
February ...	3½	4⅞	3⅞	4⅞	4½	4½	4	5½	4	4	4⅞	4⅞
March ...	3½	5	3⅞	4½	4½	4½	3⅞	5½	4	4½	3⅞	4
April ...	3½	4⅞	3⅞	4½	4½	*	4	*	3⅞	4⅞	4	3⅞
May ...	3½	5½	3⅞	4½	*	*	3½	*	3	4⅞	4	3⅞
June ...	3½	6	3⅞	4	*	*	4	*	3	4½	4	3⅞
July ...	4	6½	3⅞	3⅞	4½	*	4	*	2⅞	4⅞	3⅞	3⅞
August ...	4	6	3⅞	3⅞	4½	*	4	*	2⅞	4	4	3⅞
September ...	4	5½	3⅞	3⅞	4½	*	4	*	3⅞	4½	4	3⅞
October ...	4½	5	3⅞	3⅞	4½	4½	4	5½	3⅞	4⅞	4½	3⅞
November ...	4½	5	3⅞	3⅞	4½	4½	4	4½	3⅞	4½	4	3⅞
December ...	4½	4½	3⅞	4	4½	4½	4½	4½	3⅞	4½	4½	3⅞
Annual Average	4	5⅞	3⅞	4	4½	4⅞	4	5½	3⅞	4½	4	3⅞

\* No quotation.



Australian chilled beef was first quoted on the Smithfield market on June 29th, 1935. Latterly there has been a margin for Argentine ox hinds over Australian ranging from about 3d. to 1d. per lb. Australian producers are giving attention to the breeding of cattle suited to the British market, and to greater efficiency in the handling, grading and transport of Australian beef. Regularity of supplies, also an important factor in the trade, has improved in recent years.

Considerable benefit has accrued to producers as a result of the transport of beef in chilled condition. Average prices paid in London (in English currency) for Australian frozen and chilled beef are indicated below:—

TABLE 724.—Prices of Australian Beef in London, 1936 to 1938.

Year and Type.	Prices in London for Australian Beef (Per lb. Sterling).												Av. for Year.
	Jan.	Feb.	Mar.	Apr.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
1936 Chilled Crops ...	2 $\frac{5}{8}$	...	2 $\frac{5}{8}$	2 $\frac{5}{8}$	2 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{8}$	2 $\frac{5}{8}$	2 $\frac{3}{4}$	2 $\frac{3}{8}$	3	2 $\frac{3}{4}$
Chilled Hinds ...	4 $\frac{1}{2}$	...	3 $\frac{3}{4}$	4	3 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{8}$	4 $\frac{5}{8}$	5	4 $\frac{1}{2}$	4 $\frac{5}{8}$	5	4 $\frac{3}{8}$
Frozen Hinds ...	3 $\frac{7}{8}$	4 $\frac{1}{8}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4	3 $\frac{3}{4}$	3 $\frac{3}{4}$	3 $\frac{7}{8}$	3 $\frac{7}{8}$	3 $\frac{7}{8}$	4	4
1937 Chilled Crops ...	3	3 $\frac{1}{4}$	3 $\frac{5}{8}$	3 $\frac{3}{4}$	4 $\frac{1}{8}$	3 $\frac{7}{8}$	3 $\frac{3}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	3 $\frac{7}{8}$	3 $\frac{5}{8}$	3 $\frac{1}{2}$
Chilled Hinds ...	4 $\frac{3}{4}$	5	4 $\frac{1}{4}$	4 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{1}{8}$	4 $\frac{3}{4}$	5 $\frac{5}{8}$	5 $\frac{1}{8}$	5 $\frac{3}{8}$	5 $\frac{3}{8}$	5 $\frac{1}{2}$	5
Frozen Hinds ...	4	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{2}$	...	...	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$
1938 Chilled Crops ...	3 $\frac{5}{8}$	4	4	3 $\frac{5}{8}$	3 $\frac{1}{4}$	3 $\frac{1}{4}$	3	3	3 $\frac{1}{2}$	3 $\frac{3}{4}$	3 $\frac{3}{4}$	3 $\frac{3}{4}$	3 $\frac{1}{2}$
Chilled Hinds ...	5 $\frac{3}{8}$	5 $\frac{5}{8}$	5 $\frac{1}{4}$	4 $\frac{1}{2}$	4 $\frac{3}{4}$	5	5	4 $\frac{7}{8}$	5 $\frac{1}{4}$	5 $\frac{1}{2}$	5 $\frac{3}{4}$	5 $\frac{3}{8}$	5 $\frac{1}{4}$
Frozen Hinds ...	4 $\frac{3}{8}$	4 $\frac{1}{2}$	5	...	...	...	...	...	...	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{3}{8}$

The average wholesale prices per pound obtained in each of the past ten years for Scottish and frozen mutton sold in London were:—

TABLE 725.—Wholesale Prices of Mutton in London, 1929 to 1938.

Year.	Best Scottish.	New Zealand.	Australian.	Argentine.	Year.	Best Scottish.	New Zealand.	Australian.	Argentine.
	d.	d.	d.	d.		d.	d.	d.	d.
1929	12 $\frac{1}{4}$	6 $\frac{1}{4}$	4 $\frac{3}{8}$	5 $\frac{1}{8}$	1934	10 $\frac{1}{4}$	5	4 $\frac{1}{8}$	4 $\frac{1}{2}$
1930	12 $\frac{3}{8}$	5 $\frac{1}{2}$	4 $\frac{1}{4}$	4 $\frac{5}{8}$	1935	10	4 $\frac{1}{2}$	3 $\frac{3}{8}$	4
1931	10 $\frac{7}{8}$	4 $\frac{1}{2}$	3 $\frac{1}{2}$	4	1936	9 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{1}{4}$	4 $\frac{1}{8}$
1932	*	3 $\frac{1}{2}$	3	3 $\frac{1}{4}$	1937	10 $\frac{7}{8}$	5 $\frac{1}{8}$	4	4 $\frac{1}{4}$
1933	*	4	3 $\frac{1}{2}$	3 $\frac{1}{4}$	1938	8 $\frac{3}{8}$	5	3 $\frac{3}{4}$	4 $\frac{1}{8}$

\* Not available.

## HIDES AND MISCELLANEOUS PASTORAL PRODUCTS.

The minor products accruing from pastoral occupations include skins and hides, tallow, lard and fat, furs, hoofs, horns, bones, bone-dust, glue pieces, and hair. Some of these are discussed in the chapter relating to factories, and the following table contains particulars of the oversea exports of these products at intervals since 1901:—

TABLE 726.—Export of Pastoral Products, 1901 to 1938.

Products.	Oversea Exports.					
	1901.	1911.	1920-21.	1930-31.	1936-37.	1937-38.
<b>Skins and Hides—</b>						
Cattle ... .. No.	91,084	263,306	219,070	520,917	1,136,280	906,114
Horse ... .. No.	472	1,392	140	3,618	500	600
Rabbit and Hare ... lb.	*	5,795,839	3,387,480	4,679,429	4,195,796	2,753,341
Sheep ... .. No.	*	2,410,543	1,399,388	3,302,037	3,811,482	3,772,591
Other ... .. £	184,522	296,672	690,662	179,819	185,507	190,902
Bonedust ... .. cwt.	66,473	116,733	59,670	6	19	10
Bones ... .. cwt.	3,207	6,807	11,152	5,646	7,804	6,824
Furs (not on the skin) ... £	767	117	...	...	...	...
Glue-pieces and Sinews ... cwt.	12,862	20,580	46,735	3,106	245	104
Glycerine and Lanoline ... lb.	*	138,347	1,135	96,628	213,684	51,044
Hair (other than human) ... lb.	165,562	255,819	92,165	86,206	86,411	76,628
Hoofs ... .. cwt.	2,215	3,733	3,159	2,885	4,464	5,063
Horns ... .. cwt.	12,532	13,475	14,548	4,325	4,582	5,930
Lard and Refined Animal Fats lb.	13,633	227,000	2,191,819	186,991	569,808	639,449
Leather ... .. £	374,541	334,996	524,078	258,178	483,612	408,250
Sausage-casings ... .. £	2,567	52,562	99,653	128,861	104,178	118,974
Tallow (unrefined) ... .. cwt.	305,227	612,911	233,891	227,993	251,713	160,144
Total Value of above-mentioned minor Pastoral Products exported ... .. £	1,223,728	2,486,492	3,385,838	2,149,714	3,889,683	3,218,156

\* Not available.

Skins and hides are the most important of the items included in the table, and the number and value of these vary in accordance with slaughtering operations, and in the case of rabbit skins, etc., as a result of prices obtainable.

## VALUE OF PASTORAL PRODUCTS EXPORTED.

The total value of goods exported oversea, which may be classed as pastoral products or by-products (apart from dairy and farmyard products), is very large. Particulars of the value, as declared upon export, of such products exported oversea from New South Wales during the five years ended June, 1925, and in certain recent years, are shown in the following table:—

TABLE 727.—Value of Pastoral Exports, 1921 to 1938.

Commodity.	Average, 1921-25.	1931-32.	1932-33.	1936-37.	1937-38.
	£	£	£	£	£
Wool ... ..	20,851,506	13,896,532	24,255,820	27,631,888	19,117,089
Meat ... ..	1,200,785	1,569,240	1,553,897	1,928,926	1,973,129
Live stock ... ..	60,903	54,609	44,506	64,476	81,530
Other* ... ..	4,163,053	1,676,092	2,246,050	3,889,683	3,218,156
Total ... ..	26,276,247	17,196,473	28,100,273	33,514,973	24,389,904
Proportion of total exports oversea†	per cent. 54·7	per cent. 55·8	per cent. 71·4	per cent. 64·7	per cent. 57·3

\* Items listed in previous table.

† Excluding bullion and specie.

The above figures are not comparable with those relating to the value of production which follow, since they contain items which have been enhanced in value by manufacture and other processes and the products are not valued as at the place of production, but on the basis of f.o.b. Sydney. Moreover, the figures relate to year of export and the estimates of the value of production to the year of production.

## VALUE OF PASTORAL PRODUCTION.

It is difficult, from the nature of the industry, to estimate the return from pastoral pursuits as at the place of production; but, taking the Sydney prices as a standard, and making due allowance for incidental charges, such as railway carriage or freight and commission, the farm values of pastoral production from the different kinds of stock during various years since 1901 are shown in the following table:—

TABLE 728.—Value of Pastoral Production, 1901 to 1937-38.

Year.	Estimated Annual Farm Value of Pastoral Production (000 omitted).							
	Sheep.			Cattle.		Horses.	Total.	Per head of Population.
	Wool.	Slaught- ered.	Exported.	Slaught- ered.	Exported.			
	£	£	£	£	£	£	£	£ s. d.
1901	8,425	2,071	...	1,229	...	722	12,447	9 2 1
1906	13,792	3,514	...	1,520	...	885	19,711	13 5 6
1911	14,085	2,811	...	1,689	...	2,001	20,586	12 7 3
1915-16	13,298	4,295	...	3,729	...	2,172	23,494	12 8 1
1920-21	13,023	2,313	...	2,973	...	2,027	20,336	9 14 7
1926-27	33,234	2,591	2,159	4,934	(—) 239	232	42,911	18 1 4
1927-28	33,874	2,640	1,941	4,888	(—) 1,980	231	41,594	17 1 10
1928-29	30,879	2,801	1,576	5,814	(—) 583	192	40,679	16 7 6
1929-30	18,099	2,732	1,243	4,508	(—) 334	107	26,355	10 8 3
1930-31	13,705	1,795	364	2,767	(—) 899	103	17,835	7 0 2
1931-32	15,233	1,543	373	2,632	(—) 565	115	19,331	7 10 7
1932-33	16,659	1,113	911	2,615	(—) 69	144	21,373	8 5 0
1933-34	29,951	2,268	733	2,585	(—) 1,020	145	34,662	13 5 3
1934-35	18,045	3,352	421	2,896	(—) 1,001	218	23,931	9 1 8
1935-36	25,408	3,152	1,229	3,780	(—) 78	150	33,641	12 13 3
1936-37	32,091	4,357	805	3,721	(—) 843	175	40,306	15 0 8
1937-38	24,060	4,794	1,718	4,735	(—) 225	175	35,257	13 0 4

(—) Denotes excess of imports.

It is estimated that the value of the principal materials used in the pastoral industry was £1,318,000 in 1937-38 and the depreciation on machinery, £200,000.

## NOXIOUS ANIMALS.

The only large carnivorous animals dangerous to stock in Australia are the indigenous dingo, or so-called native dog, and the fox, which has been introduced from abroad; but graminivorous animals, such as kangaroos, wallabies, hares, and rabbits, particularly the last-named which are of foreign origin, are deemed by the settlers even more noxious. In the latter part of 1920, native dogs became an increasing menace to flocks in the Western Division, and added considerably to the difficulties experienced by graziers in that region. In 1921 a Wild Dog Destruction Act was passed, placing the matter in the control of the Western Land Board. This board

was charged with the maintenance of the border fence between Queensland and New South Wales and with the prosecution of measures calculated to destroy the dingo pest. It also assumed the control of 157 miles of dog-proof fencing formerly administered by the South Australian Government.

During the year ended 31st December, 1938, receipts under the Act were £6,963, including £5,418 collected as rates, and £13,005 was expended; for 1937 the corresponding figures were £7,822, £6,118 and £9,878 respectively. The pest has been so far checked, particularly in the northern portion of the State, that it has been possible to re-stock with sheep holdings which for some time had been used for cattle only. The rate imposed under the Act was reduced from one-fortieth to one-sixtieth of a penny per acre in 1932, and the surplus funds accumulated at the higher rate are being expended to supplement the annual receipts. The credit balance on 31st December, 1938, was £4,956.

### Rabbits.

A brief account of the measures taken to combat the pest was published on page 794 of the Year Book for 1921, and further reference to rabbits was published on page 643 of the Year Book for 1928-29.

The damage caused by the rabbits is compensated to some extent by the use of rabbits for food and of the skins in manufactures, locally and for export.

The following table shows the quantity and value of frozen rabbits and hares, and of rabbit and hare skins exported from New South Wales to countries outside Australia:—

TABLE 729.—Rabbits and Hares—Oversea Exports, 1901 to 1938.

Year.	Exports Oversea.				
	Frozen Rabbits and Hares.		Rabbit and Hare Skins.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	pairs.	£	lb.	£	£
1901	*	6,158	*	9,379	15,537
1906	5,938,518	246,803	7,380,455	293,260	540,063
1911	6,806,246	330,741	5,795,839	295,476	626,217
1915-16	9,487,687	607,711	4,352,640	210,935	818,646
1920-21	2,830,315	301,615	3,387,480	609,570	911,185
1925-26	3,510,311	340,171	11,004,446	2,231,637	2,571,808
1927-28	2,884,026	262,759	9,316,863	1,886,523	2,149,282
1928-29	1,956,508	193,525	8,225,868	1,950,027	2,143,552
1929-30	2,371,506	214,203	5,817,993	1,042,068	1,256,271
1930-31	3,526,033	252,074	4,679,429	415,245	667,319
1931-32	5,064,189	313,029	5,177,334	345,152	658,181
1932-33	6,486,025	323,398	5,447,487	313,111	636,509
1933-34	3,067,935	203,342	7,176,707	672,462	875,804
1934-35	2,769,216	145,144	6,201,754	631,001	776,145
1935-36	1,442,087	83,998	6,177,386	1,157,753	1,241,751
1936-38	330,627	30,013	4,195,796	1,007,870	1,037,883
1937-38	224,027	19,362	2,753,341	647,611	666,973

\* Not available.

The export trade in frozen rabbits and hares has dwindled to small proportions; exports of skins are relatively more important, but the volume is subject to pronounced fluctuations.

*Wire-netting Advances for Rabbit-proof Fences.*

Under the Pastures Protection Act, 1934, advances may be made to settlers for the purchase of wire netting. From funds provided by Parliament, the Minister for Lands may purchase and sell to owners of private land, netting or other materials for use in the construction of rabbit-proof, dog-proof or marsupial-proof fences, or machinery, plant or substances for the destruction of noxious animals. Payment for these materials, etc., with interest, is made by annual instalments extending over such period as the Minister may determine.

The netting, etc., must be used for the purpose indicated, within a specified period, and the fences must be maintained in repair until the debt is extinguished. The purchase money and interest become a charge upon the holding with priority over all mortgages or charges other than debts due to the Crown.

During the year 1937-38, materials were supplied to the value of £15,678, including 286 miles of wire netting, 64 tons of fencing wire and 34 tons of barbed wire. Repayments during the year amounted to £55,839. A sum of £565,000 has been voted by Parliament since 1905 for the purpose of making wire-netting advances. By utilising this sum and re-advancing moneys repaid, the Department of Lands has made advances amounting to £1,413,829 at 30th June, 1938. The amount outstanding in respect of the advances was £425,084 at this date.

In terms of the Advances to Settlers Act, 1923, a trust fund was established by the Commonwealth, from which advances for the purchase of wire-netting may be made to the States. The wire-netting is supplied to the settlers at such price and upon such terms as are prescribed by regulation. The total advances to New South Wales under this Act to 30th June, 1938, amounted to £54,318, and the repayments amounted to £30,824.

## PASTURES PROTECTION BOARDS.

For the purpose of administering the Pastures Protection Act which relates to travelling stock, sheep brands and marks, destruction of rabbits and noxious animals, and certain other matters, the State is divided into 63 Pastures Protection Districts, and in each there is constituted a board of eight directors, elected every three years from among their own number by landholders who pay pastures protection rates. There are also stock inspectors and rabbit inspectors, who are paid from the funds of the Pastures Protection Boards to which they are attached.

Rates to provide funds for the purposes of the boards are levied upon owners of ten or more head of large stock, or 100 or more sheep, at a rate not exceeding fourpence per head of large stock and two-thirds of a penny per head of sheep, but a rebate of one-half may be made to occupiers of holdings enclosed with wire-netting fences which in the opinion of the board are rabbit-proof, provided the holdings have been kept reasonably free from rabbits during the preceding calendar year. The funds so raised may be applied by the boards in defraying expenses incurred in administering the Act, and for any other purpose approved by the Minister. The boards are required each year to pay 3 per cent. of their revenue to the Colonial Treasurer to cover the cost of administration.

Since 1918 the boards have levied rates on travelling stock in the Eastern and Central Divisions to constitute a fund for the improvement of travelling stock and camping reserves under the boards' control.

The boards are empowered also to erect rabbit-proof fences as "barrier" fences wherever they deem necessary, to pay a bonus for the scalps of noxious animals, and to enforce the provisions for the compulsory destruction of rabbits.

#### REGISTRATION OF BRANDS.

The Registration of Stock Brands Act, which came into force on 13th December, 1921, cancelled the registration of all existing brands and provided for re-registration of those which owners desired to retain, upon application being made within a prescribed period. The Act was amended in 1923. Of approximately 143,000 registered large stock brands in existence at the time of passing the principal Act, 43,229 were re-registered, and at 30th June, 1938, excluding transfers and cancellations, etc., the number of individual brands was approximately 72,000. Brands for large stock may be used on either cattle or horses. A registered brand may not be used by any person other than the proprietor.

Sheep brands, of which the registrations are approximately 42,000, are issued for Pastures Protection Districts and may not be duplicated in any one district; the same brand may, however, be issued in several Pastures Protection Districts.

#### ANIMAL HEALTH.

Although diseases of various kinds exist amongst the stock in New South Wales, yet, in common with the rest of Australia, it is free from many of the more serious epizootic and parasitic diseases which cause heavy loss in other pastoral countries. It is, for instance, free from rinderpest, foot and mouth disease, rabies, glanders, sheep scab, and trypanosomiasis. Since the passage of the Stock Diseases Act, in 1923, considerable advance has been made in the control of disease generally. Under this Act certain diseases are made notifiable, and necessary powers are provided for the inspection of stock and for the detention, seizure, treatment, quarantine and destruction of diseased stock.

The work in connection with the inspection of stock for disease is administered by the Department of Agriculture. Veterinary officers and inspectors of stock are stationed at various localities throughout the country, and there are district veterinary officers, each with a group of inspectors under his supervision. By this arrangement such diseases as anthrax and pleuropneumonia may be dealt with expeditiously and the work of the groups of inspectors may be co-ordinated by their senior officers. Careful attention is given by this staff to the inspection of cattle on dairies, particularly those supplying milk for human consumption.

Allowances are provided to enable men who show aptitude for Veterinary Science to undergo training at the University with a view to their appointment to the staff of the Department of Agriculture. During the past two years seven trainees commenced courses in Veterinary Science at the University.

Within recent years a scheme for the creation of accredited tubercle-free herds has been put in operation in certain areas, chiefly municipalities, in various parts of the State. It is required by the Milk Board that raw milk sold in Sydney or Newcastle, must be the product of cows which have passed the tuberculin test. As a result 28,000 animals were tested under the supervision of veterinary officers of the Department of Agriculture, and 1,806 were destroyed.

For research work a well-equipped station is established at Glenfield under the immediate control of the Director of Veterinary Research, with a staff of veterinary officers and laboratory assistants. The operations at this station are co-ordinated with those of the field staff. Movements of livestock interstate are controlled, and a staff of inspectors is maintained where required along the borders. This work is of particular importance along the Queensland border owing to the presence of cattle tick. Power is provided to enable the enforcement of dipping before cattle or horses are allowed to enter New South Wales.

The Council for Scientific and Industrial Research has control of the McMaster Animal Health Laboratory, located in the grounds of the University of Sydney and erected in 1930-31 as a result of a gift of £20,000 by Sir Frederick McMaster. Extensive scientific investigation of matters affecting animal health are undertaken at the laboratory, co-ordinated with similar activities in other States, and in close co-operation with the Department of Veterinary Science of the University of Sydney. The Council has also acquired an area of 1,250 acres at St. Marys to be used mainly as a field station in connection with the laboratory and for genetic work on sheep.

#### *Cattle Tick Eradication.*

The question of cattle tick eradication is a difficult problem confronting the veterinary authorities. The cattle tick first gained access to New South Wales in the early years of the century and continuous efforts have been made to prevent its introduction into clean parts of the State. Although the spread of the tick could not be entirely prevented, restrictive efforts have confined the infestation to a relatively small part of the State, and prevented the introduction of tick fever.

In 1932, however, owing to movements of cattle from one property, a large additional area had to be quarantined as three small infestations were discovered. For the first time in Australia a complete eradication policy was carried out in the tick quarantine areas. The treatment was terminated in June, 1933, and after a period of close inspection to determine its effectiveness, the area was released at the end of June, 1934. Subsequent activities have enabled the lifting of the quarantine in further areas. This work, however, is costly, involving an expenditure of as much as £150,000 per annum. Under an arrangement between the Commonwealth Government and the States of New South Wales and Queensland, the Commonwealth authorities have agreed to contribute a share of the cost, the amounts for each of the four years to 1937-38 being £45,100, £54,450, £48,350 and £44,450. In addition the Commonwealth Government made a further grant of £25,000 in 1937-38 for the construction of dips for tick eradication purposes. The creation of the Cattle Tick Control Commission in 1926 has brought about increased co-ordination between the authorities of the States concerned. The methods of control and eradication are similar to those which have been successful in the United States of America, and include the control of the movement of stock and regular dipping within areas selected for eradication. Dips are provided by the Government, and private dips constructed in accordance with the plans and specifications of the Department are subsidised.

#### *Swine Compensation Act, 1928.*

Following an outbreak of swine fever in 1928, the Swine Compensation Act was passed to provide for the payment of compensation for pigs condemned on account of the presence of certain diseases and for carcasses

condemned in slaughter-houses as unfit for human consumption because of the presence of disease. The funds required for payment of compensation are collected by the sale of swine duty stamps, which are affixed to a register kept at each slaughtering establishment to indicate the number of pigs slaughtered. In this way information is obtained as to the herds likely to be affected with tuberculosis.

During 1937-38 receipts collected under the Act amounted to £22,187 and disbursements to £20,505, of which £20,440 was paid as compensation.

*Veterinary Surgeons Act.*

The Veterinary Surgeons Act came into operation on 5th December, 1923, to provide for the registration of veterinary surgeons, and to regulate the practice of veterinary science. A Board of Veterinary Surgeons has been established to administer the Act, which specifies the qualifications for registration and prohibits practice by unregistered persons.

As at 30th June, 1938, there were registered 238 veterinary surgeons.



## DAIRYING, POULTRY, Etc.

THE natural conditions in parts of New South Wales are highly favourable to the development of the dairying industry. The soil and climate in the coastal portions of the State are suitable for the maintenance of the dairy herds with a minimum of expense and labour, as the rainfall is abundant and the animals do not require housing nor hand-feeding during a long winter, as in cold countries. Natural pasture is generally available throughout the year, and hand-feeding is necessary only in very dry seasons.

Dairying operations in New South Wales are said to have begun during the twenties of last century in the immediate vicinity of Sydney and in the Illawarra districts to supply the population of the metropolis. The development of dairying as a national industry, however, was slow until the introduction of refrigeration enabled producers to overcome disabilities in manufacturing and distributing perishable dairy products in a warm climate and to export the surplus oversea. Pasteurisation and the application of machinery to the treatment of milk and the manufacture of butter, the development of the factory system, and improvements in regard to ocean transport have enabled production to expand; butter has become an important item of the export trade.

In the drier inland divisions, sheep and wheat farming are the main rural industries, and the area devoted to dairying is not extensive. In these districts dairy-farming is undertaken mainly to supply local wants, and a number of well-equipped factories have been established in proximity to inland towns. Dairying is conducted also on the Murrumbidgee and Hay irrigation areas.

In the coastal division 13,168 holdings were used exclusively for dairying in 1937-38 and 4,003 for dairying combined with other purposes. In the other parts of the State, where fodder must be grown for winter feeding the industry is conducted usually in conjunction with agriculture and grazing—there being only 968 holdings used solely for dairying and 2,977 for dairying in combination with other rural pursuits. The extent to which dairying was conducted with wheat farming in 1932-33 and 1935-36 is shown in Table 638.

The total area devoted to dairying in the year 1930-31, the last year for which the particulars are available, was approximately 5,483,000 acres, of which 4,783,000 acres were in the coastal division; of this latter area 2,214,000 acres were in the North Coast and 1,677,000 acres in the Hunter and Manning divisions.

Most of the native grasses of the State are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities. In the winter the natural herbage is supplemented by fodder crops, such as maize, barley, oats, rye, lucerne, and the brown variety of sorghum, or the planter's friend. Ensilage also is made for fodder; the quantity made in each year is not large, although tending to increase. The progress made in fodder conservation of this type is indicated in Table 661. The area of land devoted to sown grasses in March, 1938, amounted to 3,045,037 acres, of which 2,280,479 acres were in the coastal district. The produce of this land is used mainly as food for dairy cattle. The practice of manuring pastures is extending in dairying districts. Particulars relating to the use of manures on pastures are shown in Table 688.

## SUPERVISION OF DAIRYING AND DAIRY PRODUCTS.

Legislation relating to dairying and dairy products has been enacted by the State and the Commonwealth to provide for the supervision of production and distribution and for organised marketing.

The State Acts are the Dairies Supervision Act, 1901-1930; the Dairy Industry Act, 1915-1938; and the Dairy Products Act, 1933-1938. The Federal Acts are concerned mainly with the export trade, viz., the Commerce (Trade Descriptions) Act, 1905-1933; the Dairy Produce Export Control Act, 1924-1938, and the Dairy Produce Export Charges Act, 1924-1937. Legislation relating to the milk supply of Sydney and Newcastle, which is supervised by the Milk Board, is described in the chapter "Food and Prices."

The Dairies Supervision Act, 1901-1930, consolidated laws designed to prevent the spread of disease through unhygienic conditions in the handling of milk and milk products. Under this law all dairymen and milk vendors are required to register their premises with local authorities and the premises are subject to inspection. It is illegal for any person to sell milk or milk products produced on unregistered premises. Reference to the beneficial effects of this law in relation to public health is made in the chapter "Vital Statistics" of this Year Book.

The Dairy Industry Act prescribes that dairy factories and stores must be registered. Cream supplied to a dairy factory must be tested and graded at the factory, and the farmer is paid on the basis of the butter-fat content, or on the amount of commercial butter obtained from his cream. Butter must be graded on a uniform basis and packed in boxes bearing registered brands indicating the quality of the product and the factory where it was produced. The testing and grading at the factory may be done only by persons holding certificates of qualification. By an amending Act of 1938 a Dairy Produce Factories Advisory Committee was constituted to advise the Minister regarding applications for registration of premises as a dairy produce factory. The Minister may refuse any application if he is satisfied registration is opposed to the best interests of the dairying industry in New South Wales.

The State has been divided into ten dairying districts, and in each an experienced dairy instructor is appointed to supervise the dairy factories and to administer the Dairy Industry Act and regulations thereunder. He acts as inspector, instructs the factory managers and cream-graders in matters connected with the industry, and advises the dairy-farmers, especially those supplying cream of inferior quality. He also exercises supervision over the quality of butter produced, and may order structural improvements in factory premises. Usually the number of factories under the supervision of each instructor does not exceed twenty.

Since the Dairy Industry Act came into force there has been marked improvement in factory premises and in the quality of the butter produced. During the year 1938—when the factory output was about 105,000,000 lb.—91 per cent. was graded as choicest grade.

The supervision of dairy products for the oversea export trade is conducted by officers appointed by the Federal Government, under the Commerce (Trade Descriptions) Act of 1905-1933. Since 1st August, 1924, the Commonwealth standardisation mark (the kangaroo) has been stamped on all "choicest" quality butter after inspection by the Commonwealth graders. By regulation six grades have been fixed of export butter. A national brand is prescribed for "choicest" quality, and a uniform brand for other grades which indicates the individual factory and the State of origin. The trade description for "choicest" must contain the word "Australia" in the centre

of an outline map of Australia; the name of the State; the registered number of the factory; and the net weight. In addition, the trade mark of the factory may be added to the approved design.

During the year ended June, 1938, Federal officers examined 647,126 boxes of New South Wales butter for oversea export from Sydney and Newcastle. Of these 505,846 boxes, or 78.2 per cent., were classed as choicest, 88,815 as first quality, 46,319 boxes as second quality, and 1,924 boxes as pastry butter; 4,222 boxes were prohibited from export.

The following table shows the quantity and proportion of butter of "choicest" grade included in the exports of the various States in 1926-27, 1930-31, and in each of the last three years. The figures include tinned, bulk and pat butter.

TABLE 730.—Butter Exported from various States, 1927 to 1938.

State.	1926-27.	1930-31.	1935-36.	1936-37.	1937-38.
New South Wales (Boxes, 56 lb)	382,485	629,869	521,921	376,114	505,846
Percentage of total... ..	60.6	87.0	76.3	80.0	78.2
Victoria (Boxes, 56 lb.) ...	734,345	1,133,075	935,401	1,110,731	918,998
Percentage of total... ..	79.8	37.5	56.9	64.9	63.2
Queensland (Boxes, 56 lb.) ...	486,122	1,240,966	832,871	233,509	939,267
Percentage of total... ..	54.5	61.4	55.0	23.5	61.4
South Australia (Boxes, 56 lb.)	35,686	50,795	48,387	11,407	9,320
Percentage of total... ..	63.6	15.6	29.3	7.3	4.9
Tasmania (Boxes, 56 lb.) ...	22,598	74,121	22,051	23,269	36,932
Percentage of total... ..	78.0	21.3	26.2	36.6	52.5
Western Australia (Boxes, 56 lb.) ... ..	Nil.	Nil.	1,798	932	4,766
Percentage of total... ..	...	...	4.0	2.7	7.0

In 1926-27, 60.6 per cent. of the total quantity of butter submitted by New South Wales for export was graded as "choicest." The proportion increased to 87 per cent. in 1930-31, but was lower in subsequent years. Nevertheless the proportion of choicest grade in New South Wales has been far in excess of the corresponding percentage in the other States, and has remained relatively high notwithstanding variations in the seasons.

#### DAIRYING ORGANISATIONS.

Most of the dairy factories in New South Wales are conducted on co-operative principles by associations of producers. Out of this system a number of organisations have been developed for promoting the interests of producers and for regulating domestic and export trade. Some of these organisations are federal in character.

#### *Advisory Boards.*

The principal advisory bodies are the Australian Agricultural Council, the Standing Committee on Agriculture, and State advisory boards. The State Advisory Board in New South Wales consists of official representatives of the State and Commonwealth Governments and six representatives of producers. The constitution and functions of the federal bodies named are described on page 683 of this volume.

#### *Export and Marketing Organisations.*

The Australian Dairy Produce Board is charged with the regulation of the export trade in dairy products, in terms of the Dairy Produce Export Control Act, 1924-1938. It was reconstituted in February, 1936, and assumed the functions of the Australian Dairy Council then abolished. It is responsible for publicity, research and investigation for the advancement

and protection of the industry, standardisation of quality, increased production, and increased home consumption of milk products. The membership consists of a representative of the Commonwealth Government, nine members elected by co-operative butter and cheese factories, two elected by proprietary factories, four producer-elected representatives (one each for New South Wales, Victoria and Queensland and one for the remaining three States), and one member appointed on the nomination of the Australian Institute of Dairy Factory Managers and Secretaries.

Exporters of butter and cheese operate under licenses issued by the Minister for Commerce, subject to terms and conditions which are prescribed on the recommendation of the Board. Contracts as to freight and marine insurance on shipments of dairy produce are made by the Board, and it maintains an agency in Great Britain to advise it as to market conditions and the disposal of dairy produce abroad. By an agreement the rate of ocean freight on butter shipped to the United Kingdom will remain at the existing rate for three years from 1st October, 1937. The expenses of the Board are paid by means of a charge on butter and cheese exported. The charges were  $\frac{1}{30}$ d. per lb. on butter and  $\frac{1}{80}$ d. on cheese exported in 1936-37, and  $\frac{1}{16}$ d. and  $\frac{1}{30}$ d. respectively in 1937-38.

#### *The "Paterson" Plan.*

A voluntary marketing scheme known as the "Paterson Plan" was inaugurated on 1st January, 1926, as an outcome of efforts towards stabilisation in the various butter-producing States.

The scheme was administered by a Federal organisation—the Australian Stabilisation Committee—and there were advisory committees in the States. A levy was imposed on all butter made in the factories, and from the funds provided in this way a bonus was paid on butter exported. Information regarding the functioning of this scheme is given in earlier editions of this Year Book.

#### *The Australian Equalisation Scheme.*

As from 1st May, 1934, the Paterson plan was superseded by a compulsory scheme. Legislation was passed by the States for the regulation of intrastate trade and by the Commonwealth for the control of trade in dairy products between the States. The proportion of butter or cheese which each manufacturer in a State is permitted to sell in the course of intrastate trade is determined from time to time under the authority of State legislation. The Federal law prescribed that these products might not be transported from one State to another except under license, and it was a condition that licensees must comply with the export quotas, determined by the Commonwealth. This ensured that the surplus production was removed from the Australian market.

In 1936 the Judicial Committee of the Privy Council decided on appeal that the Commonwealth had not the power, in terms of the Constitution, to control the interstate movement of products, and a proposal to make an appropriate amendment of the Constitution was submitted to the electors in March, 1937. The proposal was rejected, but the scheme is being continued by the voluntary co-operation of producers, who have entered into agreements to observe the quotas as determined. The legislation of the States in regard to the stabilisation scheme has not been invalidated, and the various State Boards have continued to function as hitherto.

The New South Wales Dairy Products Board consists of a Government representative appointed by the Minister of Agriculture, and six other members representing the proprietary and co-operative manufacturers and the Primary Producers' Union. The Board advises the Minister in determining the quotas of butter and cheese for home consumption, and may enter

into arrangements with boards in other States for the purposes of stabilisation. Its administrative expenses are met by imposing a fee of 1s. per ton of butter and 6d. per ton of cheese manufactured. In order to facilitate the operation of the stabilisation scheme the members of the Dairy Products Boards of the States and other persons nominated by the boards have been organised as a limited company—the Dairy Produce Equalization Committee Ltd. The Committee enters into agreements with manufacturers in order to secure to them equal rates of returns from sales of dairy produce, and for this purpose may fix basic prices at which dairy produce sold in Australia or overseas is to be taken into account. A practical effect of the scheme is that the local trade, which is the more remunerative, and the export trade are distributed in equitable proportions amongst the manufacturers.

The quota of butter for local consumption in May and June, 1934, was 45 per cent. of production, the balance being for export. The corresponding quota for cheese was fixed for the first time in July, 1934, at 75 per cent. of production. The quotas are identical in all the States concerned in the scheme, viz., New South Wales, Victoria, Queensland, and Tasmania for butter, and in these States and South Australia for cheese. The quotas for local consumption in each month since July, 1934, are shown in the following statement:—

TABLE 731.—Butter and Cheese for Local Consumption—Quotas.

Month.	Butter.					Cheese.				
	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
July ...	50	85	87½	87	87½	75	82	95	85	82
August ...	55	75	71	82	65	75	75	76	71	56
September ...	50	55	51	57	48	75	58	52	52	40
October ...	33½	33½	35	39	36	37	42	41	41	33½
November ...	26	27	32	34	33½	44	37½	40	37	29
December ...	24	28	38	32	31	38	43	44	38	28
January ...	24	29	39	35	35	40	44	50	40	29
February ...	29	34	38	36	43	50	54	50	45	33½
March ...	32	37½	41	40	50	58	62	53	53	36
April ...	43	50	49	56	54	61	76	69	59	49
May ...	47	69	66	72	57	61	94	82	70	66½
June ...	68	87½	81	93	60	78	95	89	83	66½

## DAIRY INSTRUCTION AND RESEARCH.

Educational and experimental work relating to dairying is conducted by the Department of Agriculture at the State experiment farms, and at the Hawkesbury Agricultural College. Scientific investigation is undertaken at the Glenfield Veterinary Research Station which was assisted by a grant of £1,000 from the Australian Dairy Cattle Research Council and £1,410 from Pastures Protection Boards in 1937-38. The McMaster Animal Health Laboratory (at the University of Sydney) conducted by the Commonwealth Council for Scientific and Industrial Research is also active in investigations associated with the welfare of the dairying industry.

The breeds of stud cattle kept at the various experiment farms are as follows:—At Cowra, Australian Illawarra Shorthorns; at Wollongbar, Guernseys; at Grafton and Bathurst, Ayrshires; at Wagga Wagga and Glen Innes, Jerseys. At the Hawkesbury Agricultural College a Jersey stud holds a prominent place.

In order to enable factory managers and butter-makers to improve their scientific knowledge, dairy-science schools are held for short terms at different dairying centres, and certificates are given to those who pass examinations in the grading of cream and in the testing of milk and cream. There were ten schools attended by 102 students in 1938.

#### HERD-TESTING.

The practice of herd testing enables the farmers to ascertain the productivity of individual cows, to cull unprofitable animals, and to retain the progeny of those of higher grade. The herd-testing movement is assisted by a grant from the Commonwealth Bank which amounted to £1,500 in 1937-38. A contribution of £1,132 was made also by the Milk Board.

For the testing of pure-bred stock registered in the various herd societies, there is an Australian recording scheme conducted on uniform lines throughout the Commonwealth by the Department of Agriculture of each State. Departmental officers control these tests and the testing of other pure-bred, grade, and ordinary cows. For the certification of cows registered in herd societies, the cows are milked dry under supervision before the monthly test is made; in other cases this is not prescribed. The majority of the milking herds on registered dairy farms are grade or ordinary cows.

The fee for testing is £3 5s. for any number of cows up to 20; and 2s. 9d. for each additional cow up to 40; then the charge is reduced by 6d. per cow in each successive group of 20 cows. The charge is 1s. 6d. per cow in excess of 80. An additional fee of 3s. per cow is charged for registered pure-bred stock submitted for official recording for a certificate covering a period of 273 days, or, where desired, 365 days.

The number of cows tested in 1929-30 was approximately 100,000, but, due to adversity in the industry, herd testing was greatly curtailed in later years. In 1937-38 there was an increase. The number of cows tested in each of the last five years was:—

TABLE 732.—Dairy Cows Tested, 1934 to 1938.

Year ended September.	Pure-Bred Cows Tested.		Grade Cows Tested.	Total Cows Tested.
	For Certified Recording.	For Uncertified Records.		
1934	2,169	2,134	46,449	50,752
1935	2,393	1,896	38,918	43,207
1936	2,043	1,589	35,866	39,498
1937	2,054	1,674	34,595	38,323
1938	1,838	1,896	40,737	44,471

## DAIRY CATTLE.

In the dairy herds the Shorthorn preponderates. This breed was introduced into the Illawarra or South Coast districts in the early period of dairying, before the Shorthorn had been developed by English breeders into a beef-producing type. By an admixture with other strains, a useful type of dairy cattle, known as the Illawarra, has been developed. There is also a large number of Jersey cattle, and the use of the breed for the production of butter is increasing. The Ayrshire is well represented in the dairy herds. It is noted for hardiness, but is better suited for producing milk for human consumption as fresh milk than for the purposes of butter-making.

The number of cows used for milking in the State in each year since 1928 is shown below:—

TABLE 733.—Milking Cows, 1928 to 1938.

As at 31st Mar.	In Registered Dairies.				Cows not in Registered Dairies being Milked.	Average Daily Number of all Cows in Milk during Year.
	Being Milked.	Dry.	Heifers.			
			Springing.	Other over one Year.		
No.	No.	No.	No.	No.	No.	
1928*	465,773	200,914	53,022	108,397	84,731	615,700
1929*	482,568	293,754	49,655	115,413	81,797	627,815
1930*	487,919	289,896	55,285	126,394	80,455	623,196
1931*	532,604	281,227	62,851	129,447	88,057	655,073
1932	644,217	229,623	51,959	129,930	95,148	693,412
1933	675,660	247,939	52,908	147,499	92,098	721,783
1934	705,398	239,508	55,789	155,105	97,147	742,384
1935	711,358	246,629	49,626	166,150	105,248	748,486
1936	696,502	243,731	43,720	173,631	107,609	736,868
1937	681,125	236,600	45,469	165,034	106,694	720,833
1938	660,167	245,345	44,273	145,130	97,547	710,043

\* As at 30th June.

By reason of winter conditions prevailing at 30th June the number of cows in milk is usually smaller and the number of dry cows and springing heifers is usually greater than in the summer months. For these reasons the numbers shown in the foregoing table for recent years are not strictly comparable with those for the years up to 1930-31, nor are they typical of the distribution of cows under the various headings throughout the year.

The number of cows in registered dairies in New South Wales reached the highest point, 1,173,763, in 1934-35. The increase continued in coastal divisions up to 1935-36, but in inland districts there has been a decrease in each year since 1933-34. Cows in registered dairies on the tablelands, slopes, central plains and Riverina numbered 122,940 in 1937-38, as compared

with 181,716 in 1933-34 and 98,231 in 1925-26. Particulars of the number of cows in registered dairies in the various divisions in 1935-36 and in each of the last eight years are as follows:—

TABLE 734.—Cows in Registered Dairies in Divisions.

At 31st March.	Division.					Total New South Wales.*
	Coastal.		Tablelands.	Western Slopes.	Central Plains and Riverina.	
	North Coast.	All Divisions.				
1926† ... ..	440,271	794,814	44,831	41,560	11,840	894,165
1931† ... ..	509,231	901,066	43,927	51,150	8,853	1,006,129
1932 ... ..	514,999	918,372	54,102	68,715	13,290	1,055,729
1933 ... ..	525,699	946,414	65,393	91,213	19,423	1,124,006
1934 ... ..	527,099	972,377	67,089	94,877	19,750	1,155,800
1935 ... ..	534,893	997,407	64,479	91,301	19,115	1,173,763
1936 ... ..	535,105	996,453	57,684	84,629	17,061	1,157,584
1937 ... ..	523,607	980,409	52,929	79,142	14,130	1,128,228
1938 ... ..	518,617	970,567	47,066	65,413	10,461	1,094,915

\* Including Western Division.

† At 30th June.

## DAIRY FARMS.

Under the Dairies Supervision Act, 1901-1930, every person who keeps cows to produce milk for sale for human consumption in any form must register his premises and conform to prescribed standards of cleanliness, etc. Some persons so registered, however, conduct operations on a very limited scale.

The following statement of the number of holdings of one acre and upwards used for dairying operations on a commercial scale shows a steady increase between 1928-29 and 1933-34 and a subsequent decline, but the number of holdings engaged in dairying in 1937-38 was 12 per cent. greater than in 1928-29:—

TABLE 735.—Holdings used for Dairying, 1929 to 1938.

Year ended 31st March.	Holdings of one acre and upwards used principally for—				
	Dairying only.	Dairying and Agriculture.	Dairying and Grazing.	Dairying, Grazing and Agriculture.	Total used for Dairying.
1929†	12,985	2,942	1,722	1,189	18,838
1930†	13,294	3,170	1,607	1,034	19,105
1931†	14,484	3,371	1,148	1,146	20,149
1932	15,136	3,466	1,480	1,614	21,636
1933	15,177	4,101	1,475	2,102	22,855
1934	15,033	4,315	1,498	2,065	22,911
1935	14,929	4,226	1,474	1,952	22,581
1936	14,969	4,066	1,445	1,834	22,314
1937	14,521	4,178	1,394	1,716	21,809
1938	14,136	4,072	1,316	1,592	21,116

† Year ended 30th June.

The figures quoted above indicate the principal purposes for which the holdings were used. It is apparent that the great bulk of the dairy farmers specialise in dairying operations. When the quantity of



maize or other grain grown is clearly in excess of the amount required for consumption on the farm and the surplus is intended for sale the holding is classed as "agricultural and dairying." In 1929 the basis of classification was changed so that holdings on which dairying was clearly the predominant activity are placed in the classification "dairying only." The extent to which dairying and wheatgrowing were undertaken together in 1932-33 and 1935-36 is shown in table 638.

## DAIRY FACTORIES.

Although there is some seasonal variation, approximately 80 per cent. of the milk production of the State is treated in factories either as cream or whole milk for the manufacture of butter, cream, cheese, or condensed milk, the balance being sold for consumption as fresh milk or used on the farms. Most of the factories are situated in the country districts at convenient centres, and are conducted on co-operative principles, with the dairy farmers as shareholders. Particulars of the operations of the butter factories are shown in the chapter "Factories" of this Year Book.

## RAINFALL INDEX—DAIRYING DISTRICTS.

The following table provides a monthly index of rainfall in the coastal dairying districts of New South Wales. The index represents the ratio of actual to normal rainfall in each month, normal being the average over a long period of years and represented by 100 in all cases.

TABLE 736.—Index of Rainfall in Dairying Districts, 1927 to 1939.

Month.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
July ...	15	101	61	61	76	77	197	207	93	43	87	98
August ...	16	52	92	93	54	55	20	128	44	42	130	147
September ...	113	102	90	30	50	230	180	156	196	77	21	53
October ...	124	64	240	113	51	93	170	95	102	55	173	102
November ...	255	34	82	41	131	110	161	105	45	23	275	78
December ...	111	57	49	89	181	42	160	116	93	179	110	18
January ...	130	96	103	48	28	148	97	92	88	99	172	91
February ...	205	347	68	181	59	31	198	130	79	139	133	13
March ...	86	119	148	123	43	52	51	97	128	199	84	248
April ...	142	146	132	215	94	164	198	70	58	63	105	107
May ...	73	76	174	74	93	56	180	58	94	11	205	53
June ...	175	150	351	47	47	178	55	28	48	187	50	32
Average for Season	120	112	132	93	76	103	139	107	89	93	129	87
	Commercial butter per cow—lb.*											
	162.6	152.4	161.4	168.4	170.3	169.3	181.6	183.1	156.7	147.8	164.0	...

\* See table 738.

The average for the season is the mean of the monthly averages. The seasonal distribution of rainfall is an important factor in relation to production. See Table 742.

## DAIRY PRODUCTION.

The following statement shows the estimated yield of milk in each division of the State during the year ended the 31st March, 1938, also the production of butter, cheese and bacon—the figures for these three items being factory production during the year ended 30th June, 1938, and the farm production during the year ended three months earlier:—

TABLE 737.—Milk, Butter, Cheese and Bacon Production, 1937-38.

Division.	Estimated Yield of Milk.	Butter Made.	Cheese Made.	Bacon and Ham Made.
<b>Coastal—</b>	gallons.	lb.	lb.	lb.
North Coast ... ..	146,260,116	*67,439,979	994,961	7,185,581
Hunter and Manning ... ..	65,850,505	30,148,358	1,093,588	1,574,241
Metropolitan ... ..	18,695,397	390,732	29,211	10,525,532
South Coast ... ..	44,897,994	10,756,454	5,886,306	471,969
<b>Total</b> ... ..	<b>275,704,012</b>	<b>108,735,523</b>	<b>8,004,066</b>	<b>19,757,323</b>
<b>Tableland—</b>				
Northern ... ..	6,226,824	1,767,444	200	301,623
Central ... ..	7,779,312	1,608,966	...	92,421
Southern ... ..	3,131,420	480,445	...	27,378
<b>Total</b> ... ..	<b>17,137,556</b>	<b>3,856,855</b>	<b>200</b>	<b>421,422</b>
<b>Western Slopes—</b>				
North ... ..	6,426,998	1,589,303	7	44,239
Central ... ..	3,424,509	767,287	...	50,398
South ... ..	17,013,756	†4,904,803	120	997,379
<b>Total</b> ... ..	<b>26,865,263</b>	<b>7,261,393</b>	<b>127</b>	<b>1,092,016</b>
<b>Plains—</b>				
North Central ... ..	1,091,007	111,323	80	4,231
Central ... ..	1,107,453	119,408	...	10,575
Riverina ... ..	5,182,813	766,777	400	87,489
<b>Total</b> ... ..	<b>7,381,273</b>	<b>997,508</b>	<b>480</b>	<b>102,295</b>
<b>Western Division</b> ... ..	<b>919,515</b>	<b>31,453</b>	<b>...</b>	<b>1,635</b>
<b>Total</b> ... ..	<b>‡328,007,619</b>	<b>120,882,732</b>	<b>8,004,873</b>	<b>21,374,691</b>

\* Includes 282,490 lb. made from Queensland cream. † Includes 362,790 lb. from Victorian cream.  
‡ Includes 2,693,576 gallons sent to interstate factories as cream.

This statement shows the importance of dairying activities in the coastal division as compared with the remainder of the State. In this area about 88 per cent. of the cows in registered dairies are depastured, and approximately 84 per cent. of the total output of milk, 90 per cent. of the butter, and practically the whole of the cheese are produced. Fifty-five per cent. of the butter of the State was made in the North Coast division. The Hunter and Manning division is next in importance, then the South Coast, and the South Western Slopes. Until about 30 years ago the South Coast division was the principal dairying region, but the industry has made

rapid progress in the northern districts, where many large estates used previously for raising cattle for beef, have been subdivided into dairy farms. There has been an appreciable growth of dairying in inland districts though dry conditions caused a decline in 1937-38. The manufacture of cheese is of relatively small extent and approximately three-quarters of the total output is made in the South Coast division. The curing of bacon and ham is confined almost entirely to the Coastal division, where about 90 per cent. of the output is produced.

A graph on page 825 illustrates the production of butter, cheese and bacon in each year since 1910.

### MILK.

Particulars of the consumption and supply of milk and milk products are published in the chapter "Food and Prices" of the Year Book.

Cows used for producing milk for sale are inspected by Government officers, who have power to condemn and prevent the use of diseased animals. The standard of milk sold for human consumption is prescribed, the quality of the milk sold is tested frequently, and prosecutions are instituted where deficiencies are found. By these means the purity and wholesomeness of dairy products are protected.

Under the Milk Act, 1931, a Board regulates and controls the supply of milk and cream within the metropolitan and Newcastle districts. Its functions include the improvement of methods of collecting and distributing milk and the fixation of prices.

The total yield of milk can be estimated only approximately. Few dairy farmers actually measure the quantity of milk obtained from their cows throughout the year. The majority are concerned principally in producing cream for manufacture into butter. In recent years, however, it has been found possible to make checks against supplies to factories, and results show that the farmers' estimates are approximately correct. Moreover, the testing of dairy herds has developed so far as to give a fair indication of the butter-fat contents of the milk.

#### *Average Yield per Cow.*

While sufficient information is not available to show conclusively the average annual production of milk per cow in New South Wales an approximate estimate of the productivity per cow in registered dairies in terms of commercial butter is published below. For the purposes of this estimate it is assumed that the mean of the number of cows in milk and dry at the beginning and end of any given year represents the average number kept for milking in registered dairies during that year, and an estimate is made (on the basis of butter fat content) of the quantity of commercial butter which may be produced from milk used for purposes other than butter-making.

The following table relates to all cows in registered dairies, and covers a period of years since 1925-26:—

TABLE 738.—Cows in Registered Dairies—Average Yield.

Season.	Cows Dry and In Milk in Registered Dairies at end of Year.	Estimated Number of Cows Dry and in Milk in Registered Dairies during Year.	Butter Produced.		Estimate of Commercial Butter Produceable from Milk of Cows in Registered Dairies used for other Purposes.	Total Commercial Butter Produced or Produceable from Milk of Cows in Registered Dairies.	Estimated Production of Commercial Butter per Cow.
			In Factories from Milk produced in New South Wales.	On Registered Dairy Farms.			
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Average Year.					Thousand lb.		lb.
1926-30	762,404	758,363	96,200	1,162	23,834	121,196	159.8
1931-35	902,833	884,815	128,475	1,483	24,803	154,761	174.9
1927-28	756,687	753,322	96,246	1,276	24,945	122,467	162.6
1928-29	776,322	766,504	91,424	1,091	24,328	116,843	152.4
1929-30	777,815	777,069	100,603	1,025	23,783	125,411	161.4
1930-31	813,831	795,823	109,133	1,113	23,777	134,023	168.4
1931-32	873,840	843,836	119,372	1,437	22,930	143,739	170.3
1932-33	923,599	898,720	126,266	1,624	24,240	152,130	169.3
1933-34	944,506	934,252	141,762	1,606	26,329	169,697	181.6
1934-35	957,987	951,446	145,843	1,635	26,740	174,218	183.1
1935-36	940,233	949,110	119,195	1,683	27,878	148,756	156.7
1936-37	917,725	928,979	107,142	1,433	28,733	137,308	147.8
1937-38	905,512	911,618	118,111	1,171	30,236	149,518	164.0

The estimated number of cows dry and in milk in registered dairies during the year shown in the column B above represents the mean of the total numbers at the beginning and end of the year concerned as shown in column A. The estimated production per cow shown in column G is obtained by dividing the average number of cows (column B) into the commercial butter in respective years shown in column F. It represents, therefore, an average covering all cows kept for milking in registered dairies irrespective of periods of lactation, and includes heifers with first calf, aged cows, and cows disabled from any cause.

The averages shown in the table should be considered in conjunction with the index of rainfall in dairying districts published in Table 736. It is evident that productivity per cow has been maintained and even slightly increased in the recent years despite the unevenness of the rainfall. The sharp decline in 1935-36 and 1936-37 was occasioned by the very dry conditions and an epidemic of ephemeral fever which occurred in the summer of the latter year.

*Use of Milk.*

The following statement shows the estimated amount of milk used for various purposes in 1927-28 and each of the last four years:—

TABLE 739.—Use of Milk, 1928 to 1938.

Purpose.	Year ended 31st March.				
	1928.*	1935.	1936.	1937.	1938.
	Gallons (000 omitted).				
<b>Butter—</b>					
On farms ... ..	14,553	17,297	17,646	16,794	14,197
In N.S.W. factories ... ..	200,194	261,864	248,082	219,525	230,540
In other States ... ..	710	5,390	3,704	3,426	2,699
Total... ..	215,457	284,551	269,432	239,745	247,436
<b>Cheese—</b>					
On farms ... ..	224	242	306	283	309
In factories ... ..	7,494	8,440	7,265	7,308	7,710
Total... ..	7,718	8,682	7,571	7,591	8,019
Sweet cream, ice cream, condensing, etc. ... ..	6,633	7,222	8,053	8,382	9,151
Pasteurised for metropolitan and Newcastle markets ... ..	19,922	19,832	21,442	22,866	24,442
Balance sold and used otherwise ...	33,316	37,172	38,848	39,033	38,960
Total... ..	283,046	357,459	345,346	317,617	328,008

\* Year ended 30th June.

The milk used in 1937-38 for making butter represented 75.5 per cent. of the estimated total production; 2.4 per cent. was used for cheese; 2.8 per cent. for condensed milk, cream, ice-cream, etc.; and the balance—19.3 per cent.—was consumed as fresh milk or used otherwise. The quantity pasteurised for the Sydney and Newcastle markets was 22.7 per cent. greater in 1937-38 than in 1927-28.

An estimate of the quantity of fresh milk used for human consumption is shown in the chapter relating to "Food and Prices."

## BUTTER.

The following statement shows the quantity of butter made annually at intervals since 1901. The figures include the butter made in factories from cream produced in other States, the quantity in 1937-38 being 645,280 lb.

TABLE 740.—Butter Production, 1901 to 1938.

Year ended 30th June.	On Farms.	In Factories.	Total.	Year ended 30th June.	On Farms.	In Factories.	Total.
Thousand lb. (000 omitted.)							
1901*	4,775	34,282	39,057	1931	4,910	109,292	114,202
1906*	4,637	54,304	58,941	1932	5,399†	118,448	123,847
1911*	4,632	78,573	83,205	1933	5,306†	123,625	128,931
1916	4,253	55,374	59,622	1934	5,660†	143,208	148,868
1921	4,388	79,880	84,268	1935	5,948†	140,158	146,106
1926	5,270	101,698	106,968	1936	6,046†	110,123	125,169
1929	4,511	91,733	96,244	1937	5,856†	103,975	109,831
1930	4,208	100,814	105,022	1938	4,952†	115,930	120,882

\* Calendar year.

† Year ended 31st March.

There was a pronounced increase in production during the years 1930 to 1934, and in the latter year the output was a record. Production declined sharply in 1935-36 and 1936-37, owing to the adverse seasonal conditions experienced in the main dairying centres of the State, aggravated by an epidemic of ephemeral fever ("three days' sickness") in the latter year. The season 1937-38 was not favourable in the Upper Hunter and Illawarra districts, the South-Western Slopes and the Riverina and there were fewer cows in registered dairies, nevertheless the output of butter increased by 10 per cent.

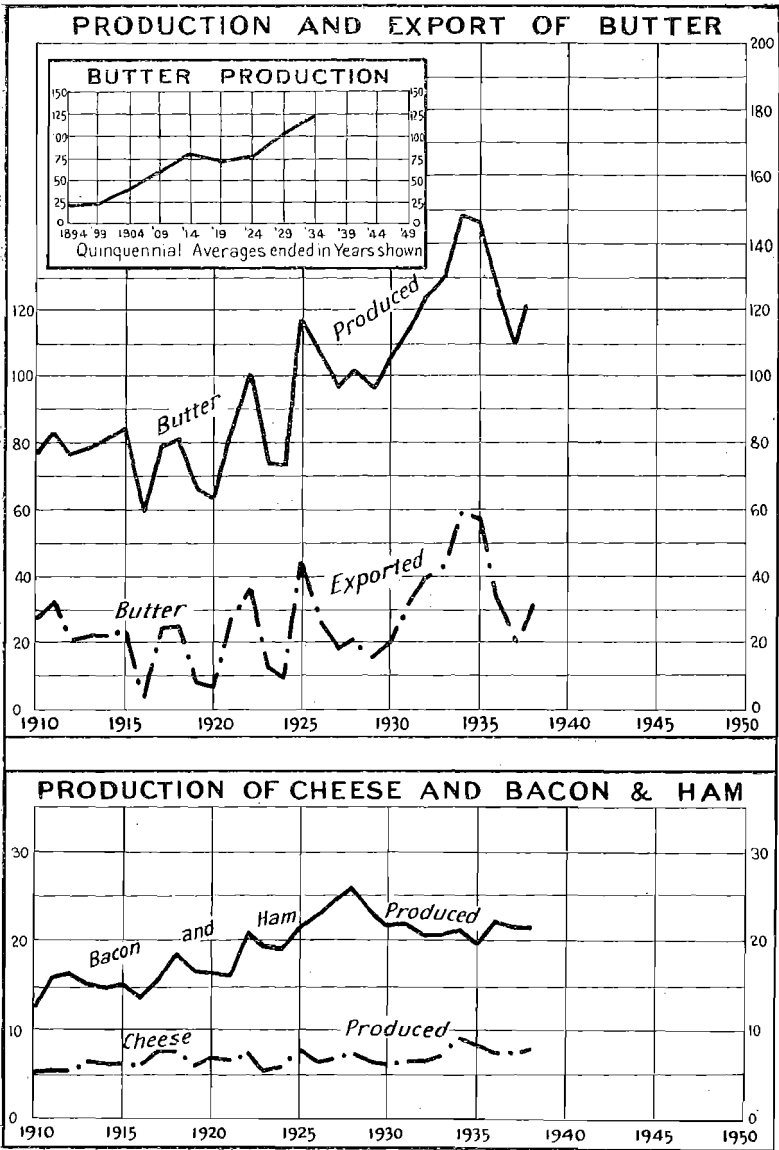
*External Trade in Butter.*

Particulars of the external trade in butter during each of the last five seasons are summarised in the following statement (the particulars of the interstate movement are approximations):—

TABLE 741.—Interstate and Oversea Trade in Butter, 1934 to 1938.

Particulars.	1933-34.	1934-1935.	1935-36.	1936-37.	1937-38.
	lb.	lb.	lb.	lb.	lb.
Imports:—					
Interstate .. ..	1,594,600	2,961,300	5,550,100	5,808,488	9,753,548
Oversea ... ..	162	930	3,612	17	1,674
Total Imports ...	1,594,762	2,962,230	5,553,712	5,808,505	9,755,222
Exports:—					
Interstate* ... ..	3,470,700	3,974,100	2,814,400	1,836,744	3,584,716
Oversea—					
Australian produce ...	59,237,511	57,672,403	32,818,757	20,365,765	31,372,658
Ships' Stores—					
Australian produce ...	397,115	356,514	458,892	421,021	384,573
Total Exports ...	63,105,326	62,003,017	36,092,049	22,623,530	35,341,947
Excess of Exports ...	61,510,564	59,040,787	30,538,337	16,815,025	25,586,725

\* Includes butter sent to Queensland for shipment oversea.



The numbers at the side of the graphs and inset represent millions of pounds of butter, cheese and bacon & ham

*Production and Exports of Butter Monthly.*

The following table shows the quantity of butter produced in factories in New South Wales and the quantity exported oversea from New South Wales in each month since July, 1935. Butter may be stored for a considerable period before export, and the figures for production and export

each month do not necessarily refer to the same butter. The export figures indicate the quantity of Australian butter exported overseas from ports in New South Wales. In addition, a large quantity is sent from New South Wales to Queensland, whence it is transhipped abroad.

TABLE 742.—Production and Exports of Butter Monthly, 1935 to 1939.

Month.	Quantity of Butter Produced in Factories.*				Quantity of Butter Exported Oversea (Australian Produce).			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	Thousand lb.							
July ... ..	4,575	4,990	4,160	4,437	281	982	325	661
August ... ..	4,853	5,569	4,842	4,887	225	310	231	309
September ... ..	6,768	6,841	7,029	6,915	363	450	351	518
October ... ..	10,802	9,206	9,315	10,842	2,030	1,194	1,459	1,617
November ... ..	12,970	8,336	13,340	12,589	5,022	1,582	3,047	4,299
December ... ..	13,355	7,917	15,168	11,423	3,491	920	4,687	4,095
January ... ..	14,411	13,263	14,592	9,707	4,522	1,282	5,086	2,528
February ... ..	13,204	11,881	14,020	10,826	4,714	3,071	5,511	1,009
March ... ..	13,324	13,363	12,411	12,137	5,853	4,210	5,270	1,843
April ... ..	11,140	10,373	9,088	11,880	2,600	3,187	3,600	695
May ... ..	7,809	7,415	6,693	10,456	1,712	2,417	1,601	3,238
June ... ..	5,912	4,821	5,272	7,742	2,006	761	806	3,154
Total ... ..	119,123	103,975	115,930	113,841	32,819	20,366	31,374	23,966

\* Compiled from monthly returns of Dairy Branch of the Department of Agriculture.

These monthly records show the seasonal nature of the production and the variations in the monthly volume of exports. Production increases in a marked degree during the summer months and decreases during the winter, reaching a minimum usually in July.

More than 90 per cent. of the butter exported overseas from New South Wales is sent to the United Kingdom, the remainder being sent mainly to eastern countries.

It is the policy of the Australian Dairy Produce Board to regulate shipments to the United Kingdom, but, as the Board applies the regulation on an Australian-wide basis, monthly exports from any one State may display marked variations.

The principal sources from which butter was imported into the United Kingdom during each of the last eleven years are shown below:—

TABLE 743.—Imports of Butter into the United Kingdom, 1928 to 1938.

Year ended June.	Imports of Butter into the United Kingdom from—					
	Australia.	New Zealand.	Denmark.	Argentina.	Other Countries.	Total Imports.
	tons.	tons.	tons.	tons.	tons.	tons.
1928	33,582	67,343	100,349	17,921	84,552	303,747
1929	43,116	64,636	105,162	17,034	87,527	317,475
1930	41,158	65,496	111,925	15,706	89,377	323,662
1931	62,357	87,491	118,149	21,358	70,905	360,260
1932	80,947	102,955	125,698	19,504	83,205	412,309
1933	97,401	114,429	131,748	13,573	81,676	438,827
1934	94,304	137,105	129,944	6,030	113,044	480,427
1935	114,472	125,499	111,506	4,771	113,079	469,327
1936	87,541	136,002	106,996	4,164	138,707	473,410
1937	71,110	144,642	113,785	8,907	146,478	484,922
1938	83,845	139,671	112,860	3,268	135,412	475,056



In 1934-35 Australia was second in importance as a source of supply, surpassing Denmark for the first time. The subsequent decline in exports from Australia was due to reduced production, principally in New South Wales and Queensland.

*Prices of Butter.*

The average monthly wholesale prices of butter in Sydney since 1931 and in London markets since July, 1933, are shown below. The price in Sydney has been changed only twice since April, 1934; the changes are shown in a note under the table.

TABLE 744.—Wholesale Prices of Butter in Sydney and London.

Month.	Average Price in Sydney of Choicest Butter per cwt. (Local Sales). (Australian currency).*			Average Top Price in London of Choicest Australian Butter per cwt. (Sterling).					
	1931-32	1932-33	1933-34	1933-34	1934-35	1935-36	1936-37.	1937-38.	1938-39.
	s.	s.	s.	s.	s.	s.	s.	s.	s.
July ... ..	154	147	135	80	69	88	113	113	120
August ... ..	154	149	135	90	75	94	118	116	118
September ... ..	148	149	138	103	72	110	108	119	116
October ... ..	154	139	132	99	68	117	100	139	111
November ... ..	149	127	113	82	74	101	108	130	104
December ... ..	134	121	112	69	71	89	98	111	107
January ... ..	131	121	112	64	81	94	94	109	120
February ... ..	134	115	112	66	86	93	86	111	118
March ... ..	140	107	113	70	73	84	97	117	115
April ... ..	148	107	126	69	74	87	104	124	113
May ... ..	136	118	140	74	77	94	106	127	107
June ... ..	139	133	140†	74	85	106	108	120	113

\* Excluding the usual box charge of 2s. 6d. per cwt. † The price, fixed at 140s., in April, 1934, was raised to 149s. 4d. on 29th June, 1937, and to 158s. 8d. on 8th June, 1938.

The prices quoted in the table for Sydney and London respectively may not be used to estimate the difference between the actual selling price in Sydney and the local parity of London prices. The Sydney price is an average of daily prices and relates to the price fixed by the Equalisation Committee for butter of choicest quality. The London prices are the mean of the top prices quoted weekly for choicest salted Australian butter.

Variations in monthly overseas shipments from New South Wales, mainly to the United Kingdom, are shown in Table 742.

*Prices Received by Dairy Farmers.*

Dairy farmers who supply cream to butter factories are paid according to its butter-fat content, and the return they receive—calculated as per lb. of butter—depends on the relative proportions of the factory output consumed in Australia and exported overseas, as well as the prices realised in home and overseas markets.

The average prices paid to dairy farmers for cream supplied to butter factories in recent years, are shown below, the averages being stated as per pound of commercial butter:—

TABLE 745.—Cream for Butter—Average Prices paid to Dairy Farmers, 1924 to 1938.

Year.	Average Price to Suppliers.	Year.	Average Price to Suppliers.	Year.	Average Price to Suppliers.
	d.		d.		d.
1923-24 ...	16.6	1928-29 ...	17.1	1933-34 ...	8.4
1924-25 ...	13.0	1929-30 ...	15.8	1934-35 ...	9.4
1925-26 ...	15.8	1930-31 ...	12.6	1935-36 ...	11.4
1926-27 ...	16.2	1931-32 ...	11.2	1936-37 ...	12.2
1927-28 ...	16.0	1932-33 ...	9.4	1937-38 ...	13.0

The average price per pound of commercial butter paid monthly to suppliers of cream to the principal factories in the North Coast district is determined partly by the extent to which the output is absorbed in domestic markets and partly by the return received for the proportion of production marketed beyond the Commonwealth; hence the pronounced seasonal variation. Upon delivery at the factory, the dairy farmer is paid for his cream at a price determined month by month, and at the end of each half-year he receives such further sums in the form of "deferred pay" as accrue when the actual proceeds of sales are known. In the following statement these amounts, the half-yearly adjustments of which have varied from  $\frac{1}{2}$ d. to  $1\frac{1}{2}$ d. per pound in recent years, have been included. From July, 1937, charges for transporting cream to the factories (equal to about  $\frac{3}{8}$ d. per lb.) have been met by the factories. Previously the suppliers met this cost.

TABLE 746.—Cream for Butter—Monthly Prices Paid to Dairy-farmers, 1931 to 1939.

Month.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38. *	1938-39. *
Pence per lb. of commercial butter (including deferred pay).								
July ...	$12\frac{3}{4}$	$12\frac{1}{2}$	$11\frac{1}{8}$	$10\frac{5}{8}$	$12\frac{3}{4}$	$14\frac{3}{8}$	$13\frac{7}{8}$	$14\frac{5}{16}$
August ...	$12\frac{3}{4}$	$12\frac{1}{2}$	$11\frac{1}{8}$	$11\frac{1}{8}$	$12\frac{3}{4}$	$14\frac{1}{8}$	$13\frac{7}{8}$	$14\frac{5}{16}$
September ...	$12\frac{3}{4}$	$12\frac{1}{2}$	$11\frac{5}{8}$	$10\frac{1}{8}$	$12\frac{1}{2}$	$12\frac{7}{8}$	$13\frac{3}{8}$	$13\frac{1}{16}$
October ...	13	$10\frac{3}{4}$	$9\frac{5}{8}$	$9\frac{1}{4}$	12	$12\frac{3}{8}$	$13\frac{1}{4}$	$12\frac{5}{16}$
November ...	12	$9\frac{1}{2}$	$8\frac{1}{8}$	$8\frac{5}{8}$	$10\frac{3}{4}$	$12\frac{7}{8}$	$11\frac{3}{8}$	$11\frac{13}{16}$
December ...	$10\frac{3}{4}$	$9\frac{1}{4}$	$7\frac{5}{8}$	$8\frac{3}{8}$	$9\frac{1}{2}$	$12\frac{1}{8}$	$11\frac{1}{2}$	$11\frac{1}{16}$
January ...	$10\frac{3}{8}$	9	$7\frac{5}{8}$	10	$10\frac{1}{2}$	11	$12\frac{3}{8}$	$13\frac{5}{16}$
February ...	$10\frac{7}{8}$	8	$7\frac{7}{8}$	$9\frac{3}{4}$	11	11	$12\frac{9}{8}$	$13\frac{9}{16}$
March ...	$11\frac{3}{8}$	$7\frac{3}{4}$	$8\frac{1}{8}$	$9\frac{1}{4}$	11	12	$13\frac{7}{8}$	$13\frac{9}{16}$
April ...	$11\frac{7}{8}$	8	$9\frac{1}{8}$	10	$11\frac{3}{4}$	$12\frac{1}{2}$	$14\frac{5}{8}$	$13\frac{9}{16}$
May ...	$10\frac{7}{8}$	$9\frac{1}{2}$	$10\frac{3}{8}$	11	13	$13\frac{1}{4}$	$15\frac{1}{8}$	$13\frac{1}{16}$
June ...	$11\frac{3}{8}$	$10\frac{3}{4}$	$10\frac{3}{8}$	$12\frac{1}{2}$	14	$13\frac{1}{2}$	$16\frac{1}{8}$	$13\frac{3}{16}$

\* Cost of carting cream to factory (about  $\frac{3}{8}$ d. per lb.) met by factories.

## CHEESE.

Excellent conditions exist in New South Wales for the production of cheese, but cheese-making has not advanced to the same extent as the manufacture of butter, which is more profitable. The annual production is not sufficient for local requirements and appreciable quantities are imported from other States. Approximately three-fourths of the cheese made in New South Wales is produced in the South Coast division. The graph published on page 825 illustrates the trend in production in recent years.

The following table shows the production of cheese in factories and on farms and the import and export of cheese from New South Wales at intervals since 1901:—

TABLE 747.—Cheese—Production, Imports and Exports, 1901 to 1938.

Year ended 30th June.	Production.			Import.		Export.
	In Factories.	On Farms.	Total.	Oversea.	Interstate (incomplete).	Oversea. §
	lb.	lb.	lb.	lb.	lb.	lb.
1901*	2,428,599	1,410,236	3,838,835	1,862,000	399,000	191,000
1906*	3,459,641	1,999,004	5,458,645	115,000	359,000	133,600
1911*	4,617,387	843,265	5,460,652	129,000	†	141,400
1916	4,969,374	1,010,262	5,979,636	479,000	†	301,200
1921	5,965,715	441,494	6,407,209	31,000	†	806,700
1926	6,321,111	141,424	6,462,535	736,000	1,288,000†	284,000
1929	6,203,409	135,643	6,339,052	256,000	2,924,000	229,300
1930	6,163,205	182,490	6,345,785	216,000	4,097,000	219,400
1931	6,425,093	90,972	6,516,065	18,000	3,086,000	188,900
1932	6,476,737	113,620	6,590,357	7,200	3,254,000	191,000
1933	7,053,566	140,240	7,193,806	51,600	2,778,000	452,000
1934	8,864,126	203,382	9,072,508	28,200	2,855,000	736,700
1935	8,220,229	225,239	8,445,468	38,700	2,648,000	2,136,100
1936	7,060,100	296,103	7,356,203	40,440	3,568,000	540,010
1937	7,145,170	272,470	7,417,640	64,166	3,941,000	423,842
1938	7,701,411	303,462	8,004,873	56,134	3,963,000	1,080,588

\*Calendar year. † Not available. ‡ Excluding imports by rail. § Including Ships' Stores.

The annual output of cheese, which had shown no permanent expansion for many years, began to increase in 1932-33, and reached the peak in the following year. The subsequent fluctuations may be attributed to seasonal conditions. Cheese-making on farms represents only a small proportion of the total production.

## CONDENSED MILK..

In 1937-38 there were four factories for the manufacture of condensed, concentrated and powdered milk in New South Wales. The quantities made in 1936-37 and 1937-38 were as follows:—

	1936-37.	1937-38.
	lb.	lb.
Concentrated milk ... ..	1,449,271	1,785,955
Condensed milk ... ..	4,856,537	3,819,862
Powdered milk ... ..	1,526,709	1,951,200

In making these and other milk products such as sterilised cream and malted milk, 4,221,160 gallons of milk and 775 tons of sugar were used in 1937-38, and the value of the products was £414,009.

## PIGS.

The number of pigs in New South Wales at 31st March, 1938, was 356,765. Comparative figures over a period of years are shown below:—

TABLE 748.—Pigs in New South Wales, 1890 to 1938.

Mean of Five Years ended—	Number of Pigs.	At 31st March.	Number of Pigs.
1890 (Dec.)	248,783	1929*	311,605
1895 „	248,105	1930*	323,499
1900 „	233,186	1931*	334,331
1905 „	264,357	1932	385,846
1910 „	246,904	1933	388,273
1916 (June)	304,140	1934	367,116
1921 „	322,146	1935	397,535
1926 „	354,015	1936	436,944
1931 „	320,835	1937	390,780
1936 (March)	395,143	1938	356,765

\* At 30th June.

The number of pigs in New South Wales in 1936 (436,944) was the highest on record. The sharp decline in 1936-37 and 1937-38 was due to adverse seasonal conditions. The extent of pig breeding, however, is not accurately reflected in variations in the number of pigs at the end of the year, but rather in the extent of slaughtering in conjunction with increase or decrease in numbers. A comparison of the quinquennial periods ended 1933 and 1938 is shown below:—

TABLE 749.—Pigs—Annual Increase or Decrease, 1929 to 1938.

Year ended 31st March.	Number at end of year. Increase (+) or Decrease (—).	Number Slaughtered during Year.	Year ended 31st March.	Number at end of year. Increase (+) or Decrease (—).	Number Slaughtered during Year.
1929* ...	(+) 9,786	406,187	1934 ...	(-) 21,157	461,205
1930* ...	(+) 11,894	405,639	1935 ...	(+) 30,419	505,059
1931* ...	(+) 10,832	417,502	1936 ...	(+) 39,409	595,624
1932 ...	(+) 51,515	425,385	1937 ...	(-) 46,164	613,857
1933 ...	(+) 2,427	452,807	1938 ...	(-) 34,015	536,868
Total ...	(+) 86,454	2,107,520	Total ...	(-) 31,508	2,712,613

\* Year ended 30th June.

At 31st March, 1938, the pigs less than one year old numbered 267,967, and the pigs aged one year and over 88,798; the latter are mainly breeding stock.

The following statement shows the number of pigs in divisions of the State in various years since 1911:—

TABLE 750.—Pigs in Divisions, 1911 to 1938.

Division.	1911. December.	1921. June.	1926. June.	1931. June.	1937. March.	1938. March.
North Coast ... ..	111,710	117,220	174,396	152,243	171,596	166,882
Hunter and Manning ... ..	74,185	49,424	70,670	64,287	74,539	76,918
Metropolitan ... ..	25,056	20,863	20,182	16,924	20,694	17,906
South Coast ... ..	44,410	21,396	34,922	26,958	31,951	30,127
Total, Coastal ... ..	255,361	208,903	300,170	260,412	298,780	291,833
Tablelands ... ..	45,578	29,700	26,366	20,553	24,099	21,173
Western Slopes ... ..	42,258	39,599	36,537	35,503	46,819	29,919
Other ... ..	27,896	28,051	19,601	17,863	21,082	13,840
Total, New South Wales ... ..	371,093	306,253	382,674	334,331	390,780	356,765

Sixty-eight per cent. of the pigs at 31st March, 1938, were in the North Coast and Hunter and Manning Divisions. Pig-raising has declined in the South Coast and tableland-districts. There was an appreciable increase on the Western Slopes between 1929 and 1935-36, followed by a very marked decline in 1936-37 and in 1937-38.

#### Bacon and Hams.

The output of bacon and hams from factories and farms in New South Wales and the net interstate imports (as far as recorded) at intervals since 1901 are shown hereunder:—

TABLE 751.—Bacon and Ham, Production 1901 to 1938.

Year ended 30th June.	Production of Bacon and Ham.			Net Import of Bacon and Ham: Interstate (Incomplete.)
	Factory.	Farm.	Total Production.	
	lb.	lb.	lb.	lb.
1901*	7,392,100	3,688,800	11,080,900	1,216,700
1911*	13,393,500	2,709,300	16,102,800	†
1916	11,637,900	1,938,700	13,576,600	†
1921	14,625,800	1,631,400	16,257,200	†
1926	21,548,888	1,400,483	22,958,371	9,500,000
1929	22,340,106	747,165	23,087,271	8,300,000
1930	20,984,249	632,223	21,616,472	9,900,000
1931	20,984,266	916,928	21,901,194	8,400,000
1932	19,442,931	1,025,328†	20,468,259	7,400,000
1933	19,250,875	1,225,680†	20,476,555	6,446,000
1934	19,963,793	1,127,794†	21,091,587	6,982,900
1935	18,709,766	957,853†	19,667,619	7,979,700
1936	21,155,669	901,789†	22,057,458	8,418,000.
1937	21,255,483	814,377†	22,069,860	†
1938	20,795,580	579,111†	21,374,691	†

\* Calendar year. † Not available. ‡ Year ended 31st March.

During the first decade of the period under review, and between 1921 and 1929, the production of bacon showed a substantial increase, but since the latter year the quantity has been fairly steady at a somewhat lower level. Apparently the greater quantity of pig meat available has been used as pork. The oversea exports of pig products (pork, bacon and ham) from New South Wales in 1937-38 totalled 15,518 cwt. (including 11,964 cwt. of pork) as compared with 15,270 cwt. in 1936-37.

*Lard.*

Statistics showing the total production of lard are not available. During the year ended 30th June, 1938, the quantity extracted in factories amounted to 809,653 lb., valued at £19,390, but as manufacture is conducted in many other establishments, as well as on farms, this quantity represents only a portion of the total output.

During the twelve months ended 30th June, 1938, the overseas exports of lard and refined animal fats amounted to 639,449 lb., valued at £14,067, and imports from oversea countries to 8,573 lb., valued at £509.

## EXPORTS OF DAIRY PRODUCTS.

Dairy products for export beyond the Commonwealth are subject to inspection by Federal Government officials under the provisions of the Commerce (Trade Descriptions) Act, 1905-1933, and the exportation of products of inferior quality is prohibited unless the goods are labelled as below standard. Since August, 1925, the export of butter and cheese has been supervised by the Australian Dairy Produce Board, of which particulars are given on an earlier page.

The following table shows the oversea exports of the principal dairy products from New South Wales, inclusive of ships' stores, at intervals since 1891. The particulars for 1906 and earlier years relate to New South Wales produce only, but in later years the figures include a small quantity of produce of other Australian States. New South Wales produce exported through other States is excluded from account. Since 1934-35 a substantial quantity of butter from New South Wales has been shipped abroad from Brisbane, Queensland.

TABLE 752.—Oversea Exports of Butter, Cheese, Milk and Bacon, 1891 to 1938.

Year ended 30th June.	Oversea Exports (including Ships' Stores).							
	Butter.		Cheese.		Milk—Preserved, Condensed, etc.		Bacon and Ham.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb. (000)	£	lb. (000)	£	lb. (000)	£	lb. (000)	£
1891*	11	478	18	411	...	...	9	380
1896*	1,912	75,994	45	821	8	156	40	994
1901*	8,700	379,342	191	4,359	196	2,525	96	3,007
1906*	23,362	978,725	134	3,268	258	4,906	141	4,996
1911*	33,044	1,518,993	141	3,723	1,127	17,471	618	17,561
1916	4,306	259,834	301	9,767	947	22,052	224	11,279
1921	28,429	3,458,280	807	49,813	11,576	691,122	1,357	132,075
1926	27,008	1,943,586	284	12,321	656	26,513	790	61,681
1931	31,793	1,698,835	189	8,969	497	18,006	552	28,646
1932	39,823	2,010,246	191	8,756	650	22,957	530	28,126
1933	42,901	1,832,362	464	18,021	852	32,340	539	38,936
1934	59,635	2,149,546	800	25,745	865	30,313	571	30,435
1935	58,928	2,182,429	2,136	55,413	2,569	196,668	591	33,825
1936	33,278	1,675,728	540	18,228	2,592	194,207	631	36,286
1937	20,787	1,033,007	424	15,724	2,342	154,923	740	41,182
1938	31,758	1,919,132	1,081	46,263	3,210	207,516	659	42,250

\* Calendar year.

The values of other dairy and farmyard products exported overseas in 1937-38 were as follows:—Frozen pork, £41,180; frozen poultry, £29,397; eggs, £279,001; live pigs and poultry, £795. The grand total was £2,565,534, including the items listed in the foregoing table. Lard is not included.

## POULTRY-FARMING.

Poultry-farming was conducted formerly in conjunction with dairying; but the interests involved have become important commercially, and a distinct industry has been developed. Returns collected as at 31st March, 1938, showed that there were 2,182 holdings of one acre or more in extent devoted mainly to poultry farming. In addition, many smaller holdings not included in these returns are used for raising poultry as a commercial pursuit, and farms utilised mainly for agriculture, dairying or grazing, carry large numbers of poultry. The returns showed that at 31st March, 1938, there were 2,815 holdings, carrying poultry for commercial purposes to the extent of 150 head or more. Of these, 1,926 were in the county of Cumberland and 579 in other coastal districts.

The figures quoted show a decrease during the last three years of 659 or of about 19 per cent. in the number of commercial poultry farms—probably attributable to the abandonment of poultry farming by some persons who entered the industry during the years of depression. Owing to the relatively small area of land required for poultry farming it has been difficult to make a complete survey, but with special facilities the scope of the collection was widened in 1935.

Calculation covering the maintenance of fowls competing in the Hawkesbury Agricultural College laying tests in recent years show that feeding costs (with food purchased at wholesale rates and freight and cartage added) amounted to 7s. per bird per year in 1938-39 and 9s. 6d. per bird in 1937-38. As the feeding costs in this competition are based upon Sydney market prices plus freight and cartage, they are indicative of the average commercial poultry farm. In successive years since 1928 the feeding costs per hen per annum were:—

	s.	d.		s.	d.		s.	d.
1928	...	9 7	1932	...	5 9	1936	...	7 2
1929	...	8 7	1933	...	7 0	1937	...	8 8
1930	...	9 10	1934	...	6 3	1938	...	9 6
1931	...	7 3	1935	...	5 9	1939	...	7 0

The course of wheat prices is indicated on page 723.

In August, 1937, the State Government made available advances through the Rural Bank to necessitous poultry farmers for the purchase of chickens or of the feed for rearing them. Thirty-three advances were made and the aggregate amount was £1,034. There were fourteen advances amounting to £162 outstanding at 30th June, 1939. Poultry farmers who secured loans were required to market their eggs through the Egg Marketing Board and to give the Rural Bank an order on the Board as a lien against egg consignments as a guarantee of repayment of advances.

Complete statistics of poultry production are not available, but a general estimate based on recorded production indicates that the farm value of production during 1937-38 was approximately £3,896,000.

Special attention is devoted to improving the laying qualities of the different breeds, and egg-laying competitions, organised originally by private subscriptions, have been conducted since 1901 at the Hawkesbury Agricultural College. These competitions attract widespread interest among poultry-farmers. The most successful laying breeds have proved to be the Australorp, the White Leghorn, the Rhode Island Red, and the Langshan.

The Australorp was produced in Australia, Black Orpington blood being predominant. An annual report in bulletin form, giving particulars and tabulated results of these competitions, is issued by the Department of Agriculture. There is a poultry expert and staff to carry out experimental work and assist poultry farmers in selecting breeding stock, culling the hens, and in dealing with general problems associated with the industry. Owing to the ease with which poultry diseases spread, a system of quarantine is in operation to obviate the introduction of endemic diseases from beyond the State, and to combat outbreaks of local origin.

The numbers of poultry enumerated in returns supplied annually under the Census Act are shown below. The data afford some guidance as to the trend of the industry during the last few years, but in view of the difficulty of obtaining satisfactory records it is probable that the number of poultry in the State is much greater than the figures shown in the table:—

TABLE 753.—Poultry in New South Wales 1925 to 1938.

As at 30th June.	Fowls, Chickens, etc.	Ducks, etc.	Geese, etc.	Turkeys, etc.	Gulnea Fowl, and other.
1925	4,000,000	159,000	19,000	162,000	4,600
1926	4,020,000	156,000	21,000	159,000	6,300
1927	4,002,000	131,000	20,000	148,000	5,100
1928	3,968,000	123,000	17,000	147,000	6,900
1929	3,919,000	120,000	16,000	130,000	5,700
1930	3,798,000	100,000	15,000	127,000	3,700
1931	4,238,000	140,000	18,000	165,000	4,800
*1932	4,499,000	174,000	25,000	242,000	7,000
*1933	4,627,000	181,000	28,000	216,000	11,000
*1934	4,842,000	198,000	27,000	225,000	9,000
*1935	5,251,000†	219,000	31,000	244,000	12,000
*1936	5,263,000	202,000	30,000	232,000	11,000
*1937	5,112,000	189,000	27,000	226,000	9,800
*1938	5,052,000	191,000	25,000	211,000	10,500

\* As at 31st March.

† Increase principally due to more comprehensive collection of returns (see above).

The numbers shown above include poultry recorded on holdings with less than 150 stock—2,885,659 fowls, chickens, etc. in 1938—also the number of poultry, as estimated by local collectors, on holdings other than those used for agricultural and pastoral purposes.

The statistics shown below are compiled from returns collected under the Census Act in respect of farms with at least 150 head of poultry, from which products were marketed:—

TABLE 754.—Commercial Poultry Farms, 1929 to 1938.

Year ended 31st March.	Number of Farms.	Stock at 31st March.		Eggs Produced. Thousand dozen.	Chickens Hatched For Sale as Day-Olds.	Poultry Consumed or Sold for Table Purpose. (Head.)
		Chickens under six months old.	Other Fowls.			
*1929	2,124	300,547	1,099,558	10,637	658,263	596,000
*1930	2,033	301,753	1,126,957	10,884	775,860	602,000
*1931	2,106	349,849	1,207,068	11,583	1,104,048	654,000
1932	2,323	204,069	1,401,957	12,822	1,190,451	759,000
1933	2,507	232,507	1,536,981	14,066	1,383,732	1,039,472
1934	2,598	209,505	1,760,739	15,544	1,423,428	1,099,539
1935	3,474	258,217	2,063,398	18,517	1,278,337	1,248,207
1936	3,296	181,464	2,083,070	19,065	1,537,671	1,109,272
1937	3,094	165,837	1,994,273	19,405	1,647,364	1,109,833
1938	2,815	186,793	1,979,889	19,741	1,676,277	1,059,802

\* Year ended 30th June.



Assuming that the mean of the number of stock over six months old at the beginning and end of the year represents approximately the number of laying stock in respective years (with some deduction for male stock), it would appear that the average egg production is in the vicinity of ten dozens per hen per year.

Returns received from commercial poultry farms disclosed that 1,059,802 head of poultry were consumed or sold for consumption during 1937-38. Reference to the foregoing table indicates a twofold increase in the production of table birds in commercial poultry farms between 1929 and 1935. There has since been an appreciable decline, due partly to the high price of poultry feed and the smaller number of poultry farms. The Table Bird Council of New South Wales, established in November, 1936, is endeavouring to expand the market for table poultry.

#### Prices of Eggs.

The average monthly wholesale prices of new-laid hen eggs per dozen in Sydney since January, 1931, are shown in the following table, together with the average price in each year weighted in accordance with the seasonal expectation of laying:—

TABLE 755.—Wholesale Prices of Eggs, 1931 to 1938.

Month.	Weight.	1931.	1932.	1933.	1934.	1935.	1936.	1937	1938.
		d.	d.	d.	d.	d.	d.	d.	d.
January ...	13	14.8	12.8	13.8	12.0	12.0	14.8	15.2	17.6
February ...	11	16.9	14.0	16.0	14.2	12.6	17.0	18.5	18.8
March ...	7	15.4	16.6	16.2	16.4	14.8	19.1	21.0	20.7
April ...	6	22.2	20.0	22.1	18.8	19.8	20.6	21.0	24.0
May ...	4	24.0	22.4	20.1	20.2	20.8	21.0	21.0	24.0
June ...	6	22.6	19.0	18.2	17.5	18.4	18.0	21.0	23.5
July ...	10	16.0	15.2	15.9	14.9	15.7	16.8	20.3	18.0
August ...	16	12.5	13.0	12.8	13.1	13.3	14.0	15.8	15.9
September ...	19	12.0	12.0	10.7	12.0	12.0	14.0	14.0	13.9
October ...	19	12.0	12.0	8.6	12.0	12.0	14.0	14.0	13.0
November ...	17	12.0	12.0	8.7	12.0	12.0	15.0	14.0	13.7
December ...	16	14.4	12.9	10.1	12.0	12.6	15.0	15.5	14.8
Estimated weight- ed average price for year ...	144	14.6	13.8	12.7	13.5	13.5	15.6	16.4	16.5

The monthly averages are unweighted and represent the mean of the daily quotations. Prices are quoted also for medium and pullet eggs, but these are not included above.

#### Egg Marketing Board.

The Egg Marketing Board was constituted in terms of the Marketing of Primary Products Act after a poll of producers taken in September, 1928. The Board, which consists of three members elected by producers and two nominated by the Government, commenced operations in May, 1929, for the formation of a compulsory marketing pool. Polls of producers were taken also in 1931, 1934 and 1938, and on each occasion a large majority of the votes favoured this system of marketing.

In 1933 the Board's mandatory powers were suspended in view of a possibility of conflict with the constitutional powers of the Commonwealth in relation to interstate trade. Pending an alteration in the law, the Board

functioned as a voluntary organisation of producers in administering the 1933-34 pool. Amendments to the Marketing Act were passed and the compulsory pool was commenced again in August, 1934.

The area of the Board's jurisdiction embraces the counties of Cumberland and Northumberland and the shires of Nattai and Wollondilly. All persons having more than 20 head of female fowls of productive age within this area are required to consign the eggs to the Egg Marketing Board, unless permitted by the Board, under contract, to sell their eggs privately.

A summary relating to recent pools is shown below:—

TABLE 756.—Egg Marketing Board, 1932 to 1938.

Pool Year.	Eggs under Board's Administration.			Realisations by Board.				
	Sold by exempt Producers.	Handled by Board.	Total.	Local Sales.		Exports.		
				Quantity.	Average per dozen.	Quantity.	Average per dozen net. (a)	Cost of Export per dozen.
	Thousand dozens.			doz.	d.	doz.	d.	d.
1931-32 ...	6,208	9,478	15,686	5,688,406	12.55	3,789,906	13.56	6.06
1932-33 ...	5,551	10,795	16,346	5,077,964	13.52	5,717,282	12.52	5.49
1933-34 ...	...	11,933	11,933	7,032,955	11.70	4,900,050	11.84	5.13
1934-35 ...	5,311	14,744	20,055	7,862,317	12.75	6,881,820	11.15	4.95
1935-36 ...	6,250	14,506	20,756	9,734,977	13.72	4,770,690	13.32	4.83
1936-37 ...	5,893	15,148	21,041	10,048,240	15.22	5,100,000	12.21	4.54
1937-38 ...	6,359	13,983	20,342	9,750,334	16.73	4,232,880	14.72	4.71

(a) Sydney basis—including exchange premiums.

Local sales by the Board in 1937-38 realised £679,807 or an average price of 16.73d. per dozen, as compared with £637,208 and 15.22d. per dozen in 1936-37. These included eggs of all grades, whereas only first-grade eggs were exported.

Export sales in 1937-38 realised £342,710 or 19.43d. per dozen, of which £83,057, or 4.71d. per dozen, represented cost of packing material, transporting, insurance, etc., and producers were paid £258,198 or 14.64d. per dozen in respect of eggs exported. Particulars for 1936-37 were:—Export sales, £355,929 or 16.75d. per dozen; transshipping and marketing costs, £96,379, or 4.54d. per dozen; and payments to producers, £302,858 or 14.25d. per dozen.

In 1937-38 the Board handled 13,983,214 dozen eggs of all grades, as compared with 15,148,240 dozen in 1936-37, and producers received £940,348 or an average of 16.14d. per dozen in 1937-38, and £961,457, equal to 15.23d. per dozen in 1936-37.

The average price per dozen paid to producers for all eggs received by the Board (subject to pool deduction) was:—1930-31, 15.06d.; 1931-32, 13.61d.; 1932-33, 12.15d.; 1933-34, 12.65d.; 1934-35, 12.75d.; 1935-36, 13.75d.; 1936-37, 15.23d.; 1937-38, 16.14d.

Consignors to the Board contributed to the 1937-38 pool at the rate of 1½d. per dozen and 5 per cent. on gross advance to 31st July, 1937, and thereafter to 4th June, 1938, at the rate of 1d. per dozen and 5 per cent. on

gross advance. Producer agency contributions during the 1937-38 pool were at the rate of 1½d. per dozen to 31st July, 1937, and thereafter 1d. per dozen to 4th June, 1938.

*Oversea and Interstate Trade in Eggs.*

The production of eggs in New South Wales (and in the Commonwealth as a whole) is in excess of requirements for home consumption, and substantial quantities are exported. The United Kingdom is the only important oversea market. Eggs from Australia are shipped on consignment, and the returns secured are governed by the state of the market at the time of sale.

The egg export season is confined to the latter half of the calendar year, arrivals in the United Kingdom usually extending from September to January, though at times shipments arrive as early as August and as late as February and March. These are winter months in the Northern Hemisphere and supplies in the United Kingdom are seasonably small. Prices in London are then about twice as high as in the spring and summer months (March to June). Rarely, however, does the net return on Australian eggs marketed in the United Kingdom exceed about 1s. per dozen (Australian currency). Moreover, even that modest return is not assured. For instance, in 1936-37 restrictions upon the import of eggs into Germany late in 1936 diverted large quantities of eggs from Continental sources to the British market, causing over-supply, and as a result, the collapse of sterling prices for Australian eggs from 15.8d. per dozen (for 16 lb. packs) in November, 1936, to 9.4d. per dozen in January, 1937. Marketing conditions were more favourable in 1937-38 but prices were not so satisfactory in 1938-39.

Prices obtained for Australian eggs in London in recent seasons are shown in the appended table:—

TABLE 757.—London Prices of Australian Eggs, 1935 to 1939.

Month.	Australian Eggs—Prices in London. Per Great Hundred (10 dozen)—Sterling.							
	15-lb. Pack.				16-lb. Pack.			
	1935-36.	1936-37.	1937-38.	1938-39.	1935-36.	1936-37.	1937-38.	1938-39.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
October ...	12 5	12 11	12 8	12 6	12 10	13 4	13 1	13 0
November	12 0	12 9	12 7	12 1	12 2	13 2	13 2	12 8
December	12 4	9 8	13 9	10 11	13 0	11 7	14 2	12 7
January ...	12 7	7 2	11 10	9 10	13 0	7 10	12 5	10 10

On eggs from foreign countries the British tariff (imposed in 1932) is 1s., 1s. 6d., and 1s. 9d. per great hundred (10 doz.) for packs up to 14 lb., from 14 lb. to 17 lb., and of over 17 lb., respectively. No duty is payable on eggs imported from British countries (except the Irish Free State), but the extent of this preference has had little effect in improving marketing opportunities for Empire producers. Unless measures are devised to prevent sudden heavy arrivals from Continental sources it would appear that the unsatisfactory marketing features of the 1936-37 season may be repeated at any time in the future.

The following table shows the recent trend of the oversea export trade in poultry and eggs:—

TABLE 758.—Oversea Exports of Eggs and Poultry, 1929 to 1938.

Year ended 30th June.	Eggs in Shell.		Frozen Poultry.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
1929	doz. 858,795	£ 66,893	pairs. 8,050	£ 11,971	£ 78,864
1930	1,627,367	123,443	11,445	15,545	138,988
1931	2,388,126	139,782	5,312	5,022	144,804
1932	3,627,853	191,140	23,676	25,986	217,126
1933	6,297,211	372,254	36,813	28,233	400,487
1934	5,689,526	308,254	17,493	9,555	317,809
1935	6,843,489	356,292	14,675	9,363	365,655
1936	5,137,424	263,505	25,763	21,447	285,042
1937	5,429,732	322,082	25,433	23,598	345,680
1938	4,381,506	268,258	27,377	28,995	297,253

Particulars as to the interstate imports of eggs into Sydney by rail and by sea in the years ended 30th June, 1936 to 1938, collected by the Director of Marketing are summarised below:—

TABLE 759.—Interstate Imports of Eggs, 1936 to 1938.

State Whence Imported.	1935-36.		1936-37.		1937-38.	
	In Shell.	Pulp.	In Shell.	Pulp.	In Shell.	Pulp.
	doz.	cwt.	doz.	cwt.	doz.	cwt.
Victoria ...	126,300	1,907	380,760	1,325	401,940	1,403
Queensland ...	431,970	...	247,020	...	308,490	...
South Australia ...	647,310	12,423	340,610	11,801	698,580	11,527
Western Australia ...	...	...	...	29	...	...
Total ...	1,205,580	14,330	968,390	13,155	1,409,010	12,930

One cwt. of egg pulp is equivalent to approximately 93½ dozen eggs.

#### BEE-KEEPING.

The bee-keeping industry is of minor importance, and is conducted generally as an adjunct to other rural occupations. There are, however, a number of commercial apiaries, and migratory beekeeping has tended to increase. Good table honey is obtained from the flora of native eucalypts of many varieties.

The industry is subject to regulation in terms of the Apiaries Act in order to prevent the spread of disease amongst bees. Frame hives must be used and box hives are prohibited.

From 1st November, 1929, to 31st August, 1932, honey was marketed by a board in terms of the Marketing of Primary Products Act. The arrangement was terminated as a result of a poll of apiarists.

Statistics collected under the Census Act which are published below represent, in the main, the extent of bee-keeping on holdings of one acre and upwards, but hives are maintained on smaller areas; complete information regarding these is not available. The records, therefore, are incomplete.

In 1937-38 returns were obtained from 2,752 holdings on which bee hives were kept. The particulars recorded in each of the last ten years are shown below:—

TABLE 760.—Bee Hives and Honey Production, 1929 to 1938.

Season.	Bee Hives.			Honey.	Average Yield of Honey per Productive Hive.	Beeswax.
	Productive.	Un-productive.	Total.			
	No.	No.	No.	lb.	lb.	lb.
1928-29	32,444	8,711	41,155	2,354,845	72·6	30,064
1929-30	32,420	10,860	43,280	2,101,619	64·8	35,493
1930-31	36,800	8,585	45,385	2,643,871	71·8	36,460
1931-32	38,099	11,261	49,350	2,123,233	55·7	27,933
1932-33	46,523	13,442	59,965	2,921,242	62·8	38,715
1933-34	36,552	19,204	55,756	1,397,426	38·2	27,069
†1934-35	67,170	15,193	82,363	5,539,677	82·5	70,564
1935-36	76,481	19,875	96,356	4,577,097	59·8	62,886
1936-37	67,807	25,277	93,084	2,935,282	43·3	52,461
1937-38	74,301	20,345	94,646	3,356,609	45·2	49,945

† Increase in number of hives principally due to more comprehensive collection of returns.

The yield per productive hive is subject to marked fluctuations according to seasonal conditions, and these were exceptionally favourable in 1934-35, when more honey was produced than in any earlier year. Owing to dry weather production declined in 1935-36 and 1936-37 but a large surplus from earlier seasons rendered marketing difficult. A publicity campaign, to which the Commonwealth Government contributed £1,500, proved very successful in stimulating sales of honey, and endeavours are being made to establish an export scheme with a standardised system of packing and blending. In 1937-38 the quantity of honey exported overseas from New South Wales was 542,461 lb., valued at £10,299.

The estimated value of the recorded production from bees was £43,000 in 1936-37 and £51,000 in 1937-38, the quantity of honey and beeswax produced in each division in those years being as follows:—

TABLE 761.—Honey and Beeswax Produced, 1936-37 and 1937-38.

Division.	1936-37.		1937-38.	
	Honey.	Beeswax.	Honey.	Beeswax.
	lb.	lb.	lb.	lb.
Coastal ... ..	531,041	11,896	973,738	17,786
Tableland ... ..	1,645,859	27,508	1,320,737	21,645
Western Slopes ... ..	662,894	11,778	894,149	9,261
Central Plains, Riverina, and Western Division.	95,488	1,279	167,985	1,253
Total ... ..	2,935,282	52,461	3,356,609	49,945

## VALUE OF DAIRY AND FARMYARD PRODUCTION.

It is evident from the foregoing that the dairying and farmyard industries are important factors in the rural production of New South Wales. The farm value of production in 1937-38 amounted to £16,113,000 and was

greater than in any year since 1920-21. The dairying industry yielded £10,867,000; pigs, £1,299,000; poultry, £3,896,000; and bees, £51,000. The farm value of production at intervals since 1911 was as follows:—

TABLE 762.—Value of Dairy and Farmyard Production, 1911 to 1938.

Year.	Milk for Butter.	Milk for Cheese.	Milk (not used for Butter or Cheese).	Stock Slaughtered.		Poultry and Eggs.	Bees.	Total.
				Milch Cows, etc.	Pigs.			
	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
	£	£	£	£	£	£	£	£
1911	3,631	129	619	389	447	1,280	39	6,534
1911-16*	3,642	161	873	424	526	1,600	30	7,256
1916-21*	5,471	253	1,902	671	1,038	2,500	38	11,873
1921-26*	6,003	214	2,589	917	1,069	2,719	36	13,547
1926-31*	6,550	223	2,504	495	1,148	3,213	37	14,170
1932-36*	5,557	188	2,211	635	858	2,837	53	12,339
1928-29	6,822	228	2,658	571	1,237	2,999	44	14,559
1929-30	6,884	234	2,608	524	1,105	3,140	44	14,539
1930-31	5,974	176	1,964	456	839	2,584	46	12,039
1931-32	5,821	182	1,887	276	730	2,595	34	11,525
1932-33	5,098	190	2,138	514	747	2,728	47	11,462
1933-34	5,221	199	2,206	641	821	2,603	22	11,713
1934-35	5,800	179	2,304	771	913	2,823	95	12,885
1935-36	5,846	188	2,521	973	1,077	3,439	68	14,112
1936-37	5,629	217	2,740	1,017	1,242	3,704	43	14,592
1937-38	6,582	240	2,876	1,169	1,299	3,896	51	16,113

\* Yearly average.

## PRICES OF FARMYARD PRODUCTS.

The average wholesale prices obtained in the Sydney markets for the principal kinds of dairy and poultry farm produce in each of the last seven years are shown in the following table. The average quoted for the year represents the mean of the prices ruling each month, and does not take into account the quantity sold during the month.

TABLE 763.—Prices of Dairy and Farmyard Products, 1932 to 1938.

Dairy and Poultry Farm Produce.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Milk ... .. gal.	1 5·4	1 5	1 5	1 5	1 5	1 5	1 5·2
Butter ... .. lb.	1 2·8	1 1·1	1 2·1	1 3	1 3	1 3·5	1 4·5
Cheese ... .. "	0 8·6	0 7·6	0 7·8	0 9·3	0 9·7	0 10	0 10·6
Hams ... .. "	1 1·3	1 0·1	1 1·8	1 1·9	1 1·7	1 3·9	1 5·4
Bacon (sides) ... "	0 9	0 8·7	0 9·7	0 9·3	0 9·4	0 11·7	1 0·4
Eggs (new laid) doz.	1 3·2	1 2·4	1 2·6	1 2·7	1 4·6	1 5·6	1 6·1
Poultry—							
Fowls—							
(Cockerels) ... pr.	6 0	6 0	6 1	6 4	6 9	7 4	7 9
Drakes—							
(Muscovy) ... "	7 11	8 7	8 7	8 7	9 4	10 6	10 6
Ducks—							
(Muscovy) ... "	4 11	5 4	5 7	5 6	5 7	6 4	6 10
Geese ... .. "	6 10	6 11	8 0	7 2	7 5	9 6	9 4
Turkeys (cocks) "	21 5	23 4	22 2	22 3	25 6	29 6	29 4
Bee produce—							
Honey ... .. lb.	0 4·4	0 3·7	0 4·6	0 3·6	0 3·7	0 3·7	0 3·9
Wax ... .. "	1 1·5	0 1·6	1 6·7	1 7	1 5	1 4·5	1 4·6

The relative variations in the Sydney wholesale prices of eight principal dairy and farmyard products, viz., butter, cheese, bacon, ham, eggs, condensed milk, honey and lard are shown in the following table of index numbers, in which the prices of 1911 are taken as the base and represented by 1,000:—

TABLE 764.—Prices of Dairy and Farmyard Products—Index Numbers 1901 to 1938.

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	963	1927	1,831	1933	1,172
1906	953	1928	1,763	1934	1,245
1911	1,000	1929	1,842	1935	1,292
1916	1,380	1930	1,571	1936	1,316
1921	2,020	1931	1,386	1937	1,404
1926	1,760	1932	1,295	1938	1,488

A steady decline caused the index number to fall by 36 per cent. between 1929 and 1933. The average prices of these products rose in each of the next five years and in 1938 were about 27 per cent. higher than in 1933, though still 20 per cent. below the average for 1929.

## FORESTRY.

*The Forest Estate.*

THE forest lands of the State containing timber of commercial value consist of about 11 million acres, of which about 8 million acres are Crown lands. Over 6½ million acres of the State lands are either dedicated or reserved for the preservation and growth of timber.

The total forest area, although not large, contains a great variety of useful timbers, which in hardwoods number about twenty different kinds of good commercial value, including such renowned constructional woods as ironbark, tallow-wood, and turpentine. In other timbers there are about twenty-five commercial varieties, including such valuable timbers as cedar, beech, pine, and teak. It is estimated that, approximately, five-sixths of the timber supply consists of mixed hardwoods and one-sixth of soft and brush woods.

The Forestry Commission consisting of one member appointed for seven years administers the Forestry Act, 1916-1935. The Act provides for the control and management of the State forests and timber reserves, the licensing of timber-getters and sawmills, the organisation of a system of education in scientific forestry and research. Provision is made also for the permanent dedication of reserves for the preservation of natural flora, for the protection of water supply catchment areas, and for the prevention of erosion.

The Forestry Commission may undertake the silvicultural management of the catchment area of any system of water supply, and the direction of tree planting schemes of public authorities.

*National and State Forests.*

Areas suitable for permanent use for forestry purposes may be declared as National forests, and the dedication may be revoked only by Act of Parliament. Land dedicated as a State forest may be withdrawn from forestry purposes by a resolution of both Houses of Parliament. Timber reserves are usually temporary reservations, revocable by executive act, protecting forest lands pending removal of timber, examination as to suitability for permanent dedication, or disposal of the lands for settlement or other public purposes.

As at 30th June, 1938, a total area of 5,180,002 acres of Crown lands had been dedicated permanently including 4,491,658 acres as State forests and 688,344 acres as National forests (7) and 1,371,783 acres had been set apart tentatively as timber reserves. Included in the State forests are a number of forest plantations of an aggregate area of 43,506 acres.

Particulars relating to the State forests and plantations and timber reserves as at the end of each of the last eight years are shown below:—

TABLE 765—State Forests, 1931 to 1938.

At 31st December.	State Forests.		State Plantations.	Timber Reserves.	
	Number.	Area.	Area.	Number.	Area.
		acres.	acres.		acres.
1931	724	5,152,462	27,300	592	1,523,715
1932	719	5,131,046	32,018	583	1,484,867
1933	721	5,128,305	36,026	577	1,420,082
1934	718	5,115,080	38,683	570	1,387,537
1935	720	5,144,630	42,687	572	1,429,832
1936*	720	5,147,477	42,874	566	1,410,032
1937*	718	5,132,361†	43,206	572	1,429,809
1938*	724	5,180,002†	43,506	563	1,371,783

\* 30th June.

† Including seven National forests, 688,344 acres



*Location of Forest Lands and Main Forest Types.*

A description of the timber zones of New South Wales and of the principal types of timber to be found in them was published on pages 671 and 672 of the Year Book for 1928-29.

*Forest Management.*

Development and protection of the indigenous forests is the dominant feature of forest policy. Intensive management surveys are being undertaken to ascertain the economic and silvicultural potentialities of the forests, and as the surveys are completed a working plan is laid down for the management for each area. The Forestry Commission constructs roads where necessary to afford access to and within the State forests and to facilitate development and management, and the economic exploitation of the timber.

In terms of the Forestry (Amendment) Act, 1935, no scheme of afforestation with exotic species of timber may be undertaken or extended except with the approval of the Minister, and approval may not be given unless the soil, site and climate are favourable. There has been considerable activity in the establishment of exotic coniferous plantations and surveys are proceeding to determine the extent to which further coniferous planting is justified.

The expenditure of funds from Commonwealth and State unemployment relief grants has enabled a great deal of forest improvement work to be carried out in the recent years.

*Production and Consumption of Timber.*

The following summary shows the number of timber mills in operation, the number of employees working therein (exclusive of carters etc.), and the output of sawn timber in each of the past ten years:—

TABLE 766.—Sawmills—Output of Timber, 1929 to 1938.

Year ended 30th June.	Mills Operated.	Average Number of Persons Employed.	Output of Sawn Timber.				
			Native.		Imported.		Total.
			Soft- wood.	Hard- wood.	Soft- wood.	Hard- wood.	
	No.	No.	Thousand super feet.				
1929	477	3,982	41,637	94,414	3,197	282	139,530
1930	433	3,250	37,464	81,556	5,941	...	124,961
1931	372	1,738	15,119	41,413	2,042	...	58,574
1932	349	1,486	17,851	34,251	3,993	...	56,095
1933	373	2,176	29,158	42,754	5,564	...	77,476
1934	408	2,811	35,634	55,398	24,092	46	115,170
1935	447	3,687	44,740	77,865	49,689	...	172,294
1936	440	4,289	45,537	87,806	56,961	...	190,304
1937	429	4,803	48,849	97,080	62,479	1,134	209,542
1938	425	4,925	48,512	119,524	114,288	6,585	288,909

The output of sawn timber was already declining when activity in the industry was severely affected by the general depression, causing a decrease from 139,500,000 super feet in 1928-29 to 56,100,000 super feet in 1931-32. Then conditions began to improve, and the output of native timbers rose from 52,100,000 super feet in 1931-32 to 168,036,000 super feet in 1937-38, and there was a remarkable increase in the quantity of imported softwoods treated as a result of the importation of logs from Canada.

The following table shows the annual gross consumption of native and imported timbers as estimated by the Forestry Commission:—

TABLE 767.—Consumption of Timber.

Year ended 30th June.	Estimated Gross Consumption of Timber.					
	Native.				Imported from Oversea.	Grand Total.
	Softwood.	Hardwood.	Fuel.	Total Native.		
	(000 omitted.)					
	cubic feet.	cubic feet.	cubic feet.	cubic feet.	cubic feet.	cubic feet.
1925-29*	7,120	20,392	13,023	40,535	17,040	57,575
1930	3,735	14,755	11,226	29,716	7,880	37,596
1931	2,320	9,798	10,624	22,742	3,495	26,237
1932†	4,172	12,636	12,185	28,993	5,938	34,931
1933†	4,891	17,214	13,130	35,235	8,571	43,806
1934†	6,965	25,452	13,399	45,816	11,352	57,168
1935†	9,750	24,478	14,935	49,163	16,121	65,284
1936‡	2,856	14,454	8,051	25,361	§	§
1937	9,060	27,147	16,000	52,207	§	§
1938	8,774	23,955	15,010	47,739	20,000	67,739

\* Yearly average.

† Calendar Year.

‡ Six months ended 30th June.

§ Not available.

The estimated consumption of native timbers, other than fuel, 36,207,000 cubic feet in 1936-37 exceeded the estimates for any previous year. The estimate for 1937-38 was 32,729,000 cubic feet.

#### *Value of Production from Forestry.*

The following table shows the value of forestry production as at the place of production in New South Wales at intervals since the year 1901:—

TABLE 768.—Value of Forestry Production 1901 to 1938.

Year ended 30th June.	Value.	Year ended 30th June.	Value.
	£		£
1901*	554,000	1932	1,158,000
1906*	1,008,000	1933	1,476,000
1911*	998,000	1934	1,737,000
1916	1,045,000	1935	1,922,000
1921	1,656,000	1936	2,014,000
1926	1,885,000	1937	2,096,000
1931	1,131,000	1938	2,179,000

\* Calendar Year.

#### *Imports and Exports of Timber.*

The greater part of the softwoods used in New South Wales has been drawn from foreign sources of supply, New Zealand, the United States of America, Canada, Norway, and Sweden being most important.

In the following table particulars are shown regarding the imports and exports of timber to and from New South Wales at intervals since 1901. The large importation is due mainly to the demand for softwoods. It is

improbable that the export trade will assume large proportions, though the forests of the State abound in high-class hardwoods. Most of the timber exported is in the form of sleepers and piles.

TABLE 769.—Oversea Imports and Exports of Timber, 1901 to 1938.

Year.	Imports Oversea to New South Wales.				Exports of Australian Produce Oversea from New South Wales.			
	Undressed.		Other.	Total Value.	Undressed.		Other.	Total Value.
	Quantity.	Value.			Quantity.	Value.		
	sup. feet. (000)	£	£	£	sup. feet. (000)	£	£	£
1901	68,369	322,642	137,123	459,765	10,386	66,346	58,664	125,010
1906	84,772	444,563	81,850	526,413	29,322	325,805	9,361	335,166
1911	164,380	955,344	209,028	1,164,372	28,398	250,990	17,949	268,939
1915-16	119,232	814,102	74,305	888,407	15,099	144,486	10,965	155,451
1920-21	93,303	1,904,064	174,910	2,078,974	23,202	447,653	17,072	464,725
1925-26	194,393	1,964,596	463,610	2,428,206	23,486	390,439	6,689	397,128
1930-31	47,825	294,029	14,428	308,457	16,384	228,561	13,431	241,992
1932-33	79,987	383,632	24,490	408,122	8,437	100,629	4,345	104,974
1933-34	125,628	491,271	24,682	515,953	13,141	153,851	2,724	156,575
1934-35	165,999	682,284	33,855	716,139	29,815	313,401	3,722	317,123
1935-36	190,578	665,696	36,926	702,622	22,599	293,433	2,703	296,136
1936-37	187,924	674,060	39,942	714,002	26,508	395,725	3,859	399,584
1937-38	209,513	922,366	61,201	983,567	28,103	416,494	41,453	457,947

In addition there is a considerable interstate movement of timber by sea, of which complete records are not available. The quantity of rough and sawn timber recorded by the Sydney Harbour Trust as being imported at Sydney from other Australian States was 10,116,961 super. feet in 1928-29, 3,245,000 super. feet in 1930-31, 20,184,574 super. feet in 1935-36, and 28,701,219 super. feet in 1937-38.

#### Forestry Licenses and Permits.

Licenses and permits are granted for the purposes of obtaining timber and fuel, grazing, sawmilling, ringbarking, and for the occupation of forest land. The fees for licenses and permits are small, but considerable revenue is gained from royalties on timber, and rents for occupation permits, etc.

The revenue collected by the State from timber licenses, rents, and from royalty on timber during various years since 1911 is shown in the following table:—

TABLE 770.—State Forestry Revenue, 1911 to 1938.

Year ended 31st Dec.	Sales, Rents, Fees, etc.	Royalty on Timber.	Total.	Year ended 31st Dec.	Sales, Rents, Fees, etc.	Royalty on Timber.	Total.
	£	£	£		£	£	£
1911	11,153	79,165	90,318	1933	38,841	100,370	139,211
1916*	8,701	59,406	68,107	1934	42,017	123,997	166,014
1921*	76,141	114,601	190,742	1935	45,568	142,903	188,471
1926*	42,984	181,223	224,207	1936†	16,865	70,809	87,674
1931	35,742	52,806	88,548	1937*	45,642	161,128	206,770
1932	32,832	71,842	104,674	1938*	50,963	150,453	201,416

\* Year ended 30th June.

† Six months ended 30th June.

Included in the total for the year ended 30th June, 1938, are sales of converted and confiscated material £15,091, and rents for occupation permits, forest leases, etc., £22,806.

The experience of Europe and America indicates that well-directed expenditure by the Government in afforestation and re-afforestation is directly reproductive, and forest improvement in New South Wales, where timber grows more rapidly and to larger size, has been shown to produce very favourable results.

The expenditure by the Forestry Commission during the three years ended 30th June, 1936, to 1938, is shown below:—

TABLE 771.—Expenditure by Forestry Commission, 1936 to 1938.

Particulars.	1935-36.	1936-37.	1937-38.
	£	£	£
Management and protection of forests ...	24,447	44,658	40,746
Afforestation ... ..	27,858	29,457	29,873
Utilisation ... ..	3,605	6,255	7,268
Survey of forests ... ..	976	901	3,023
Land resumption... ..	168	1,020	25,183
Miscellaneous ... ..	1,332	2,566	268
	58,386	84,857	115,361
Unemployment Relief (State loans and Commonwealth grants) ... ..	230,761	186,316	262,589
Total ... ..	289,147	271,173	377,950

The moneys for the relief of unemployment have been expended for the most part in afforestation and the improvement and protection of the forests. A special deposit account has been opened at the State Treasury for grants in aid of forestry, to which the Commonwealth and State contribute equal amounts. The Commonwealth grant was £10,000 in 1935-36, £60,000 in 1936-37, and £12,500 in 1937-38.

#### *Persons Employed in Timber Industry.*

It has been estimated by the Forestry Commission that 11,942 persons were employed in the timber industry during the year ended 30th June, 1938, viz., 2,591 in felling and cutting; 1,879 in hauling timber to the mills; 3,722 in milling; and 3,750 in other occupations. These figures include persons partially employed, viz., 1,146 in felling and cutting, and 345 in hauling timber.

## FISHERIES.

THE waters along the coast of New South Wales contain many species of fish of high commercial value, but the fishing industry is not developed to its full capacity. The principal sources of supply of marine fish are the coastal lakes and estuaries, the sea beaches, and ocean waters, and a large quantity is obtained by deep-sea trawling. Murray cod is obtained in the inland rivers.

In September, 1936, the Commonwealth Government appointed an Officer in Charge of Fisheries Investigations, with the object of ascertaining the possibilities of extending the fishing industry in Australia. The Commonwealth Council for Scientific and Industrial Research is engaged in exploring the resources of fish in Australian waters, and a special research vessel has been built for employment in that work. A National Fisheries Laboratory and Research Station has been established at Port Hacking.

### CONTROL OF THE FISHERIES.

The law relating to fisheries in New South Wales was consolidated and amplified by the Fisheries and Oyster Farms Act, 1935, which came into operation on 16th November, 1936. The general administration of the Act for the protection, development and regulation of the fisheries of the State within the territorial limits is vested in a Minister of the Crown (the Chief Secretary). Fisheries in Australian waters beyond territorial limits are within the jurisdiction of the Commonwealth. To give effect to the Convention for the Regulation of Whaling signed at Geneva on 4th September, 1931, the Federal Parliament enacted the Whaling Act, 1935, which governs operations in Australian waters beyond territorial limits by all ships over which the Commonwealth has jurisdiction.

For administrative purposes and to enforce the law, inspectors may be appointed under the Fisheries Act, and members of the police force may exercise the powers and duties of an inspector. Honorary vigilance committees may be authorised to exercise inspectorial powers in terms of the regulations. Control is secured by authority to close waters to the taking of fish, either wholly, as to a certain season, or in respect of prescribed species or sizes of fish; the licensing of fishing boats and fishermen operating for pecuniary gain; the regulation of the use of nets; and the prohibition of the use of explosives in fishing. There are provisions governing the consignment and sale of fish, and the licensing of fish agents and salesmen; and returns must be furnished to disclose the nature and extent of fishing operations.

Experiments and research may be undertaken in the interests of the fisheries. For the purpose of stocking waters with trout and salmon, acclimatisation districts may be declared, and acclimatisation societies may be registered to control the fisheries therein. The close season for trout is from 1st May to 30th September of each year, and it may be varied by proclamation. A licence is required for trout or salmon fishing, and the method of trout fishing is subject to regulation.

*Fishing Licenses.*

The number of licenses granted to fishermen during the year 1938 was 2,762, and licenses were issued in respect of 1,807 boats. Licenses were issued to 17 fish agents, 347 oyster vendors, and 25 salesmen. Fish agents pay a license fee of £15 and salesmen 30s. for a full year. The fee for a wholesale fish dealer's license is £1, and for fishermen's and oyster vendors' licenses 10s. per year. Fees for fishing boats in territorial waters are 10s. per year, and for boats trawling and net fishing in extra-territorial waters fees are £5 for vessels up to 100 tons, £7 10s. from 100 to 200 tons, and £10 for vessels exceeding 200 tons. Boats operated in extra-territorial waters not trawling or netting pay fees of £1 up to 30 feet in length, and £2 if more than 30 feet.

## OYSTER FARMS AND OYSTER LEASES.

Oyster culture has developed into an industry of some importance, and at 31st December, 1938, there were 4,481 leases, embracing 915,862 yards of foreshores, and off-shore areas totalling 3,401 acres; and 780 persons were engaged in the industry.

Under the Fisheries and Oyster Farms Act, 1935, the available areas are classified as special, average or inferior lands according to productive capacity. Leases of special lands may be granted for a term of fifteen years, and may be renewed for a similar term. Such leases are offered by public auction or public tender at a rental determined by the Minister. The rent of average lands, which may be leased for a term of fifteen years, and renewed for a like term, is fixed by the Minister. Inferior lands may be leased for ten years, and may not be exploited in the first year of the lease. Rental for leases of inferior lands is also fixed by the Minister. In the last year of the lease the area may be reclassified, and may be renewed for fifteen years if determined as average lands, or for ten years if the classification is unaltered.

In all cases rental as determined by the Minister is subject to reference to the local land board, either on the application of an applicant or by the Minister.

The discoverer of a natural oyster bed has a statutory prior right to a lease of the area, unless it be classified as special lands.

Preferment rights to apply for the renewal of leases of inferior or average lands and for additional similarly classified lands is conferred upon existing lessees, but must be exercised within thirty days of the right arising. Applicants other than lessees, and lessees whose areas are deemed inadequate have a preferment right to an area as against other applicants with adequate lands, except lessees eligible for renewal of leases, or for securing areas immediately adjoining the off-shore boundary of leases having frontage to high-water mark.

Leased areas must be kept free from disease, and may be closed when over-dredged, subject to disease, or for other reason which in the Minister's opinion warrants such a course.

Public oyster reserves may be notified, and such areas are open to the public for the taking of oysters for their own immediate consumption, unless specifically declared closed.

During the year 1938 applications for oyster leases numbered 516, representing 101,043 yards of foreshore and 1,103 acres of off-shore leases.

## PRODUCTION OF FISH.

The most important kinds of fish marketed are flathead, snapper, bream, blackfish, whiting, mullet, jewfish, garfish, and Murray cod—a freshwater fish; tailer, trevally, and leather-jacket are readily saleable.

The production of fish, oysters and prawns as recorded in each year since 1927 is shown in the following table. The figures relate to commercial enterprises only:—

TABLE 772.—Production of Fish, 1927 to 1938.

Calendar Year.	Fish.			Oysters.	Prawns.
	Trawled.	Captured Otherwise.	Total.		
	lb.	lb.	lb.	bags.*	lb.
1927 ... ..	11,830,330	12,755,942	24,586,272	30,303	1,083,324
1928 ... ..	13,406,820	13,855,165	27,261,985	29,180	1,571,186
1929 ... ..	17,125,760	13,519,308	30,645,068	31,965	1,119,044
1930 ... ..	18,311,620	9,957,611	28,269,231	25,472	1,393,106
1931 ... ..	13,067,922	10,711,630	23,779,552	22,066	1,537,420
1932 ... ..	11,740,708	11,296,307	23,037,015	27,643	1,534,100
1933 ... ..	11,110,280	11,467,850	22,578,130	28,477	1,293,497
1934 ... ..	10,304,160	11,597,677	21,901,837	27,113	1,483,803
1935 ... ..	10,794,484	12,871,548	23,666,032	29,587	1,741,080
1936 ... ..	13,834,170	12,683,210	26,517,380	35,480	1,563,555
1937 ... ..	12,525,200	14,006,391	26,531,590	42,106	995,460
1938 ... ..	14,145,583	15,236,835	29,382,418	44,521	1,580,580

\* 3 bushels.

Most of the recorded production is marketed in the metropolitan and Newcastle districts. In 1938 rather less than half the supply was obtained by deep sea trawling. The production of trawled fish has expanded during the last four years, but in 1938 the quantity was 22.8 per cent. less than in 1930. During 1938 there were 15 trawlers in commission, as compared with 18 in 1929. Production by inshore fishermen declined by 28 per cent. between 1928 and 1930, but increased by 53 per cent. in the last eight years.

*Fish.*—The bulk of the inshore supplies is obtained in the estuaries and lakes on the northern part of the coast-line. The approximate quantities of fresh fish obtained in 1938 from each of the principal fishing grounds of the State are indicated below:—

Wallis Lake and Manning	lb.	Port Jackson and Parramatta	lb.
River ... ..	1,428,070	River ... ..	208,320
Clarence River ... ..	1,829,362	Port Hacking ... ..	190,645
Tuggerah Lakes and Terrigal			
Haven ... ..	988,680	Total—Metropolitan ...	1,268,471
Camden Haven ... ..	596,820	Shoalhaven and Crookhaven	
Macleay River ... ..	534,065	Rivers ... ..	370,405
Port Stephens ... ..	855,172	Lake Illawarra ... ..	312,130
Lake Macquarie ... ..	531,020	St George's Basin and Sussex	
Tweed River ... ..	788,515	Inlet ... ..	341,092
Other ... ..	1,290,870	Eden ... ..	359,345
		Ulladulla ... ..	265,790
Total—North Coast ...	8,842,574	Other ... ..	991,673
Hawkesbury River ... ..	565,198	Total—South Coast ...	2,640,435
Botany Bay & Georges River	304,308	Coastal—Undefined ...	2,035,355
		Inland Waters ... ..	450,000
		Grand Total ... ..	15,236,835

Included above were 3,793,825 lb. of fish sold locally at fishing centres, 929,950 lb. consigned from the North Coast to Brisbane, and 1,448,918 lb. from the South Coast to Victoria. The quantity of fish marketed in Sydney and Newcastle (including trawled fish) was 23,209,725 lb.

*Crayfish.*—The number of marine crayfish (*Palinurus*) obtained during 1938 was 161,608. Of these 142,408 were consigned for sale to Sydney and Newcastle. The principal source of supply was the northern crayfish grounds, from Newcastle to Port Macquarie, where 105,000, or nearly 65 per cent. of the catch, were secured.

*Prawns*.—A quantity of approximately 1,580,580 lb. of marine prawns (*Penaeus*) was obtained during 1938, and 35,985 lb. were condemned.

*Crabs*.—About 5,603 dozens of crabs were obtained in 1938. The catch included several species of swimming crabs, notably the Blue (*Lupa*) and the Mangrove (*Scylla*).

*Oysters*.—During the year 1938 the oyster production of the State was the greatest on record, and amounted to 44,521 bags, of 3 bushel capacity. These were Rock oysters (*Ostrea cucullata*), and the output was principally the result of artificial cultivation.

#### OVERSEA TRADE IN FISH.

A considerable proportion of the local requirements of fish is imported from countries outside Australia. Fish imported during the year ended June, 1938, was valued at £648,136, compared with £560,246 in 1936-37, including 14,402,616 lb. of tinned fish valued at £459,719 in 1937-38; and 13,778,784 lb. valued at £368,195 in 1936-37. The value of fish exported overseas, principally to New Guinea, the Pacific Islands and New Zealand, was £17,619, including tinned fish to the value of £14,672 in 1937-38. Corresponding figures for 1936-37 were £15,165 and £13,400. The fish exported is mainly non-Australian in origin.

#### VALUE OF FISHERIES PRODUCTION.

The value of the production from fisheries of New South Wales, as recorded during the year ended 31st December, 1937, was approximately £548,000, including fresh fish, £434,000; oysters, crayfish, prawns, etc., £114,000.

The value of production is estimated as at the place of production and is exclusive of fish condemned, of fish sold in fishing and other centres (and not recorded) or used for fertiliser and oil, and the value of molluscs other than oysters.

The following table shows the value of production from fisheries in various years since 1920-21:—

TABLE 773.—Value of Fisheries Production, 1921 to 1937.

Year ended 30th June.	Value. (000 omitted.)	Year ended 30th June.	Value. (000 omitted.)
1921	491	1933	544
1926	553	1934	536
1929	775	1935*	536
1930	788	1935*	583
1931	635	1936*	650
1932	591	1937*	548

\* Calendar Year.

#### FISH PRESERVING.

Many fishes specially suitable for treatment by canning, smoking, or salting are obtainable in the waters along the coast of New South Wales, but irregularity of supplies and climatic disadvantages have militated against the success of canning factories.

#### FISH CULTURE AND ACCLIMATISATION.

Acclimatisation of trout has met with remarkable success in the State—trout up to 8 and 10 lb. are occasionally captured. Suitable streams, viz., practically all above an altitude of 2,500 feet, have been stocked with trout. The number of fry released in 1938 was 983,200, as compared with 423,500 in 1937.



## RURAL SETTLEMENT

A BRIEF resume of the spread of settlement in New South Wales and of the development of the problem of rural settlement was published at page 679 of the Year Book for 1928-29.

Owing to the collapse of oversea markets, the prevalence of low prices and the limited world demand for primary products from 1930 onwards, the problem of rural settlement became (and remained for some years) the problem of maintaining existing settlement rather than of promoting new development. Following upon a fluctuating recovery in prices, the policy of closer settlement was resumed towards the end of 1937. Particulars of the new proposals are shown on page 920 of this Year Book.

### RURAL HOLDINGS.

The land of New South Wales which is occupied in rural holdings consists either of alienated lands, lands in course of alienation, leased Crown lands, or various combinations of these tenures, while a considerable area remains as Crown reserves. At 31st March, 1938, the number of agricultural and pastoral holdings of 1-acre or more in extent was 75,923, including 1,214 unoccupied or not used for agricultural or pastoral purposes at that date, and 1,238 used only incidentally for such purposes. These holdings embraced a total area of 174,137,436 acres.

The area of land neither alienated nor leased from the Crown does not represent the area of unoccupied land available for settlement. It includes the land unfit for occupation of any kind—estimated to be approximately 5,000,000 acres in extent; land embraced in State forests and not otherwise occupied; unoccupied reserves for necessary public purposes, such as commons, travelling stock and water reserves, roadways, railway enclosures; and unoccupied land covered by water or too rugged or arid for occupation. Such lands are situated mainly in the coastal and tableland divisions, but smaller proportions are found in all divisions.

#### *Use of terms "Alienated Land" and "Holding."*

In collecting statistical returns relating to agricultural and pastoral holdings, the term "alienated land" is intended to relate to lands absolutely alienated, lands in course of alienation, homestead selections and homestead farms, certain perpetual irrigation tenures and (since 1934) perpetual leases in the Western Division embraced within rural holdings one acre or more in extent. Very extensive areas of Western Lands Leases have been converted to leases in perpetuity (a process still continuing), materially affecting comparisons regarding alienated lands as defined in this chapter. These tenures include practically the whole of the land alienated and virtually alienated. The term "alienated land" used throughout this chapter refers to the area so returned by individual landholders, and it does not, therefore, correspond to lands absolutely alienated for which deeds of purchase have been issued. This area has been shown as land absolutely alienated in the chapter entitled "Land Legislation and Settlement," which follows.

The term "holding" as used in this section and the sections dealing with rural industries signifies, in general and unless the context otherwise requires, an area of land worked as an individual unit. In some cases, two or more such "holdings" are in the same ownership, but usually where contiguous or closely neighbouring "holdings" are within the same ownership and are worked virtually as one they are classified as one holding.

*Purposes for which Holdings are Used.*

The problem of rural development in New South Wales relates largely to the task of placing additional permanent settlers on the land as productive units of the population. In addition to human factors, this problem is complicated by the variations of seasons and of markets, which determine largely the profitableness of rural pursuits. An approximate classification of the main purposes for which rural holdings of one acre and upwards were used is available for each year since 1908, and provides the following comparison, which shows at intervals the distribution of rural settlement according to purposes:—

TABLE 774.—Rural Holdings, Classification according to Purposes, 1908 to 1938.

Main purpose for which holdings are used.	Number of Holdings.							
	1908.	1911-12.	1925-26.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Agriculture only ... ..	7,244	6,814	11,435	11,352	10,689	10,293	10,741	10,577
Dairying only ... ..	3,575	3,157	9,766	15,033	14,929	14,969	14,521	14,136
Grazing only ... ..	21,874	22,011	25,428	21,692	22,112	21,970	21,968	21,654
Agriculture and Dairying ...	8,377	8,258	5,624	4,315	4,226	4,066	4,178	4,072
Agriculture and Grazing ...	18,733	21,969	18,084	15,438	15,373	15,995	16,669	17,675
Dairying and Grazing ...	1,818	2,099	1,794	1,498	1,474	1,445	1,394	1,316
Agriculture, Dairying, and Grazing... ..	3,312	4,362	1,734	2,065	1,952	1,834	1,716	1,592
Poultry, Pig, or Bee Farming ... ..	529	879	1,526	1,846	2,776	2,786	2,592	2,449
Total Holdings of one acre and upwards used mainly for Agricultural and Pastoral purposes	65,462	69,549	75,391	73,239	73,531	73,358	73,779	73,471

NOTE—The basis of classification was amended in 1928-29.

In addition to the above, 2,452 small holdings—mostly less than 30 acres in extent—were used partly for agriculture and pastoral purposes, but mainly for residential and other purposes, or were unoccupied at the time of collecting the returns. The above table does not indicate the actual number of settlers occupying the land—because some holdings are held jointly, and a number of landholders own more than one holding.

In 1928-29 the basis of classification was amended so that holdings, on which agricultural operations were entirely or almost entirely confined to the raising of produce to feed sheep, cattle or pigs on the holding, were classified under the headings "grazing only" or "dairying only." Poultry, pig, and bee farming are subsidiary activities conducted largely in conjunction with other types of farming.

An analysis of the table discloses a definite trend in the last five years toward mixed farming. Single-purpose holdings have declined in number since 1930-31, and the number of holdings devoted to two or more classes of activity has progressively increased. In 1930-31 there were 49,944 holdings devoted exclusively to agriculture, dairying, or grazing, and the number of such holdings had declined to 46,367 in 1937-38, or by 7.2 per cent. On the other hand multiple-purpose holdings, which numbered 21,634 in 1930-31, increased to 24,655 in 1937-38, or by 13.9 per cent.

A detailed analysis showing the extent to which wheat-growing was associated with other types of farming in the years 1932-33 and 1935-36 will be found at page 712 *et seq.* of this Year Book.

Considering the use of holdings for each of the three principal purposes, either exclusively or in combination, the figures indicate some shift from grazing to agriculture and dairying during the years 1930-31 to 1932-33, doubtless encouraged by the low prices for wool. The change in the market in 1933-34 was reflected in a partial reversal of that movement which was again evident in 1934-35, but in 1935-36 the numbers varied little in comparison with the preceding year. Holdings on which dairying was conducted increased in number between 1930-31 and 1933-34 by 2,398, or by 11.7 per cent. This was due mainly to the adoption of dairying as an activity on certain holdings in the hinterland normally devoted to wool and wheat, the prices of which had fallen very low. From 1934 to 1938 there was a recovery in prices of wool and wheat, and dairying was discontinued as a supplementary or alternative activity on many of these holdings.

The areas of land utilised for the principal forms of rural industry during the year 1930-31, the latest year of collection, compared with the preceding year, were as shown below:—

TABLE 775.—Land used for Rural Industries, 1930-31.

Divisions.	Agriculture.	Dairying.	Grazing.	Other Purposes.	Total.
	acres.	acres.	acres.	acres.	acres.
Coastal ... ..	286,494	4,783,201	7,407,892	308,729	12,786,316
Tablelands ... ..	620,284	354,150	18,788,406	171,282	19,934,122
Western Slopes ... ..	4,599,421	261,069	19,618,956	95,787	24,575,233
Plains ... ..	4,115,622	76,654	32,620,800	125,602	36,938,678
Western Division ... ..	57,828	7,634	77,462,510	10,008	77,537,980
Total, 1930-31 ... ..	9,679,649	5,482,708	155,898,564	711,408	171,772,320
„ 1929-30 ... ..	8,958,264	4,808,352	157,832,437	936,629	172,535,682

Meteorological circumstances play a considerable part in determining the uses to which land is put in the various districts, whilst apart from natural limitations due to the quality of the soil and configuration of the land, proximity to rail, seaport, or factory qualify the manner in which land may be utilised. The distribution of rainfall in relation to the geographical distribution of rural industries in New South Wales was shown in a map facing page 728 of the Year Book for 1924.

#### *Size of Holdings.*

Information regarding the size of rural holdings is available in two distinct classifications, one in accordance with the size of the alienated area only, excluding the Crown lands attached thereto, and the other in accordance with the total area of alienated and Crown land contained in each holding.

A table showing the number and size of holdings classified according to the total area of alienated and Crown lands combined as at 30th June, 1927, was published on page 683 of the Year Book for 1928-29, but similar information for a later year has not been compiled.

The following tabulation shows particulars of alienated holdings in New South Wales classified in area series as at 31st March, 1937:—

TABLE 776.—Size and Value of Alienated Holdings.

Area of Alienated Land in Holding.	Number of Alienated Holdings.	Aggregate Area of Alienated Land. (a)	Unimproved Capital Value of Alienated Land.	Improved Capital Value of Alienated Land.
acres.		acres.	£	£
1— 30...	10,261	128,591	2,755,050	8,239,300
31— 320...	26,599	3,883,400	18,359,070	49,761,130
321— 640...	11,185	5,360,807	12,291,470	33,590,990
641— 1,280...	11,026	10,180,128	17,558,970	50,548,290
1,281— 2,000...	5,103	8,216,047	11,635,280	33,829,050
2,001— 3,000...	3,154	7,713,772	10,269,010	30,495,640
3,001— 4,000...	1,522	5,278,089	7,040,610	19,677,560
4,001— 5,000...	983	4,395,940	5,566,930	15,476,150
5,001— 7,500...	1,212	7,264,047	8,822,940	23,844,100
7,501— 10,000...	474	4,114,562	5,018,830	13,055,120
10,001— 15,000...	459	5,509,480	6,942,900	17,706,730
15,001— 20,000...	191	3,292,777	3,800,460	9,017,450
20,001— 30,000...	203	4,908,012	4,387,700	10,682,520
30,001— 40,000...	93	3,227,088	2,117,060	4,884,690
40,001— 50,000...	50	2,193,637	1,324,970	3,159,680
50,001—100,000...	89	6,313,306	3,438,880	6,994,520
100,001 and over	29	4,169,991	1,663,600	3,256,460
Total ...	72,633	86,149,674	122,993,730	334,219,380

(a) See explanation on page 851.

In the following table the number and area of alienated lands in area series is shown according to the major statistical divisions of the State. In a great number of cases rural holdings include lands leased from the Crown as well as the alienated land here shown:

TABLE 777.—Size and Location of Alienated Holdings.

Size of Holdings of Alienated Lands.	Number and Area of Alienated* Holdings in Divisions at 31st March, 1937.					
	Coastal.	Tablelands.	Western Slopes.	Plains and Riverina.	Western Division.	Whole State.
Acres.						
1 to 30 ...	No. 7,298	1,093	1,021	803	46	10,261
	Acres 80,168	17,389	15,584	14,952	498	128,591
31—320 ...	No. 16,908	4,788	3,335	1,401	167	26,599
	Acres 2,503,462	697,879	488,829	172,421	20,800	3,883,400
321—1,280 ...	No. 5,843	4,831	7,279	4,096	162	22,211
	Acres 3,432,204	3,381,247	5,444,264	3,159,912	123,308	15,540,985
1,281—5,000 ...	No. 987	2,442	3,863	3,357	113	10,762
	Acres 2,189,624	5,781,528	9,006,227	8,347,601	278,568	25,603,848
5,001—10,000 ...	No. 99	339	468	737	43	1,686
	Acres 651,057	2,280,094	3,115,223	5,014,377	308,858	11,378,609
10,001—20,000 ...	No. 22	120	164	289	55	650
	Acres 299,747	1,581,987	2,211,050	3,902,114	807,359	8,802,257
20,001—50,000 ...	No. 12	32	31	144	127	346
	Acres 327,567	823,325	882,590	4,304,947	3,990,308	10,328,737
Over 50,000 ...	No. 1	...	3	48	66	118
	Acres 57,230	...	236,658	4,047,576	6,141,813	10,483,297
Totals ...	No. 31,170	13,645	16,164	10,875	779	72,633
	Acres 9,541,079	14,572,440	21,400,425	28,963,900	11,671,821	86,149,674
Total Area of Divisions† ...	Acres 22,286,000	25,847,000	28,181,000	41,395,000	80,319,000	198,028,000

\* See explanation on page 851. † Exclusive of part of harbours, lakes, etc., and Lord Howe Island.

The table shows that whilst lands classified as alienated comprised 43.5 per cent. of the total area of the State, the proportion alienated varied greatly between divisions ranging from 14.5 per cent. in the Western Division up to 75.9 per cent. in the Western Slopes. The large increase in the area of alienated land in the Western Division is attributable to the conversion of Western Lands Leases into Leases in Perpetuity under the Amending Act of 1932. Slightly more than 72 per cent. of the Plains and Riverina was alienated, and 56 per cent. of the Tablelands and 42.8 per-

cent. of the Coastal Division was so classified. Approximately 60 per cent. of the alienated lands were within the Western Slopes and Plains of the Eastern and Central Land Divisions, which comprise slightly more than one-third of the area of the State.

Owing to differences in productive capacity of the land, which varies greatly as between divisions and within divisions, and according to the form of rural enterprise to which the land is applied, it is not possible statistically to classify holdings according to size in relation to living areas.

The following particulars relate to alienated holdings or alienated portions of holdings:—

Holdings not exceeding 1,280 acres in extent numbered 59,071 in 1937, representing 81.3 per cent. of the alienated holdings of the State, but embracing only 19,552,926 acres, or slightly less than 23 per cent. of the alienated lands. Holdings of more than 5,000 acres in area in the Eastern and Central Land Divisions numbered 2,509, with an aggregate area of 29,744,562 acres, and thus, over 39 per cent. of the freehold lands in those divisions were comprised in 3.5 per cent. of the total number of holdings containing alienated land. Of these approximately one-half (1,218) in the Plains and Riverina embraced 17,269,018 acres.

There were 666 holdings exceeding 5,000 acres in area in the Western Slopes, which aggregated 6,445,521 acres, and the Tablelands and Coastal Divisions contained 491 and 134 such holdings, embracing 4,694,406 acres and 1,335,621 acres respectively. Similar data for each of the statistical divisions of New South Wales are published in the Statistical Register of New South Wales for 1936-37.

#### *Number of Holdings and Average Area.*

Omitting holdings of less than 30 acres in extent, which generally are not important in relation to rural settlement, it is possible to trace from 1881 to 1937 the increase in the number of holdings in relation to the growth of population. This is shown in the following table:—

TABLE 778.—Number and Area of Rural Holdings in Relation to Population, 1881 to 1937.

Year.	Holdings containing over 30 acres of Alienated* Land.			Mean Population.
	Number.	Area.	Average Area.	
		acres.	acres.	
1881	32,521	27,791,076	855	765,015
1891	38,706	41,046,249	1,060	1,142,025
1901	48,360	45,869,742	948	1,366,900
1911	57,080	51,943,846	910	1,665,265
1916	60,435	56,047,062	927	1,893,479
1921	61,505	61,003,468	992	2,108,493
1925	62,475	65,209,412	1,044	2,295,605
1930	61,875	73,113,486	1,182	2,532,497
1934	61,974	72,385,371	1,168	2,623,817
1937	62,372	86,021,083	1,379	2,680,730

\* See explanation, page 851.

Many of the holdings enumerated above have leases attached to them, but the areas shown relate to alienated land only. When two or more holdings are owned by the same person they are enumerated separately unless they are in close proximity to each other and are operated virtually as one holding.

The decline in area of alienated holdings between 1930 and 1934 is without significance. During 1931-32 the classes of lands to be returned under the category of alienated land were more specifically defined. It is evident that as a result some of the lands formerly returned as alienated have since been included as leasehold land. Conversion to Leases in Perpetuity under the Western Lands Amendment Act, 1932, was primarily responsible for the greatly enhanced area of 1937. These observations apply equally in explanation of the reversal of trend disclosed in the next succeeding table.

The development of alienation has been slower since 1901 than previously. The relative growth of settlement, alienation, and population may be readily illustrated by reference to index-numbers for which, in each case, the year 1901 is chosen as base and called 100:—

TABLE 779.—Index of Number and Area of Alienated Holdings.

Year.	Index of Holdings containing over 30 acres of Alienated* Land.			Index of Mean Population.
	Number.	Area.	Average Area.	
1881	67	61	90	56
1891	80	90	112	84
1901	100	100	100	100
1911	118	113	96	122
1916	125	122	98	138
1921	127	133	105	154
1925	129	142	110	168
1930	128	159	125	185
1934	128	158	123	192
1937	129	188†	145†	196

\* See explanation, page 851. † See penultimate paragraph.

#### Tenure of Holdings.

The tenure of land-holdings in New South Wales is principally of two classes—freehold and leasehold from the Crown. Only a small proportion of the total area occupied (approximately 2 per cent.) is rented from private owners, although the area held on lease from the Crown is very large. Tenancy, as understood in older countries is, therefore, of small extent, and a very large proportion of the total alienated area is occupied by its owners.

The following table shows the area occupied in each division of New South Wales, according to the class of tenure, as at 31st March, 1938. Owing to rearrangement of the divisions on the basis of Local Government areas in 1922-23, divisional comparisons cannot be made effectively with figures published prior to that year.

TABLE 780.—Area and Tenure of Rural Holdings, 1938.

Division.	Alienated* or virtually alienated.	Leased from Crown with full rights of conversion into freehold.	Leased from Crown with limited rights of conversion into freehold.	All other leases held from Crown.	Total Area in Holdings.
	acres.	acres.	acres.	acres.	acres.
Coastal ... ..	9,470,721	1,395,035	209,645	1,171,030	12,246,431
Tableland... ..	14,761,001	3,543,469	459,830	1,333,110	20,097,410
Western Slopes ... ..	21,726,749	2,329,480	320,817	1,170,751	25,553,797
Central Plains and Riverina ... ..	29,947,682	5,678,074	587,423	2,227,780	38,440,965
Western ... ..	19,585,809	497,969	477,609	57,237,380	77,798,833
New South Wales ... ..	95,492,022	13,444,027	2,055,324	63,146,063	174,137,436

\* See explanation, page 851.

Of the total area occupied, 54.8 per cent. was classed as freehold, and the remaining 45.2 per cent. as Crown land, including 7.7 per cent. leased with full or limited rights of conversion into freehold. Of the other Crown land leases, 90.6 per cent. were in the Western Division, and utilised almost exclusively for depasturing stock.

About 10 per cent. of the land alienated, or virtually alienated, is situated in the Coastal Division, where it amounts to over 77 per cent. of the total area occupied in holdings. These farms are used chiefly for dairying.

The proportions of the total area of the respective divisions occupied in holdings of various classes in 1937-38 are shown in the following table:—

TABLE 781.—Proportionate Area of Rural Holdings in Various Tenures.

Division.	Alienated* or virtually alienated.	Leased from Crown with full rights of conversion into free- hold.	Leased from Crown with limited rights of conversion into free- hold.	All other leases held from Crown.	Proportion of Total Area under Occu- pation.
	per cent.	per cent.	per cent.	per cent.	per cent.
Coastal ... ..	42.49	6.26	0.94	5.25	54.94
Tableland ... ..	57.12	13.71	1.78	5.15	77.76
Western Slopes ... ..	77.09	8.27	1.14	4.18	90.68
Central Plains and Riverina	72.35	13.72	1.42	5.38	92.87
Western ... ..	24.39	0.62	0.59	71.26	96.86
New South Wales ...	48.22	6.79	1.03	31.89	87.93

\* See explanation, page 851.

More than 87 per cent. of the total area contained within the boundaries of the State is occupied in holdings of one acre and upwards used for agricultural or pastoral purposes. The highest proportion of alienation, 77.09 per cent. of the area of the division, has taken place in the Western Slopes, and the lowest, 24.39 per cent., in the Western Division. But taking the total area of holdings, the Western Division shows the largest proportion of its area—96.86 per cent.—under occupation. The proportions are high also in the Central Plains and Riverina, 92.87 per cent., and the Western Slopes, 90.68 per cent.

If reference be made to the table on page 683 of the Year Book for 1928-29 it will be seen that the proportion of lands used for agricultural and pastoral purposes in each division decreases as the intensity of settlement increases. At the same time it is apparent that the density of settlement bears an approximate relationship to physical configuration and average rainfall. While the greater intensity of settlement in the more easterly districts necessitates the allocation of larger proportions of land for public purposes, it is undeniable that a very considerable proportion of the remaining Crown land in the Eastern Division is so rugged or wooded as to be unfit or unprofitable for occupation. This is especially the case in the South Coast Division, which in parts is very mountainous, only 39 per cent. of the total area being occupied by rural holdings, as compared with 68 per cent. in the North Coast Division and 60 per cent. in the Hunter and Manning.

#### VALUE OF ALIENATED RURAL LANDS.

Information as to the improved and unimproved capital values of lands was first collected for statistical purposes in 1920-21. The particulars relate to the value, on a freehold basis, of lands absolutely alienated, in course of alienation, or held in perpetuity, as homestead farms or homestead selections, etc., and used for agricultural and pastoral purposes.

The unimproved capital value was defined as being the amount which the land might be expected to realise if sold under such reasonable conditions as a *bona fide* seller would require, assuming that the actual improvements had not been made, and the improved capital value as the value of the land with all improvements and buildings thereon under similar conditions of sale. Where particulars of unimproved value are not available from owners, collectors are instructed to obtain them from the records of Shire Councils, so that the unimproved values quoted may be taken as representing local government assessments, except in the Western Division, where no shires exist.

Where valuations have been made by the Valuer-General it has been found that valuations formerly made for local government purposes were below actual values. In many cases the discrepancy was considerable, and in the aggregate the valuations of shires are probably under-estimated by more than 20 per cent. Since municipal lands are of comparatively small extent, and very few shires assess improved values, particulars of improved capital value were obtained from the owners. In the table which follows, then, the unimproved capital value represents in most cases the shire valuation, but the improved values are obtained from the owner's assessment of the value of the land and its improvements. It is not possible to deduce the value of the improvements from the figures.

The following table shows in divisions of the State (on the basis of Local Government areas) the distribution of alienated and Crown lands occupied in holdings of one acre and upwards for agricultural and pastoral purposes, together with the total and average value of the alienated lands at 31st March, 1938:—

TABLE 782.—Area and Value of Rural Holdings in Divisions, 1938.

Division.	Alienated* Land in Occupation in Holdings of one acre and over.					Area of Crown Land.
	Area.	Unimproved Capital Value of Land.		Improved Capital Value.		
		Total.	Average per acre.	Total.	Average per acre.	
	Acres.	£	£	£	£	Acres.
<i>Coastal—</i>	000.	000.		000.		000.
North Coast ...	3,357	12,269	3·65	30,800	9·17	1,397
Hunter and Manning ...	4,021	9,254	2·30	25,578	6·36	884
Metropolitan ...	282	3,227	11·44	7,746	27·47	7
South Coast ...	1,811	4,647	2·56	12,144	6·70	488
Total ...	9,471	29,397	3·10	76,268	8·05	2,776
<i>Tablelands—</i>						
Northern ...	4,341	5,496	1·27	14,222	3·28	2,190
Central ...	6,242	9,767	1·56	31,574	5·06	1,523
Southern ...	4,178	5,536	1·32	16,778	4·01	1,623
Total ...	14,761	20,799	1·41	62,574	4·24	5,336
<i>Western Slopes—</i>						
North ...	6,700	10,790	1·61	27,174	4·05	1,618
Central ...	6,318	9,560	1·51	30,622	4·85	745
South ...	8,709	15,795	1·81	50,115	5·76	1,464
Total ...	21,727	36,145	1·66	107,911	4·96	3,827
<i>Plains—</i>						
North-central ...	5,621	6,429	1·14	15,182	2·70	2,140
Central ...	10,103	9,139	0·90	21,365	2·11	3,822
Riverina ...	14,224	21,644	1·52	54,728	3·85	2,531
Total ...	29,948	37,212	1·24	91,275	3·05	8,493
<i>Western Division</i> ...	19,585	1,843	0·09	5,188	0·27	58,213
<i>Whole State</i> ...	95,492	125,396	1·31	343,216	3·59	78,645

\* See explanation, page 851.



Particulars of the rainfall, productivity, and population of each of these divisions are shown on page 860. The average value per acre is closely related to these factors. The greater part of alienated lands in the Western Division is comprised in Western Lands Leases held in perpetuity, but there is a considerable area of absolute alienation in the eastern confines, and there are, naturally, marked variations in value per acre between the more accessible, and the remote parts of this vast region.

The unimproved value of the alienated portions of rural holdings in series as at 31st March, 1937, is shown in the following table. The totals as at 30th June, 1930, and 31st March, 1934, are also appended, but in view of the method of arriving at valuations, as explained on the preceding page, the comparative significance of the figures is limited.

TABLE 783.—Alienated Rural Holdings—Unimproved Value Series.

Unimproved Value of Alienated* Holdings or Alienated Portions of Holdings.	Number of Wholly or Partly Alienated Holdings.	Aggregate Alienated Area of Holdings.	Unimproved Value of Alienated Area of Holdings.	Average Unimproved Value per Acre.
£		acres.	£	f s.
Under 500 ... ..	26,125	4,221,363	5,814,820	1 8
500— 999 ... ..	14,398	36,892,303	10,337,180	1 10
1,000— 1,999 ... ..	16,526	14,690,593	22,991,420	1 11
2,000— 2,999 ... ..	6,854	11,684,456	16,309,490	1 8
3,000— 4,999 ... ..	4,587	12,496,927	17,144,550	1 7
5,000— 9,999 ... ..	2,609	12,338,689	17,437,290	1 8
10,000—14,999 ... ..	693	6,226,095	8,306,600	1 7
15,000—19,999 ... ..	336	4,207,950	5,742,980	1 7
20,000 and over ... ..	505	13,391,298	18,909,400	1 8
Total ... ..	72,633	86,149,674	122,993,730	1 9
Total at 30th June, 1930.	70,595	72,231,375	124,208,880	1 14
„ „ „ 31st March, 1934.	71,026	72,505,729	118,820,930	1 13

\* See explanation, page 851.

A table containing corresponding particulars for each of the sixteen statistical divisions of the State was published in the "Statistical Register of New South Wales" for 1936-37.

In the following table holdings as at 31st March, 1937, are arranged in unimproved value series under divisional headings:—

TABLE 784.—Alienated Rural Holdings—Unimproved Value Series, in Divisions, 1937.

Unimproved Value Series in £.	Number and Value of Alienated* Holdings in Divisions at 31st March, 1937.					
	Coastal.	Table-lands.	Western Slopes.	Blains and Riverina.	Western Division.	Whole State.
Under 500 ... ..	No. 14,484	5,674	3,717	1,886	364	26,125
	Value £ 3,250,100	1,246,330	778,910	487,730	51,690	5,814,820
500 and under 1,000	No. 6,875	2,869	2,871	1,713	70	14,398
	Value £ 4,876,660	2,041,650	2,135,410	1,235,660	47,800	10,337,180
1,000 „ 2,000	No. 6,413	2,595	4,609	2,815	94	16,526
	Value £ 8,750,460	3,594,270	6,494,300	4,016,080	136,300	22,991,410
2,000 „ 3,000	No. 2,000	1,018	2,131	1,617	88	6,854
	Value £ 4,654,710	2,439,400	5,100,930	3,896,650	208,800	16,309,490
3,000 „ 5,000	No. 1,922	728	1,465	1,402	70	4,587
	Value £ 3,372,700	2,739,900	5,475,120	5,289,840	266,990	17,144,550
5,000 „ 10,000	No. 351	488	867	850	53	2,609
	Value £ 2,259,240	3,301,230	5,815,160	5,686,650	374,960	17,437,290
10,000 „ 15,000	No. 69	123	243	234	24	693
	Value £ 821,450	1,486,130	2,931,860	2,780,370	286,790	8,306,600
15,000 „ 20,000	No. 28	63	123	112	10	336
	Value £ 471,880	1,068,390	2,099,210	1,937,190	166,310	5,742,980
20,000 and upwards	No. 28	87	138	246	6	505
	Value £ 322,950	2,688,090	4,687,060	10,438,400	172,910	18,909,400
Total ... ..	No. 31,170	13,645	16,164	10,875	779	72,633
	Value £ 29,380,210	20,605,440	35,526,960	35,768,570	1,712,550	122,993,730

\* See explanation, page 851.

The largest number of holdings is situated in the comparatively closely populated Coastal Division. These are devoted mostly to dairying, fruit-growing, poultry-farming and market gardening. In this division only 1.52 per cent. of the holdings had a value of £5,000 or more, but in the Western Slopes, Plains and Riverina Divisions (which embrace the wheat-growing and sheep-raising areas of the State) the proportion of the holdings exceeding £5,000 in value was 8.48 and 13.26, respectively.

#### CHARACTER OF SETTLEMENT.

A brief description of the character of rural settlement in New South Wales was published on page 689 of the Year Book for 1928-29 and a map showing the distribution of the rainfall, population and rural industries of the State was published opposite page 728 of the Year Book for 1924.

The following analysis of the State, according to natural divisions on the basis of Local Government areas, shows the rainfall, population, area, and production of each. A map showing these divisions is published as a frontispiece to this Year Book:—

TABLE 785.—Rainfall, Population, Area and Production, in Divisions, 1937-38.

Division.	Range of Average Annual Rainfall.	Popu-lation at 31st Dec. 1937.*	Total Area. †	Production (1937-38).				
				Wool.	Wheat.	Butter.	Minerals. ‡	Manu-factures.
	inches.		acres.	lb.	bushels.	lb.	£	£
<i>Coastal—</i>		000	000	000	000	000	000	000
North Coast ...	37-77	155	6,965	48	...	67,440	12	1,307
Hunter and Manning ...	22-68	316	8,396	7,338	53	30,148	3,672	8,719
Metropolitan ...	27-47	1,419	958	204	...	391	} 1,223	66,329
South Coast ...	29-60	114	5,968	3,814	...	10,757		
Total ...	...	2,004	22,287	11,404	53	108,736	4,907	79,579
<i>Tablelands—</i>								
Northern ...	30-39	56	8,069	29,276	252	1,767	247	232
Central ...	23-55	144	10,716	48,109	3,873	1,609	719	1,435
Southern ...	18-63	52	7,062	32,996	76	481	4	379
Total ...	...	252	25,847	110,381	4,201	3,857	970	2,046
<i>Western Slopes—</i>								
North ...	23-33	66	9,219	50,791	6,835	1,589	72	296
Central ...	20-28	66	7,723	38,219	11,397	767	9	274
South ...	18-54	120	11,239	59,248	15,071	4,905	53	765
Total ...	...	252	28,181	148,258	33,303	7,261	134	1,335
<i>Central Plains—</i>								
Northern ...	18-26	31	9,579	39,605	2,209	111	2	204
Central ...	16-23	29	14,811	50,216	1,116	120	28	100
Riverina ...	11-23	89	17,004	61,301	14,177	767	25	494
Total ...	...	149	41,394	151,122	17,502	998	55	798
<i>Western Division ...</i>	7-16	54	80,319	73,862	45	31	4,285	1,410
Whole State ...	...	2,711	198,028	495,027	55,104	120,883	10,351	85,168

\* Excluding aboriginals.

† Excluding area of harbours not included in local government areas.

‡ Calendar year, 1937.

|| Value added in process of manufacture.

Manufactories are not extensive outside the metropolitan, Newcastle, and Port Kembla districts, except for dairy factories in the coastal districts. Smelting and metal works of considerable importance are established on the coal-fields of the South Coast, at Newcastle and on the silver-lead fields at Broken Hill in the Western Division. A number of cement works are also operating in the Central Tableland Division and woollen mills at several of the more important country towns.

The five principal topographical divisions are strips of territory running from the northern to the southern boundary in a south-westerly direction, embracing, respectively, the coastal belt, tablelands, western slopes, central western plains and Western Division or far western plains. Except for the western plains, each is divided into three portions—northern, central and southern—which, with the inclusion of a special metropolitan district, makes fourteen subdivisions, each of which presents fairly uniform natural features and is affected by uniform physiographic factors. In the north the region of high average rainfall extends further inland than in the south, with the result that the isohyets run in a general north and south direction. The south-western extremity of the Riverina lies about 100 miles further from the coast than does the north-western extremity of the northern plain, and, as the average annual rainfall diminishes with increasing rapidity towards the west, the northern subdivisions shown above generally receive more rain than the central, and the central more than the southern subdivisions. Rather less than one-half of the total area of the State receives average rains exceeding 20 inches per year, and rather more than one-half receives an average of more than 15 inches per year. Where the rainfall is greatest conditions generally favour the dairying industry, the areas with moderate rainfall being more suitable for sheep and wheat. In the dry western areas wool-growing is the only important rural industry.

Not only the quantity, but the season and reliableness of the rainfall, and the amount of evaporation are important considerations in determining the productive possibilities of any region. In common with most countries, New South Wales suffers periodically in one part or another from the effects of intermittent rainfall, a disability which local conditions such as the abnormal evaporation and the absorbent nature of the soils of the interior tend to aggravate. This difficulty may be overcome ultimately by water conservation and improvement in cultural methods, but at present it operates powerfully to the detriment of the western hinterland.

The meteorological conditions of the respective divisions of the State are discussed in greater detail in the chapter "Climate" of this Year Book.

#### SETTLEMENT IN DIVISIONS.

Rainfall exerts a decisive effect on the nature of the pursuits and the extent of settlement in the various rural districts of the State, and largely explains their industrial characteristics.

For the purpose of considering rural settlement, the State may be distributed into five statistical divisions, viz., Coast, Tableland, Western Slopes of the Great Dividing Range, Central Plains and Riverina, and the Western Division. The statistics for 1922-23 and subsequent years have been collected upon the basis of local government areas instead of counties, as formerly, and this necessitated considerable rearrangement of divisional boundaries.

The nature of the industries and the settlement of each of the principal divisions of the State were discussed in the Official Year Book, 1922, at page 681 *et seq.*

*Coastal Districts.*

The following table presents a summary of the tenure and extent of occupied holdings in the four main divisions of the coastal belt as at 31st March, 1938:—

TABLE 786.—Rural Holdings in Coastal Districts, 1938.

Division of Coast.	Total Area of Division.	Land occupied in Holdings of One acre and upwards for Agricultural and Pastoral Purposes.						
		Holdings of One acre and upwards.	Alienated.*	Leases from the Crown with		All Other Crown Leases.	Total.	Area of Land suitable for Cultivation.
				Full rights of Conversion.	Limited rights of Conversion.			
	acres.	No.	acres.	acres.	acres.	acres.	acres.	acres.
	000.		000.	000.	000.	000.	000.	000.
North. ...	6,965	11,903	3,357	577	104	715	4,753	584
Hunter-Manning ...	8,396	9,317	4,021	560	72	252	4,905	453
Metropolitan ...	958	5,312	282	6	...	1	289	161
South ...	5,968	4,656	1,811	252	34	202	2,299	405
Total ...	22,287	31,188	9,471	1,395	210	1,170	12,246	1,603

\* See explanation, page 851.

Apart from the small area in the county of Cumberland which surrounds the metropolis, the North Coast is by far the most closely-settled part of the Coastal Division. The average areas of holdings in the various divisions are:—North Coast, 399 acres; Hunter and Manning, 526 acres; and South Coast, 494 acres. The proportions of the total area of each division occupied in holdings as defined is 68 per cent. in the North Coast Division, 58 per cent. in that of Hunter and Manning, but only 39 per cent. on the South Coast.

Included in the coastal districts are 2,561 holdings, on which 3,289 share-farmers cultivated 50,528 acres and used 700,163 acres as dairy farms. Of the holdings with share-farmers 2,237 were used for agriculture and dairying in combination, 154 for agriculture exclusively and 170 for dairying only.

Owing to the rugged nature of the country only a small proportion of the land is considered suitable for cultivation, and of this area slightly more than one-fifth was cultivated in 1937-38.

The following analysis shows the main purposes for which the holdings in the coastal districts were used in 1937-38 in comparison with 1929-30:—

TABLE 787.—Uses of Rural Holdings in Coastal Districts:

Principal Purpose for which Holdings were Used.*	1929-30.	1937-38.				
	All Coastal Divisions.	North Coast.	Hunter and Manning.	Metropolitan.	South Coast.	Total.
		Number of Holdings.				
Agriculture only ...	4,664	1,445	1,508	2,211	517	5,681
Dairying only* ...	12,346	6,436	4,090	712	1,930	13,168
Grazing only* ...	6,104	1,199	1,762	179	1,112	4,252
Agriculture and dairying* ...	2,473	1,938	665	73	392	3,068
Agriculture and grazing* ...	705	194	142	11	165	512
Dairying and grazing* ...	1,054	252	356	7	119	734
Agriculture, dairying, and grazing* ...	240	95	59	3	44	201
Poultry† ...	1,239	3	288	1,676	80	2,047
Bees, Pigs.† ...	176	25	21	74	40	160
Unoccupied, or used mainly for other purposes ...	1,676	316	426	366	257	1,365
Total ...	30,677	11,903	9,317	5,312	4,656	31,188

\* See comments at page 852.

† See comments at pages 833 and 839.

The coastal district contains 93 per cent. of the holdings used for dairying only in New South Wales, and the North Coast district contains 49 per cent. of the number in the coastal division. Dairying separately or in conjunction with other farming pursuits is the predominant industry, but a considerable proportion of the farms is used for cattle-raising. A pronounced reduction in the number of holdings devoted to grazing accompanied by an increase in the number of holdings applied to dairying was in evidence between 1929-30 and 1933-34, since when the number of purely dairy holdings has varied very little. The change was doubtless due to low prices for beef, diverting activities into dairying where returns were relatively higher. Between 1929-30 and 1933-34 there was an increase in the number of holdings devoted exclusively to agriculture, almost solely due to the rapid extension of banana growing, and virtually confined to the North Coast, where the number of agricultural holdings was 1,667 in 1933-34 compared with 579 in 1929-30. This position was not maintained, the number of holdings used principally for agricultural purposes on the North Coast declining to 1,525 in 1934-35, and to 1,445 in 1937-38. There were 415 fewer holdings growing bananas in 1937-38 than in 1934-35.

#### Tablelands.

Although extensive plateaux exist in the Tableland Divisions, considerable areas are rugged and rock-strewn and not adaptable to agriculture. Hence grazing has remained the staple industry, although many farmers combine agriculture with grazing, and large areas are cultivated in suitable localities. The rainfall is ample throughout, and the headwaters of most of the principal rivers make this a well-watered region. Railway communications are good, but, except on the Central Tableland, settlement is sparse, fewer flourishing towns exist than on the coast, and small settlements are rarer because lands suitable for intense farming are more scattered. Neither dairying nor agriculture has been developed to any appreciable degree, but pastoral pursuits are extensive.

The following table provides an analysis of the number and tenure of rural holdings in the three main divisions of the Tablelands as at 31st March, 1938:—

TABLE 788.—Rural Holdings on Tablelands—1938.

Division of Tableland.	Total Area of Division.	Land occupied in Holdings of one acre and upwards for Agricultural and Pastoral Purposes						Area of Land suitable for Cultivation.
		Holdings of one acre and upwards.	Alienated.*	Leases from the Crown with—		All other Crown Leases.	Total.	
	acres. 000	No.	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000
Northern ...	8,069	3,697	4,341	1,572	212	406	6,531	497
Central ...	10,716	7,511	6,242	1,134	164	225	7,765	1,893
Southern ...	7,062	3,182	4,178	837	84	702	5,801	562
Total ...	25,847	14,390	14,761	3,543	460	1,333	20,097	2,952

\* See explanation, page 851.

While the proportion of land occupied in each division varies from 81 per cent. in the northern, and 82 per cent. in the southern, to 72 per cent. in the central tablelands, rural settlement is densest in the central districts, which were the first to be occupied. More than one-half of the total area of the Tableland Division is alienated, and more than one-quarter of the area occupied is owned by the Crown. In addition, there were 883 share-farmers on 662 holdings, comprising 98,595 acres of cultivation and 18,974 acres of dairy farms. Of the holdings with share-farmers, 590 were used for agricultural purposes only, 15 for dairying only and 57 for agriculture and dairying together. As in the Coastal Division, the proportion of land suitable for cultivation is very small, only 20 per cent. of such land being cropped in 1937-38.

The main purposes for which holdings were used in each division of the tablelands in 1929-30 and 1937-38 are shown in the following table:—

TABLE 789.—Uses of Rural Holdings on Tablelands.

*Principal Purpose for which Holdings were used.	1929-30.		1937-38.		
	All Tableland Divisions.	Northern Tableland.	Central Tableland.	Southern Tableland.	Total.
	NUMBER OF HOLDINGS.				
Agriculture only ... ..	1,564	212	1,222	59	1,493
Dairying only* ... ..	484	145	203	53	401
Grazing only* ... ..	8,701	2,057	3,111	2,528	7,696
Agriculture and Dairying* ... ..	310	166	258	36	460
Agriculture and Grazing* ... ..	2,351	750	2,077	329	3,156
Dairying and Grazing* ... ..	309	116	68	48	232
Agriculture, Dairying, and Grazing* ... ..	229	108	241	44	393
Poultry, Bees, Pigs, etc. ... ..	59	19	91	13	123
Unoccupied or used for other purposes ... ..	571	124	240	72	436
Total ... ..	14,878	3,697	7,511	3,182	14,390

\* See comments on page 852.

Grazing pursuits predominate throughout, but a considerable proportion of the holdings is used for agricultural purposes. A tendency toward the diversification of rural activity is seen in an increase of 21.2 per cent. between 1929-30 and 1937-38 in the number of holdings devoted to two or more of the principal purposes. Holdings used either wholly or partly for dairying increased in number by 637 between 1929-30 and 1934-35, but declined by 483 during the next three years probably owing to the discontinuance of dairying operations undertaken when returns from other farming activities were poor during the years of depression.

#### *Western Slopes.*

The divisions of the Western Slopes contain gently undulating lands with a westerly trend, watered by the upper courses of the inland rivers, and an adequate and regular rainfall. These fertile areas are eminently suitable for agriculture and are, with the Riverina, the most productive portions of the interior. As yet they are only sparsely settled, and very great development is possible.

The area, number, and tenure of rural holdings in the various divisions of the Western Slopes as at 31st March, 1938 are shown below:—

TABLE 790.—Rural Holdings on Western Slopes—1938.

Division of Slopes.	Total Area of Division.	Area of Land occupied in Holdings of one acre and upwards for Agricultural and Pastoral purposes.						Area of Land suitable for Cultivation.
		Holdings of one acre and upwards.	Alienated.*	Leases from the Crown with—		All other Crown Leases.	Total.	
				Full rights of Conversion.	Limited rights of Conversion.			
	acres. 000	No.	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000	
North-Western	9,219	4,295	6,700	1,280	212	126	8,318	2,128
Central-Western	7,723	4,435	6,313	589	29	127	7,063	4,481
South-Western	11,239	7,996	8,709	461	80	923	10,173	5,315
Total	28,181	16,726	21,727	2,330	321	1,176	25,554	11,924

\* See explanation, page 851.

In these divisions settlement is most dense on the South-western Slope, but the proportion of occupied land is greatest in the northern districts. The proportion of land occupied in the Slopes is 91 per cent. of the total area of the whole division. The area of land suitable for cultivation is considerable, constituting 39 per cent. of the total area of such land in the State. Of the land under occupation in the Slopes Division only 13 per cent. was under crop in 1937-38.

There were 3,029 share-farmers on 2,369 holdings on the Western Slopes in 1937-38 cultivating 732,774 acres and using 51,287 acres for dairying. Sixty-two of these holdings were devoted exclusively to dairying, 2,162 entirely to agriculture and 145 to dairying and agriculture in combination.

The following statement shows the principal purposes for which rural holdings were used in the Western Slopes Division in 1929-30 and 1937-38:—

TABLE 791.—Uses of Rural Holdings on Western Slopes.

*Principal Purpose for which Holdings were used.	1929-30.	1937-38.			
	All Slopes Division	North-Western Slope.	Central-Western Slope.	South-Western Slope.	Total.
NUMBER OF HOLDINGS.					
Agriculture only ... ..	1,649	307	285	831	1,423
Dairying only* ... ..	361	78	55	297	430
Grazing only* ... ..	5,572	1,485	736	2,017	4,238
Agriculture and Dairying <sup>a</sup> ... ..	310	185	52	213	450
Agriculture and Grazing <sup>b</sup> ... ..	7,933	1,966	3,041	3,689	8,696
Dairying and Grazing <sup>c</sup> ... ..	211	41	12	247	300
Agriculture, Dairying, and Grazing* ... ..	395	87	137	475	699
Poultry, Bees, Pigs, etc. ... ..	51	52	11	23	86
Unoccupied or used for other purposes	486	94	106	204	404
Total ... ..	16,968	4,295	4,435	7,996	16,726

\* See comments on page 852.

Mixed farming—agriculture and grazing—is the principal rural activity, but grazing predominates on the North-Western Slope, and small farming is not extensive. There have been developments in dairying, mainly in

the South-Western Slope. Dairying was conducted on only 7.8 per cent. of the holdings of the Western Slopes in 1927-28, but although there was a further decline of 269 in the number of holdings with dairy herds in 1937-38, the proportion engaged in dairying was still 11.2 per cent.

The table reveals a pronounced movement toward mixed farming. Single purpose holdings were 19 per cent. fewer in number in 1937-38 than in 1929-30.

*Plains and Riverina.*

The Plains of the Central Division, including the Riverina, constitute the eastern portion of a remarkable extent of almost level country, stretching from the last hills of the Western Slopes to the western boundary of the State. With an average width of 120 miles, they comprise the great sheep districts of the State and about 40 per cent. of the agricultural lands. Generally speaking, they are not well watered, the average rainfall is low, and its intermittency is a source of frequent loss. They are traversed by the western rivers in their lower courses, but they do not supply water to a very extensive area, as they are few and their flow is irregular. Schemes of irrigation, however, have greatly increased the productive capacity of these inland areas, and further works for water conservation and distribution are in hand and in contemplation. Railway facilities are not so good as in the more easterly districts, and communication and transport to outlying districts depend mostly on motor and horse-drawn conveyances. Artesian water underlies a considerable area on the north, and bores serve to supply permanent water in a number of localities. In the south, sub-artesian bores are of great practical utility.

The following table shows the number, tenure, and extent of holdings occupied for agricultural and pastoral purposes in the division on 31st March, 1938:—

TABLE 792.—Rural Holdings on Plains and Riverina, 1938.

Plains of Central Division.	Total Area of Division.	Area of Land occupied in Holdings of one acre and upwards for Agricultural and Pastoral Purposes.						
		Holdings of one acre and upwards.	Alienated.*	Leases from the Crown with—		All other Crown Leases.	Total.	Area of Land suitable for Cultivation.
				Full rights of Conversion.	Limited rights of Conversion.			
	acres.	No.	acres.	acres.	acres.	acres.	acres.	acres.
	000		000	000	000	000	000	000
North ...	9,579	1,946	5,621	1,744	254	142	7,761	1,669
Central ...	14,811	2,490	10,103	2,758	230	834	13,925	3,762
Riverina ...	17,004	7,277	14,224	1,176	103	1,252	16,755	7,346
Total ...	41,394	11,713	29,948	5,678	587	2,228	38,441	12,777

\* See explanation, page 851.

The existence of a closely-settled but comparatively small area of irrigated lands in the Riverina partly accounts for the density of settlement in that division. At 31st March, 1938, there were 1,365 holdings in the Murrumbidgee Irrigation Area embracing 302,628 acres inclusive of certain attached lands outside the Irrigation Area. Seventy-eight per cent. of the area occupied in the Central Plains and Riverina Division has been alienated, but while the proportion alienated is 72 per cent. of the total area occupied in the northern districts and in the Central Plains, it is 85 per cent. in the Riverina, where the land is more productive.



The area of Crown lands occupied is considerable in all divisions, and in the central districts it exceeded the area of occupied alienated lands until 1926-27.

Share-farming is not extensive in the north, but in the Riverina 810 holdings employed 1,046 share-farmers, who had 286,720 acres in cultivation and used 2,398 acres for dairying in 1937-38. Only 22 per cent. of the land in the Northern Plains is considered suitable for agriculture, but the proportions in the Central Plains and Riverina are 27 and 44 per cent. respectively.

The following table shows the main purposes for which the holdings in the Central Plains and Riverina Divisions were used in 1937-38 in comparison with 1929-30.

TABLE 793.—Uses of Rural Holdings on Plains and Riverina.

Principal Purpose for which Holdings were used.*	1929-30.	1937-38.			Total.
	Plains & Riverina.	Northern Plains.	Central Plains.	Riverina.	
		Number of Holdings.			
Agriculture only ... ..	2,013	35	100	1,546	1,681
Dairying only* ... ..	86	13	12	96	121
Grazing only* ... ..	4,179	1,034	1,591	1,337	3,962
Agriculture and Dairying* ... ..	76	2	2	88	92
Agriculture and Grazing* ... ..	4,842	830	737	3,703	5,270
Dairying and Grazing* ... ..	30	3	3	39	45
Agriculture, Dairying, and Grazing* ... ..	169	8	7	283	298
Poultry, Bees, Pigs, etc. ... ..	2	2	3	13	18
Unoccupied or used for other purposes ... ..	311	19	35	172	226
Total ... ..	11,758	1,946	2,490	7,277	11,713

\* See comments on page 852.

While grazing, with mixed farming and agriculture, prevails in the northern districts, agriculture assumes increasing importance in the south, and, combined with grazing, it predominates in the Riverina. On the irrigated lands of the Murrumbidgee a considerable number of holdings are used for small farming, and in the Riverina there were 4,071 holdings on which wheat for grain was grown in 1937-38. Taking into account the areas shown in the previous table, the existence of agricultural pursuits is seen to have a very pronounced effect on the density of settlement.

Comparing figures for this division for 1937-38 with those for 1929-30, single purpose holdings declined in number by 8 per cent., while holdings used wholly or in part for grazing increased from 9,270 to 9,575, for agriculture from 7,150 to 7,341 and for dairying, from 361 to 556. However, holdings used for dairying in combination with other activities declined by approximately 18 per cent. from 1936-37 to 1937-38.

#### *Western Division.*

The plains of the Western Division will probably never be developed into a productive region maintaining a population commensurate with their area. One-third of the division receives, on the average, less than 10 inches of rain per year and practically the whole of the remainder less than 15 inches. Though the soils are uniformly fertile, the lack of rain, permanent water and grasses, and the high rate of evaporation, ranging up to 90 inches per year, render it unproductive in a high degree. Except on a few small irrigated areas there is scarcely a sign of agriculture or dairying, and by reason of the small rainfall, the sheep-carrying capacity of the land

is only about one-fifth as great as that of the plains further east; but the climate is well suited to the production of high-grade merino sheep. It is a lonely region, for the most part occupied in large holdings on a long or perpetual lease tenure. It presents an immense field for scientific development, but its possibilities are problematical. Whether irrigation from the Murray and the vast lake reservoirs of the South Darling, combined with dry-farming methods, will render any extensive areas adaptable to agriculture, or whether water and fodder conservation will render it capable of maintaining large numbers of sheep and suitable for closer settlement, remain questions which are not likely to be considered until settlement in the more attractive easterly regions has made very great advance. It was contended, however, that in the south there are large areas which only required railway facilities to render them profitable for agriculture, but results so far attained are not encouraging. At present, excluding the mining districts, it is a vast region comprising two-fifths of the area of the State, producing less than one-sixth of the pastoral produce, and practically nothing besides, and inhabited by less than 20,000 persons (one person to 6 square miles, or less than one per cent. of the State's population). Near the western boundary, however, is situated one of the richest silver-lead fields of the world, and in the large mining town of Broken Hill there is a population of over 28,000 persons. In the eastern part of the division exist extensive copper deposits, which formerly maintained thriving settlements at Cobar, Canbelego, and Nymagee, but with the suspension of mining activities the population of these localities declined and has not increased significantly as a result of recent limited attempts to work the low grade copper deposits. For the rest, the division possesses only one town, Bourke, with a population exceeding 1,500, five exceeding 500, and about twenty smaller townships.

The following table shows the number and extent of holdings (as distinct from landholders) in the Western Division as at 30th June, 1927, the last year for which this information is available:—

TABLE 794.—Rural Holdings in Western Division, 1927.

Area Series (alienated and Crown lands combined).	East of Darling.		West of Darling.	
	No. of Holdings.	Area of Holdings.	No. of Holdings.	Area of Holdings.
Acres.		Acres.		Acres.
1- 3,000 ... ..	302	103,851	142	85,735
3,001- 10,000 ... ..	79	510,637	65	465,547
10,001- 20,000 ... ..	164	2,380,575	115	1,523,670
20,001- 50,000 ... ..	242	7,495,068	169	5,329,802
50,001-100,000 ... ..	77	5,096,619	92	6,323,365
Over 100,000 ... ..	92	18,800,169	103	29,981,139
Total ... ..	1,046	34,386,919	686	43,709,258

Although the area west of the Darling constitutes more than one-half of the total area occupied, the number of holdings in all but the two largest groups was less than in the eastern sector. Over 62 per cent. of the total area was occupied by 195 holdings averaging 250,000 acres each.

The total area returned as alienated land in the rural holdings in the Western Division as at 31st March, 1938, was 19,585,869 acres. The pronounced increase in the area of alienated land is attributable to the

effects of the Western Lands Amendment Acts of 1932 and 1934. The amendments provided for the conversion of existing leases into leases in perpetuity, and authorised the Crown to issue new leases in perpetuity under certain conditions. The total area of Crown land in rural holdings was 58,212,964 acres. Of the total area of land occupied, only 17,389 acres were under crop in 1937-38, although 1,251,585 acres of land were considered by the occupiers to be suitable for cultivation. The unimproved value of the alienated land was returned as £1,842,900, and the improved value as £5,187,840.

#### VALUE OF MACHINERY USED ON RURAL HOLDINGS.

A comparison of the value of agricultural, pastoral, and dairying implements and machinery in use on rural holdings during various years since 1901 is shown in the following table, allowance being made for depreciation:—

TABLE 795.—Value of Rural Machinery, 1901-1938.

Season.	Agricultural.	Dairying.	Pastoral.*	Total Value.†
	£	£	£	£
1900-01	2,065,780	237,220	754,050	3,057,050
1905-06	2,557,260	365,440	1,120,990	4,043,690
1910-11	3,414,620	534,740	1,483,080	5,432,440
1915-16	5,362,030	570,950	2,015,050	7,948,030
1920-21	7,120,380	910,260	3,141,030	11,171,670
1922-23	8,536,170	1,124,960	3,816,250	13,477,380
1923-24	8,799,350	1,088,380	3,825,920	13,713,650
1924-25	9,427,730	1,119,290	4,106,820	14,653,840
1925-26	9,588,320	1,162,850	4,329,910	15,081,080
1926-27	9,837,190	1,232,290	4,928,300	15,997,780
1927-28	10,849,510	1,229,430	4,975,180	17,054,120
1928-29	10,883,550	1,214,670	5,067,940	17,166,160
1929-30	10,955,920	1,193,000	4,812,060	16,960,980
1930-31	10,526,390	1,171,000	4,676,920	16,374,310
1931-32	9,526,396	1,149,387	4,125,417	14,801,200
1932-33	8,869,795	1,214,919	3,885,203	13,969,917
1933-34	8,607,639	1,221,409	3,855,433	13,684,481
1934-35	8,486,935	1,235,921	3,788,309	13,511,165
1935-36	9,039,026	1,218,672	4,163,797	14,421,495
1936-37	9,949,677	1,191,124	4,001,702	15,142,503
1937-38	11,050,645	1,224,242	4,239,795	16,514,682

\* Includes in many cases farming implements used on pastoral holdings.

† Excludes machinery, etc., used for poultry, pig and beefarming.

In 1937-38 the value of machinery used in holdings devoted to poultry, pigs and bees amounted to £272,555, compared with £148,274 in 1931-32 and £268,063 in 1936-37.

The figures indicate substantial increase in the mechanisation of the rural industries, and notably, of agricultural operations. Information as to the number of tractors in use on farms at 30th June, 1930 and 31st March, 1938, is shown on page 694 of this volume. The decline in total value of machinery between 1929-30 and 1934-35 was apparently due to depreciation and non-replacement of existing machinery during the period of depression which affected agriculture with particular severity. The appreciable increases in 1935-36 and in 1936-37 synchronised with a notable recovery of wheat and wool values. This increase was maintained in 1937-38, when notwithstanding a sharp decline, wheat and wool prices remained higher than in the years of depression. The value of dairying machinery increased between 1931-32 and 1934-35 but declined in the three following years. This was due to expansion and subsequent contraction of that industry in the hinterland.

The following table indicates the approximate value of rural holdings, and of machinery and live stock thereon, in each of the past ten years:—

TABLE 796.—Value of Rural Holdings, Machinery and Stock.

At 30th June.	Value of Alienated Land and Improvements thereto.	Value of Farm Machinery and Implements.	Value of Livestock on Farms.*	Total.	Average Value of Alienated land per acre (as returned).	
					Unimproved.	Improved.
	£000.	£000.	£000.	£000.	£ s.	£ s.
1927 ... ..	319,500	16,000	56,100	391,600	1 14	4 13
1928 ... ..	341,500	17,000	71,000	429,500	1 14	4 16
1929 ... ..	353,100	17,200	62,000	432,300	1 14	4 18
1930 ... ..	353,700	17,000	44,800	415,500	1 14	4 17
1931 ... ..	343,600	16,400	45,500	405,500	1 13	4 13
1932† ... ..	332,200	14,800	45,600	392,600	1 13	4 12
1933† ... ..	322,500	14,000	40,000	376,500	1 13	4 9
1934† ... ..	320,100	13,700	59,000	392,800	1 13	4 8
1935† ... ..	318,800	13,500	44,100	376,400	1 12	4 6
1936† ... ..	324,700	14,400	60,600	399,700	1 10	4 2
1937† ... ..	334,200	15,100	66,300	415,600	1 9	3 18
1938† ... ..	343,200	16,800	44,800	404,800	1 6	3 12

\* Number as at 30th June or 31st March at prevailing market values. † 31st March.

In addition, the unimproved value of Crown lands leased to landholders was estimated in 1930 to be in the vicinity of £60,000,000.

#### AGRICULTURAL AND PASTORAL LABOUR.

Particulars of persons above the age of 14 years permanently engaged in farm work on rural holdings one acre or more in extent have been collected annually since 1921-22. They are classified according to status, and the amount of the salaries and wages paid to employees in receipt of remuneration is ascertained. In addition, returns have been obtained since 1922-23 concerning wages paid to persons temporarily employed by landholders during harvesting and shearing operations and for other casual work; but the number of individual casual employees cannot be ascertained except by special census.

The number of persons in their various capacities, permanently engaged in farm work on rural holdings during the year ended 31st March, 1938, is shown below, together with the amount of wages paid to permanent and casual wage earners employed during that year.

TABLE 797.—Persons Permanently Engaged on Rural Holdings and Wages Paid, 1937-38.

Capacity.	Males.	Females.	Total.
Persons Permanently Engaged on Rural Holdings—	No.	No.	No.
Owners, lessees, and share-farmers ... ..	68,167	917	69,084
Permanent employees receiving wages ... ..	41,537	721	42,258
Relatives not receiving wages ... ..	16,347	4,941	21,288
Total ... ..	126,051	6,579	132,630
Wages paid (including value of board and lodging)—	£	£	£
Permanent employees ... ..	6,426,594	57,153	6,483,747
Casual employees ... ..	3,669,940	3,335	3,673,275

Of the relatives not receiving wages during 1938, 8,232 males and 4,700 females above the age of 14 years, were employed in the coastal districts, where dairying is the principal rural pursuit.

In the following table, the same information is shown, over a period of ten years, in respect of *males* only:—

TABLE 798.—Males Permanently Engaged on Rural Holdings and Wages Paid, 1929-1938.

Year ended 31st March.	Owners, Lessees, Share-farmers.	Permanent Employees Receiving Wages.	Relatives not Receiving Wages.	Grand Total.	Wages Paid to Male Employees. (Value of "Keep" included.)		
					Permanent.	Casual.	Total.
	No.	No.	No.	No.	£	£	£
1929* ...	66,134	34,234	17,495	117,863	6,475,306	3,041,384	9,516,690
1930*.....	65,300	31,387	19,736	116,423	5,717,410	2,790,871	8,508,281
1931*.....	66,297	27,949	20,743	114,989	4,533,478	2,185,553	6,719,031
1932 .....	67,922	26,374	22,133	116,929	4,145,077	2,101,574	6,246,651
1933 .....	70,779	29,347	21,669	121,795	4,292,252	2,362,101	6,654,353
1934 .....	70,552	32,718	20,920	124,190	4,654,425	2,513,511	7,167,936
1935 .....	69,429	36,654	20,325	126,408	5,119,381	2,659,004	7,778,385
1936 .....	69,353	39,104	18,668	127,125	5,534,238	3,042,894	8,577,132
1937 .....	68,736	41,063	18,207	128,006	6,048,609	3,392,747	9,441,356
1938 .....	68,167	41,537	16,347	126,051	6,426,594	3,669,940	10,096,534

\* Year ended 30th June.

The total amount of wages paid to permanent employees during the year 1937-38 was £4,790,685 in addition to board and lodging, etc., valued at £1,693,112, or a total of £6,483,747, the average remuneration, on the basis of these figures, being £155 per annum to males and £79 per annum to females, but the precision of these averages depends on the accuracy of the amounts returned as the value of board and lodging, etc. The wages paid to casual employees amounted to £3,315,596 in addition to "keep" valued at £357,679, a total of £3,673,275.

The foregoing tables, read in conjunction with the table relating to share-farming appearing at page 699 of this Year Book, reveal some striking movements. Until 1930 there was a steady decline in the number of owners, lessees and share-farmers. During the depression there was a sharp reversal of this trend, until in 1933 there were more persons of this class on rural holdings than at any time since 1925, and over 5,000 more than in 1930. This was partly due to a return of absentee owners to holdings and some substitution of share-farmers for full-time employees. The number of unpaid relatives assisting on rural holdings decreased from 31,309 in 1925 to 26,502 in 1929. During the years 1930 to 1932 there was an increase to 29,274, but in 1938 the number of unremunerated relatives had fallen to 21,288.

Permanent employees receiving wages decreased from 37,962 in 1925 to 34,234 in 1929, and to 26,874 in 1932. Recovery since 1932 has been rapid, and in 1938 such employees numbered 42,258—a total greater than at any time previously.

#### RURAL FINANCE.

The problem of promoting effective rural settlement in New South Wales has been associated closely with that of rural finance. While comparatively few settlers have possessed sufficient capital to purchase land outright from the Crown, there has been a general desire to acquire a freehold tenure, neither private nor State tenancy having proved popular. Moreover, the proper development of rural holdings requires the investment of much capital for lengthy periods, and facilities for temporary financial accommodation, particularly during periods of drought.

The Land Act of 1861, aiming to encourage the settlement of an agricultural population beside the pastoral lessees, introduced "free selection before survey" and the sale of Crown land by deposit and instalments with conditions as to residence, etc. By this means much more land was sold in the following twenty-three years than was sold at auction, and since 1889 alienation has been almost exclusively by this method of conditional purchase which is a method of selling Crown lands on terms. Beyond this little was done to provide financial aid for settlers until the end of the last century, when the agricultural and dairying industries were developing, and droughts were impeding settlement.

#### RURAL BANK OF NEW SOUTH WALES.

In 1899 an Advances to Settlers Board was appointed by the Government to make loans to farmers in necessitous circumstances or embarrassed by droughts. Advances were limited to £200 for a term of ten years at 4 per cent. interest. The scope of the Act was widened in 1902 when the Board was empowered to make advances to farmers for any approved purpose up to £500, repayable within thirty years.

In 1907 the functions of the Board were taken over by the Commissioners of the Government Savings Bank, and the limit of individual advances was raised to £2,000. By 1921, when the Rural Bank was established to carry on and extend the work, the outstanding advances amounted to approximately £3,250,000, secured by mortgages from 7,000 borrowers. Particulars of the number and amount of advances are shown on page 873.

#### *Advances by the Rural Bank.*

The Rural Bank was established in 1921 as a department of the Government Savings Bank of New South Wales by the Government Savings Bank (Rural Bank) Act, 1920, under the control of three Commissioners who were empowered to continue on an extended basis the operations transacted previously by the Advance Department of the bank.

The primary object of the bank was to afford greater financial assistance to primary producers than is usually obtainable from other institutions, and thus to promote rural settlement and development.

Funds were obtained from deposits at current account, fixed deposits at current bank rates of interest and the issue of debentures and inscribed stock.

Loans were made only to persons engaged in primary production or in closely allied pursuits, and were either amortization loans or overdrafts on current accounts. The basis of lending generally adopted was two-thirds of the value of freehold land or certificated tenures under the Crown Lands Acts, or three-fourths of the value of improvements on uncertificated Crown tenures. Security was also taken over stock, plant, crops, wool, etc. The advances were made to repay existing encumbrances, to purchase land, to effect improvements or to utilise resources. By this means material assistance was afforded to both prospective and established settlers.

As from 1st October, 1931, the rate of interest on loans was reduced in terms of the Interest Reduction Act, 1931, and the Commissioners voluntarily reduced the rate to a maximum of 5 per cent. in December, 1932. Further reductions have since been made, and as from 1st April, 1935, the maximum rate became 4½ per cent. on overdraft and long-term loans, with a concession of ¼ per cent. to co-operative societies. In June, 1938, the rate was 4¼ per cent.

By the Commonwealth and State Banks Agreements Ratification Act, 1931, the Savings Bank business of the Government Savings Bank of New South Wales and the current account and fixed deposit business of the Rural Bank Department were transferred to the Commonwealth Bank of Australia. The loan business of the Rural Bank Department was continued as a State activity under the control of the Commissioners.

By Act No. 63 of 1932, the institution was changed in name to the Rural Bank of New South Wales and placed under a new Board of Commissioners, affording general banking facilities.

The following tables show the transactions in long term and overdraft loans to farmers by the Advance Department of the Government Savings Bank or the Rural Bank in various years since 1911.

TABLE 799.—Rural Bank—Long Term Loans to Farmers, 1911 to 1938.

Year ended 30th June.	Advances made.			Balances repayable.		
	Number.	Total Amount.	Average.	Number.	Total Amount.	Average.
		£	£		£	£
1911* ... ..	838	331,693	395	3,754	1,074,359	286
1913* ... ..	1,386	771,272	556	5,094	2,051,132	402
1915* ... ..	130	387,715	451	5,860	2,514,078	429
1921 ... ..	1,365	813,525	596	7,242	3,423,871	473
1924 ... ..	1,081	888,479	822	9,766	5,526,744	566
1925 ... ..	603	587,508	974	9,749	5,721,678	587
1926 ... ..	265	444,065	1,676	9,252	5,661,868	612
1927 ... ..	332	598,879	1,804	8,933	5,783,775	648
1928 ... ..	305	437,195	1,430	8,676	5,759,400	664
1929 ... ..	685	807,550	1,179	8,609	5,951,427	691
1930 ... ..	581	703,425	1,211	8,743	6,272,685	718
1931 ... ..	78	84,675	1,086	8,686	6,166,523	710
1932 ... ..	27	24,860	920	8,488	5,966,586	703
1933 ... ..	47	21,565	458	8,414	5,863,458	697
1934 ... ..	51	47,838	938	8,198	5,634,603	687
1935 ... ..	100	115,115	1,151	7,926	5,905,865	745
1936 ... ..	134	171,130	1,277	7,624	5,779,603	752
1937 ... ..	47	81,179	1,727	6,587	5,492,789	834
1938 ... ..	65	121,895	1,875	6,140	5,074,313	826

\* Government Savings Bank.

TABLE 800.—Rural Bank—Overdrafts to Farmers, 1922-1938.

Year ended 30th June.	Advances made during year.			Advances current at end of year.	
	Number.		Amount. £	Number.	Amount. £
	New.	Additional.			
1922 ... ..	1,383	...	980,375	1,364	728,584
1923 ... ..	1,565	356	794,499	2,743	1,381,112
1924 ... ..	1,827	521	1,081,335	4,205	2,144,333
1925 ... ..	1,710	511	1,196,280	5,291	2,830,914
1926 ... ..	1,746	675	1,342,692	6,277	3,618,596
1927 ... ..	2,115	994	1,996,925	7,402	4,746,220
1928 ... ..	2,192	1,273	2,231,790	8,527	6,098,405
1929 ... ..	2,225	1,462	2,012,505	9,424	6,938,040
1930 ... ..	1,970	1,895	1,992,785	10,691	7,988,275
1931 ... ..	811	534	486,505	10,650	8,254,745
1932 ... ..	144	99	112,332	9,566	7,857,288
1933 ... ..	196	785	170,908	9,349	7,704,117
1934 ... ..	366	1,532	437,912	9,272	7,758,946
1935 ... ..	714	807	768,648	9,535	8,093,698
1936 ... ..	966	753	1,388,212	9,920	8,783,166
1937 ... ..	873	655	1,201,126	10,049	9,006,533
1938 ... ..	984	744	1,643,516	10,281	9,993,114

*Advances to Settlers Agency.*

With the dual purpose of promoting increased employment in rural areas and stimulating rural production, advances of unemployment relief moneys were made by the Unemployment Relief Council through the Rural Industries Branch. From this fund an amount of £61,992 was advanced to settlers for permanent improvements during the year ended 30th June, 1931, £4,833 in 1931-32, and £212 during 1932-33.

Greater financial assistance was subsequently afforded to farmers and graziers from these moneys, the advances prior to 30th June, 1935, being administered by an "Advances to Settlers Co-ordination Board" and a "Dairy Promotion Board" set up by the Unemployment Relief Council, and the Farmers' Relief Board. The funds of those boards were available for the relief of unemployment in country districts and for the encouragement of rural development.

Advances were made through the Advance to Settlers Co-ordination Board, for permanent improvements on rural holdings, and for assistance in the extermination of rabbits. These advances are repayable over a period of fifteen years, with interest at the rate of 3 per cent. per annum.

The Dairy Promotion Board was constituted with the object of providing funds for the relief of unemployment by the extension of dairying activities.

Advances were made by this Board for the purpose of permanent improvements and for the purchase of stock and plant. In the case of stock, plant, and sundries the money is repayable over periods up to ten years, advances for improvements are to be liquidated in periods up to fifteen years, and interest is chargeable at the rate of 3 per cent. per annum.

Late in 1934-35 the Unemployment Relief Council allocated a sum of £25,000 to provide advances through the Farmers' Relief Board for settlers under "Stay Orders" who were otherwise unable to secure financial assistance for the working of their farms.

On 1st July, 1935, administration of these schemes came under the control of the Rural Bank, and with only slight variations in policy, the various activities mentioned, have been amalgamated, and are now dealt with by the Advances to Settlers Agency of the bank.

A summary of the amounts loaned by these Boards and the Advances to Settlers Agency is furnished in the appended tables. At 30th June, 1935, approval for 5,329 advances totalling £1,002,542 had been given, of which £900,997 had actually been advanced. The Advances to Settlers Agency in 1935-36 approved of 499 advances totalling £80,766. In the next two years the respective figures were 223 advances for £36,663 and 203 advances for £36,014.

TABLE 801.—Advances to Settlers, 1933-1936.

Year ended 30th June.	Advances to Settlers Co-ordination Board.	Dairy Promotion Board.	Farmers' Relief Board.	Total.
Amounts Actually Advanced.				
	£	£	£	£
1933 ... ..	350,496	388	.....	350,884
1934 ... ..	343,163	45,399	107	388,669
1935 ... ..	133,298	18,177	9,974	161,444
1936 ... ..	Amalgamated under Advances to Settlers Agency.			101,924
1937 ... ..				37,898
1938 ... ..				30,125



*Rural Industries Agency.*

In 1915 certain schemes of limited scope were initiated by the Departments of Lands and Agriculture to assist farmers by loans to cultivate new areas and to relieve necessitous farmers. During the severe drought of 1919-20 a sum of £2,000,000 was made available by two special local loans to assist farmers whose ordinary commercial credit had been destroyed by the bad seasons.

The Rural Industries Board was formed on the 1st December, 1919—

(a) to take over, consolidate, and collect all advances by the State for drought relief, seed wheat, and clearing land since 1915, and

(b) to extend the scope of relief to necessitous farmers.

A sum of £437,416 was advanced between 1915 and 1919 under schemes controlled by the Departments of Lands and Agriculture. Of this, £259,794 had been repaid or otherwise adjusted, and debit balances amounting to about £177,000 were taken over by the Board.

In 1923 the Board was dissolved and its functions were continued by the Rural Industries Branch of the Department of Agriculture. As from 1st July, 1935, the activities of the Rural Industries Branch were assumed by the Rural Bank of New South Wales in the Rural Industries Agency of that Bank.

A summary of the operations of the Rural Industries Branch and, subsequently, the Rural Industries Agency, is set out in the following table:—

TABLE 802.—Loans to Necessitous Farmers by Rural Industries Agency, 1919 to 1938.

Year ending 30th June.	Advances.	Interest charged on Ad- vances.	Repayments.		Bad Debts written off.	Balances due (ap- prox.).	No. of Debtors.
			Principal.	Interest.			
1 Dec., 1919, to 30 June, 1922	£ 2,152,390*	£ 105,666	£ 1,817,792	£ 92,848	£ †	£ 317,410	†
1923	159,443	24,639	80,517	12,239	4,812	438,930	†
1924	237,414	32,015	118,673	16,859	1,634	566,193	†
1925	121,120	28,444	192,134	38,166	4,392	481,065	3,478
1926	151,788	22,222	242,020	18,565	14,533	379,957	3,465
1927	85,959	14,662	165,869	17,975	2,285	294,449	2,579
1928	428,350	9,251	41,927	7,117	10,758	673,148	4,300
1929	396,493	29,595	401,416	31,193	850	665,813	3,687
1930	600,594	36,421	213,102	21,265	29,018	1,039,443	5,500
1931	664,202	57,783	395,531	51,419	4,992	1,309,486	5,200
1932	242,095	66,934	352,857	68,496	560	1,190,602	5,000
1933	233,571	78,771	212,929	65,886	25,635	1,204,494	4,300
1934	118,370	38,477	43,679	14,268	42,694	1,260,664	4,216
1935	52,771	60,906	67,659	14,455	88,486	1,203,741	4,250
1936	51,377	34,000	45,661	9,781	120,687	1,119,387	3,138
1937	58,873	31,851	54,206	14,229	69,450	1,051,909	2,578
1938	84,321	30,497	45,427	9,901	74,876	1,033,643	2,736
Total...	5,839,131	702,134	4,490,499	504,662	515,662	...	...

\* Including balances taken over from other Departments (£177,000) and Cash Sales from stocks to persons other than necessitous farmers (£277,000). † Not available.

Originally wheat-growers only were assisted, but, in 1920, advances were made also to dairy-farmers and small graziers. More recently the scope of operations has been extended to include any farmers whose circumstances prevented them from obtaining assistance through usual commercial channels; thus on a relatively small scale assistance has been granted to orchardists, tobacco growers, rice growers, farmers suffering loss from floods, fire and grass-hopper pests, pig farmers who sustained the loss of their herds as the result of an outbreak of swine fever, etc.

Most of the advances, however, were made to wheat-farmers, and the assistance granted was usually in the form of orders issued upon suppliers of the commodities required, *i.e.*, fodder, seed wheat, fertiliser, tractor fuel, household supplies, and so on. Payment was made direct to suppliers, who rendered their accounts to the Branch accompanied by the farmer's acknowledgment of receipt of the goods. Cash advances were made only in exceptional circumstances, but now that the Government Agency Department of the Rural Bank is charged with making the advances, cash payment thereof is the ruling method. In October, 1932, the sum of £50,000 was set aside to assist land-holders to procure flock rams, bulls and boars from registered breeders to improve their stock, £25,000 being set aside for rams, £20,000 for bulls, and £5,000 for boars. Up to the 30th June, 1938, advances totalling £19,010 had been made, and the amounts actually provided were £15,514 for rams, £3,381 for bulls, and £115 for boars.

For some years advances were made in cash at the rate of 5s. per acre. on newly fallowed land to encourage better farming methods. But in recent years such assistance has been granted only to necessitous farmers.

Interest on advances was formerly at the rate of 6 per cent., with an additional 1 per cent. on overdue accounts until 30th June, 1925. It was reduced to 5½ per cent. from 1st February, 1932, and to 4 per cent. as from 1st January, 1933.

Security taken for the advances consists mainly of crop liens and promissory notes, as in the majority of cases farmers receiving assistance lack the means of furnishing more tangible security which would enable them to obtain accommodation from ordinary financial institutions. Having regard to the somewhat hazardous nature of security taken, the number of bad debts incurred has been relatively small.

In January, 1938, the Government decided to make funds available through the Rural Industries Agency of the bank for the purpose of assisting necessitous farmers in the south-western wheat areas of the State. These moneys were to be utilised in supplying seed wheat, fodder, stores and other requirements essential for working the holdings. At 30th June, 1938, 126 grants, amounting to £13,044, had been approved.

Both the Federal and State Governments accorded financial assistance to wheat-growers in the seasons 1931-32 to 1935-36, funds for which were provided partly by a tax on flour, first under the State Flour Acquisition Act, and from 3rd December, 1933, under the Commonwealth Flour Tax Assessment Acts of 1933, 1934, and 1935. Similar assistance was provided in the 1938-39 season. Information concerning these schemes is shown in the chapter "Agriculture," of this Year Book, at page 727.

#### *Government Guarantee Agency.*

Under the Advances to Settlers (Government Guarantee) Act, passed towards the end of December, 1929, a Government Guarantee Board was constituted with power to guarantee to the banks repayment of advances made to settlers. The Board consisted of the Minister for Agriculture (as Chairman), the Colonial Treasurer, and the Officer-in-Charge of the Rural Industries Branch. The amount which might be guaranteed in respect of any one settler could not exceed £3,000, or in the case of a co-operative society registered under the provisions of the Co-operation Act £25,000. The amount which might be guaranteed by the Board in any one year was £2,500,000. New guarantees were given by the Board only during the period for two years commencing on 23rd December, 1929, but guarantees given during that period might be continued for such time as might be

approved. By an amending Act of 1934 new guarantees might be given supplementing subsisting guarantees to a limit of one-fourth of the contingent liability already assumed.

As from 1st July, 1935, the functions of the Board were transferred to the Government Guarantees Agency of the Rural Bank of New South Wales, and the Government Guarantee Board was dissolved.

Activities under these provisions have been negligible in recent years. The contingent liability at 30th June, 1938, amounted to £306,795.

#### *Finance for Irrigation.*

With the object of utilising the natural resources of the State and simultaneously extending facilities for the settlement of additional rural producers on the land, the Government has entered upon schemes of irrigation during the past thirty years. Large sums of money have been expended in constructing irrigation works, in acquiring lands for irrigation settlements, and in financing the productive activities of settlers.

The Government also undertakes to finance the construction of shallow bores, sunk either by its own or privately-owned plants, allowing the settlers extended terms of repayment of from five to ten years. Further, works for water supply for stock and domestic purposes and in certain cases for irrigation are provided, and bore trusts and water trusts are constituted, under which the cost of the works is repaid over a period of years (in most cases twenty-eight years) by the landholders benefiting.

Particulars of the finance provided in connection with irrigation projects are shown on pages 761 to 767 and 928 of this Year Book.

Financial matters as between settlers on the irrigation areas and the Crown in respect of land payments, water rates, and charges, and advances to settlers (previously a function of the Water Conservation and Irrigation Commission), have been administered by the Rural Bank through the Irrigation Agency since 1st July, 1935. All debts owing to the Commission on the date of commencement of the Agency in respect of shallow bores were transferred to the Bank. The Water Conservation and Irrigation Commission, however, continues to attend to technical and engineering matters associated with water conservation and distribution, water bores, and to the lands administration in respect of the irrigation areas.

#### THE FARMERS' RELIEF ACT, 1932-35.

The Farmers' Relief Act came into operation on 17th February, 1933, to provide debt adjustment for necessitous farmers, and to afford them an opportunity of recovering their financial position. This Act provides a means of consolidating and reducing the liabilities of distressed farmers, and, incidentally, financial assistance in conducting their farms under supervision.

The provisions of the Act and the manner of affording relief were summarised in some detail at pages 587 to 590 of the Official Year Book, 1934-35. The legislation established a Farmers' Relief Board empowered to grant "stay orders" for the financial protection of the farmer. Issue of a stay order suspended legal action for enforcement of mortgage covenants, agreements of sale, etc., and bankruptcy proceedings. Liabilities of the farmer were classified by the Board. Secured liabilities not represented by assets and unsecured debts were placed in a suspense account and no interest accrued on such debts during the period of the stay order. On unsuspended secured liabilities the maximum rate of interest was fixed by the Act at 5 per cent. per annum.

A stay order might be removed by the Board at any time in its discretion, but normally endures for three years and may be extended from year to year for a maximum additional three years.

Particulars regarding the constitution of the Board, the method of conducting the farmers' financial affairs through supervisors appointed by the Board, the priority of claims on income from the farm and provisions for financial assistance for the working of the farm will be found in earlier editions of this Year Book. The time within which applications for stay orders might be made was several times extended and will expire on 1st July, 1940.

#### *Rural Debt Adjustment.*

With the object of promoting the permanent rehabilitation of the finances of farmers, the Federal Parliament passed legislation in April, 1935, making provision for a loan of £12,000,000 from which advances might be made to facilitate compositions with creditors, who, for a return in cash of a proportion of their capital, would agree to adjustment of farmers' debts on an equitable basis in the light of existing circumstances. The States, through their farmers' relief agencies, were made the authorities to administer the scheme. No payment under a composition or scheme of arrangement may be made in respect of any debt due to the Commonwealth, a State, or any governmental authority. An initial allocation of £10,000,000 of the amount authorised under the Loan (Farmers' Debt Adjustment) Act, 1935, was made between the various States, including £3,450,000 for New South Wales, with the provision that the remaining £2,000,000 should be apportioned on a similar basis or in such other manner as, from experience in the working of the scheme, might appear necessary to satisfy the financial requirements of the several States in that relation.

The New South Wales Farmers' Relief Act has been amended to enable the Board to make advances (with interest at a rate not exceeding 2½ per cent. per annum) to farmers out of moneys provided by the Commonwealth under the Federal Loan (Farmers' Debt Adjustment) Act, 1935, for the purposes indicated. Advances may be made by the Farmers' Relief Board in any case where, in the opinion of the Board, some discharge of the farmers' debts is necessary to ensure that he may continue farming operations with reasonable prospects of success, and provided the Board is satisfied that if the composition proposed is effected the farmer will probably be able to carry on successfully.

Up to 30th June, 1938, advances for debt adjustment actually paid totalled £990,536 and as a result, farmers' debts were written down by creditors to the extent of £486,292. At that date the Board was committed to make additional advances for debt adjustment totalling £476,285 inclusive of an amount of £304,800 in respect of which negotiations between the Board and creditors were still proceeding.

#### *Operation of the Act.*

The period determined by the Act within which applications for stay order might be lodged was extended to 1st July, 1940. Up to 30th June, 1938, 3,683 applications for stay orders had been lodged. As at that date, stay orders had been granted to 2,525 farmers, 1,116 applications had been refused, withdrawn or otherwise determined, and 42 applications were still under consideration. In respect of 2,328 cases in which assessments had been made by the Board under the provisions of the Act up to 30th June, 1938, assets were valued at £10,904,370 and liabilities at £12,055,860 at the time of granting the stay orders. Of the liabilities £8,768,166 represented unsuspended secured liabilities, £1,741,527 suspended liabilities and

£1,546,167 unsecured debts. From the date on which the Act came into operation up to 30th June, 1938, the Board had approved of advances to farmers for maintenance, carry-on and capital purposes totalling £2,561,761.

SUMMARY OF INDEBTEDNESS TO THE CROWN.

The outstanding indebtedness of landholders to certain Governmental lending agencies in New South Wales has been summarised in the following table. The figures include balance of payments due by settlers on land acquired under Closer Settlement schemes, but exclude residual balances owing in respect of former Crown lands sold to settlers by instalments (under conditional purchase, etc.). Contingent liabilities assumed by the Government Guarantees Board are also excluded from the table.

It is not possible, from these figures, to make an inference as to the extent to which settlers, by their own efforts, have been able to improve their position. For example, whilst advances to settlers through the Water Conservation and Irrigation Commission showed material reduction in 1935, that was a result mainly of the writing down of debts under provisions as indicated on page 928 of this Year Book. Similarly, the reduction of indebtedness to the Closer Settlement Fund since 1932 is partly due to the reappraisal of land values.

Between 1925 and 1930 there was a very marked increase in rural borrowing from governmental agencies. The poor season of 1929-30 was responsible for an increase in settlers' capital obligations. Indebtedness to the Rural Bank and the Rural Industries Branch increased by £1,745,000 in that year. In 1930-31 there was a further increase, and thereafter indebtedness to these two agencies declined slowly until 1934-35. There was an appreciable reduction of amounts outstanding on long term loans, wire netting advances and advances from relief funds in 1935-36 and 1936-37 and concurrently a considerable increase in loans secured on overdraft.

TABLE 803.—Indebtedness of Settlers to Certain Government Agencies in New South Wales.

Government Agency.	Outstanding as at 30th June—					
	1925.	1934.	1935.	1936.	1937.	1938.
Rural Bank—Loans and Overdrafts	£ 8,552,592	£ 13,393,549	£ 13,999,563	£ 14,562,768	£ 14,499,322	£ 15,067,427
Closer Settlement Fund (including Returned Soldier Settlements)†	*	15,072,178	14,150,021	14,622,608	14,195,754	13,300,012
Irrigation Commission—						
Advances to Settlers ‡ ...	2,141,648	1,060,512	863,161	1,387,708	1,487,502	1,563,205
Advances for Shallow Bores ...	134,195	249,277	247,336	260,837	253,128	241,827
Rural Industries Agency—						
Advances to Necessitous Farmers	481,065	1,260,664	1,203,741	1,119,387	1,051,909	1,036,278
Department of Lands—Wire Netting Advances ...	273,463	495,543	504,918	494,627	465,436	425,034
Unemployment Relief Council—						
Advances by A.S.C. Board, D.P. Board, and F.R. Board ...	...	722,742	836,751	970,953	920,030	856,378
Farmers' Relief Agency§ ...	...	303,882	588,685	700,461	968,310	1,051,143
Total of foregoing ...	*	32,558,347	32,394,176	34,119,349	33,841,441	34,141,414

\* Not available.

† Includes debts postponed to end of term of purchase free of interest, (estimated at approximately £2,000,000) in 1934-35 and following years.

‡ Murrumbidgee Irrigation Area only to 1935; all Irrigation districts thereafter.

§ Include debts adjustment advances.

As from 1st July, 1935, all the State Government agencies affording financial assistance to primary producers were brought under the administration of the Rural Bank of New South Wales in the various sections of the Agency Department constituted under the Rural Bank (Agency) Act, 1934.

*Other Advances to Settlers.*

Particulars of the number and amount of registered loans made on the security of livestock, wool, and growing crops are published in the Chapter "Private Finance" of this Year Book. These include advances made on such security by Government agencies as well as by private institutions and individuals.

In 1901 a closer settlement policy was introduced by the Government with a view to acquiring and subdividing large estates and leases suitable for closer settlement. Operations under this scheme commenced actively in 1905. The outstanding indebtedness of settlers in respect of funds provided for this form of settlement is shown in the preceding table, and a summary of the operations under the various schemes may be found in the chapter, "Land Legislation and Settlement."

In the Commonwealth Bank of Australia a rural credit department was established in October, 1925, to assist in marketing the products of rural industries. For this purpose advances for a period not exceeding one year may be made to banks, co-operative associations, etc., and bills secured on primary produce may be discounted on behalf of these institutions. Further particulars regarding the department are shown in the chapter "Private Finance" of this Year Book.

The Governments of the State and of the Commonwealth have provided assistance to settlers to enable them to construct fencing to protect their holdings from the ravages of rabbits and wild dogs. Details are published in the chapter of this volume entitled "Pastoral Industry." Funds for scientific research and practice in connection with rural activities have been provided from both public and private sources as indicated under appropriate headings throughout this Year Book.

*Rates of Interest Charged on Rural Loans, &c.*

The cost of borrowing is obviously of great importance in determining the profitability of rural activities having regard to the necessity of providing much capital, both for the acquisition of land and for temporary accommodation between seasons and during periods of low returns owing to adverse seasonal conditions. In the appended table the course of rates of interest charged on rural loans through the Rural Bank and various Governmental agencies and from some private sources is shown, though not necessarily the actual dates of changes in rates:—

TABLE 804.—Rates of Interest on Rural Loans, 1929 to 1938.

Date.	Rural Bank.	Government Agencies.*						Trading Banks Overdraft Rates.	Weighted Average Rate on Rural First Mortgages.†
		Advances to Settlers Agency. †	Rural Industries Agency.	Irrigation Agency.		Farmers' Relief Agency.			
				Advances to Settlers.	Fore Advances.	Carry-on Advances Account.	For Debt Adjust-ment.		
Rate of Interest—per cent. per annum.									
June, 1929 ...	6½§	...	6	6½	5½	...	...	7 to 8½	...
December, 1932... †	6½	...	6	6	5½	...	...	5 to 6	5.5**
October, 1934 ...	5	...	5½	6	5½	...	...	4½ to 5	5.0
April, 1935 ...	4½¶	3	4	4	4	4	4	4½ to 5	4.7
June, 1936 ...	4½¶	3	4	4	4	4	4	4½ to 5½	4.9
June, 1937 ...	4½¶	3	4	4	4	4	4	4½ to 5½	4.9
December, 1938... †	4½¶	3	4	4	4	4	4	4½ to 5½	4.9

\* As now existing or their predecessors. † Loans from Unemployment Relief Funds.  
 ‡ By other than Government or Banks—three months moving average. § On overdrafts.  
 ¶ On loans. ¶¶ per cent. less to co-operative societies. ¶\*\* October, 1933.

Prior to 1929 rates of interest were relatively high and so, too, were rural incomes. But with the sharp fall in prices of all rural products it became impossible for a large proportion of farmers to meet their interest charges in full. The extent to which the Government has reduced capital charges where the Crown was the creditor is revealed by the table. In addition, most rentals and interest charges accruing under the Crown Lands Acts were reduced by  $22\frac{1}{2}$  per cent., and, as shown in the chapter, "Land Legislation and Settlement," capital indebtedness on lands in course of purchase from the Crown were greatly reduced under reappraisal provisions of the Land laws.

There have also been substantial reductions in interest rates on a large body of rural indebtedness other than to Government agencies. Under the Interest Reduction Act, 1931, interest charges on private debts were reduced by  $22\frac{1}{2}$  per cent. (with certain reservations) as described in the chapter, "Private Finance," of this Year Book. Overdraft rates of private banks, which ranged from 7 to  $8\frac{1}{2}$  per cent. in March, 1930, were reduced by the banks to  $4\frac{1}{2}$  to 5 per cent. by July, 1934, but the upper limit was increased to  $5\frac{1}{2}$  per cent. in 1936 and  $5\frac{3}{4}$  per cent. in 1938. Apart from operations under the debt adjustment provisions of the Farmers' Relief Act, it has been possible at times to re-finance mortgages at rates effecting considerable savings in interest charges. Prior to the depression the predominant rate for first mortgages was probably about 7 per cent. per annum, but during the last four years the average rate on first mortgages on rural securities was less than 5 per cent. per annum.

#### CONSERVATION OF THE SOIL.

In recent years concern has been occasioned by the increasing deterioration of certain agricultural and pastoral areas as a result of erosion of surface soils by the agencies of wind and water. In the agricultural districts the combined action of rain and wind has been responsible for the removal of fertile soil from lands in elevated positions, and free surface water following rainfalls has formed gullies, particularly in friable soils. In this way appreciable areas have been rendered uneconomic. In the Western Division of the State, which is devoted almost entirely to grazing, the destruction of fodder trees and shrubs has caused the dessication of surface soils, with consequent shifting and denudation. In turn the dust storms and shifting surface soils have been responsible for the growth of inferior herbage in place of the more nutritious types native to these plains.

"The Soil Conservation Act" assented to in October, 1938, provides for the formation of a Soil Conservation Service with power to deal with all phases of erosion. Investigations may be instituted in key districts, and educational campaigns conducted with a view to demonstrating the best methods of soil conservation and the mitigation of erosion. Owners on recognised catchment areas or tracts of country particularly susceptible to erosional damage may enter into agreements with the Soil Conservation Service and may receive instruction from experts. The Act also provides for compulsory action against owners whose actions or neglect results in the depreciation of lands adjoining holdings, or adversely affects water supply systems, hydro-electric proposals or irrigation projects. The Catchment Areas Protection Board has been constituted under the Act to regulate the disposal of Crown lands in areas where there is a serious threat of soil erosion.

## LAND LEGISLATION AND SETTLEMENT.

### AREA OF NEW SOUTH WALES.

THE area of New South Wales, including Lord Howe Island (5 square miles) and the Australian Capital Territory (about 940 square miles) is estimated at 310,372 square miles, or 198,638,080 acres, being a little over two and a half times the combined area of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, etc. (2,969,080 acres), the land area within the boundaries of the State is 195,669,000 acres, or about 305,733 square miles. The formal transfer to the Commonwealth Government of 583,680 acres at Yass-Canberra on 1st January, 1911, and of 17,920 acres at Jervis Bay in 1915, as Australian Capital Territory, reduced the land area of the State to 195,067,400 acres.

### LAND ADMINISTRATION.

At the foundation of the Colony in 1788, the whole of the lands of the State vested in the British Crown.

The administration of public lands passed entirely under local control by virtue of the Constitution Act on the establishment of responsible government in 1856. Since that year the administration has been directed by a Secretary for Lands, who is a member of the State Parliament and of Cabinet. A Department of Lands was created and a permanent Under-Secretary appointed, with defined powers subordinate to those of the Minister. This system of administration may be described as political control through a permanent salaried staff. Control of the lands of the Western Division is vested in a commissioner and a system of local land boards has been established similar to that obtaining in the other divisions of the State.

Broadly, the laws of the State in relation to the occupation of Crown lands are designed to facilitate settlers securing lands under a freehold title, and with this end in view various forms of tenure leading to alienation have been provided. Under an instalment purchase system, ultimate possession of lands in fee simple has been rendered possible even in the case of settlers with limited initial capital. The principle of assured possession is seen in the right of conversion attaching to the more important leaseholds and in the provision for the extension of the term of certain leases to perpetuity without abrogating the existing rights of instalment purchase.

The aim for many years has been to dispose of the Crown estate so that the settler obtains sufficient, but substantially not more than sufficient land to support himself and family; hence the prominence of the "home maintenance area" provision in the land legislation. Restrictions upon the transfer (except by way of mortgage) of lands in the course of purchase, or held under lease from the Crown, are designed to prevent the aggregation of holdings in defeat of these objects.



The Eastern and Central Divisions are subdivided into ninety-one Land Districts, in each of which is stationed a Crown Land Agent, whose duty is to receive applications and furnish information regarding Crown lands. Groups of these districts are arranged in Land Board Districts, each of which is under the control of a District Surveyor. Land Boards are appointed for each Land District. These Boards comprise an official chairman and two local members, sit in open court, and determine many matters under the Land and other Acts. There are special Land Board Districts for the Yanco, Mirrool, and Coomealla Irrigation Areas.

#### *Land and Valuation Court.\**

A Land and Valuation Court, whose awards and judgments have the same force as those of the Supreme Court, was constituted in 1921 in continuance of the Land Appeal Court. To this Court are referred appeals, references, and a number of other matters under the Crown Lands Acts, the Pastures Protection Act, the Closer Settlement Acts, the Water Act, the Public Roads Act, and certain other Acts.

#### *Territorial Divisions.*

The State is divided, for administrative purposes, into three territorial Divisions—Eastern, Central, and Western—the boundary lines running approximately north and south, as shown on the map in the frontispiece. The conditions governing alienation and occupation of Crown Lands vary in each division.

The Eastern Division, with an area of 60,661,926 acres (exclusive of 601,600 acres of Commonwealth territory), includes the broad belt of land between the sea-coast and a line nearly parallel to it, and so embraces the coastal districts of the State, as well as the tablelands. It contains excellent agricultural land, and includes the original centres of settlement most accessible to the markets of the State.

The Central Division, with an area of 57,055,846 acres, extends north and south between the western limit of the Eastern Division and a line drawn along the Macintyre and Darling Rivers, Marra Creek, the Bogan River, across to the River Lachlan, along that river and the Murrumbidgee River to Balranald, and thence to the junction of the Edward River with the Murray. The area thus defined contains the eastern part of the upper basin of the Darling River in the northern part of the State, and the basins of the Lachlan, the Murrumbidgee, and other affluents of the Murray in the southern portions. Land in this division is devoted mainly to pastoral pursuits, but about 3,000,000 acres are cultivated for wheat in a normal season.

The Western Division is situated between the western limit of the Central Division and the South Australian border. It contains an area of 80,318,708 acres, watered by the Darling River and its tributaries, and is mainly devoted to pastoral pursuits. Legislation in regard to the occupation of the lands of this Division is based upon the assumption that for many years to come there will be little inducement for agricultural settlement in the major part of the Division.

\*Further particulars of Local Land Boards, and of the Land and Valuation Court, are published in the chapter "Law Courts" of this Year Book.

## DISPOSAL OF LANDS OF NEW SOUTH WALES.

The following table provides a brief summary of the manner in which the lands of the State were held as at 30th June, 1938, distinguishing lands in the Western Division from the remainder of the State:—

TABLE 805.—Areas of Land Tenures, 1938.

Manner of Disposal.*	Area.				
	Eastern and Central Divisions.	Western Division.	Whole State.		
	acres.	acres.	acres.		
(1) Alienated... ..	66,456,989	2,035,992	47,438,450		
(2) In course of alienation ... ..			21,054,531		
(3) Virtually alienated ... ..			1,649,291	1,119	1,650,410
(4) Alienable Leases (long term and perpetual) ... ..			26,597,572	92,424	26,689,996
(5) Long term leases with limited rights of alienation... ..			1,467,000	100,543	1,567,543
Total under foregoing tenures ... ..	96,170,852	2,230,078	98,400,930		
(6) Other long term leases ... ..	1,022	76,955,429†	76,956,451		
(7) Short leases and temporary tenures ... ..	3,962,266	679,384	4,641,650		
(8) Forest leases or permits within dedicated State forests ... ..	2,124,231	...	2,124,231		
(9) Mining leases and permits ... ..	181,521	6,371	187,892		
(10) Neither alienated nor leased (includes reserves, dedicated State forest not under occupation, roads, stock routes, etc.) ... ..	15,277,880	447,446	15,725,326		
Total Area... ..	117,717,772	80,318,708	198,036,480		

\* Tenures included in (3) to (9) are indicated in table on page 889.

† Includes Perpetual Leases held under the Western Lands Act, 42,701,966 acres.

Particulars of the areas under, and the conditions attaching to, each of these tenures are given on later pages.

In considering the matter of lands remaining within the disposal of the State for new settlement, it is important to note that the Eastern and Central land divisions embrace practically the whole of the lands in the State which receive an average annual rainfall of 15 inches or more, and that the rainfall in the Western Division ranges from that average down to 8 inches in the extreme north-west. This circumstance places important limitations upon the utility of the land in the Western Division, and practically none, except small irrigation settlements at Curlwaa and Coomealla, is utilised for agricultural purposes. It is sparsely occupied, being held in large pastoral holdings lightly stocked.

The total area of land embraced within freeholds, purchases by deferred payments, and leases alienable wholly or in part at 30th June, 1938, was 98,400,930 acres, and, of this area, 96,170,852 acres were in the Eastern and Central land divisions. By reason of the indefinite nature of the conditions governing the conversion of leases to freehold tenures, and to leases in perpetuity, it is not possible to ascertain accurately how much of the lands embraced in this area will not revert to the disposal of the Crown. Assuming, however, that one-half of the areas remaining under long term leases with limited rights of alienation fulfil conditions requisite for conversion into tenures leading to freehold, it is estimated that the area of former Crown lands in the Eastern and Central Divisions placed definitely beyond State control is in the vicinity of 95,400,000

acres, and probably it is appreciably more. Of the remaining area of about 22,300,000 acres in the Eastern and Central Divisions, 1,022 acres are held under long leases with no rights of conversion, 6,268,018 acres are held under short lease and temporary tenures, and the balance is land which is neither alienated nor leased and includes dedicated State forests not under lease, commons, roads, stock routes, inferior Crown lands not under any tenure and the beds of rivers and lakes.

Of land in the Western Division 2,035,992 acres are alienated or in the process of alienation and so have passed permanently beyond State control. Perpetual leases with no right of alienation account for 42,701,966 acres and long term leases, most of which are convertible to leases in perpetuity, for 34,253,463 acres. Alienable leases and leases with limited right of alienation cover an aggregate area of 192,967 acres and short term leases, temporary tenures, mining leases and permits, 685,755 acres. The balance of 448,565 acres, with the exception of homestead grants of 1,119 acres, is neither alienated nor leased and consists of unalienated town lands, commonages, etc.

It has been estimated that the area of land in the State unfit for occupation of any sort does not exceed 5,000,000 acres.

*Alienation Prior to 1862.*

From the early days of settlement until the year 1861 the Crown disposed of land (under prescribed conditions) by grants and sales, thus alienating by the end of 1861 an aggregate area of 7,146,579 acres, made up as follows:—

TABLE 806.—Lands Alienated Prior to 1862.

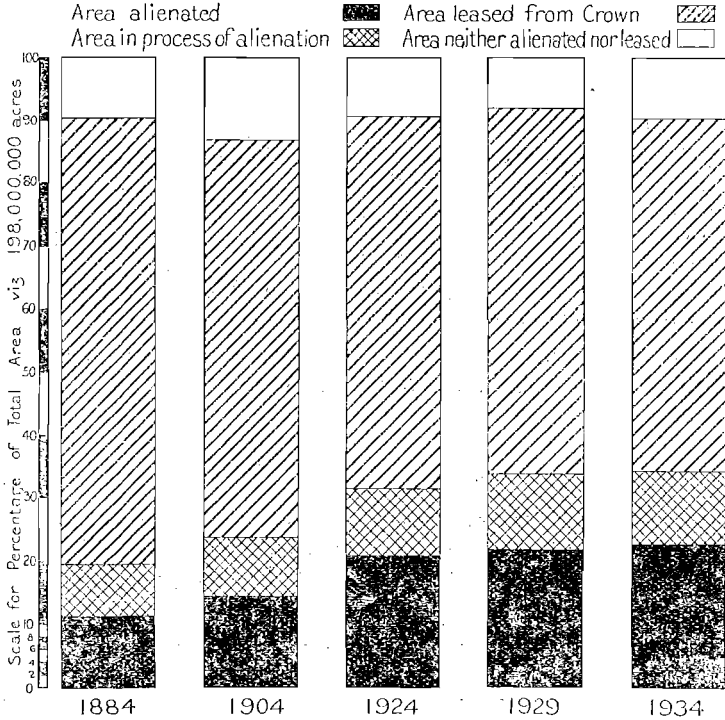
Manner of Disposal.	Area.
	acres.
1. By grants, and sales by private tender to the close of 1831 ... ..	3,906,327
2. By grants in virtue of promises of early Governors made prior to 1831, from 1832-40 inclusive ... ..	171,071
3. By sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive ... ..	1,450,508
4. By sales at auction, at 12s. and upwards per acre, at Governor's discretion, from 1839-41 inclusive ... ..	371,447
5. By sales at auction, at 20s. per acre, from 1842-46 inclusive ... ..	20,250
6. By sales at auction and in respect of pre-emptive rights, from 1847-61 inclusive ... ..	1,219,375
7. By grants for public purposes, grants in virtue of promises of Governors made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive ... ..	7,601
Total area absolutely alienated as to 31st December, 1861 ... ..	7,146,579

The first Crown Lands Act was passed in 1861, and alienation has since been controlled by the laws of the State.

## Progress of Alienation.

The following graph shows the progress of alienation at various dates since 1884:—

## LAND TENURE SINCE 1884



The differently shaded portions of the Graph represent the percentage of the total area of New South Wales which was alienated, in process of alienation under systems of deferred payments, and held under lease from the Crown.

A brief account of the spread of settlement appears on page 679 of the Year Book for 1928-29. Particulars are given below, at intervals since 1861, of the total area of freehold land resumed for closer settlement and for water conservation and irrigation purposes and of the total area of absolutely alienated land. The Australian Capital Territory at Canberra was ceded to the Commonwealth on 1st January, 1911, and alienated land contained therein of an aggregate area of 173,451 acres has accordingly been excluded from the particulars for 1911 and following years.

TABLE 807.—Area of Alienated Land, 1861-1938.

As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.	As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.	As at 30th June.	Area of freehold resumed for re-settlement.	Area remaining absolutely alienated.
	acres.	acres.		acres.	acres.		acres.	acres.
1861*	...	7,146,579	1921	1,857,216	39,679,986	1933	2,407,198	44,682,820
1871*	...	8,630,604	1926	2,329,217	42,323,857	1934	2,411,998	45,136,328
1881*	...	19,615,299	1929	2,350,746	43,491,964	1935	2,412,798	45,698,269
1891*	...	23,682,516	1930	2,405,635	43,750,361	1936	2,413,598	46,204,453
1901*	...	26,407,376	1931	2,406,035	44,074,823	1937	2,413,898	46,736,844
1911†	† 605,611	26,234,256	1932	2,406,898	44,362,013	1938	2,436,790	47,438,450

\* As at 31st December. † Does not include alienated lands within Australian Capital Territory, 173,451 acres

The principal method of alienation has been by conditional purchase, which was introduced in 1861. Lands sold by this means are not included as alienated until all payments have been made and deeds have been issued. For this reason the influence of the introduction of conditional purchases does not appear appreciable in the table until 1881. Lands upon which all payments have been made and all conditions of alienation fulfilled but for which no deeds have been issued are included under conditional purchase in course of alienation. Land so held is appreciable in extent.

The following table shows the areas of land alienated in New South Wales by each of the principal methods up to 30th June, 1938, and the area re-acquired for purposes of irrigation and closer settlement:—

TABLE 808.—Alienated Land—Classification, 1938.

Manner of Disposal.	Area.
	acres.
Granted and sold by private tender and public auction prior to 1862 .. .. .	7,146,579
Sold by auction, after auction, and under deferred payment sales since 1862 .. .. .	11,595,103
Sold by Improvement and Special Purchases .. .. .	2,874,415
Sold by Conditional Purchase since 1862 (deeds issued)	27,385,127
Granted under Volunteer Land Regulations of 1867 ..	172,198
Dedicated for public and religious purposes since 1862	261,438
Sold under Closer Settlement Acts (acquired and Crown Lands) .. .. .	58,522
Suburban Holding Purchase .. .. .	10,525
Soldiers' Group Purchase .. .. .	1,519
Returned Soldiers' Special Purchases (deeds issued) ..	2,420
Week-end Lease Purchases (deeds issued) .. .. .	500
Town Lands Lease Purchases (deeds issued) .. .. .	32
Irrigation Farm purchases .. .. .	300
Sold by all other form of sale .. .. .	540,013
Total .. .. .	50,048,691*
Less—	acres.
Freehold land purchased for Closer Settlement .. .. .	2,214,290
Freehold land purchased for Irrigation Settlements .. .. .	222,500
Lands alienated in Australian Capital Territory prior to its transfer to the Commonwealth .. .. .	173,451
	2,610,241
Lands absolutely alienated as at 30th June, 1938 ..	47,438,450

\* Inclusive of area alienated within Australian Capital Territory prior to 1911.

To this should be added the areas held under Homestead Selection and Homestead Grant, which are not wholly alienated from the Crown, but are, to all intents and purposes, regarded as in the settled and unrestricted possession of the holders and their successors. A homestead grant is a freehold title (rent payable being a quit rent only), and a homestead selection is regarded as in course of alienation. The area held under each tenure cannot be stated separately, but the total area so held on 30th June, 1938, was 1,650,410 acres.

As has already been pointed out, there was, in addition, a considerable area of land under conditional purchase which awaited only the formality of the issue of deeds to complete its alienation. This area is included in the following statement showing the areas in course of alienation by each of the principal methods as at 30th June, 1938:—

TABLE 809.—Land in Process of Alienation, 1938.

Manner of Disposal.	Area
	acres.
Conditional Purchase .. .. .	17,645,860
Closer Settlement Act Purchases .. .. .	2,875,738
Soldiers' Group Purchases .. .. .	410,446
Suburban Holding Purchases .. .. .	10,711
Returned Soldiers' Special Holding Purchases .. .. .	8,895
Week-end Lease Purchases .. .. .	216
Irrigation Land Purchases .. .. .	102,665
Total area in course of alienation at 30th June, 1938	21,054,531

The area of land shown above under the heading of settlement purchases relates to lands made available under the closer settlement policy inaugurated in 1904, which provided for the re-purchase of freehold lands and the resumption of certain leases with compensation. These, with certain adjacent Crown lands, were made available for purchase on easy terms in home maintenance areas for settlers of small means. In 1916-17 the policy of providing land for returned soldiers was introduced, and led to a considerable expansion of closer settlement operations. Information respecting the disposal of land under the Closer Settlement and Returned Soldiers' Settlement Act will be found on pages 916 to 922.

*Area Leased at 30th June, 1938.*

The total area of Crown land in New South Wales held under lease, occupation license and permissive occupancy, was 113,818,173 acres at 30th June, 1938, inclusive of 33,354,708 acres under the Crown Lands Act, 77,861,649 acres under the Western Lands Act, 2,124,231 acres

under the Forestry Act, 187,892 acres under the Mining Act and 289,693 acres under the control of the Water Conservation and Irrigation Commission. The area under each tenure is shown below:—

TABLE 810.—Crown Lands Leases, 1938.

Tenure.	Area.	Tenure.	Area.
Virtually Alienated—	acres.	Other Long Term Leases—	acres.
Homestead Selections and Homestead Grants ...	1,650,410	Western Lands Leases—	
Alienated Leases (Long Term and Perpetual)—		Perpetual ... ..	42,762,110
	Homestead Farms ... ..	Other ... ..	34,191,314
	Suburban Holdings ... ..	30 Years' Leases (Irrigation Areas) ... ..	3,027
	Settlement Leases* ... ..	Total ... ..	76,956,451
	Crown Leases* ... ..	Short Term Leases and Temporary Tenures—	
	Conditional Purchase Leases* ...	Snow Leases ... ..	423,167
	Conditional Leases* ... ..	Annual Leases ... ..	609,079
	Returned Soldiers' Special Holdings ... ..	Occupation Licenses ... ..	1,153,979
	Week-end Leases ... ..	Preferential Occupation Licenses ... ..	597,075
	Town Lands Leases ... ..	Permissive Occupancies ... ..	1,738,767
	Irrigation Farm Leases (Irrigation Areas) ... ..	Irrigation Area Leases† ... ..	119,583
	Non-Irrigable Leases (do.) ... ..	Total ... ..	4,641,650
	Town Lands Leases (do.) ... ..		
Total ... ..	26,689,996		
Long Term Leases with limited right of Alienation—		Forest Leases and Occupation Permits ... ..	2,124,231
Improvement Leases ... ..	188,162	Mining Leases and Permits ... ..	187,892
Scrub Leases ... ..	102,869	Grand Total ... ..	113,818,173
Inferior Lands Leases ... ..	37,540		
Church and School Lands Leases ... ..	11		
Conditional Leases (brought under Western Lands Act) ... ..	100,543		
Prickly-pear Leases ... ..	161,947		
Residential Leases ... ..	4,266		
Special Leases ... ..	972,205		
Total ... ..	1,567,543		

\* New leases mainly perpetual; old leases convertible to perpetual leases.

† Includes 21,431 acres outside Irrigation areas, but under the control of the Water Conservation and Irrigation Commission.

Certain of the perpetual leases, such as homestead farm and irrigation farm leases, carry statutory rights of purchase, while most Crown leases and practically the whole of the conditional leases and conditional purchase leases are convertible in this way. Settlement leases also may be converted into conditional purchases, but the area so converted in any individual case, together with other freehold, alienable, or leased lands with more than five years to run held by the same individual, may not substantially exceed a home maintenance area as determined by the Local Land Board. Where there is such an excess area of lease it is converted into a conditional lease without any right of further conversion. The area of inconvertible conditional leases so created is included in the total shown in the table. The Crown Lands Amendment Act, which came into operation on 31st March, 1930, made Crown leases not within reserves from sale,

homestead selections and homestead farms convertible in their entirety without restriction. In all cases a covering reservation from sale, until revocation thereof, debars conversion.

Improvement and scrub leases are granted in respect of lands which require improvement before being made available for original holdings. Usually they are held in conjunction with other lands or in large areas, and the holder is given the right to apply for the conversion of sufficient to convert a home maintenance area into an alienable tenure. 18th Section, inferior lands, and church and school land leases are subject to similar provisions. The holder also has the right to sell his lease, and substantial areas are transferred to persons eligible to convert. As a consequence, parts of leases of these types do not revert to the disposal of the State, but the area held under such leases is not large.

Special leases held for certain purposes may be purchased by their holders, and other special leases may be alienated with the approval of the Minister, and so may the residential leases. All the leases under the Western Lands Act are situated in the Western Division, and the tenure may be extended subject to certain conditions of withdrawal for settlement and periodical re-appraisal of rentals. In 1932 these leases were made convertible as to home-maintenance areas into perpetual leases under conditions stated on page 914.

The short-term leases enumerated represent Crown lands reserved for various purposes, as well as lands available for settlement, but not yet taken up. The forest leases and occupation permits include principally grazing leases which are wholly within State forests, and administered by the Forestry Commission.

From the foregoing it will be understood that the classification is somewhat arbitrary, and is a general, rather than an absolute, indication of the manner in which the leasehold areas of the State are held.

#### RESERVES.

The total area of reserved lands in the State as at 30th June, 1938, was 16,861,087 acres. Reserves are not necessarily unoccupied, considerable areas being held under annual, special, scrub, or forestry leases or on occupation license or permissive occupancy. Such are included under appropriate headings in the list of leasehold tenures shown above.

The following is a classification of reserves according to the principal purpose for which reserved:—

TABLE 811.—Reserves—Areas, 1938.

Classification.	Area.
	acres.
Travelling Stock .. .. .	5,314,640
Water .. .. .	596,744
Mining .. .. .	1,205,661
Forest .. .. .	2,109,094
Temporary Commons .. .. .	296,123
Railway .. .. .	41,091
Recreation and Parks .. .. .	283,466
Pending Classification and Survey .. .. .	3,779,911
From Conditional Purchase, within Goldfields .. .. .	452,276
From Sale or Lease other than Improvement Lease .. .. .	105,428
From Sale or Lease other than 18th Section Lease .. .. .	21,454
Camping .. .. .	280,100
Other .. .. .	2,375,099
Total .. .. .	16,861,087



The statement above is intended to give only an approximate idea of the relative extent of reserves of various kinds, and should not be taken as a measure of their absolute magnitude, because large areas are reserved for more than one purpose. For instance, the area principally reserved for forests is stated at only 2,109,094 acres, while the actual area of dedicated forest lands at 30th June, 1938, was 5,180,002 acres, and in addition 1,371,783 acres were under timber reserve, making a total of 6,551,785 acres. Of the dedicated area 2,108,272 acres situated entirely within State forests, were leased to graziers and others by the Forestry Commission, 15,959 acres of State Forests held under tenures of the Crown Lands Acts were administered by the Forestry Commission, and 38,721 acres consisting of portions of leases not wholly within State forests, were administered by the Department of Lands.

Of the total area of reserves, 11,810,860 acres, or 70 per cent., were situated in the Eastern and Central Divisions of the State.

A periodical revision of the reserved lands is made with the object of withdrawing from reserve any area which is not required as a reserve in the public interest.

#### CATCHMENT AREAS.

To minimise the dangers of erosion and to ensure proper protection of water catchments, a Catchment Areas Board has been constituted under the Crown Lands, Closer Settlement and Returned Soldiers' Settlement (Amendment) Act, 1935. The board consists of the Minister for Forests, the Under-Secretaries for Lands and for Agriculture, and the Forestry Commissioner (or their nominees) and an officer of the Water Conservation and Irrigation Commission, with the Minister for Forests (or, in his absence, the officer of the Department of Lands) as Chairman.

Lands reserved from sale for the purpose of a catchment area may not be modified, revoked or set apart without the recommendation of the board, nor may lands so reserved be granted under any form of lease or license (including additions for which statutory provision is otherwise made), or the term of any lease of such land be extended, except with the concurrence and subject to such conditions as the board may recommend. Exchanges of lands within reserves for catchment areas may not be effected without the approval of the board.

#### AREA AVAILABLE FOR SETTLEMENT.

The area of land within the disposal of the Crown without the necessity of resumptions and consequent compensation is not definitely ascertainable, since clauses providing for revocation or withdrawal have been inserted in a number of lease contracts, and considerable areas leased for long periods revert to the Crown periodically by the effluxion of time and by forfeiture. Particulars of those areas are not available.

Apart from these, however, certain lands under reserve, in addition to the lands comprised in the following short leases, may be considered to have been within the disposal of the Crown at 30th June, 1938:—

TABLE 812.—Lands under Short Term Lease, 1938.

Tenure.	Area.
Under Crown Lands Acts—	acres.
Occupation license (including 18,222 acres in Western Division) .. .. .	890,614
Preferential occupation license .. .. .	387,191
Annual lease (including 14,972 acres in Western Division) .. .. .	609,079
Permissive occupancy .. .. .	1,604,334
Under Western Lands Act—	
Occupation licenses .. .. .	263,365
Preferential occupation license .. .. .	209,884
Permissive occupancy .. .. .	134,433
Total .. .. .	4,098,900

With a view to classifying and bringing forward those areas which are suitable for settlement, systematic inspections of Crown lands are made periodically in each district.

The following areas were available for the classes of holdings specified at 30th June, 1938:—

TABLE 813.—Land available for Selection, 1938.

Class of Holding.	Area.
Original Holdings for—	acres.
Crown Lease ... .. .	452,197
Homestead Farm ... .. .	4,699
Conditional Purchase (original) ... .. .	2,597,393
Suburban Holding ... .. .	2,814
Settlement Purchases .. .. .	1,275
Other Forms of Lease ... .. .	69,933
Additional Holdings (all classes) ... .. .	305,436
Total ... .. .	3,433,747

The area of 2,597,393 acres, shown above as available for original conditional purchase, consists mostly of Crown lands of an inferior nature, not reserved or specifically set apart. A considerable proportion of the lands comprising this area has been available for years, but has remained unselected. The total area of the lands classified and made available for settlement during 1937-38 was 218,459 acres, none of which was available exclusively for returned soldiers' settlement.

EASTERN AND CENTRAL LAND DIVISIONS.

METHODS OF ACQUISITION AND OCCUPATION.

The acquisition and tenure of land in the Eastern and Central Land Divisions are controlled principally by the Crown Lands Act (consolidated in 1913) and its amendments, together with regulations thereunder. In addition, the Closer Settlement Acts, Returned Soldiers' Settlement Acts, and the Forestry, Mining, Irrigation, and Prickly Pear Destruction Acts regulate certain tenures for specific purposes.

By these Acts a great variety of tenures—more than thirty in number—have been created to suit the various circumstances of the lands and settlers of New South Wales and the changing character of rural settlement.

The principal means by which Crown lands in the Eastern and Central Divisions and lands in the Western Division remaining under the Crown Lands Act may be acquired, and the tenures under which they may be held, may be classified as follows:—

Non-Residential Tenures.	Tenures involving Residential Conditions.
Methods of Absolute Alienation.	
Auction sale. After-auction purchase. Special non-competitive sales. Conditional purchase (40 to 320 acres). Exchange. Irrigation farm purchase. Town lands lease purchases. Week-end lease purchases.	Conditional purchase. Settlement purchase. Returned soldiers' special holding purchase. Improvement purchase on goldfields. Soldiers' Group purchase. Suburban holding purchases.
Leases Carrying Statutory Rights of Entire Alienation.*	
Special conditional purchase lease (up to 1,920 acres). † Town lands lease. †	Homestead selection and homestead grant. † Homestead farm † Conditional lease. † Conditional purchase lease. † Crown lease. † Irrigation Farm lease. † Non-irrigable lease. † Town Land lease (Irrigation Area). †
Leases Alienable wholly or in Part under Certain Conditions.*	
Improvement lease. § Scrub lease. § Inferior lands lease. § Special lease (for certain purposes). § Week-end lease. † Prickly-pear lease.	Settlement lease. † Suburban holding. † Residential lease. Returned soldiers' special holding.
Leases Carrying No Statutory Rights of Alienation.	
Church and school lands lease. 18th section lease. Occupation license. Preferential occupation license. Permissive occupancy. Occupation permit (forest lands). Forest lease. Snow lease. Mineral and auriferous lease. Annual lease. 30 years' lease (Irrigation Areas).	

\* Unless within a reserve from sale.

† Perpetual, or mainly convertible to perpetual.

‡ Virtually an alienation (title is freehold and rent payable a quit rent). § Convertible only if holder already resides on the lease, or on another holding of applicant within reasonable distance therefrom.

The rights of alienation attached to the various classes of leases shown above differ widely, and are usually subject to the qualification that the area to be alienated, together with all other lands held (other than non-convertible leases within five years of expiry), does not substantially exceed a home maintenance area and is not within a reserve from sale. Conditional purchase leases, conditional leases, Crown leases, homestead farms, homestead selections and grants, are almost entirely alienable, while settlement leases are subject to restriction in regard to home-maintenance area. Improvement leases, scrub leases, and inferior lands leases are alienable only where residence is performed and generally when the leases are about to expire and are not subject to any reservation, the home maintenance limitation and other restrictions inserted in individual leases. Special leases may become freehold only by conversion to conditional purchase with Ministerial consent, and residence within three months of approval is a necessary condition of conversion.

#### *Reappraisal of Values and Reduction of Rentals.*

The Crown Lands (Amendment) Act, 1931, conferred upon holders of land in course of purchase or of land held under the principal leasehold tenures the right to apply not later than 2nd October, 1935, for the reappraisal of the capital value or annual rental of their holdings. In the exercise of this right 21,474 applications were made of which 21,407 had been finalised at 30th June, 1938. Capital values were reduced by £6,305,075 and annual rentals by £63,762.

Assistance was also rendered to settlers under provisions of the Crown Lands (Amendment) Acts of 1932 and 1935, and the Closer Settlement and Returned Soldiers' Settlement Act, 1935.

In respect of interest on the purchase of land or of Crown improvements before 1st January, 1933, and of the annual rental or fee under any lease, occupation license or permit held under various Acts relating to the disposal of Crown Lands (subject to certain exceptions), a reduction of twenty-two and one-half per cent. of the amount payable was made effective for three years. This period was extended to nine years (that is until 1st January, 1942) by the Crown Lands and Closer Settlement (Amendment) Acts of 1935 and 1938.

Settlers adversely affected by flood, fire, drought, storm or tempest, after 1st January, 1927, may apply for relief under these Acts. Relief may be afforded by the Local Land Board, in the form of (a) postponement of payments of instalments payable in respect of purchase of land or Crown improvements, or (b) postponement, waiver or remission of interest on such debts, or of the annual rent of any lease from the Crown under those Acts. The board may also revalue any improvements in the course of purchase which owing to such causes have become depreciated in value.

The Minister is empowered to fund arrears in respect of debts due to the Crown, distributing payments over twenty years; to postpone payment of instalments, the interest on which may be added to the principal, or be allowed to remain as a non-interest-bearing debt; to permit of interest only being paid in lieu of instalments; and where interest only is payable, to postpone payment of interest in like manner; or, if the circumstances so warrant, to direct that the whole or part of interest on deferred payments be not charged.

The following statement indicates the extent of the relief afforded to settlers from 1931 to 1938:—

TABLE 814.—Financial Assistance to Settlers.

Particulars.	Amount.
	£
Overdue Crown payments postponed, funded, waived, etc. ... ..	4,214,490
Reduction of interest and rents by 22½ per cent. ... ..	1,600,000
Reduction of interest rates to a maximum of 4 per cent. ... ..	918,000
Reduction of capital values by re-appraisalment ... ..	6,305,075
Reduction of annual rentals by re-appraisalment ... ..	63,762
Total ... ..	13,101,327

## METHODS OF PURCHASE.

*Conditional Purchase.*

This method of alienation, introduced by the Crown Lands Act of 1861, has become the most extensively used of all. It is a system of Crown land sales by deposit and annual instalment, and all the principal leasehold tenures may be converted, under certain conditions, wholly or in part into conditional purchase, which may be considered the basal tenure of land settlement in New South Wales.

The outstanding feature of the tenure is the limitation placed upon the area of land which may be held by a conditional purchaser during the currency of his purchase. The area to be purchased under residential conditions except in special areas may not be less than 40 acres, and must not exceed 1,280 acres in the Eastern land division, and 2,560 acres in the Central land division, unless the land is classified, or must not exceed 320 acres in either division when the buyer does not undertake to reside on the holding. Special areas without residential conditions, ranging up to 320 acres in the Eastern land division, and up to 640 acres in the Central land division, may also be made available.

Any conditional purchaser may take up the maximum area at once, if it is available, or may make a series of additional purchases as land becomes available. To facilitate this, a special tenure (conditional lease) has been created whereby a conditional purchaser may take up land not exceeding three times the area of his conditional purchase, and this may be converted into conditional purchase. The combined area so acquired may exceed the prescribed divisional limit, but only where the land is classified, or to make up a home maintenance area as determined in individual cases by the Local Land Board. Holders of freehold land of at least 40 acres are permitted also to acquire lands as additional conditional purchases and conditional leases, provided the total area of each holding so increased does not exceed the divisional maximum nor a home maintenance area.

The price of the land for a residential conditional purchase is £1 per acre, unless otherwise notified, in addition to the value of improvements (if any) assessed by the Local Land Board. A deposit of 5 per cent. of the purchase money must be paid in addition to survey fee and stamp duty. The first annual instalment is due at the end of three years from the date of application and, at the holder's option, may be at the rate of 9d. or 1s. for each £ of the price of the land. Such payment comprises repayment of principal, with interest at the rate of  $2\frac{1}{2}$  per cent. per annum. The term of purchase, according to the rate of instalment paid, is forty-one or twenty-eight years. Payment for improvements existing at date of purchase may be made in fifteen equal annual instalments, including interest at the rate of 4 per cent. Except as provided by the Crown Lands Act of 1931, value of land held under conditional purchase is subject to re-appraisal only within five years of the confirmation of the purchase.

The conditions to be observed by purchasers include *bona fide* residence upon the holding for five years after confirmation unless modified by the Local Land Board which in special cases may allow residence to be performed anywhere within reasonable working distance of the holding; fencing or other improvements, as prescribed, to the value of 6s. per acre (but not exceeding 30 per cent. of the price of the land or £384) to be effected within three years, and to the value of 10s. per acre (but not exceeding 50 per cent. of the price of the land or £640) to be effected within five years of confirmation; and the payment of all instalments and prescribed charges.

The price of land taken up as a non-residential purchase is double the price of the same land if taken up as a residential purchase. The term of payment is twenty-eight years. Fencing within twelve months of confirmation and other improvements to the value of £1 per acre within five years must be effected, or alternatively fencing may be dispensed with and improvements effected within five years to the value of £1 10s. per acre. There are very few non-residential conditional purchases.

All applications connected with the purchases are considered by the Local Land Board, and certificates are issued to the holder by the chairman upon survey and confirmation, and a further certificate when all conditions, other than payment of balance of purchase money or survey fees, have been fulfilled. A Crown grant is issued to the holder when all conditions, including the payment of the balance of purchase money or survey fees, have been fulfilled.

Under certain conditions a residential conditional purchase may be converted into a homestead farm, and a non-residential conditional purchase into a residential purchase or homestead farm.

Transfer may be made after the certificate has been issued, but original purchases applied for after 31st January, 1909, may be transferred (except by way of mortgage) only with the consent of the Minister for Lands.

A conditional lease of not less than 40 acres may be obtained only in conjunction with a conditional purchase or freehold lands formerly held on conditional purchase, subject to the various conditions set out above in respect of conditional purchases.—(Further particulars as to conditional leases are given on a later page.)

*Number and Area of Conditional Purchases and Conditional Leases.*

Transactions in respect of original and additional conditional purchases from 1862 to 30th June, 1938, were as follow:—

TABLE 815.—Conditional Purchases, 1862-1938.

Year ended 30th June.	Completed Conditional Purchases for which deeds were issued during year.		Uncompleted Conditional Purchases in existence at end of year.		Conditional Leases (Ordinary and Perpetual) in existence at end of year.	
	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.
1862-1927 ... ..	167,591	22,732,825	69,046	19,635,068	20,844	12,336,340
1928 ... ..	2,645	394,306	68,278	20,057,640	20,174	12,090,956
1929 ... ..	3,710	315,358	66,170	20,619,758	19,459	12,048,999
1930 ... ..	2,024	299,485	66,243	20,475,734	18,537	11,722,588
1931 ... ..	2,109	320,832	65,093	20,511,043	18,253	11,687,525
1932 ... ..	1,833	284,858	63,667	20,336,336	18,134	11,631,939
1933 ... ..	1,908	313,323	62,177	20,073,559	18,288	11,697,095
1934 ... ..	2,360	450,521	60,344	19,704,897	18,225	11,667,405
1935 ... ..	2,532	546,666	59,720	19,560,388	18,166	11,887,515
1936 ... ..	2,438	491,816	57,475	18,815,531	18,011	12,065,120
1937 ... ..	2,877	524,924	55,035	18,283,598	17,859	11,705,766
1938 ... ..	3,120	710,214	52,428	17,645,860	17,838	11,720,572
Total (as at 30th June, 1938)	195,147	27,385,128	52,428	17,645,860	17,838	11,720,572

The total area alienated and in course of alienation by conditional purchase as at 30th June, 1938, was 45,030,988 acres, and, in addition, there were 6,293,292 acres of associated conditional leases (other than perpetual leases) which were almost wholly convertible into conditional purchases. There were also 6,188 holdings under Perpetual Conditional leases with an aggregate area of 5,427,280 acres. The area of uncompleted conditional purchases shown above includes a number upon which payments have been completed, although deeds have not yet been issued.

The area of conditional purchases converted to other tenures has been deducted from the totals shown above.

The number of conditional purchase selections shown is several times greater than the total number of rural holdings in the State, and does not, of course, represent original holdings. It represents the number of individual blocks, both original and additional, taken up as conditional purchases and it includes those which have been incorporated with other holdings after deeds have been issued.

*Homestead Selections and Homestead Grants.*

The appropriation of areas for homestead selection was a prominent feature of the Act of 1895, the land chosen for subdivision being generally agricultural land, and the maximum area of holdings limited to 1,280 acres. The tenure is lease in perpetuity. Rent is at the rate of 1½ per cent. per annum

for the first five years or until the issue of the homestead grant, when it is raised to 2½ per cent. In cases where residence is performed by deputy the rent is 3½ per cent. of the appraised value until issue of the grant, and thereafter 2½ per cent. The value is subject to appraisal only within five years of confirmation. Certain residential and improvement conditions are imposed, and on compliance with these for a term of five years a homestead grant is issued. A homestead grant is a lease in perpetuity subject to the payment of an annual rent and, except as against the Crown, confirmation of a homestead selection is deemed by law to be a sale of the land.

Since 1912 practically no lands have been made available for original homestead selections, such tenure having been replaced by that of homestead farm. Applications dealt with after 1912 are either in connection with areas previously set apart for homestead selections, or as additional areas, principally the latter. The following statement shows the applications and confirmations in regard to homestead selections and homestead grants issued up to 30th June, 1938.

TABLE 816.—Homestead Selections and Homestead Grants, 1895-1938.

Year ended 30th June.	Homestead Selections Confirmed.		Homestead Grants issued.		Homestead Selections and Grants in existence.	
	No.	acres.	No.	acres.	No.	acres.
1895 to 1929 ... ..	8,136	2,947,397	6,166	2,382,891	2,061	1,198,737
1930 ... ..	5	5,128	16	25,204	2,010	1,190,090
1931 ... ..	14	35,008	26	57,233	2,044	1,389,796
1932 ... ..	6	13,376	16	22,953	2,080	1,501,548
1933 ... ..	7	3,386	18	22,794	2,093	1,522,901
1934 ... ..	2	572	16	44,023	2,090	1,537,044
1935 ... ..	5	21,381	16	50,167	2,100	1,584,349
1936 ... ..	1	3,213	28	58,062	2,113	1,602,997
1937 ... ..	.....	.....	8	13,957	2,118	1,650,055
1938 ... ..	2	538	28	82,328	2,120	1,650,410

Operations under this tenure were at first very extensive, but they gradually diminished, and in 1911-12, the year before the homestead farm was introduced, only 94,641 acres of homestead selections were confirmed. The Crown Lands Amendment Act of 1908 authorised the conversion of homestead selections and grants into conditional purchases and conditional leases, and a further amendment in 1930 made these holdings convertible in their entirety without restriction. Extensive advantage has been taken of this provision, and to 30th June, 1938, an area of 2,213,678 acres of homestead selections and grants had been so converted. This accounts for the difference between the area of homestead selections confirmed (3,029,999 acres) and the area remaining in existence (1,650,410 acres), the difference having been reduced latterly by the extensive conversions of improvement leases into homestead selections. Under the Crown Lands (Amendment) Act of 1912, a homestead selection or grant may be converted into a homestead farm, but there have been only forty cases of conversion of this kind, covering 184,243 acres.



*Auction Sales and After-auction Purchases.*

Crown lands are submitted for auction sale under two systems. Under the ordinary system the balance of purchase money is payable, without interest, within three months of the day of sale, while, under the deferred payment system, the balance is payable by instalments, with 5 per cent. interest, distributed over a period not exceeding ten years. In either case, not less than 10 per cent. of the purchase money must be deposited at the time of sale. Postponement of payments of instalments or interest may also be approved in the manner indicated at page 894.

Auction sales were limited by law in 1884 to 200,000 acres in any one year, but the area sold by auction and after-auction purchases, although formerly extensive, has amounted to only 45,894 acres in the last twenty-one years. Town lands may be sold in blocks not exceeding half an acre, at an upset price of not less than £8 per acre; and suburban lands must not exceed 20 acres in one block, the minimum upset price being £2 10s. per acre. Country lands may be submitted in areas not exceeding 640 acres, the upset price being not less than 15s. per acre. The value of improvements on the land may be added to the upset price.

Town or suburban land or portions of country land of less than 40 acres each, which have been passed at auction, may be bought with the Minister's consent, at the upset price. A deposit as notified in the Gazette in connection with the offering at auction is payable at the time of application, the balance being payable on the terms fixed for the auction sale.

Alienation by this method is very restricted. Only 92 acres were sold by auction during 1937-38 in 428 lots, realising £80,987. Two hundred and six acres were sold as after-auction purchases in 349 lots, realising £11,895.

*Improvement Purchases.*

Holder of miners' rights or of business licenses on a gold-field in authorised occupation by residence on land containing improvements may purchase such land without competition. Improvements must include a residence or place of business, and be equivalent to £8 per acre on town land, and £2 10s. per acre on any other land. Alienation by this means has never been extensive. During 1937-38 there were 35 lots sold embracing an area of 18 acres, yielding the amount of £780.

*Special Non-Competitive Sales.*

These comprise land reclamations, rescissions of reservations, unnecessary roads, public land to which no way of access is available, or which is insufficient in area for conditional sale, etc., also residential leases, and the area of Newcastle pasturage reserves for which the purchase money has been paid in full. The amount realised by special sales in 1937-38 was £12,279 in respect of 2,953 acres of land, including £9,351 for 2,707 acres of alienated roads; £489 for purchase of 122 acres of residential leases; and £2,439 for 124 acres otherwise acquired.

The owner in fee-simple of land having frontage to the sea, or to any tidal water or lake, who desires to reclaim and purchase any adjoining land lying below high-water mark, may apply to the Minister for Lands to do so, except in the case of Port Jackson, the control of which is vested in the Maritime Services Board. Reclamations which might interrupt or interfere with navigation are not authorised.

*Area Alienated by Crown Land Sales.*

Particulars of areas disposed of under the three preceding headings, in quinquennial periods, since 1900, are as follow:—

TABLE 817.—Crown Land Sales, 1900-1938.

Year ended 30th June.	Auction Sales.	After-auction Sales.	Improvement Purchases.	Special Sales.	Total.
	acres.	acres.	acres.	acres.	acres.
1900-04* ...	261,328	10,004	942	3,782	276,056
1905-09 ...	89,430	15,801	181	5,817	102,229
1910-14 ...	16,768	9,984	269	9,976	34,007
1915-19 ...	20,527	2,709	241	9,743	33,220
1920-24 ...	9,340	2,963	143	10,792	23,238
1925-29 ...	7,431	1,792	138	11,126	20,487
1930-34 ...	1,231	600	72	16,640	18,543
1935 ...	125	101	11	3,564	3,801
1936 ...	483	126	7	3,222	3,838
1937 ...	163	152	16	4,343	4,674
1938 ...	92	206	18	2,953	3,269

\* Calendar years.

*Exchange of Land between the Crown and Private Owners.*

Before the granting of fixity of tenure in connection with pastoral leases, the lessees had made it a practice to secure portions of their runs by conditional purchases and purchases in fee-simple. The practice was disadvantageous to the public estate, because Crown lands were left in detached blocks severed by lessees' freehold properties; and the lessees realised that it would be convenient for them to gather their freeholds together in one or more consolidated blocks by surrender of private lands in exchange for Crown lands elsewhere.

Under the provisions of the Crown Lands Consolidation Act, 1913, the Governor, with the consent of the owner, may exchange any Crown lands for any other lands of which a grant in fee-simple has been issued.

The Governor may accept, in exchange for Crown lands, lands in respect of which a balance of purchase money remains unpaid, if upon payment of such balance the right to a grant in fee-simple becomes absolute. In any such case a grant of Crown lands in exchange will not be issued until the balance of purchase money has been duly paid.

During 1937-38 thirty-nine applications were received for the exchange of private for Crown lands; four were refused or withdrawn and twelve covering 3,277 acres were completed.

*Settlement Purchase and Irrigation Farm Purchase.*

Particulars of these methods of acquiring land are shown on later pages in relation to Closer Settlement and Irrigation Settlement.

## ALIENABLE LEASES.

The principal kinds of leases which may be converted under specified conditions to freehold tenures wholly or in part are the conditional lease, Crown lease, settlement lease, improvement lease, special lease, scrub lease, inferior lands lease, conditional purchase lease, irrigation farm lease, non-irrigable lease and prickly-pear lease. Other leases of this class are suburban holding, residential lease, week-end lease, and leases of town lands.

*Leases in Perpetuity.*

Since 31st December, 1932, holders of conditional leases, conditional purchase leases, Crown leases and settlement leases may apply for the term of such leases to be extended in perpetuity. Up to 30th June, 1938, extension had been granted in respect of 5,489 conditional leases, 52 conditional purchase leases, 1,293 Crown leases, and 807 settlement leases. Inclusive of entirely new holdings confirmed as leases in perpetuity, and of leases with fixed terms which had been extended to perpetuity, the number and area of perpetual leases of each of these forms of tenure subsisting at 30th June, 1938, were—6,188 conditional leases, 5,427,280 acres; 57 conditional purchase leases, 56,489 acres; 1,867 Crown leases, 3,455,365 acres; and 799 settlement leases, 2,011,974 acres.

There were 24,326 perpetual leases of all forms covering an aggregate area of 60,077,643 acres at 30th June, 1938. In these were included 2,538 perpetual leases with a total area of 42,762,110 acres held under the Western Lands Act.

*Conditional Leases.*

Certain particulars regarding these leases have been shown on a previous page in connection with conditional purchases. The tenure was introduced by the Act of 1884. A conditional lease may be obtained by any holder of a conditional purchase (other than non-residential or a conditional purchase within a special area in the Eastern Division), or of freehold lands formerly held as conditional purchase. Lands available for conditional purchase are available also for conditional lease, with the exception of lands in the Western Division, and of lands within a special area or a reserve. Applications must be accompanied by a provisional rent of 2d. per acre and a survey fee, except where otherwise provided. The lease was formerly for a period of forty years, but it was provided in 1924 that, upon application during the last five years of its currency, a lease might be extended for a period of twenty years. Under the Amending Act of 1932 application may be made (without abrogating existing rights of acquiring freehold titles) for the extension of the term of conditional leases in perpetuity. All conditional leases taking effect on or after 30th December, 1932, are leases in perpetuity, saving such parts thereof as are within certain reserves and are required in the public interest.

The rent as determined by the Land Board is payable yearly in advance, and is subject to review only upon application within five years of confirmation of the lease. Any conditional lease, with the exception of a small number of inconvertible conditional leases created by conversion from other tenures, may be converted at any time during its currency into a conditional purchase or homestead farm, and an Act passed in 1927 enabled conditional leases to be transferred and held separately from the original holding with which they were granted.

There were 3 applications for ordinary conditional leases during 1937-38 in respect of 1,426 acres; one application for 384 acres was confirmed. Gazetted conditional leases (other than perpetual leases) in existence at 30th June, 1938, numbered 11,650, embracing 6,293,292 acres, at an annual rental of £86,171.

Perpetual conditional leases in existence at 30th June, 1938, numbered 6,188 with an aggregate area of 5,427,280 acres and annual rental of £82,286. During the year 1937-38 fourteen new perpetual conditional leases were confirmed with a total area of 5,303 acres.

Thirteen new conditional leases in respect of 15,975 acres were created by conversion, and 148 conditional leases for 72,284 acres were converted to other tenures.

#### *Conditional Purchase Leases.*

This form of tenure was created in 1905; but is obsolete for the purpose of selection, as lands are not now made available under it. The area held under conditional purchase lease reached a maximum of 677,961 acres in 1911, and has decreased steadily since.

The term of the lease was originally forty years, but was increased to fifty years in 1924. The annual rent is 2½ per cent. of the capital value, which is fixed upon notification, subject to review only within five years of confirmation of the lease. Under the Amending Act of 1932 the term of conditional purchase leases may be extended to perpetuity, provided they are not included in certain reserves required for public purposes, without affecting other conversion rights hitherto obtaining. No fixed limit was placed on areas made available, but conditions as to residence, cultivation, etc., were prescribed. Conversion to the tenures of conditional purchase and homestead farm is permitted, the total area so converted being 521,993 acres.

A special conditional purchase lease could be granted without obligation of residence in respect of areas not exceeding 320 acres on condition that improvements to the value of 10s. or more per acre, as determined by the Minister, were effected within three years of application.

The leases holding good at 30th June, 1938, numbered 240 with an area of 177,195 acres, the annual rent amounting to £4,346. Of these, 57 were perpetual leases with an aggregate area of 56,489 acres and annual rental of £948.

#### *Crown Leases.*

Crown leases were constituted under the Crown Lands Amendment Act, 1912, and lands are specially set apart by notification in the *Government Gazette* as available for Crown lease. Crown lands available for conditional purchase (unless otherwise specified in the *Gazette*) are available also for Crown lease. Land may be set apart for Crown lease to be acquired only as additional holdings.

The term of Crown leases existing prior to 30th December, 1932, was 45 years, but the term of Crown leases then existing may be extended to perpetuity on application. Since that date Crown leases have been issued as leases in perpetuity except in some cases when the term is 45 years with the right of extension of the term to perpetuity on approval. The annual rent is 1½ per cent. of the capital value, as determined within five years of confirmation of the lease. The rent payable for the first year may be remitted if, in addition to the improvements required as a condition of the lease, except boundary fencing, an equal sum be spent by the lessee in improving the land. Upon the expiration of a Crown lease the last holder thereof possesses tenant rights in all improvements other than Crown improvements. The lessee is required to reside on the land for five years, commencing within six months of the confirmation of the lease, but in special cases, may be allowed to perform residence anywhere within reasonable working distance of the holding. The lease may be protected against sale for debt in certain circumstances. Under the conditions attached to the lease when granted in 1912 the lessee was empowered during the last five years of the lease, unless debarred by

notification setting the land apart, to apply to convert into a homestead farm so much of the land as would not exceed a home maintenance area, but this provision was repealed by the Amending Act of 1932. By the Act of 1917, so much of a Crown lease, as did not, with other freehold or convertible leases held by the lessee, exceed a home maintenance area, and was not covered by a reservation from sale, became convertible into a conditional purchase with, or without a conditional lease. In 1930 the home maintenance area qualification was removed, and, apart from areas reserved from sale, Crown leases became convertible in their entirety in this way. Since the passing of the Act of 1917, 1,656,442 acres of Crown leases have been converted into conditional purchase and conditional leases.

Crown leases (other than perpetual) granted and current in recent years are shown below:—

TABLE 818.—Crown Leases, Ordinary—1912 to 1938.

Year ended 30th June.	Applications Confirmed.		Leases current at 30th June.		
	No.	Area.	No.	Area.	Rent.
		acres.		acres.	£
1912-1929 ...	6,336	7,980,894	3,944	5,460,250	46,061
1930 ...	228	282,154	3,979	5,531,875	46,209
1931 ...	243	344,192	4,085	5,673,533	46,306
1932 ...	164	208,751	4,135	5,852,505	47,323
1933 ...	178	282,702	4,235	5,965,049	48,413
1934 ...	122	154,794	3,875	5,082,975	39,664
1935 ...	52	70,524	3,704	4,628,512	31,584
1936 ...	3	489	3,390	4,190,126	27,575
1937 ...	5	15,490	3,158	4,065,013	26,234
1938 ...	11	19,312	2,960	3,789,443	24,631

The figures shown above include a number of Crown leases made available specially for returned soldiers. Particulars of these are shown on a later page.

This tenure was applied extensively from its inception, and practically superseded the settlement lease under which operations had been extensive until 1912. Most of the Crown lands made available each year are set apart under this tenure and that of the homestead farm, also introduced in 1912. Eleven applications for ordinary Crown leases in respect of 19,312 acres were confirmed during 1937-38, and at 30th June, 1938, there were in existence 2,960 Crown leases (other than perpetual) with an aggregate area of 3,789,443 acres and annual rental of £24,631.

During the year ended 30th June, 1938, there were 142 applications for perpetual Crown leases. Applications confirmed numbered 74 with an aggregate area of 78,425 acres, the annual rental of which amounted to £373. At 30th June, 1938, there were current 1,867 perpetual Crown leases with an aggregate area of 3,455,365 acres and annual rental of £24,863.

#### *Settlement Leases.*

This tenure was created in 1895. It was used extensively in making land available for settlement, but since the introduction of the Crown lease in 1912 operations under it have been inconsiderable. Under its conditions farms gazetted as available for settlement lease can be obtained on application accompanied by a deposit of six months' rent, and

one-tenth of survey fee. The duration of the lease is forty years, but under the Amending Act of 1932 application may be made to convert so much of a settlement lease as does not substantially exceed a home maintenance area to a lease in perpetuity at existing rental without affecting existing rights of conversion into conditional purchase. The leaseholder is required to reside on the lease for the first five years of its currency unless approval is obtained to perform residence elsewhere within reasonable working distance of the lease. Rent is payable at the rate specified upon gazettal, subject to appraisal within five years of confirmation of the lease.

From its inception very large areas of land were taken up under this lease, and by 30th June, 1913, the total area of settlement leases confirmed to applicants was 8,793,663 acres. An amendment of the Crown Lands Act gave holders of settlement leases the right to convert such part of their leases as, with freehold or convertible lands already held, does not substantially exceed a home maintenance area into a conditional purchase with an associated conditional lease, but where the total holding of freehold land so created would exceed a home maintenance area the excess is granted as conditional lease without rights of conversion.

Between 1909 and 30th June, 1938, a total area of 5,687,987 acres of settlement leases was converted under these conditions into other tenures, and 65,044 acres, chiefly of homestead farms and special leases, had been converted into settlement leases. Since 1913 only 130,544 acres of new settlement leases have been confirmed, while large areas have reverted to the Crown by forfeiture, etc. At 30th June, 1938, there were in existence 324 ordinary settlement leases, comprising 821,432 acres, at an annual rental of £9,547.

During 1937-38 applications were received in respect of one original and two additional perpetual settlement leases, and at 30th June, 1938, there were in existence 799 perpetual settlement leases with an aggregate area of 2,011,974 acres, the annual rental of which amounted to £25,829.

#### *Improvement Leases.*

This tenure was introduced in 1895 and, by the end of 1903, an area of 9,716,006 acres of improvement leases had been let, although the area actually current was much smaller. After that year the areas taken up annually showed a considerable falling off, and up to 30th June, 1938, the total area of improvement leases which had been let was 11,616,784 acres, of which only 188,162 acres remained current. The maximum area of improvement leases current at any time was 6,884,330 acres in 1910, the subsequent decrease having been brought about mainly by the withdrawal of leases for settlement in terms of individual leases and a number of other causes, such as forfeiture, expiry, resumption, and the transfer of improvement leases wholly within State forests to the control of the Forestry Commission and their conversion into forest leases.

An improvement lease may consist of any land in the Eastern or Central Divisions considered unsuitable for closer settlement until improved. It may be obtained only by auction or tender, but prior to 1920 certain leases were granted at fixed rentals under improvement conditions. The rent is payable annually, and the lease is for a period of twenty-eight years, with an area not exceeding 20,480 acres. Upon the expiration of the lease the last holder is deemed to have tenant-right in certain improvements. Provided the lease is not within a reserve from sale, the lessee may apply for a homestead selection of an area not in excess of a home maintenance area,

including the area on which his dwelling-house is erected. Convertibility depends upon actual residence upon the lease or on land owned by the applicant within reasonable working distance of the lease, for a period of five years immediately prior to making the application. These provisions have been operative in a modified form since 1919, and fully so since 1930, and a total area of 1,102,101 acres has been converted in this way.

The Advisory Board, constituted under the Closer Settlement Act, 1907, may inspect any land comprised in an improvement lease, and if it finds such land suitable for closer settlement the Minister may resume the lease, the lessee being compensated. To 30th June, 1938, a total area of 806,217 acres had been withdrawn in this way, £200,802 being paid as compensation to lessees.

During 1937-38 two improvement leases with an area of 13,240 acres, were granted at an annual rental of £48. One improvement lease, with a total area of 4,680 acres, was converted into a homestead selection. At 30th June, 1938, there remained current 56 improvement leases and leases under improvement conditions, with an area of 188,162 acres and rental of £1,059.

#### *18th Section and Pastoral Leases.*

Under the Crown Lands Amendment Act of 1903, the registered holder of any pastoral lease, preferential occupation license, or occupation license, could apply for a lease, for not more than twenty-eight years, of an area not exceeding one-third of the total area of the land comprised within the lease or license, subject to such rent, conditions or improvements, and withdrawal for settlement as may have been determined. These are known as 18th Section Leases, having been granted under the Land Act of 1903, which has been repealed. The area of land held under this tenure has decreased rapidly since 1914, when the area so held exceeded a million acres. Generally, the conditions of tenure and of conversion of these leases are similar to those of improvement leases. Upon the recommendation of the Closer Settlement Advisory Board the Minister may resume for closer settlement any 18th Section lease.

There were no pastoral leases in existence at 30th June, 1938.

#### *Homestead Farms.*

This tenure created in 1912 is a lease in perpetuity, but certain homestead farms specifically indicated in the Act may be resumed at any time after 30th June, 1950, without compensation other than for improvements on the farms. Annual rent is charged at the rate of 2½ per cent. of the capital value, but for the first five years the holder, in lieu of rent, may expend an equal amount on improvements of a permanent character, which (except boundary fencing) are in addition to those which are required otherwise by the conditions of the lease. The capital value of the holding is subject to appraisal only within five years of confirmation of the lease.

Crown lands available for conditional purchase (unless otherwise notified in the *Gazette*) are available also for homestead farms. Land may be set apart for additional homestead farms, but is available only to applicants whose total holding, if successful, would not substantially exceed a home-maintenance area. Any Crown lands may be set apart for disposal as homestead farms before survey. There is no definite limit placed on the area of a homestead farm, but it is generally notified as available in home-maintenance areas.

A condition of five years' residence is attached to every homestead farm, but in special cases residence, anywhere within reasonable working distance, may be allowed, and residence in prior occupation of the area under permissive occupancy may be taken into account. A perpetual lease grant is issued after the expiration of five years from confirmation of the application, if the holder has complied with all the conditions.

Particulars relating to applications for homestead farms and conversions from other tenures during the last seven years are shown below:—

TABLE 819.—Homestead Farms, 1932-1938.

Year ended 30th June.	Applications Confirmed.		Created by Conversion from other tenures.		Reversal of forfeiture and increased area.		Less—Forfeited, decrease in area, and conversions into other tenures.		Homestead Farms in existence at end of year.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.
1932	106	54,767	11	19,428	4	4,343	44	49,995	3,936	4,210,279
1933	91	48,378	9	20,154	6	3,157	55	56,032	3,987	4,225,936
1934	174	117,861	16	33,354	5	5,266	117	161,760	4,065	4,225,657
1935	86	36,461	33	44,978	11	1,997	51	102,141	4,144	4,206,952
1936	58	35,936	139	170,237	4	2,958	53	93,886	4,292	4,322,197
1937	32	18,626	142	272,698	1	1,940	105	176,373	4,362	4,439,088
1938	39	16,567	73	87,283	1	2,086	56	68,447	4,419	4,476,577

The total area of homestead farms confirmed to 30th June, 1938, was 5,533,472 acres, and after adjustments of area by reason of conversion, forfeiture, etc., there remained in existence 4,476,577 acres under this tenure.

The holder of a conditional purchase, or conditional purchase and conditional lease, or homestead selection, or homestead grant, or conditional purchase lease, or special lease, under certain conditions, may convert such holding into a homestead farm. The area of homestead farms so created to 30th June, 1938, was 880,694 acres. Under certain conditions a homestead farm may be converted into a conditional purchase lease or into a conditional purchase, with or without a conditional lease, or since February, 1927, into a Crown lease under certain conditions. An Act of 1930 made homestead farms convertible in their entirety without restriction; 1,167,938 acres of homestead farms had been converted into other tenures prior to 30th June, 1938. A homestead farm, which is a conversion of a settlement purchase under provision now repealed, may be reconverted into a settlement purchase.

#### *Leases of Scrub and Inferior Lands.*

These tenures were introduced in 1889 in order to provide for the effective occupation and improvement of lands not suited for ordinary pastoral occupation. The duration of individual leases is fixed on gazettal, the maximum being 21 years for a scrub lease and 20 years for an inferior lands lease, subject to extension to 28 years in each case or to forty years if infested with prickly pear.

The area of inferior lands leases has never been extensive, and the area under scrub leases reached its maximum of 2,273,123 acres in 1912, and then diminished steadily.



At 30th June, 1938, there were in existence 29 scrub leases, with an area of 102,869 acres, and rental of £301; and 7 inferior lands leases, embracing 37,540 acres, at a rental of £109.

#### *Special Leases.*

Special leases not exceeding an area of 1,920 acres are issued to meet cases where land is required for some industrial or business purpose. A special lease may be obtained for a period not exceeding twenty-eight years on conditions determined by the Minister, and more than one lease may be granted an applicant in his discretion.

The Crown Lands Act, passed in 1908, provides for the conversion of special leases held for certain purposes, with the consent of the Minister, into conditional purchase lease, original or additional conditional purchase, original or additional homestead selection, original or additional settlement lease, conditional lease, or homestead farm. Under this provision 1,637,027 acres of special leases have been converted into various new tenures.

The number of special leases granted during 1937-38 was 938, with a total area of 125,238 acres, and 407 leases, representing 62,547 acres, were converted into other tenures. After allowance has been made for leases which had terminated, were forfeited, surrendered, etc., and those which expired by effluxion of time, 9,067 special leases, with an area of 972,205 acres and rental of £46,769, were current at 30th June, 1938.

#### *Prickly Pear Leases.*

Under the Prickly Pear Destruction Act, 1901, certain common or Crown lands infested with prickly pear may be offered for lease by auction or tender, and may be let for a term not exceeding twenty-one years, subject to prescribed conditions as to improvements, rent, etc. At 30th June, 1938, the number of prickly pear leases was 134, and the area so leased was 161,947 acres, at a total annual rental of £529. Under certain conditions a prickly pear lease may be converted to a homestead selection, and seven leases of 2,397 acres have been so converted. In 1930 Acts were passed which made these leases convertible into homestead farm, Crown lease or conditional purchase and conditional lease, and the Commissioner was given power to extend leases and reduce rentals and purchase prices as compensation for the clearing of prickly pear lands. Two conversions have been made to homestead farms involving 2,434 acres, and one to Crown lease for 690 acres.

#### *Suburban Holdings.*

The tenure of suburban holding was introduced in 1912. It is a lease in perpetuity with fixed conditions as to residence and perpetual payment of rent, and may be obtained only in respect of land set apart for that form of holding. Under certain conditions the leaseholder may be permitted to purchase his holding. Transfer otherwise than by way of mortgage requires Ministerial consent. The holding may be protected from sale for debt under certain conditions.

The area of a suburban holding is determined by the Minister for Lands. The rent—minimum 5s. per annum—is calculated at the rate of 2½ per cent. of the capital value, which is fixed upon notification and may be appraised within five years of confirmation. Subject to fulfilment of all conditions, a perpetual lease grant is issued after the expiration of five years from the date of confirmation. The right to purchase suburban holdings was conferred in 1917.

No rent is chargeable on holdings in course of purchase, the principal with interest at the rate of 2½ per cent. per annum on the balance being paid by annual instalments extending over a period of ten years. Similar provisions to those relating to the postponement of instalments as set out on page 894 apply in respect of suburban holding purchases.

The number of confirmations and purchases of suburban holdings since the introduction of the tenure were as under:—

TABLE 820.—Suburban Holdings.

Year ended 30th June.	Confirmations.		Suburban Holdings in existence at the end of year.*			Suburban Holding Purchases in existence at end of year.	
	No.	Area.	No.	Area.	Annual Rent.	No.	Area.
1912-1933 ...	4,456	acres. 87,496	2,380	acres. 51,420	£ 5,592	554	acres. 11,658
1934 ...	192	2,226	2,547	53,644	5,783	548	11,554
1935 ...	95	969	2,339	49,354	5,248	528	10,976
1936 ...	119	1,043	2,700	51,114	5,744	543	11,264
1937 ...	84	797	2,738	53,840	5,773	527	11,153
1928 ...	92	818	2,793	54,450	5,830	513	10,711

\* Exclusive of purchases approved.

To 30th June, 1938, deeds of purchase had been issued in respect of 671 suburban holding purchases, embracing 10,525 acres; these are excluded from the foregoing table.

#### Residential Leases.

The holder of a "miner's right" within a gold or mineral field may obtain a residential lease. A provisional rent of 1s. per acre is charged, the maximum area allowed is 20 acres, and the longest term of the lease twenty-eight years; the annual rent is appraised by the Land Board. The principal conditions of the lease are the holding of a miner's right, residence during its currency, and the erection within twelve months of necessary buildings and fences. Tenant-right in improvements is conferred upon the lessee. The holder of any residential lease may, after the first five years of his lease, purchase the land with the consent of the Minister.

There were 499 residential leases, embracing 4,266 acres at a rental of £998, current at 30th June, 1938.

#### Week-end Leases.

This tenure, created by the Crown Lands Amendment Act, 1916, is a lease in perpetuity of an area not exceeding 60 acres, subject to payment of rent at the rate of 2½ per cent. of the capital value, to the effecting of substantial improvements worth £1 per acre within five years from confirmation, and to the performance of such special conditions as may be notified.

Residence is not necessary. The minimum rent is £1 per holding. Any adult may apply, but persons who already hold land within the area defined in a notification setting apart the land for week-end leases are generally disqualified.

Week-end leases, on approval by the Minister, may be purchased, and payment must be made within three months from date of demand, or within such further period as the Minister may allow.

Transfers may be made at any time with the Minister's consent, but must be to a qualified person, except in cases of devolution under a will or intestacy. The consideration for a transfer must not exceed the capital value of the improvements on the land.

During the year ended 30th June, 1938, 46 leases, with an area of 26 acres, were confirmed. At 30th June, 1938, week-end leases current numbered 162, of an area of 218 acres, and annual rental £167. In addition 79 leases of 575 acres had been made freehold and approval to purchase had been granted in the case of 101 leases embracing 600 acres.

There were in existence at 30th June, 1938, 162 week-end purchases, with an aggregate area of 216 acres; also the area of completed week-end purchases at this date was 500 acres.

#### *Leases of Town Lands.*

Crown lands within the boundaries of any town may be leased by public auction or by tender. The lease is perpetual, and the area included must not exceed half an acre. The amount bid at auction or offered by tender (not being less than the upset value) is the capital value on which the annual rent at the rate of 2½ per cent. is based for the first period of twenty years. The capital value for each subsequent twenty years' period is determined by the Land Board.

The lease may contain such covenants and provisions as may be gazetted prior to sale or tender. Residence is not necessary. No person is allowed to hold more than one lease, unless with the permission of the Minister on recommendation by the Land Board. The holder of a town lease may be allowed to purchase it.

No town lands leases are now being made available. Up to 30th June, 1938, approval to purchase had been given for 110 lots, embracing 36 acres. On 30th June, 1938, there were 177 leases, containing 67 acres, the annual rental being £118.

#### INALIENABLE LEASES.

The term "inalienable leases" is here used to signify that the statutory conditions attached to the leases so classified do not give the leaseholder the right to purchase any part of his lease nor to convert into another leasehold tenure involving the right of purchase.

On the foundation of the Colony all lands vested in the Crown, and for many years permits to occupy unsold Crown lands were issued on various conditions.

The principal inalienable tenures are described below.

#### *Forest Leases and Occupation Permits.*

Unoccupied areas and leases situated entirely within dedicated forests are controlled exclusively by the Forestry Commission, which has power to lease or otherwise permit their use for pastoral or other approved purposes.

Forest leases limited to twenty years have been granted for grazing purposes, and occupation permits usually on an annual tenancy, but sometimes for a period of several years, have been granted for grazing, bee-farming, forest saw-mills, and other purposes approved by the Commission. Permits, generally for a term of ten years, are issued, the rentals being fixed to yield £1 per acre in the fourth and subsequent years, when the crops should be in full bearing. Five permits embracing approximately 17 acres were issued in 1937-38. For grazing purposes the rent is usually fixed in relation to the carrying capacity of the land.

The area of forest leases and occupation permits wholly within State forests, at 30th June, 1938, was 2,108,272 acres under the Forestry Acts, besides 15,959 acres under the Crown Lands Act administered by the Forestry Commission. In addition, an area of 38,721 acres, consisting of portions of other leases not wholly within State forests, was administered by the Department of Lands.

#### *Snow Leases.*

Vacant Crown lands on the Southern Highlands, which for a portion of each year are usually covered with snow, and are unfit for continuous use or occupation, may be leased by auction or tender as snow leases. This tenure was introduced in 1889 and not more than two snow leases may be held by the same person. The maximum area of any snow lease is 10,240 acres. The term of the lease is fourteen years, and the annual rent is determined by the local Land Board.

At 30th June, 1938, there were 100 leases current, embracing 423,167 acres with an annual rental of £8,726.

#### *Annual Leases.*

Unoccupied lands, not reserved from lease, may be obtained for pastoral purposes as annual leases on application, or they may be offered by auction or tender. No conditions of residence or improvement are attached to annual leases, which do not convey security of tenure, the land being alienable by conditional purchase, auction sale, etc. The area in any one lease is restricted to 1,920 acres, where offered by tender, but in other cases is not restricted. In certain circumstances an annual lease may be converted into a lease under improvement conditions for a term not exceeding ten years.

The area under annual lease fluctuates from year to year, but is diminishing steadily. It amounted to 8,687,837 acres in 1903 and 2,953,296 acres in 1920. The number of annual leases current at 30th June, 1938, was 1,920, embracing 609,079 acres, with an annual rent of £5,190, inclusive of 17 annual leases comprising 14,972 acres in the Western Division.

#### *Mineral and Auriferous Leases.*

Under the Mining Act, the Minister for Mines is empowered to grant certain rights for mining on any lands within the State. These are known as mineral and auriferous leases and generally they take precedence over other forms of tenure. There were 199,060 acres so held in 1914, and this area gradually increased to 233,538 acres in 1932, but at 30th June, 1938, the land held as mineral and auriferous leases, exclusive of leases to mine on private lands, had decreased in area to 187,892 acres. The area leased in this way is not included in the area covered by other land tenures. Authority may be given to mine under roads and reserves, but at this date there were no lands subject to such authority.

*Church and School Lands Leases.*

The history of Church and School lands leases, showing the present status of leaseholders, was published on page 859 of the Year Book for 1921.

The total area of Church and School lands held under lease at 30th June, 1938, in the Eastern Division, was 11 acres, at a rental of £216 per annum.

*Occupation Licenses.*

Occupation licenses may be of two kinds (a) preferential occupation licenses, consisting of the land within an expired leasehold area, and (b) ordinary occupation licenses, which relate to the parts of the holdings formerly known as resumed areas. They may be acquired by auction or tender. Occupation licenses extend from January to December, being renewable annually at a rent determined by the Land Board.

An occupation license entitles the holder to occupy Crown lands so granted for grazing purposes, but it does not exempt such lands from sale or lease of any other kind. The licensee, however, retains ownership in improvements on land within the license selected during its currency, and in certain cases is granted tenant-right in improvements which may have been effected with the consent of the Crown or to which the local land board may consider him equitably entitled in respect of areas withdrawn by the Crown.

The area under occupation license (Crown Lands Act) was represented at 30th June, 1938, by 245 ordinary licenses for 890,614 acres, rental £2,241, and 171 preferential licenses, representing 387,191 acres, and rent £2,328. The area occupied in this way was formerly very extensive, being nearly 10,000,000 acres in 1904.

There were also held at this date under the Western Lands Act 14 preferential occupation licenses in respect of 209,884 acres at an annual rental of £684, and 45 ordinary occupation licenses, with an aggregate area of 263,884 acres and annual rental of £130.

*Permissive Occupancy.*

Permissive occupancy is a form of tenancy at will from the Crown, at a fixed rental for a short period, terminable at any time by a written demand for possession from the Secretary for Lands or by written notice from the tenant. The occupant has tenant rights in improvements effected by him.

The number of permissive occupancies held under the Crown Lands Act at 30th June, 1938, was 9,746, comprising 1,604,334 acres, with a rental of £26,900.

There were also 204 permissive occupancies in the Western Division at this date in respect of 134,433 acres, held at an annual rental of £571.

## CONVERSION OF TENURES.

In describing the various methods of acquisition and occupation, details have been given of provisions of the Crown Lands Act which confer on certain holders of Crown lands the right of conversion into more desirable tenures.

The law as to conversion in relation to the more important forms of tenure may be summarised briefly thus:—

Usually leases covered by a reservation from sale are not available for conversion to a tenure leading to alienation. A conditional purchase may be converted into a homestead farm and conditional leases and special

leases (unless barred) are available for conversion into conditional purchase. Tenures which may be converted into conditional purchase, or conditional purchase and conditional lease, are conditional purchase lease, homestead selection and homestead grant, homestead farm, Crown lease, settlement lease (within certain restrictions) and prickly-pear lease.

A homestead farm may be changed into a conditional purchase lease, conditional purchase with or without a conditional lease, and, in certain cases, a Crown lease; and a homestead farm which is a conversion of a settlement purchase may be re-converted to the original tenure. Such tenures as conditional purchase, conditional purchase lease, conditional lease (with basal conditional purchase) homestead selection, homestead grant, prickly-pear lease, and under certain conditions, special lease, are eligible for conversion into homestead farm.

Crown lease may be converted into conditional purchase with or without a conditional lease, and may be obtained by conversion of prickly-pear lease, and in certain circumstances, of homestead farm.

Holdings under homestead selection and homestead grant may convert to conditional purchase with or without a conditional lease, conditional purchase lease, or homestead farm, whilst home maintenance areas within improvement, scrub, 18th Section and prickly-pear leases, may be converted into homestead selection.

A special lease, unless barred, may be converted to a conditional purchase, an original or additional conditional purchase lease, a conditional lease, an original or additional homestead selection, a settlement lease, a homestead farm or an additional homestead farm.

The following statement shows the number and area of holdings in respect of which conversions were confirmed during 1937-38.

TABLE 821.—Conversion of Tenures, 1937-38.

Tenure of Holding Converted.	New Tenure Confirmed.														Total Holdings Converted.	
	Condi-tional Lease.		Condi-tional Purchase.		Condi-tional Purchase & Associated Condi-tional Lease.		Settle-ment Lease.		Crown Lease.		Home-stead Farm.		Home-stead Selection			
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Conditional Lease	...	acres.	...	acres.	...	acres.	...	acres.	...	acres.	...	acres.	...	acres.	...	acres.
Conditional Purchase	...	...	147	70,730	...	...	...	...	...	1	1,554	...	...	148	72,284	
Conditional Purchase and Conditional Lease	...	...	...	...	...	...	...	...	...	21	30,736	...	...	21	30,736	
Crown Lease	2	6,077	34	24,887	3	6,093	...	...	...	9	28,578	...	...	9	28,578	
Homestead Farm	...	...	4	2,162	...	...	...	...	12	30,864	...	...	...	39	37,057	
Homestead Selection or Grant	...	...	7	1,331	...	...	...	...	...	...	...	...	...	16	39,026	
Improvement Lease	...	...	...	...	...	...	...	...	...	1	4,808	...	...	8	6,130	
Prickly Pear Lease	...	...	...	...	...	...	...	...	...	...	...	1	4,680	1	4,680	
Scrub Lease	...	...	...	...	...	...	...	...	...	...	...	1	688	1	688	
Settlement Lease	...	...	...	7,364	...	...	...	...	...	...	...	1	35	1	35	
Special Lease	11	9,898	347	28,246	...	...	3	1,188	...	...	41	21,907	5	1,608	407	62,547
Total	13	15,975	546	134,720	3	6,093	3	1,188	12	30,864	73	87,283	8	6,961	658	283,984

Particulars of the number and area of new tenures obtained by conversion during each of the past ten years are shown below:—

TABLE 822.—Conversion of Tenures, 1929-1938.

Year ended 30th June.	New Tenure Confirmed.												Total Confirmation.	
	Conditional Purchase.*		Conditional Purchase and Associated Conditional Lease.		Conditional and Conditional Purchase Lease.		Homestead Selection.		Settlement Lease or Crown Lease.		Homestead Farm.			
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.		acres.		acres.
1929	1,522	833,463	193	565,110	30	14,970	21	63,274	...	3	10,078	1,775	1,486,895	
1930	1,403	600,110	140	301,972	37	18,908	25	86,570	1†	5,086	3	11,106	1,144,412	
1931	833	296,254	54	141,952	28	13,457	44	181,982	6†	12,838	4	6,206	909	
1932	360	89,075	17	22,657	15	12,759	30	106,191	38	11,121	11	19,428	442	
1933	275	69,645	5	11,080	10	6,009	13	35,673	7†	32,011	9	20,093	319	
1934	307	97,822	8	10,195	19	12,893	13	32,233	10†	31,201	16	38,354	461	
1935	512	111,352	7	9,093	20	9,926	15	30,427	22†	85,172	33	44,978	609	
1936	460	102,444	10	26,543	28	29,269	12	13,767	34†	81,281	116	170,237	660	
1937	562	129,521	9	19,719	29	14,222	18	51,926	5†	133,749	142	272,698	814	
1938	546	134,720	3	6,993	13	15,975	8	6,961	14†	32,052	73	87,283	653	

\* Including non-residential conditional purchases. † Settlement Leases. ‡ Crown Leases.  
 § 1 Settlement Lease of 128 acres and 2 Crown Leases of 10,953 acres.  
 ¶ Includes 3 Settlement Leases of 1,183 acres and 12 Crown Leases of 30,864 acres.

The foregoing table includes particulars of leases converted under the original conditions on which they were granted as well as of leases granted under the special conversion privileges allowed by the Acts of 1909 and 1916, and subsequent Acts. For instance, the right to convert conditional leases and conditional purchase leases into conditional purchases was granted when they were first introduced, also the right to convert scrub and improvement leases under certain conditions into homestead selections. On the other hand, the Crown Lands Amendment Act of 1908 conferred on holders the right to convert homestead selections, settlement leases, and non-residential conditional purchases into conditional purchases, while special leases were made convertible into any of a number of tenures with the consent of the Minister.

In 1916 Crown leases and homestead farms which had been created as leases in 1912 were made convertible into conditional purchases, and conversion privileges have been considerably widened by subsequent enactments as indicated in the particulars given in relation to the various forms of tenure.

WESTERN LAND DIVISION.

The lands of the Western Division, comprising 80,318,708 acres, or two fifths of the area of the State, are for the most part sparsely settled, and occupation is somewhat precarious on account of the low and uncertain rainfall.

The administration of these lands is regulated by the Western Lands Act, 1901, and prior to 24th August, 1934, was entrusted to the Western Lands Board, comprised of three Commissioners, who sat in open court and exercised the powers conferred on local land boards by the Crown Lands Act. Since that date, when the Western Lands (Amendment) Act, 1934, became effective the administration has been controlled by a single commissioner—the Western Lands Commissioner—assisted by two chairmen of local land boards each appointed for a period of ten years. Adminis-

trative districts have been created corresponding to the Pastures Protection districts and a local land board constituted for each district. A board consists of two members—a local representative and one of the chairmen referred to above.

Subject to existing rights and extension of tenure granted under certain conditions, all forms of alienation (other than by auction, improvement purchase, special purchase or exchange) and lease prescribed by the Crown Lands Acts, ceased to operate within the Western Division from 1st January, 1902.

The registered holder of a homestead grant or occupation license in the Western Division, may apply to bring his grant or license under the provisions of the Western Lands Acts. In cases where application has not been made, such grant or license is treated as if the Acts had not been passed. The local land boards constituted under the Western Lands Act function in matters relating to such tenures.

Crown lands within this division are not available for lease until so notified in the *Gazette*, except that leases for special purposes may be granted upon certain conditions. Lands are gazetted as open for lease under specified conditions either for lease generally or for lease exclusively to holders of land under any tenure within reasonable working distance within the Central or Western Divisions.

Leases may be granted in perpetuity or for a term expiring not later than 30th June, 1973; and in certain cases, leases which were granted for a shorter term (mostly expiring on 30th June, 1943) may be extended to perpetuity.

Under the Western Lands (Amendment) Act, 1934, leases the majority of which would have expired on various dates from 1943 to 1948 could be extended upon application before 4th January, 1935, for a period of twenty years if within a certain defined area in the north-east of the Division, and for twenty-five years elsewhere in the Division. Leases thus extended became subject to a condition, with certain reservations, that one-fourth of the area of the lease might be withdrawn immediately; a further one-eighth in 1943, and one-eighth in 1948. Two hundred and sixty applications were received for an extension of term in respect of an aggregate area of 30,149,072 acres. The total area withdrawn to 30th June, 1938, was 5,763,083 acres, the whole of which had been made available for settlement, together with 195,634 acres withdrawn under section 17 of the Western Lands Act of 1901, and 320,921 acres of Crown land. Of this area 6,208,986 acres were allotted to 633 applicants, 24 of them being for new or original holdings, totalling 388,274 acres and the balance as additional. The maximum withdrawal areas defined up to 30th June, 1938, include 10,227,325 acres of Western Lands leases and 20,120 acres of Special Western Lands leases, while a further 132,800 acres of freehold will be surrendered to the Crown, making an aggregate of 10,380,245 acres.

The rent on all leases is determined by the local land board. The minimum annual rent or license fee is 2s. 6d. per square mile or part thereof; the maximum is 7d. per sheep on the carrying capacity determined by the local land board.



Holdings under the Western Lands Acts as at 30th June, 1938, were classified as follow:—

TABLE 823.—Holdings under the Western Lands Act.

Class of Holding.	Holdings.	Area.	Annual Rental.
Western Lands Leases—	No.	Acres.	£
Perpetual ... ..	2,494	42,701,966	55,784
Ordinary ... ..	1,551	33,957,106	59,947
Conditional Leases—			
Perpetual ... ..	44	60,144	265
Ordinary ... ..	30	40,399	227
Occupation Licenses ... ..	45	263,365	130
Preferential Occupation Licenses ... ..	14	209,884	684
Permissive Occupancy ... ..	204	134,433	571
Leases being issued ... ..	55	294,352	*
Total ... ..	4,437	77,661,649	117,608

\* Rental to be determined by the Local Land Boards.

In addition, there were 2,033,053 acres of land alienated, or in course of alienation; 70,702 acres of unoccupied lands of low grade; 426,650 acres of unalienated Crown lands, beds of rivers, commonages, etc., and 126,654 acres of land still under the Crown Lands Acts yielding annual rentals amounting to £813.

#### PRICKLY PEAR LANDS.

Public attention was first called in Parliament to the growth of prickly pear as a pest in 1882, and in 1885 it was stated that an area of 5,000 acres had become infested in the Upper Hunter district. In 1886 a Prickly Pear Destruction Act was passed, and with some modification in 1901 this remained the law relating to the pest until 1924. The law, however, was not put into operation extensively, and the spread of the pest continued practically unchecked. In 1911 it was estimated that 2,000,000 acres of land were infested and at the end of 1924 the area was stated to be 7,600,000 acres, the greater part of which, however, was lightly infested.

The Prickly Pear Act, 1924, was designed to provide means for preventing the further spread of the pest and for eradicating it where possible. This Act (as subsequently amended) related to all lands infested and provided for the appointment of a Commissioner to administer its provisions. It was made an obligation for owners and occupiers of all lands within the State to keep uninfested land entirely free from prickly pear, and all owners and occupiers of freehold or leased lands already infested are required to take reasonable and effective measures to free their lands of prickly pear to the satisfaction of the Commissioner. Amendments of a machinery nature have been made in the principal Act, but the general principles remain unaltered.

The Commissioner classifies land within the State into four grades, according to whether it is free from prickly-pear, lightly infested, heavily infested or very heavily infested. He has power to afford landholders assistance by way of loans or by performing the work at actual cost, or where necessary, partially or wholly cost free; and in addition, purchases poisons and appliances in bulk, so that they may be supplied to landholders at the cheapest possible rates. Entomological measures for combating the infestation are responsible for very substantial progress in its control and

eradication, but it has been found advisable to use poison on the scattered pear to prevent the formation of new dense areas. By agreement with the holder, the terms and conditions of leases of any infested lands leased from the Crown may be varied in any manner approved by the Governor. Crown lands already infested may be leased under the Prickly Pear Act under special conditions. Action has been taken to clear all Crown lands of the pest.

An owner may divest himself of heavily-infested land (*i.e.*, land of less value than the cost to free it of pear) by surrender to the Crown. In such case he must fence off the surrendered portion and maintain within and around it a strip of land free of pear and 10 feet wide. Crown lands classified as very heavily infested may be granted by the Minister to any person who has freed them from pear under agreement.

The Act established a Prickly Pear Destruction Fund by providing for five years from 1st January, 1925, an annual appropriation of £30,000 from Consolidated Revenue, and as from 1st January, 1930, an annual sum not exceeding £30,000. The fund is under the control of the Minister, who is empowered to make grants to councils, pastures protection boards, and trustees of cemeteries, commons, or reserves to enable them to meet their obligations under the Act.

The total area of private lands treated by the Commission during the year ended 30th June, 1938, was 343,195 acres, while many thousands of acres were treated by landowners when required to do so by the Commission. In addition 12,444 acres of Crown lands were treated.

The total expenditure during the year ended 30th June, 1938, amounted to £17,867, and there was a credit balance of £2,796 at the close of the year. Particulars of Prickly Pear leases are given on page 907.

#### CLOSER SETTLEMENT.

The circumstances leading to the adoption of what is known as the "Closer Settlement Policy" are described on page 680 of the Year Book for 1928-29. Further reference to the subject may be found in earlier Year Books.

The Closer Settlement Acts provide that the Minister for Lands, with the sanction of the Governor and the approval of Parliament, may purchase private estates at a price approved by Parliament. Any alienated estate whose unimproved value exceeds £20,000 may be compulsorily resumed for closer settlement.

Land comprised in any improvement or scrub lease, or 18th Section lease, may be resumed or purchased under agreement for closer settlement upon the recommendation of the Closer Settlement Advisory Board. To 30th June, 1938, an area of 806,217 acres comprised in 70 long-term leases had been re-acquired in this way at a cost of £200,802, and had been disposed of in 784 farms consisting of homestead farms, homestead selections, special leases, and Crown leases under the Crown Lands Consolidation Act.

Within six months after the passing of an Act sanctioning the construction of a line of railway, the Governor may notify a list of estates within 15 miles of the railway line; within six months of this notification he may notify his intention to consider the advisableness of acquiring for purposes of closer settlement land so notified, the property of one owner, and exceeding £10,000 in value. Proclamations under the Closer Settlement Acts covering 94 estates, aggregating 1,693,534 acres, previously notified, have not yet been cancelled.

At any time after a proclamation of intention to consider the advisableness of acquiring an estate, if an agreement be made that the land shall be subdivided for closer settlement by the owner, the power of resumption may be suspended for a term not exceeding two years. Any sale or lease made under such agreement, and any subsequent sale, lease, or transfer made within five years of the original sale or lease, must be submitted to the Minister, and if it be found that the owner has failed to fulfil the conditions, the suspension of the power of resumption shall cease.

The total area acquired to 30th June, 1938, under the ordinary provisions of the Closer Settlement Acts, was 1,294,789 acres, at an aggregate purchase price of £5,190,946. This area, originally consisting of 71 estates, was divided into 3,191 farms. Two estates with an aggregate area of 20,491 acres, providing 30 farms, were acquired under these provisions during the year ended 30th June, 1938, at a cost of £103,338. Particulars of the provisions of the earlier Closer Settlement Acts and details of the operations thereunder are given in earlier Year Books.

#### *Settlement Purchase.*

Settlement Purchase is the principal tenure under which lands acquired from private owners by purchase or resumption are disposed of in accordance with the provisions of the Closer Settlement Acts.

Each applicant for a settlement purchase must lodge a deposit of 5 per cent. of the capital value, except returned soldiers and sailors, who are not required to make a deposit. The deposit is applied wholly to the reduction of the capital debt. Interest only on the unpaid balance of the purchase money is payable during the first five years of the purchase, increasing from 1 per cent. in the first year to 2, 2½, 3 and 3½ per cent. in the second, third, fourth, and fifth years, respectively. The balance of purchase money is then payable by annual instalments at the rate of 5 per cent. of the capital value, including principal and interest, the latter at the rate of 4 per cent. on the balance of purchase money outstanding. If the initial deposit be paid and instalments at their due dates, the debt may be liquidated in 42 years. The balance of purchase money or any number of instalments may be paid at any time. If an interest or instalment payment is not paid by the final due date, interest at the rate of 4 per cent. per annum accrues daily on the overdue amount until payment is made. Postponement of the payment of instalments and of interest may be sanctioned in special circumstances.

The term of residence on a settlement purchase is five years and should commence within six months of confirmation of the application. Commencement of residence, however, may be deferred on certain conditions for a period not exceeding five years. With the permission of the land board the residence condition may be performed in an adjacent village or town or on another holding held by the purchaser within reasonable working distance.

Permanent improvements to the extent of 10 per cent. of the capital value must be effected within two years of the commencement of the title, and an additional 15 per cent. within the next three years. Improvements on the land at the date of application are held to fulfil this condition to the extent of their value. All existing improvements must be kept in good repair and all buildings of the insurable value of £30 or more must be insured.

A transfer, except by way of mortgage or release of mortgage, may be effected only with the consent of the Minister, and the transferee must be a person qualified to apply for or acquire a settlement purchase.

Grant is issued on the payment of the balance of purchase money together with the deed fee and stamp duty, subject to the issue by the land board of their certificate that all conditions have been fulfilled.

The Closer Settlement (Amendment) Act provides that any settlement purchase area may be set apart subject to a special condition that every application for a settlement purchase is accompanied by an undertaking by the applicant that he will (a) within 12 months of the approval of his application apply to the Rural Bank, if so required by the Minister for Lands, for the maximum advances that the Bank is prepared to make upon the security of a mortgage over the land allowed as a settlement purchase; (b) accept any advance that the Bank is prepared to make; (c) complete all documents required by the Bank without delay; and (d) apply all moneys so advanced in payment of the amount owing in respect of the settlement purchase.

During the first five years from the commencement of the title, the amount payable annually to the Rural Bank may not exceed the amount which would be payable in respect of the settlement purchase, if the advances had never been made. Also, after the expiration of this period of five years, the rate of interest payable on the amount outstanding to the Bank may not exceed 5 per cent. per annum.

The effect of these provisions is that the settler's debt to the Department of Lands in respect to the settlement purchase is liquidated and he becomes responsible to the Bank for repayments of principal and interest.

#### *Closer Settlement Promotion.*

The provisions of the Closer Settlement Acts of 1918 and 1919, which replaced the Closer Settlement Promotion Act, 1910 (repealed), enable three or more persons, or one or more discharged soldiers, each of whom is qualified to hold a settlement purchase, to negotiate with an owner of private lands, and under certain conditions to enter into agreements with him to purchase a specified area on a freehold basis, for a price to be set out in each agreement. Any one or more discharged soldiers or sailors may also enter into agreements to purchase on a present title basis from the holder a conditional purchase; a conditional purchase lease; a conditional purchase and conditional lease, including an inconvertible conditional lease; a homestead selection; a homestead farm; a settlement lease; a Crown lease, or any part of one or more of such holdings, or an improvement or scrub lease, not substantially more than sufficient for the maintenance of a home.

Upon approval by the Minister, the vendor, in the case of private land, surrenders the area to the Crown, and the purchaser acquires it as a settlement purchase. In the case of land acquired on present title basis, the vendor transfers it to the purchaser. The vendor is paid by the Crown, either in cash or in Closer Settlement Debentures. The freehold value of the land, inclusive of improvements thereon, purchased for any one person must not exceed £3,000, except in special cases where the improvements warrant it; when the freehold value may be up to £3,500; if the land is found suitable for grazing only, the freehold value may be up to £4,000.

Each farm is worked independently, the co-operation of the applicants ceasing with an allotment of an area. Such land is held under the settlement purchase tenure described above.

At 30th June, 1938, 1,653 estates with an aggregate area of 1,823,333 acres had been acquired at a total cost of £8,480,135 under the promotion sections of the Closer Settlement Acts. This area was divided into 3,960 farms. There were no transactions under these provisions during 1937-38.

*Summary of Closer Settlement Operations.*

Exclusive of irrigation projects, 1,847 estates and leases have been acquired by the Government for purposes of closer settlement of civilians and returned soldiers. These estates embraced 4,049,185 acres, for which the purchase price was £14,671,933, and there were added 204,452 acres of adjacent Crown lands. The total number of farms made available was 8,997.

The following table provides a summary of the various operations to 30th June, 1938, including lands acquired and administered under the Closer Settlement and Returned Soldiers' Settlement Acts, lands acquired by executive authority and by virtue of section 197 of the Crown Lands Act, and administered by the Department of Lands, including long-term leases acquired under the Closer Settlement Act, 1912, and disposed of under the Crown Lands Act.

TABLE 824.—Closer Settlement—Summary of Operations.

Mode of Acquisition.	Estates Acquired	Area.		Price paid for Acquired Land.	Farm blocks made available.		
		Acquired.	Adjacent Crown Lands.		No.	Area.	Value.
	No.	acres.	acres.	£		acres.	£
Direct Purchase ...	30	90,104	44,473	506,855	686 376	309,672	1,331,018
Crown Lands Act (s. 197)*	23	34,682		293,195			
<b>Closer Settlement Act—</b>							
Promotion Provisions...	1,653	1,823,333	12,542	8,480,135	3,960	1,835,164	8,845,738
Ordinary Provisions ...	71	1,294,789	118,136	5,190,946	3,191	1,463,997	5,665,858
Resumption of Long Leases† ...	70	806,217	34,301	200,802	784	539,151	765,254
<b>Total ...</b>	<b>1,847</b>	<b>4,049,185</b>	<b>204,452</b>	<b>14,671,933</b>	<b>8,997</b>	<b>4,148,004</b>	<b>16,107,868</b>

\* Including one estate of 21,309 acres, surrendered at nominal value for returned soldiers.

† Including 19,616 acres of improvement lease, and 160,028 acres of scrub lease acquired at nominal value.

The number of estates acquired under the promotion provisions of the Closer Settlement Act is comparatively large, because 953 individual holdings, besides holdings containing only a few farms, were acquired mainly for soldier settlers. In some cases two or more farm blocks have been amalgamated and made available as one farm.

The disposal of the lands covered by the foregoing table as at 30th June, 1938, is shown below. The figures include a number of small blocks made available as town lots, etc., and not as farms.

TABLE 825.—Disposal of Closer Settlement Lands.

Manner of Disposal.	No. of Blocks.	Area.	Capital Value.
		acres.	£
Holdings alienated or in course of alienation by settlement purchase, group purchase, auction, tender, etc. ...	8,899	4,099,504	13,672,398
Holdings which have reverted to the Crown and await disposal ...	196	34,314	223,256
Unallotted farms (including provisionally allotted, under cultural system, or never allotted) ...	109	1,320	23,904
Areas retained for roads ...	...	34,246	118,774
Areas appropriated for railway purposes...	...	1,760	7,320
Areas retained for reserves ...	...	37,327	87,358
Vacant village lands, remnant areas, etc. ...	...	27,783	130,105
<b>Total ...</b>	<b>9,204</b>	<b>4,236,254</b>	<b>14,263,115</b>

The amount paid in respect of principal and interest during the year ended 30th June, 1938, was £616,039 making the total to that date £11,098,948.

Interest payments amounting to £1,973,048 have been postponed to the end of the term free of interest. The total amount owing by settlers for land and advances was £13,000,012.

#### *Appraisalment of Capital Value.*

The Crown Lands and Closer Settlement (Amendment) Act, 1931, enabled holders of land under the Closer Settlement Act to apply for the appraisalment of the capital value of their holdings not later than 2nd October, 1935. Of the 5,138 applications received, 5,137 had been finalised by the local land board at 30th June, 1938, the aggregate capital value being reduced by £2,111,663 or 16.8 per cent.

#### *Other Closer Settlement Operations.*

Between April, 1923, and November, 1929, the Rural Bank operated a scheme of advances to facilitate subdivision of private estates, and the first Rural Bank loan of £1,000,000 at 5½ per cent. was raised locally for the purpose.

Under this scheme the Bank, after inspection, issued certificates as to the amount it was willing to advance to purchasers of land under subdivisional plans approved by the Land Settlement Board and the Bank. Interest was charged at the rate of 6¼ per cent., and the maximum advance was £3,000, or two-thirds of the Bank's valuation of the property, whichever was the less. In the case of properties not fully improved the advance might be as great as 80 per cent. of the Bank's valuation, subject to specified improvements being carried out at the purchaser's expense.

By 30th June, 1930, Rural Bank certificates had been issued in connection with the proposed subdivision of 175 estates into 755 farms, containing 608,443 acres, valued at £2,464,951. The amount of loans covered by the certificates was £1,800,345. Altogether 754 farms, covering 608,251 acres, had been selected under the scheme. During the operation of the scheme the Rural Bank granted 736 loans in respect of 745 farms for an amount of £1,762,340.

#### *Closer Settlement Policy.*

The Closer Settlement policy adopted in 1937 provides for the voluntary subdivision of large estates by the owners themselves supplemented by the acquisition by the Government of selected properties either by purchase or by compulsory resumption. The main objective is to provide farms in "safe" districts where the settler may have a variety of sources of income—wheat or other cereal crops, sheep, fat lambs, dairying, etc. The three major considerations in this policy are (a) the selection of the right type of settler, having regard to his experience and resources; (b) the selection of suitable land which does not load the settler with excessive annual costs; and (c) the selection of districts in which soil and rainfall make possible diversified production.

Voluntary subdivision is limited to estates which will provide at least three home maintenance areas. To encourage and stimulate such subdivisions the Government has established a Closer Settlement agency at the Rural Bank from which the purchaser may obtain a supplementary advance not exceeding 13½ per cent. of the Bank's valuation of the holding in addition to the ordinary advance by the Bank of 66⅓ per cent. of the valuation, making a total advance to the purchaser not exceeding 80 per

cent. of the valuation. The purchaser is thus left to finance 20 per cent. of the purchase. Such an arrangement is also advantageous to the vendor, who is released from the risks and delay involved in subdivisions under which payment is extended over a number of years. Assistance is given to the owner in planning the subdivision of his property and in making contact with purchasers.

To implement this policy Ministerial and administrative committees have been established, linked with local committees acting in an advisory capacity. The latter are composed of the local agricultural instructors and Rural Bank valuers as members, with the district surveyor as chairman. They confer with and consult local representatives, nominated through Parliamentary members of the district by local progress associations and other public bodies, with regard to the suitability for settlement of any property proposed for subdivision.

Thirty-nine local advisory committees have been formed to 30th June, 1938, and have reported upon 154 proposals by owners to subdivide under the scheme, or to dispose of their estates for Closer Settlement purposes. Of the offers to subdivide there were adverse reports in many cases. Of these the majority were in relation to properties in the North Coast which were insufficient to provide the minimum number of living areas required under the scheme. In some cases the land was unsuitable for closer settlement and in others the price was considered excessive.

Voluntary subdivision in itself, however, has proved insufficient to satisfy the legitimate demand for land, and has been supplemented by the acquisition of suitable estates by purchase or resumption under the provisions of the Closer Settlement Acts. Mass resumption of a kind likely to force up land values and so jeopardise successful settlement has been avoided.

Up to 30th June, 1938, Parliament had sanctioned the purchase for £103,338 of two estates aggregating 20,491 acres, to be subdivided into thirty farms. In addition, at this date, agreements had been reached, subject to parliamentary approval, for the purchase for £435,336 of seven estates with an aggregate area of 95,796 acres to be subdivided into 111 farms, and 11 estates aggregating 60,901 acres were under offer of sale to the Crown.

To assist settlers placed on such farms provision was made under the Closer Settlement (Amendment) Act, 1937, for the payment of interest only during the first five years of tenure, ranging from 1 per cent. in the first year to 3½ per cent. in the fifth year. Thereafter payment of the balance of purchase money is by annual instalments at the rate of 5 per cent. of the capital value, including interest at 4 per cent. per annum on balances from year to year, thus allowing approximately forty-two years for completion of purchase as against ten to fifteen years allowed in private subdivisions. More detailed particulars of the settlement purchase tenure are given on page 917.

## SETTLEMENT OF RETURNED SOLDIERS.

To 30th June, 1938, farms had been allotted by the Department of Lands to 9,875 returned soldiers, and there remained 4,748 returned soldiers settlers on an area of 7,342,347 acres, approximately half of which was in the Western Division. These totals exclude 703 soldier settlers on private lands, to whom advances only were made. The total expenditure is shown below:—

	£
Acquisition of holdings for settlement ..	8,113,956
Advances to settlers .. .. .	3,195,151
Developmental works .. .. .	1,899,963

Part of the expenditure for developmental works shown above was formerly included under the heading "Advances to Settlers."

Under the Returned Soldiers' Settlement Acts, special provision is made for the settlement of discharged soldiers on Crown lands, including the Murrumbidgee Irrigation Areas, and on lands acquired under the Closer Settlement Acts and otherwise.

Land has been made available principally under the following tenures:—

1. Homestead Farm.—Lease in perpetuity.
2. Crown Lease.—Lease for 45 years or lease in perpetuity.
3. Returned Soldiers' Special Holding.—Purchase or lease in perpetuity.
4. Suburban Holding.—Purchase or lease in perpetuity.
5. Irrigation Farm.—Purchase or lease in perpetuity.
6. Group purchase.
7. Settlement purchase.

Provision also exists in the Closer Settlement Acts under which one or more discharged soldiers may purchase privately-owned land upon terms approved by the Minister for Lands, the Crown providing the whole of the purchase money. Transactions of this nature are permitted only in cases in which additional settlement is provided. The Minister has discretionary power to refuse any such proposal. Operations have been restricted in recent years by the limited funds made available by Parliament, and activities were suspended in 1931.

An advance not exceeding £625 may be made available for each soldier settler, but it must be used only for the general improvement of the land, purchase of implements, stock, seed, and other necessaries, or in the erection of buildings. Repayment of advances towards the cost of buildings and permanent improvement is effected by annual instalments extending over twenty-five years, interest only being charged during the first five years; in the case of stock and implements the period is ten years with interest only charged during the first year. Interest may not exceed  $3\frac{1}{2}$  per cent. for the first year and 4 per cent. per annum thereafter.

Under special circumstances advances in arrears may be funded and made payable over the balance of the period allowed for the repayment of the original advance; also interest in arrears may be funded and made payable over an extended term.



The total amount advanced by the Department of Lands under the Returned Soldiers' Settlement Act to 30th June, 1938, was £3,195,151, of which £1,767,814 had been repaid. Total payments, including interest, to that date amounted to £2,445,043.

The following table affords a summary of the number, area, and cost of private estates acquired by the Department of Lands for soldiers' settlement to 30th June, 1938:—

TABLE 826.—Soldiers Settlement—Estates Acquired.

Class of Acquisition.	Estates.	Area.	Purchase Money.	Farms made available
	No.	acres.	£	No.
Promotion Provisions Closer Settlement Acts* ...	1,457	1,193,502	5,578,946	2,282
Group Settlement—Closer Settlement Acts ...	25	396,061	1,809,729	837
Section 197, Crown Lands Act† ...	22	30,491	274,334	352
Direct Purchase under authority of Executive Council ... ..	27	85,218	450,947	538
Total ... ..	1,531	1,710,272	8,113,956	4,009

\*Includes 953 single farms. † Includes one estate surrendered at nominal value, practically as a gift.

There have been no transactions since 1st July, 1928.

Particulars of the expenditure by the Water Conservation and Irrigation Commission in respect of the settlement of returned soldiers to 30th June, 1935, are as follows:—

	£
Acquisition of holdings for settlement ..	45,582
Developmental works .. .. .	1,587,446
Advances to soldier settlers .. .. .	2,751,582

There has been no expenditure by the Commission in respect of the first two items since 1935-36, consequently the totals given remained unchanged as at 30th June, 1938. The Commission ceased to make advances to irrigation settlers from 1st July, 1935, when this function devolved upon the Irrigation Agency of the Rural Bank. As particulars of advances made to soldier settlers in irrigation areas have not been available since 1935-36, the total to 30th June, 1938, is not known.

#### RURAL BANK OF NEW SOUTH WALES—CLOSER SETTLEMENT AGENCY.

Purchasers of farms in approved estates voluntarily subdivided may obtain through the Closer Settlement Agency of the Rural Bank a loan from the funds of the Agency, not exceeding 13½ per cent. of the Bank's valuation of the holding to be acquired, in addition to the ordinary advance by the Bank of two-thirds of the valuation. The settler may thus obtain advances not exceeding in the aggregate 80 per cent. of the valuation. At 30th June, 1938, advances amounting to £71,635 had been approved, of which the Closer Settlement Agency would provide £8,450.

## IRRIGATION AREAS.

Four irrigation areas are being developed within the State, the most extensive the Murrumbidgee Irrigation Area in the basin of the river of that name, the Coomealla Irrigation Area near Wentworth and two smaller settlements at Hay and Curlwaa.

The Murrumbidgee Area comprises 381,752 acres, of which 321,909 acres are held under various tenures. Approximately 84 per cent. of the total area is used for farming purposes. The Coomealla Irrigation Area situated on the Murray River about 9 miles from Wentworth comprises 25,459 acres and the two smaller settlements at Hay and Curlwaa 6,456 and 10,550 acres respectively. All are under the control of the Water Conservation and Irrigation Commission.

*Murrumbidgee and Coomealla Irrigation Areas.*

Under the provisions of the Crown Lands Consolidation Act, 1913, land within these areas is made available for disposal by purchase in fee simple (freehold) or by lease, notification of the conditions and terms of sale or lease being published in the *Government Gazette*. The principal freehold tenures are irrigation farm purchase, non-irrigable purchase, and town land purchase. Payment of the purchase money in these cases is made by an initial deposit of five pounds and thereafter by half-yearly instalments including principal and interest, the latter being at the rate of 4 per cent. per annum. Payment may extend over seventy-three and twenty instalments respectively in the cases of irrigation and town purchases; in the case of a non-irrigable purchase over the period notified in the *Gazette*.

Perpetual leases are held under three tenures—irrigation farm lease, non-irrigable lease, and town land lease. The term of these leases, as the designation indicates, is in perpetuity. The rental as notified in the *Gazette* applies for the first twenty-five years only, in the case of a town land lease, a non-irrigable lease not used for farming purposes or an irrigation farm lease which is chiefly suitable for residential purposes. For each succeeding period of twenty years the amount will be that agreed upon by the Commission and the lessee as the fair annual rental value of the land leased irrespective of any improvements thereon. Failing agreement within a specified time the amount will be determined by the Special Land Board. The determination of the Board, however, is subject to appeal or reference to the Land and Valuation Court. The annual rent is determined similarly for the balance of the current period in the case of a town land lease or a non-irrigable lease not used for farming purposes, transferred or otherwise disposed of within the first fifteen years.

Water rights attach to each irrigation farm purchase or lease, the number varying with the type and area of holding. Of these a certain proportion is a fixed charge which must be paid notwithstanding that a less number may have been used. In some instances, however, the fixed charge is made for all the water rights attached.

Residence, if a condition of the tenure, must commence within six months of the date on which the application for land was granted, and with the consent of the Commission may be performed by a tenant, employee

or agent of the holder or by one or more joint holders. This condition does not apply to a town land lease, town land purchase, non-irrigable lease, or non-irrigable purchase, provided that in the two latter cases it has been so notified in the *Gazette* making the land available for disposal. Suspension of the residence condition may be allowed if the Commission is of the opinion that circumstances so warrant.

The holder must effect improvements of a certain value on the land within a period determined by the Commission, and will be released from the residence condition when the Commission has certified that these improvements have been made. The Commission, however, may refuse to certify to this effect if it is of the opinion that the land is not being developed satisfactorily or does not provide sufficient security for monies owing. Payment is made in respect of existing improvements on the terms notified in the *Gazette*.

A perpetual lease may be converted to a purchase, subject to certain provisions, if the holder has complied with the conditions of the lease. In the following cases, relating to areas in excess of 5 acres, conversion takes effect from the date of receipt by the Commission of the notification by the holder of his intention to convert, and the purchase money is determined at twenty times the annual rental of the lease at the date of conversion, viz., (a) conversion of an irrigation farm lease to an irrigation farm purchase, and (b) conversion of a non-irrigable lease used for farming to a non-irrigable purchase. In all other cases, *i.e.*, town land lease, irrigation farm lease 5 acres or under, and non-irrigable leases not used for farming purposes, the purchase amount will be the sum agreed upon by the Commission and lessee, or failing agreement within the time specified, the amount determined by the Special Land Board. Appeal, however, may be made to the Land and Valuation Court against the determination of the Board. Conversion takes effect thirty days after the date of agreement between the Commission and lessee or the determination of the Special Land Board or of the Land and Valuation Court, as the case may be.

Grant is issued to a holder of a lease, the term of which is in perpetuity, when the Commission is satisfied that all conditions, including any requirement to effect improvements to a certain value, have been fulfilled.

Crown grant (freehold) is issued in respect of a purchase upon payment of the purchase money and interest together with deed fee, stamp duty, and money owing for Crown improvements, provided that all conditions relating to residence and improvements have been fulfilled to the satisfaction of the Commission.

A certificate of conformity may be obtained in respect of any purchase for production to financial institutions or intending purchasers as an assurance that all conditions in connection with the land, except payment of the purchase money, have been fulfilled.

A holding may be transferred with the consent of the Commission in accordance with the provisions of the Crown Lands Consolidation Act and subject to the following conditions, viz. :—(a) That all money owing to the Rural Bank, the Commission, or the Crown in respect of the holding, or such portion as may be required to be paid, has been paid, (b) that the proposed transferee signs an agreement that the amount owing in respect of the holding, etc., will be paid by him and that he will execute such

security as the Commissioner or Rural Bank require for the payment of such money, and (c) that the security referred to has been executed by the transferee.

The holder of an irrigation farm purchase or a non-irrigable purchase used for farming purposes may acquire by transfer by way of sale any other irrigation farm purchase or non-irrigable purchase used for farming purposes, which in either case exceeds 5 acres, without the consent of the Commission where neither party to the transfer is indebted to the Crown or Commission. Also consent is not necessary in the following cases, viz., (a) transfer of a town land lease or purchase, and (b) a mortgage, release of mortgage, transfer by way of mortgage, transfer by way of release of mortgage, or transfer of mortgage.

The Irrigation Act provides that land within the Murrumbidgee or Coomealla Irrigation Areas which has not been set apart, or if set apart is not disposed of, or which upon forfeiture or surrender becomes revested in the Crown may be used for such purposes or leased upon such terms and under such conditions as the Minister approves.

#### *Hay Irrigation Area.*

Land in this area is administered under the Hay Irrigation Act and the Irrigation Act, 1912, as amended by subsequent Acts. Irrigated leases extend over thirty years and may be converted to purchases on terms extending over thirty-six and a half years. In such a case the purchase price is the amount agreed upon by the Commission and the lessee, or failing agreement within the time specified, the amount determined by a Board constituted for that purpose. Appeal lies from the determination of the Board to the Land and Valuation Court. Each lessee, purchaser, or owner of an irrigated holding is entitled to 24 inches of water per acre per annum. The water rate, which is subject to alteration, was £1 per acre per annum at 30th June, 1938.

Non-irrigated holdings may be held on short lease, in most cases up to five years. Water for stock purposes may be supplied in quantities and at charges agreed upon with the Commission.

Holdings may be transferred with the consent of the Commission.

#### *Curlwaa Irrigation Area.*

Land in this area is administered under the Wentworth Irrigation Act and the Irrigation Act, 1912, as amended by subsequent Acts. Irrigated and short leases are similar to those of the same designation in the Hay Irrigation Area, and holdings may be transferred with the consent of the Commission. Every lessee, purchaser or owner of an irrigated holding is entitled to receive 30 inches of water per acre per annum at an annual charge of £1 per acre, but no water rates are charged for areas defined by the Commission as non-irrigable land or unsuited for irrigation. In addition a general rate of 14s. per acre per annum is imposed on the irrigable area considered suitable for planting of fruit trees or vines. Water may be supplied to non-irrigated holdings or those under permissive occupancy for stock and other purposes by special agreement with the Commission.

*Alienation and Occupation of Land within Irrigation Areas.*

The following table gives particulars of the alienation and occupation of land within the Irrigation Areas on 30th June, 1938:—

TABLE 827.—Irrigation Areas—Tenures.

Land Tenure.	Irrigation Areas.									
	Murrumbidgee.		Coomealla.		Curlwaa.		Hay.		Total.	
	Holdings.	Area.	Holdings.	Area.	Holdings.	Area.	Holdings.	Area.	Holdings.	Area.
<i>Alienated.</i>	No.	acres.	No.	acres.	No.	acres.	No.	acres.	No.	area
Irrigation Farm Purchases ...	8	198	2	41	...	...	...	...	10	239
Irrigated Purchase Lots ...	...	...	...	...	...	...	1	10	1	10
Non-irrigable Purchases ...	9	19	1	2	...	...	...	...	10	21
Town Land Purchases... ..	34	30	2	...	...	...	...	...	36	30
Total alienated ... ..	51	247	5	43	...	...	1	10	57	300
<i>In Process of Alienation.</i>										
Irrigation Farm Purchases ...	315	93,526	143	2,792	5	99	...	...	463	96,417
Non-irrigable Purchases ...	25	0,195	1	2	...	...	...	...	26	6,197
Town Land Purchases... ..	143	48	13	3	...	...	...	...	156	51
Total in process of alienation	483	99,769	157	2,797	5	99	...	...	645	102,665
<i>Held under Perpetual Lease.</i>										
Irrigation Farm Leases ... ..	1,626	145,457	10	79	...	...	...	...	1,636	145,536
Non-irrigable Leases ... ..	118	21,220	...	...	...	...	...	...	118	21,220
Town Land Leases ... ..	1,286	327	3	...	...	...	...	...	1,289	327
Total under Perpetual Lease	3,030	167,004	13	79	...	...	...	...	3,043	167,083
<i>Other Occupation.</i>										
<i>Leases—</i>										
Short Leases ... ..	...	...	...	...	90	6,989	68	4,702	158	11,691
Thirty-year Leases ... ..	...	...	...	...	169	2,005	107	1,022	276	3,027
Leases under Irrigation Act... ..	377	44,050	54	31,307	...	...	...	...	431	75,366
<i>Permissive Occupancy—</i>										
Farming Lands ... ..	15	10,672	...	...	3	81	18	53	36	10,806
Non-irrigable Land not used for farming ... ..	4	10	1	5	...	...	...	...	5	16
Town Lands ... ..	14	43	3	1	...	...	...	...	17	44
Church Sites, Public Hall Sites, etc. ... ..	...	...	7	14	...	...	...	...	7	14
Other ... ..	34	105	41	100	3	11	...	...	78	216
Total under Lease (other than Perpetual Lease), etc.	444	54,889	106	31,427	265	9,086	193	5,777	1,008	101,179
Unoccupied Land ... ..	...	59,843	...	1,104	...	1,365	...	669	...	62,981
Total Area... ..	...	381,752	...	35,450	...	10,550	...	6,456	...	434,208

The total area of alienated land acquired by the Crown for water conservation and irrigation purposes was 222,500 acres on 30th June, 1938.

*Land outside Irrigation Areas.*

Land vested in the Commission but outside of the irrigation areas may be leased on such terms and under such conditions as the Commission may impose. At 30th June, 1938, land of this nature was comprised in 108 holdings with an aggregate area of 21,431 acres held under miscellaneous leases and permissive occupancies.

*Relief to Settlers in Irrigation Areas.*

Prior to the passing of the Irrigation (Amendment) Act, 1926, the maximum period allowed for the suspension of payment of monies due or owing to the Crown or the Water Conservation and Irrigation Commission was four years and for the repayment of such monies sixteen years.

Under this Act the Commission was authorised to extend these periods and was vested with the following powers, viz.—(1) to remit payment of rent and charges for water and interest; (2) to exempt an occupier from the payment of similar charges to become due; (3) to reduce the rate of interest charged in respect of advances to soldier settlers; and (4) to reduce the indebtedness of settlers in respect of their holdings to a sum based on the productive capacity of the holdings and to write off the balance of debt with interest thereon. The Act also provided (1) that the occupier of any holding subsisting on 23rd December, 1924, might apply to have the capital value determined by the Special Land Board, subject to appeal to the Land and Valuation Court; and (2) that soldier settlers might appeal to the Land and Valuation Court against determinations of the Commission, particularly in respect of indebtedness.

As a result of investigations conducted by classification committees specially constituted to consider cases of civilian and soldier settlers, debts were re-determined on the basis of the productive capacity of the holdings and additional area was granted to many settlers, while in some instances settlers were transferred to new holdings and their debts adjusted. The basic period for discharge of indebtedness was twenty years, but in some cases up to thirty-five years was allowed.

The position of irrigation settlers was further reviewed under the Irrigation (Amendment) Act, 1931, and their indebtedness reduced where warranted. Settlers were permitted to apply for re-determination of rentals of holdings which had been granted subsequent to 23rd December, 1924, in accordance with the recommendations of the classification committees previously referred to. The same concessions were extended to settlers indebted to the Rural Bank of New South Wales, as to those directly indebted to the Crown or to the Commission.

Interest rates were reduced to 4 per cent. per annum as from 1st January, 1933, under the Crown Lands (Amendment) Act, 1932, and land rentals were reduced by 22½ per cent. for a period of three years from 1st January, 1933. This period was extended to six years by the Crown Lands (Amendment) Act, 1935, and to nine years by the Crown Lands and Closer Settlement (Amendment) Act, 1938.

The Murrumbidgee Irrigation Areas Occupiers Relief Act, 1934, was a measure mainly rendered necessary by the continued depression and provided for the adjustment of settlers' debts to the Crown and for the adjustment of rent, review of water charges, and variation of conditions attaching to leases and purchases. Debts due on or before 1st January, 1933, which had not been paid were referred to as "arrears of indebtedness," while debts owing but which had not become payable on that date were referred to as "current indebtedness." Arrears of indebtedness might be reduced by the Minister during the year ended 30th June, 1935, in such proportion as he considered fit and he might direct that a specified amount or proportion of such debt be deemed to be and treated as current indebtedness. Current indebtedness was reduced by 33½ per cent. during the year ended 30th June, 1935, and, except with respect to the payment of the balance of purchase money, was payable by equal half-yearly instalments (including

interest at 4 per cent. per annum) extending over twenty-seven years commencing on 30th June, 1933. It was provided, however, that the reduction would not apply in cases where the indebtedness had already been adjusted, having regard to economic conditions and the value of farm products. Annual rentals were reduced by 33½ per cent., such reduction being in place of, but not in addition to, the reduction of 22½ per cent. under the Crown Lands Act, 1932. Clauses in the Act empowered the Minister to deal with anomalous cases during the year ended 30th June, 1935, by giving concessions beyond those mentioned above, when he considered special treatment was warranted.

- *Rural Bank of New South Wales—Irrigation Agency.*

An Irrigation Agency established as a department of the Rural Bank of New South Wales in accordance with the provisions of the Rural Bank (Agency) Act, 1934, has functioned since 1st July, 1935.

The bank is empowered to make loans through the agency to persons holding land in an irrigation area upon such security, at such rates of interest and subject to such covenants and conditions as it may impose. These loans are mainly for seasonal requirements repayable from proceeds of crops. Advances aggregating £98,471 were made during the year ended 30th June, 1938.

The Act also provided that certain monies owing to the Water Conservation and Irrigation Commission on 1st July, 1935, became monies owing to the bank. In these were included rents, purchase money, charges for water and improvements, monetary advances and interest in respect of land occupied in the Murrumbidgee, Hay, Curlwaa and Coomealla Irrigation Areas, and amounts outstanding on account of shallow bores sunk by the Commission and in respect of water supplied to holdings within Domestic and Stock Water Supply and Irrigation districts. Charges accruing since 1st July, 1935, are also payable to the Bank.

LAND RESUMPTIONS AND APPROPRIATIONS.

Alienated land required by the State may be obtained by resumption, purchase, exchange, surrender, or gift. Resumptions are made under the Public Works, Lands for Public Purposes Acquisition, and Local Government Acts, and except when made for purposes of Public Instruction or Railways they are treated by the Valuer-General. Resumptions for Federal purposes are made under the Commonwealth Lands Acquisition Act, 1906-16, Lands Acquisition (Defence) Act, 1918, and War Service Homes Act, 1918-20. Any Crown lands may be appropriated for public purposes.

The following statement shows the area of resumptions and appropriations and of the principal purchases which were made during the past five years. Purchases of land for semi-public purposes are not included.

TABLE 828.—Land Resumption and Purchases, 1934-1938.

Year ended 30th June.	Resumptions and Purchases.			Crown Lands Appropriated.			Gifts.			Total.		
	a.	r.	p.	a.	r.	p.	a.	r.	p.	a.	r.	p.
1934	1,370	3	4	227	3	39	7	2	14	1,606	1	17
1935	1,316	1	9	987	1	27	7	0	10	2,310	3	6
1936	1,271	2	3	4,175	2	17		2	29	5,447	3	9
1937	3,811	1	26	1,128	3	34	19	2	32	4,960	0	12
1938	23,696	3	14	984	1	19	7	1	31	24,598	2	24

The purposes of resumptions, appropriations, and purchases during 1937-38 were:—

TABLE 829.—Land Resumptions and Purchases, 1937-38.

Purpose.	Area.			Purpose.	Area.		
	a.	r.	p.		a.	r.	p.
Burrinjuck Electrical Construction ... ..	10	3	34	Water Conservation and Irrigation ... ..	2,392	1	39
Council for Scientific and Industrial Research ... ..	50	2	0	Water Supply ... ..	62	3	1
Customs ... ..		1	17	Shires and Municipalities			
Defence ... ..	362	1	13	Aviation Station ... ..	185	2	35
Drainage ... ..	14	3	8	Cattle Market ... ..	1	0	0
Hume Reservoir ... ..		1	28	Council Chambers ... ..		1	1
Main Roads ... ..	250	0	39	Drainage ... ..		2	7
Mental Hospitals ... ..		1	9	Park ... ..		1	7
Pilot Station ... ..			4	Public Convenience ... ..			7
Postal ... ..	1	2	16	Recreation Reserve ... ..	46	0	3
Prison Farm ... ..	96	1	35	Roads ... ..	844	2	3
Public Recreation ... ..	199	2	22	Sewerage ... ..			4
Public School Sites ... ..	163	1	14	Substation, etc. ... ..		2	7
Railways—				Water Supply ... ..			14
New Extension Lines	176	3	17				
Workshops ... ..	55	1	5				
Roads (Department of Lands)	65	1	7				
Rural Bank ... ..			1				
Sanitary ... ..		11	1				
Sewerage ... ..	951		1				
State Forests ... ..	18,647		2				
Travelling Stock Reserve...	5	1	23				
				Total ... ..	24,598	2	24

Land resumptions, purchases, and gifts in quinquennial periods from the year 1904-05, inclusive, and for the year ended 30th June, 1938, were as follow:—

TABLE 830.—Land Resumptions and Purchases, 1905-1938.

Period.	Resumptions, Appropriations, and Purchases.			Gifts.			Total.		
	a.	r.	p.	a.	r.	p.	a.	r.	p.
1905-09	105,848	3	8	439	1	27	106,288	0	35
1910-14	282,008	3	17	117	0	10	282,125	3	27
1915-19	64,194	0	35	81	0	35	64,275	1	30
1920-24	84,046	1	6	91	1	32	84,137	2	38
1925-29	25,857	2	35	63	0	26	25,920	3	21
1930-34	12,778	1	21	61	1	28	12,839	3	9
1936-37	6,496	2	3	19	2	37	6,516	1	0
1937-38	24,591	0	33	7	1	31	24,598	2	24

The total area of land dealt with in this way between 1890 and June, 1938, was approximately 634,122 acres, including about 298,529 acres for water conservation and irrigation projects, 54,283 acres for defence, 59,945 acres for railways and tramways, 33,603 acres for town water supplies, and 89,000 acres for closer settlement.

#### REVENUE FROM PUBLIC LANDS.

The revenue received from public lands during recent years is shown in the chapter, Public Finance, of this Year Book.



## FOOD AND PRICES.

### FOOD SUPPLY AND DISTRIBUTION.

The principal food commodities consumed in New South Wales are beef and mutton, bread, milk, butter, eggs, sugar, jam, potatoes and a wide variety of other vegetables and fruit. Tea is the popular household beverage. Ample supplies of nearly all these commodities are produced within the State. Tea is imported from tropical countries. The local production of potatoes, sugar and some fruits and, to a smaller extent, eggs is augmented by importation from other Australian States. The consumption of poultry, pork, bacon, ham, fish, cheese and coffee is comparatively small.

The administration of the food laws in incorporated towns and the supervision of conditions under which food is produced and distributed are primarily duties of the Board of Health, but the work may be left to the municipal and shire councils. If a council fails to fulfil the duties satisfactorily, the Board itself may exercise its powers in respect of these matters, or may take steps to compel the council to act.

The Pure Food Act prohibits the sale or exhibition for sale of food which is adulterated or falsely described. It prescribes that packages must be labelled with the true description and weight of the contents and the name of the maker or vendor. Standards for the composition, purity and quality of foods are prescribed by regulations, and the regulations have been brought to uniformity throughout Australia so far as the divergence of the laws of the various States will permit. The Commonwealth Department of Trade and Customs exercises supervision in regard to the composition and labelling of food and of drugs imported into Australia.

In the matter of distribution of food supplies, the councils of municipalities and shires are authorised to establish public markets and to regulate the hawking and peddling of food commodities within the incorporated areas.

The Municipal Council of Sydney has established large markets in the city for vegetables, fruit, farm produce, fish, and poultry, also cold storage works. The business conducted at the markets consists for the most part of sales by producers or their agents to retail traders. A new market in which producers may sell vegetables was opened in 1938.

The area and cost of the Sydney Municipal Markets are as follows:—

TABLE 831.—Sydney Municipal Markets.

Market.	Floor Space.	Cost of Market.	Market.	Floor Space.	Cost of Market.
	sq. ft.	£		sq. ft.	£
Vegetable ...	95,560	129,101	Poultry ...	12,200	32,919
Produce ...	45,300	74,354	Fish ...	47,517	35,275
Fruit ...	146,300	198,147	Producers' (vegetable)...	180,500	500,000*

\*Approximate.

The cold storage works of the City Council of Sydney have been constructed with chilling and freezing rooms for the storage of fruit, dairy and farm produce, mutton and rabbits, and the cost was £59,996. The total storage capacity is 200,000 cubic feet.

Outside the city area the local governing bodies have made little use of their powers in relation to the establishment of markets except saleyards for livestock.

The operations of agents selling on commission farm produce, such as vegetables, fruit, eggs and poultry, are subject to the Farm Produce Agents Act, 1926-1932. They are required to be licensed, and to furnish to the Registrar appointed under the Act a substantial bond from an approved insurance company.

Another measure relating to the marketing of food products, with the main purpose of assisting producers, is the Marketing of Primary Products Act, 1927-1938, which authorises the formation of marketing boards in respect of primary products upon the request of the producers. A board for any product may not be formed unless a poll be taken of the producers thereof, and votes are given by at least three-fifths of those entitled to vote, and more than half the votes are in favour of its constitution. Since 1938 the right to vote when a poll is taken has been restricted to producers who are enrolled as electors in respect of elections of the Parliament of New South Wales. The Director of Marketing administers the Act, and the State Marketing Bureau, under his supervision, affords assistance to producers in regard to the marketing of their products, and collects and publishes information relating to market conditions. In 1938 marketing boards were in operation for rice, eggs, wine grapes, and bananas, but at a poll of producers taken on 23rd September, 1938, the banana growers decided by a very small majority that the banana marketing board be dissolved.

#### *Supervision of Weights and Measures.*

The Weights and Measures Act is designed for the protection of the public from dishonesty in regard to the measurement of food in the course of distribution. It prescribes that traders' weighing and measuring appliances must be kept to a specified degree of accuracy.

The standard weights and measures of the United Kingdom have been adopted. It is a general rule that articles sold by weight must be sold by avoirdupois weight. The exceptions are as follows:—Precious metals, by troy weight; precious stones, by metric carat; drugs, retail, by apothecaries' weight. Sales by retail must be according to net weight or measure, and the practice of selling certain vegetables—*e.g.*, green peas in the pod—and other commodities by measure of capacity has been prohibited by regulation. The net weight or measure must be stamped on packages in which commodities are offered for sale. Special provision has been made to prevent fraud in respect of the weighing of coal and firewood.

The weight of bread is regulated under the provisions of the Bread Act of 1901. The standard loaves weigh 1 lb., 2 lb., and 4 lb.

#### *Meat.*

For the purpose of estimating the consumption of meat it is difficult to obtain details regarding the dressed weight of the animals slaughtered for local consumption. The most satisfactory of the available records indicates that during the five years ended June, 1932, the average annual consumption per head of population was 110 lb. of beef and veal and 73 lb. of mutton and lamb, and in more recent years about 100 lb. of beef and veal and 76 lb. of mutton and lamb. The annual consumption of pork is somewhat less than 5 lb. per head, and of bacon about 10 lb. per head of population.

The slaughter of stock and the sale of meat in the county of Cumberland, which embraces the metropolitan area, are under the control of the Metropolitan Meat Industry Commissioner, appointed by the Governor.

In the Newcastle district, *i.e.*, within a radius of 14 miles from the Newcastle Post Office, slaughtering and inspection are controlled by the Newcastle District Abattoir Board. Outside the county of Cumberland and the Newcastle district, slaughtering is done at private abattoirs, which are subject to inspection by officers appointed by the local authorities and by the Board of Health.

The abattoir controlled by the Metropolitan Meat Industry Commissioner is situated at Homebush Bay in proximity to the stock saleyards. The carcase butchers purchase stock on the hoof, and deliver them at the abattoir on the day prior to slaughtering. They are treated by the staff of the abattoir and after chilling the carcasses are delivered to the owners early on the following morning.

The fees per carcase for slaughtering stock for home consumption, dressing the carcasses and delivering at the Meat Hall, Homebush Bay, are as follows:—Cattle, 10s.; cows, 2s. 9d.; calves, 6s. 9d.; sheep and lambs, 1s. 1d.; pigs, 2s. to 4s. 10d. according to weight.

For frozen meat there are additional charges for freezing, wrapping, storage and delivery to ship's side.

The Newcastle Abattoir is controlled by a board elected by the councils of the local areas within a radius of 14 miles from the Newcastle Post Office. The slaughtering is done by the staff of the Abattoir. There are saleyards at Waratah.

The average retail prices of meat are shown in table 845, and further particulars relating to the meat supply are published in the chapter of this volume entitled "Pastoral Industry."

#### *Fish.*

The quantity of fresh fish marketed in New South Wales in 1938 represented nearly 12 lb. per head of population.

Owing to the climatic conditions it is difficult to distribute fresh fish to householders, and fish will not become a popular food throughout the State until this difficulty has been overcome. Under existing conditions the bulk of the fresh fish is consumed in the metropolitan district. Somewhat more than half the supply is obtained in the river estuaries and coastal lakes and inlets, and the balance by deep-sea trawling. The quantity of trawled fish was 14,145,600 lb. in 1938.

Preserved fish is supplied almost entirely by importation. The average consumption is about 4½ lb. per head of population.

The Sydney Corporation Act, 1932-1934, prescribes that in a defined area, which embraces the metropolitan and extra-metropolitan districts, fish may not be sold by auction except in public markets under the control of the council of a municipality or shire, and no person, except the original owner, may sell fish by wholesale unless it has been sold previously in a municipal market. The effect is to centralise the marketing of fish in Sydney in the Municipal Market, where the sales are conducted by licensed agents.

Regulations under the Fisheries Act require that all fish sold in the fish markets or by wholesale dealers must be sold by weight.

*Bread and Flour.*

The average consumption of bread in New South Wales is estimated at about 100 loaves (2 lb.) per head.

The consumption of flour is estimated at approximately 200 lb. per head, including 203,700 tons, or 150 lb. per head, used for bread. In factories where biscuits are made for local consumption and for export, 15,369 tons of flour, or 11.3 lb. per head, were used during 1937-38, but the quantity used by pastrycooks is not available. Further particulars of the wheat and flour consumed in New South Wales are shown in the chapter of this Year Book relating to Agriculture.

The bread supply of the metropolitan area is baked in about 400 bakeries and is distributed by the bakers, part by retail delivery to the consumers' homes, and part by delivery at wholesale rates to retail shops, where it is sold "over the counter" to consumers. In 1932-33 it was ascertained by inquiry that the "cash over counter" trade was 34 per cent. of all bread sold, and in January, 1935, it was 40 per cent. Only a small quantity is sold to consumers at the bakeries.

The hours of baking are fixed by industrial awards. The starting time in the County of Cumberland is 4.30 a.m. on an ordinary day, 11 p.m. for a "treble" delivery day (*i.e.*, a day preceding two holidays), and midnight for a "double" day or a day next following a "treble" day.

*Prices of Flour and Bread.*

For many years an association of millers has announced an official price for flour for local consumption (Sydney basis) which has been varied at fairly frequent intervals in general conformity with variations in prices of wheat, bran and pollard. An association of bakers has announced official prices for bread in the metropolitan area in relation to price of flour and other costs. Local or branch associations of bakers have functioned in various other parts of the State. These prices have generally, in practice, been subject to an appreciable degree of competition. Since December, 1938, prices of bread and flour have been subject to Government regulation and supervision under the Wheat Products (Prices Fixation) Act.

Approximately 1 ton (2,000 lb.) of flour is produced from 48 bushels of wheat and 1,330 (2 lb.) loaves of bread from 1 ton of flour. One penny per bushel variation in the price of wheat is equivalent to 4s. per ton variation in cost of flour, and prices of flour are varied at frequent intervals in relationship to variations in the price of wheat, though the prices of milling products (bran and pollard) are taken into account. Prices of bread are varied in relationship to the price of flour, but changes are not so frequent as alterations in the price of flour because a variation of  $\frac{1}{4}$ d. per loaf (2 lb.) of bread sets off a variation of £1 7s. 6d. per ton in price of flour. Other variations may result from changes in wage rates, hours of work, working conditions, taxation and costs of materials and equipment.

At various periods between March, 1931, and February, 1936, taxes were imposed on flour used for local consumption for the purpose of raising funds to assist farmers during periods of low wheat prices. Reference to these is made in chapter "Agriculture" of this Year Book and the effect on prices of bread and action taken to regulate such prices are referred to on page 659 of the Year Book for 1936-37.

In December, 1938, when the price of wheat had again fallen, joint action to assist farmers was undertaken by the Commonwealth and the various Australian States. As part of the plan the Commonwealth levied

an excise tax on flour used for home consumption, the rate of tax varying with the export parity price of wheat, and the Parliament of New South Wales enacted legislation to authorise the State Government to fix minimum and maximum prices of flour and other wheat products, including bread. The rate of flour tax was declared at £5 15s. per ton as from 5th December, 1938, and the Master Bakers' Association announced that the price of bread would be raised by 1d. per loaf in Sydney on 11th December. Before that date, however, the State Government issued a proclamation in terms of the Wheat Products (Prices Fixation) Act, 1938, fixing the maximum prices at 5½d. per loaf for "cash over the counter" retail sales, and 4½d. for sales to retail shops in the inner industrial areas of Sydney, viz., the City of Sydney and the suburbs of Glebe, Darlington, Newtown, Erskineville, Redfern, Alexandria, Paddington, Mascot, Waterloo, St. Peters, Marrickville, Petersham, Annandale, Leichhardt and Balmain. Details of alterations in the flour tax are shown in the chapter "Agriculture."

The following statement shows the "official prices" of bread in Sydney recommended to members by the Master Bakers' Association at each date of change since 1920 in comparison with the price of flour (including tax) on the date of change in prices of bread:—

TABLE 832.—Bread and Flour Prices in Sydney, 1920 to 1938.

Date of change in price of Bread.	Price of Bread per 2-lb. loaf.		Price of Flour per ton.	Date of change in price of Bread.	Price of Bread per 2-lb. loaf.		Price of Flour per ton.
	Cash over counter.	Cash delivered.*			Cash over counter.	Cash delivered.*	
	d.	d.	£ s. d.		d.	d.	£ s. d.
1920.				1929.			
1 Jan. ...	4½	4¾	12 15 0	4 Feb. ....	5½	5¾	11 0 0
1 Feb. ...	5½	5¾	16 7 6	1930.			
9 ,, † ...	6	6½	19 2 6	30 June ...	5	5½	10 5 0
13 Dec. † ...	6½	6¾	19 7 6	1 Sept. ...	4¾	5½	9 10 0
1921.				20 Oct. ...	4½	5	8 15 0
26 Sept. † ...	6½	6¾	20 17 6	1931.			
10 Dec. † ...	4¾	5	12 0 0	29 Mar. ...	5	5½	10 0 0 †
1924.				1932.			
21 July ...	5	5½	14 10 0	1 Jan. ...	4½	5½	10 0 0 †
20 Oct. ...	5½	5¾	15 5 0	1933.			
1925.				4 Dec. ...	5	6	11 15 0 †
5 Jan. ...	5½	5¾	15 15 0	1934.			
1926.				1 June ...	4½	5½	7 5 0
10 May ...	5¾	6	15 0 0	13 Aug. ...	4½	5½	9 15 0
12 July ...	6½	6¾	15 15 0	1935.			
6 Dec. ...	6	6½	13 10 0	25 Mar. ...	4¾-5§	5½	11 2 6 †
1927.				21 Oct. ...	5-5½	5½-5¾	12 12 6 †
31 Jan. ...	5¾	6	12 10 0	1936.			
19 Sept. ...	6	6½	13 15 0	25 Feb. ...	4½	5	9 10 0
1928.				17 Aug. ...	5	5½	12 0 0
13 Feb. ...	5¾	6	12 15 0	1937.			
				25 Jan. ...	5½	5¾	12 15 0
				19 April ...	5½	6	13 7 6
				6 Sept. ...	5½	5¾	12 5 0
				1938.			
				10 July ...	5	5½	9 0 0
				16 Dec. ...	5½ (a)	6	12 10 0 †

\* Cash daily or weekly. † Prices fixed by Profiteering Prevention Count. ‡ Including tax, § 4½d. per loaf (2 or more loaves); 5d. per single loaf. The prices at this date were those recommended by Royal Commission. (a) Proclaimed price—5½d. in inner industrial suburbs; current Sept., 1939.

The price of bread delivered by bakers to shops in the period covered by the table was  $\frac{1}{2}$ d. per loaf less than the cash over counter price, except between March and October, 1935, when the wholesale price was 4s. 4 $\frac{1}{2}$ d. per dozen loaves.

From 1920 to June, 1930, the cash over counter price was  $\frac{1}{4}$ d. per loaf less than the cash delivered price. Thereafter until the end of 1931 it was  $\frac{1}{2}$ d. less, and from January, 1932, to 25th March, 1935, it was 1d. less.

With the onset of general depression after 1930 competition intensified in the bread trade and the average prices actually realised by bakers for delivered bread fell far below the declared prices quoted above. Thus the actual price realised for delivered bread was ascertained to be 4.99d. per loaf in 1932-33, and 5.06d. per loaf in January, 1935, though the declared price in both periods was 5 $\frac{1}{2}$ d.

#### *Butter, Cheese, and Milk.*

Butter is an article of diet in general consumption throughout New South Wales, the local product being choice in quality and the supply more than sufficient in quantity for the local demand.

The manufacture of butter, etc., in factories is supervised by State inspectors in terms of the Dairy Industry Act, which is described in the chapter relating to dairying. Regulations under the Act prescribe that butter must contain not less than 80 per cent. of milk fat, not more than 16 per cent. of water, nor more than 3 per cent. of salt. It must not be mixed with foreign fat or oil, nor contain foreign substance except salt.

The butter industry is highly organised for production and distribution under arrangements which are described in the chapter of this Year Book entitled Dairying Industry. The effect of these arrangements has been to eliminate seasonal fluctuations in the prices of factory butter sold for local consumption, all but a very small proportion being of choicest grade. The wholesale price was constant at 140s. per cwt. from 1st May, 1934, to 29th June, 1937; then it was increased to 149s. 4d., and there was another increase to 158s. 8d. on 8th June, 1938. Butter is marketed in 56 lb. cases and these quotations are exclusive of the cost of the cases, viz., 2s. 6d. per cwt. The retail price of butter was 1s. 4 $\frac{1}{2}$ d. to 1s. 6d. per lb. in the various parts of the metropolitan district from May, 1934, and the average was about 1s. 5d. per lb. It was increased to 1s. 6d. per lb. in June, 1937, and to 1s. 7d. in June, 1938.

TABLE 833.—Consumption of Butter, 1930 to 1938.

Year ended June.	Consumption. (Factory and Farm butter.)		Year ended June.	Consumption. (Factory and Farm butter.)	
	Quantity.	Per head of Population.		Quantity.	Per head of Population.
	lb.	lb.		lb.	lb.
1930	84,725,000	33·6	1935	88,354,000	33·8
1931	82,915,000	32·6	1936	91,800,000	34·6
1932	83,100,000	32·4	1937*	92,000,000	34·3
1933	84,119,000	32·5	1938	93,680,000	34·6
1934	86,650,000	33·2			

\* Amended since last issue.

The consumption of cheese is small, the average being less than 4 lb. per head per annum.

Available records regarding the consumption of fresh milk in the metropolitan area indicate that the average in 1937-38 was about 24 gallons per head, as compared with 22 gallons in 1935-36 and 22½ gallons in 1928-29. The tendency towards increased consumption has followed an improvement in quality and in methods of distribution. The practice of delivering milk in bottles has expanded.

The conditions under which milk and other dairy products are produced and distributed for human consumption are subject to regulation under the Dairies Supervision Act of 1901 and under the Pure Food Act of 1908, the Dairy Industry Act of 1915, and the Milk Act, 1931. All dairymen and milk vendors must be registered, and dairy premises are open to inspection at all times. The duties of registration and of inspection are vested generally in the local authorities, the Milk Board exercises control in the metropolitan and Newcastle districts, and the Pure Food Branch of the Department of Public Health exercises general supervision with a view to maintaining the standard of dairy products offered for sale.

The standard for milk is fixed by regulation under the Pure Food Act, which prescribes that it must be clean and fresh, and taken from a healthy cow, properly fed and kept. It must contain not less than 8.5 per cent. of milk solids not fat, and 3.2 per cent. of milk fat. In testing milk to determine the standard use is made of the freezing point test, and it is prescribed that freezing point must not lie between zero Centigrade and — 0.55 degrees Centigrade, as determined in the Hortvet Cryoscope.

#### *Metropolitan and Newcastle Milk Supply.*

Less than a third of the milk supply of Sydney is derived from dairies within the metropolitan area and the balance from country districts, viz., the South Coast district between Wollongong and Nowra, the districts traversed by the Main Southern Railway between Liverpool and Moss Vale, the Penrith, Windsor, and Richmond Districts, the districts around Singleton, Branxton and Maitland on the Northern Railway line, and those in the neighbourhood of Dungog on the North Coast line.

The milk from the metropolitan dairies is distributed directly to the consumers within a few hours of milking. The milk from the country is handled for the most part by distributing companies. As a general rule, the milk is delivered by the producers at country factories, where it is received by the companies for transportation in bulk to the metropolis.

The greater part of the milk consumed in and around Newcastle is supplied by dairies outside the district.

The following statement shows the quantity of country milk distributed in the metropolitan district during each year since 1928-29, and in the Newcastle district since 1933-34:—

TABLE 834.—Country Milk Distributed in Sydney and Newcastle, 1929 to 1938.

Year.	Metropolitan District.	Year.	Metropolitan District.	Newcastle District.
	gallons.		gallons.	gallons.
1928-29	19,773,900	1933-34	18,038,000	1,183,100
1929-30	20,998,200	1934-35	18,639,500	1,192,000
1930-31	19,518,700	1935-36	20,065,400	1,376,600
1931-32	20,014,800	1936-37	21,249,500	1,616,300
1932-33	18,245,300	1937-38	22,694,800	1,747,300

The supply and distribution of country milk in both metropolitan and Newcastle districts are supervised by the Milk Board, which consists of three members appointed by the Governor, viz., a chairman, a representative of dairymen, and a representative of the milk consumers.

The metropolitan producing and distributing districts are defined by schedule of the Milk Act, and the Newcastle districts by proclamation. Other districts may be proclaimed subject to approval by Parliament. The metropolitan distributing district embraces the City of Sydney and fifty-three other municipalities, the Shires of Sutherland and Warringah, parts of Baulkham Hills and Horusby Shires, and the Port of Sydney.

The Newcastle distributing district consists of Newcastle and suburbs and parts of the Shires of Lake Macquarie and Tarro.

The Milk Board commenced operations in the metropolitan district in December, 1931, upon the dissolution of the Metropolitan Milk Board and in Newcastle at the end of September, 1932.

The functions and powers of the Milk Board include the fixation of prices, and the regulation of methods and conditions of supply and treatment of milk in producing districts and of distribution in distributing districts. The milk supplied for consumption or use in distributing districts (except milk produced and retailed directly by a dairyman on his own behalf) is vested in the Board, and its supply, except to the Board, is prohibited. By arrangement, distributing companies organised for handling milk on a large scale act as agents for the Board in receiving the milk at country factories and transporting it to Sydney or Newcastle, where they purchase their supplies from the Board.

The Board determines the quantity of milk to be supplied by the various producing areas and pays the producers at the minimum prices fixed under the Act. The Board is authorised to raise loans, with the Governor's approval, up to a limit of £500,000, and to acquire the business of persons engaged in the milk trade, paying the current market value for land and replacement value, plus 10 per cent. for plant, etc.

In March, 1932, the Milk Board fixed minimum prices to be paid to dairymen for milk for the metropolitan district, delivered at certain factories, on a basis by which the cost, including treatment, handling at country factory, and freight would be about 13d. per gallon on rail, Sydney. The prices fixed for milk for sweet cream were 4d. per gallon less than the prices for other milk. Prices for the Newcastle district were fixed as from 6th January, 1933. The Board varied the prices in March, 1933:—

TABLE 835.—Milk Prices—Sydney and Newcastle.

Particulars.	Metropolitan.		Newcastle.	
	1932 (March).	1933 (March).	1933 (January).	1933 (March).
Prices to Dairymen—Minimum—		s. d.		s. d.
For distribution as whole milk ... gal.	10d. to 11½d.	1 0	11d. to 11½d.	1 0
For separation for sweet cream ... gal.	6d. to 7½d.	0 10½	.....	0 10½
Wholesale Prices to Vendors—Maximum—	s. d.		s. d.	
At distributors' depots—in bulk ... gal.	1 5	1 5½	1 4	1 5
bottled ... gal.	.....	1 9½	.....	1 8
Retail Prices—Maximum—				
Country milk—loose ... .. qt.	0 7	0 7	0 6½	0 6½
bottled ... .. qt.	.....	0 8	.....	0 7½
Local milk retailed by producer ... qt.	0 8	0 8	.....	.....

Maximum prices for special pasteurised milk in Sydney were fixed at 2s. 1½d. a gallon wholesale and 9d. a quart retail from 1st August, 1939.



*Sugar and Jam.*

The quantity of sugar consumed, including the quantities used in the local manufacture of products such as jam and biscuits (of which a proportion is exported), is about 100 lb. per head. This estimate does not include the sugar contents of imported jam, preserved fruit, etc. The records of the factories of New South Wales in 1937-38 show that 6,660 tons of sugar (5.5 lb. per head) were used for jam and canned fruit; 3,402 tons (2.8 lb. per head) for biscuits; 6,405 tons (5.3 lb. per head) in breweries; 4,614 tons (3.8 lb. per head) in aerated water factories; 11,572 tons (9.6 lb. per head) in making confectionery; 4,182 tons (3.5 lb. per head) by pastry-cooks; 4,846 tons (4.0 lb. per head) in making condiments, pickles and sauces; and 1,417 tons (1.2 lb. per head) in making condensed milk and ice cream.

Sugar is produced in New South Wales and Queensland in sufficient quantity to supply Australian requirements. The output of raw sugar in both States is acquired by the Queensland Sugar Board in terms of an agreement between the Governments of the Commonwealth and Queensland. The Board makes arrangements for the refining and distribution of sugar for local use at prices fixed by agreement, and for the exportation of the surplus. The importation of foreign sugar into Australia is not permitted. The retail price of sugar in the metropolitan shops is 4d. per lb.

Jams and preserved fruit are manufactured in Australia in larger quantities than the local demand can absorb.

*Tea and Coffee.*

Tea enters largely into consumption among all classes, the average annual consumption being about 7 lb. per head. Of coffee on the other hand, the average is about half a pound per head.

The tea consumed in New South Wales is imported mainly from Netherlands East Indies and Ceylon. During the three years ended June, 1938, the Netherlands East Indies supplied 62 per cent. of the total importations; 29 per cent. was imported from Ceylon, 4 per cent. from India, 3 per cent. from China, and 2 per cent. from Japan.

About one-third of the supply of coffee is obtained from Netherlands East Indies, but the proportion from this country has diminished in recent years and substantial quantities have been imported from British East Africa, India, Papua, and Central America.

*Vegetables and Fruit.*

The potato is the chief article of diet in the vegetable group, but it is subject to great fluctuations in supplies and in prices, and the consumption varies accordingly. Local production is inadequate, and large quantities are imported from Tasmania and Victoria.

Onions are imported in large quantities from Victoria. Other vegetables are obtained chiefly from local sources, the Sydney supplies being marketed at the City Council's market, where the growers sell their produce by private treaty.

The fruit supply is derived mainly from the local orchards, and from Victoria, Tasmania, and Queensland. Prior to the war, bananas were imported in large quantities from Fiji, but the Tweed River district of New South Wales and the State of Queensland are now the chief sources of supply.

## GAS AND ELECTRICITY.

An index of the quantity of gas and electricity consumed in the metropolitan area (excluding electricity used for railways and tramways), with the average annual consumption during the three years 1929 to 1931 as base equal to 100, is shown below:—

TABLE 836.—Gas and Electricity—Index of Consumption—Sydney, 1929 to 1938.

Year.	Index Number.	Year.	Index Number.
1929	105	1934	102
1930	99	1935	108
1931	96	1936	112
1932	96	1937	119
1933	98	1938	123

The supply of gas and electricity for cooking, heating and lighting is subject to regulation in terms of the Gas and Electricity Act, 1935. Standards are prescribed in respect of power, purity and pressure of gas, also standard prices for gas supplied to private consumers by meter. Standard rates are fixed for dividends payable by the gas companies, viz., 6 per cent. on ordinary share capital, and 5½ per cent. on preference shares. The standard prices may be varied after inquiry as to what price would enable the company concerned to pay the standard rates of dividend. Such inquiries are conducted by boards which may be appointed from time to time, each consisting of a member nominated by the Minister for Local Government, one nominated by the company concerned, and a chairman chosen by agreement between the Minister and the company.

In regard to electricity the Gas and Electricity Act, 1935, authorises the Governor to proclaim regulations in respect of the use of electrical apparatus and the supply of electricity. It constituted an advisory committee to advise the Government in matters relating to the supply and use of electricity, and its development throughout the State.

Further particulars relating to gas and electricity works are shown in the chapters "Local Government" and "Factories."

The rates for gas for domestic consumption, as charged since 1911 by the Australian Gaslight Company, which supplies the greater part of the metropolitan area, are shown below:—

TABLE 837.—Gas for Domestic Use—Prices in Sydney, 1911 to 1937.

Date of Change In Price.	Rate per 1000 cubic feet.	Date of Change in Price.	Rate per 1000 cubic ft.	Date of Change in Price.	Rate per 1000 cubic feet.
	s. d.		s. d.		s. d.
January, 1911 ...	3 9	November, 1920 ...	5 1	July, 1926 ...	5 8
" 1913 ...	3 6	May, 1922 ...	5 9	August, 1927 ...	5 9
August, 1914 ...	3 10	August, 1922 ...	5 8	November, 1931 ...	5 6
March, 1917 ...	4 1½	January, 1923 ...	5 6	September, 1932 ...	5 3
August, 1918 ...	4 5	February, 1925 ...	5 4	November, 1933 ...	5 2
February, 1919 ...	4 4	November, 1925 ...	5 2	March, 1937 ...	5 4
January, 1920 ...	4 8	January, 1926 ...	5 7	September, 1937 ...	5 9

Up to 14th February, 1938, a flat rate was charged for gas for domestic consumption, accounts being rendered monthly. Then a scale of charges was introduced so that the rate decreases gradually as consumption increases, and accounts are rendered at intervals of two months. The highest rate is .428d. per gas unit (equivalent to 5s. 9d. per 1,000 cubic

feet) for the first 2,000 gas units (approximately 12,400 cubic feet) consumed in the two months; and the lowest rate is .295d. per gas unit (about 3s. 11½d. per 1,000 cubic feet) for the consumption in excess of 96,400 gas units (nearly 600,000 cubic feet).

A gas unit means 3,412 British thermal units gross, and a British thermal unit is the quantity of heat required to raise 1 lb. of water 1 degree Fahrenheit.

The electricity supplied by the City of Sydney electricity undertaking to private dwellings was charged at separate rates for lighting and for power until May, 1925. Lighting was charged at a flat rate per unit, or, at the customer's option, at the "maximum demand" rate, which is ½d. per unit dearer than the flat rate, for the first hour's use per day, and at a lower rate per unit thereafter.

In May, 1925, a "single meter" system of charges was introduced, by which a certain rate is charged for primary units (either lighting or power) up to 2½ units per quarter per 100 square feet enclosed by the outer walls of the residence; and a much lower rate for secondary units in excess of this limit. The rate for secondary units is lower still where an electric range has been installed for cooking. Consumers at the date when the single meter rate was introduced were allowed the option of having their accounts charged as formerly at separate rates for power and lighting or of changing to the new system.

The rates charged for electricity supplied by the City of Sydney electricity undertaking in the metropolitan district since January, 1911, are shown below:—

TABLE 838.—Electricity—Prices in Sydney—Rates, 1911 to 1939.

Date.	Power— Flat Rate, per unit.	Lighting.			Date.	Single Meter—Power and Lighting.		
		Flat Rate, per unit.	Maximum Demand Rate.			Primary Units.	Secondary Units, per unit.	
			Per Primary unit.	Per Second- ary unit.			Per unit.	Ordinary Rate.
1911.....	d. 1·5	d. 4·5	d. 5	d. 2	1925, May	d. 5	d. 1·25	d. ...
1921, July .....	2	5	5·5	2·5	1933, July	5	1·25	1
1923, April* .....	1·7	4·75	5·25	2·25	1934, May	5	1·1	1
					1935, Sept.*	5	1	0·7

\* Current June, 1939.

REGULATION OF PRICES OF COMMODITIES.

In December, 1938, the powers of the Industrial Commission of New South Wales were extended to enable it to investigate the prices of certain commodities, viz., articles of food (except eggs, milk and butter, for which marketing plans are already in operation as described elsewhere in this volume); clothing and apparel; building materials; and articles which enter into the composition or preparation of any of these commodities. Authority was granted also for investigations into rents of dwelling-houses and shops.

The first inquiries referred to the Industrial Commission were (1) the rents of dwelling-houses under £3 per week in the metropolitan area and Newcastle and Wollongong, and (2) the prices of (a) bricks; (b) slates and tiles, and (c) timber. Following a report on the price of bricks in the metropolitan area, the Commission was further authorised by an Act passed in June, 1939, to fix maximum prices of the commodities where,

by reason of monopolistic control or agreement, prices are excessive and it is desirable in the interests of the public that prices should be fixed. The Commission was directed to fix prices of bricks immediately.

For the purpose of investigating and fixing prices, the Industrial Commission may be constituted by a single member, and appeal lies to the Commission of three other members, as arranged by the President.

The Commission's report on the prices of bricks sold by manufacturers in the metropolitan districts was issued on 24th April, 1939. The findings were that there were too many brickyards in and around the metropolitan area. By reason of this fact and of price-cutting, the price of bricks in 1934 was forced down to an unprofitable figure. Then manufacturers controlling thirty-eight brickyards (including fifteen which were closed) entered into a mutual agreement for rationalisation, and in this way enabled certain yards to work to capacity by eliminating or restricting competition in the particular area in which they operate. The parties to the agreement arranged also to promote a company for the purpose of purchasing the State Brickworks.

The Commission reported that by reason of the condition of the industry in 1934 there was a real necessity for an agreement, and that the agreement then made would have called for no further comment in the report if prices had been fixed according to its expressed terms, with due regard to the interests of the manufacturers, vendors and the public. On the contrary, however, a virtual monopoly was created in the industry and the price of bricks was raised above a fair and reasonable figure, having the effect of increasing unduly the profits of all the companies concerned, including the closed yards. The Commission concluded that the price of common and face bricks could be reduced by at least 5s. per 1,000.

On 9th June, 1939, the Commission issued an order reducing the price of common bricks from 68s. to 58s. 6d. per 1,000 and face bricks from 118s. to 94s. per 1,000 at brickyards within 30 miles of the General Post Office, Sydney.

The prices of common bricks per 1,000, as fixed by brick manufacturers in the metropolitan district from August, 1928, to November, 1938, were as follows:—

TABLE 839.—Bricks—Prices in Metropolitan Area, 1928 to 1938.

Date.	Common Bricks Price per 1,000.	Date.	Common Bricks Price per 1,000.
1928—August... ..	71s.	1934—December ... ..	50s.
1929—April ... ..	72s.	1936—October ... ..	60s.
1930—March ... ..	67s.	1937—June... ..	59s.
June ... ..	57s.	September ... ..	65s.
1931 to 1932 ... ..	50s. to 57s.	1938—November ... ..	68s.
1933—June ... ..	50s.		
1934—March—			
Yards south of Parramatta			
Road ... ..	38s.		
North Sydney and Suther-			
land ... ..	45s.		

From December, 1934, to November, 1938, the prices of face bricks were 50s. per 1,000 higher than the prices of common bricks shown above.

WHOLESALE PRICES:

Information relating to wholesale prices in Sydney is published in detail in the "New South Wales Statistical Register." The average prices of the various commodities in each year from 1901 to 1920 are published in the issue for 1919-20, and those for the decennial period 1921 to 1930 in the issue for 1929-30. The monthly averages from January, 1919, are shown in the annual issues from 1919-20.

Index numbers of the wholesale prices in Sydney have been compiled from the prices of 100 commodities, which include the majority of items of importance in the economic life of the State. The commodities have been arranged in eight groups, and each commodity has been weighted according to the average annual consumption in New South Wales during the three years 1911-1913. The index numbers indicate only the general trend of the movement in wholesale prices.

Details relating to the composition of the index numbers of wholesale prices are stated in the 1919 and 1920 issues of the Year Book, *e.g.*, the grade of the articles or commodities included, the source of information as to prices, and the weights applied. An important amendment was introduced in January, 1930, when local prices of wool and cotton were substituted for the English prices used prior to that date.

The index numbers of each group and of all groups combined in various years since 1901 are shown below, and the numbers for each year from 1901 to 1921 are published in the 1921 issue of the Year Book. The prices in the year 1911 have been used as a base, and called 1,000. The indexes are not comparable between groups, except to illustrate the relative change in one group with the corresponding ratio in another.

TABLE 840.—Wholesale Price Index Numbers (Sydney) 1901 to 1938.

Year.	I. Agricultural Produce.	II. Groceries	III. Wool Cotton, Leather, Jute.	IV. Metals and Coal.	V. Building Materials	VI. Meat.	VII. Dairy Produce	VIII. Chemicals.	All Commodities. *
1901	834	949	737	1001	745	1222	963	977	904
1906	929	960	937	996	806	1163	953	951	955
1911	1000	1000	1000	1000	1000	1000	1000	1000	1000
1913	1069	1033	1043	1039	1107	1379	1093	1003	1092
1916	1163	1245	1367	1725	1241	2896	1380	1617	1489
1920	2440	1914	3079	2602	2415	3113	2236	2301	2503
1921	1750	1941	1471	2511	2259	1921	2029	1863	1956
1926	1892	1683	1652	2161	1893	1802	1760	1447	1834
1929	1707	1661	1656	2164	1953	2391	1842	1457	1863
1930	1428	1664	1384	2046	1941	2230	1571	1472	1705
1931	1061	1758	1323	2038	1959	1538	1386	1633	1551
1932	1137	1752	1235	2034	1943	1371	1295	1636	1525
1933	1122	1659	1339	1995	1854	1518	1172	1585	1507
1934	1144	1678	1393	1933	1712	1599	1245	1453	1504
1935	1279	1677	1328	1920	1663	1609	1292	1374	1527
1936	1299	1670	1470	1901	1707	1679	1316	1346	1562
1937	1487	1671	1623	1985	1902	1754	1404	1353	1677
1938	1523	1682	1302	2002	1922	2024	1488	1391	1679

\* Weighted average.

The general index number of wholesale prices fell in each of the years 1929 to 1934, the aggregate decline over the period being 19 per cent. The index rose slightly in 1935 and 1936, and at a faster rate in 1937. The upward movement ceased in 1938 and the index number for the year was at the same level as in 1937, being 10 per cent. lower than in 1929.

In comparison with 1929, the index numbers of the various groups in 1938 were lower by 21 per cent. in the textile group, 19 per cent. in dairy produce, 15 per cent. in meat (which was very dear in 1929), 11 per cent. in agricultural produce, 7 per cent. in minerals, and 5 per cent. in chemicals. Groceries and building materials were somewhat dearer than in 1929.

The movement in wholesale prices, month by month, since July, 1937, may be gauged from the following table, the base being the year 1911 as in the preceding table. Particulars for the last three months of the year 1929 are shown also, to indicate the predepression level from which prices have fallen:—

TABLE 841.—Wholesale Price Index Numbers (Sydney) Monthly.

Month.	I. Agricultural Produce.	II. Groceries	III. Wool, Cotton, Leather, Jute.	IV. Metals and Coal.	V. Building Materials	VI. Meat.	VII. Dairy Produce.	VIII. Chemicals.	All Commodities.
1929.									
October ...	1968	1674	1590	2149	1972	2677	1795	1456	1926
November ...	1870	1670	1533	2149	1972	2573	1731	1441	1890
December ...	1675	1673	1492	2149	1997	2671	1723	1441	1852
1937.									
July ...	1545	1671	1665	1988	1920	1684	1447	1354	1695
August ...	1588	1673	1675	2003	1933	1835	1397	1378	1720
September ...	1473	1673	1591	2015	1932	2092	1383	1378	1709
October ...	1510	1673	1536	2005	1956	2040	1400	1378	1707
November ...	1420	1675	1464	1988	1957	1958	1408	1378	1667
December ...	1433	1675	1465	1982	1959	1869	1428	1378	1663
1938.									
January ...	1471	1675	1400	1981	1959	1893	1451	1378	1666
February ...	1459	1675	1341	1981	1928	1910	1466	1378	1655
March ...	1429	1678	1315	2030	1928	1836	1481	1378	1646
April ...	1549	1677	1298	2031	1934	1913	1516	1384	1680
May ...	1654	1677	1305	2105	1933	1807	1508	1384	1659
June ...	1617	1677	1276	1993	1933	2142	1545	1384	1711
July ...	1759	1680	1292	2011	1906	2295	1496	1394	1755
August ...	1650	1680	1288	2009	1904	2107	1483	1394	1740
September ...	1451	1676	1264	1992	1904	2320	1472	1395	1681
October ...	1472	1695	1285	1997	1908	1998	1459	1404	1660
November ...	1321	1695	1291	1995	1910	1944	1480	1404	1625
December ...	1444	1695	1268	1995	1918	1819	1494	1414	1639
1939.									
January ...	1495	1695	1268	1979	1918	1919	1519	1414	1660
February ...	1639	1698	1279	1979	1919	1879	1562	1414	1672
March ...	1548	1704	1270	1983	1919	2080	1488	1414	1636
April ...	1443	1702	1262	1980	1919	1946	1520	1414	1652
May ...	1292	1703	1254	1978	1920	1830	1526	1414	1607
June ...	1255	1703	1281	1980	1891	1774	1514	1414	1594

The general index number trended downwards from August, 1937, to March, 1938; then a rapid rise during the next four months restored it to its former level. After July, 1938, it declined again, and in November the index number was lower than in any month since November, 1936.

In agricultural produce the price of wheat declined steadily throughout the year 1938, but the dearness of fodder during the drought caused the index number of the agricultural group to rise between March and August. Then widespread rains brought relief to dry areas. At the end of the year the flour tax was added to the price of flour for local consumption and potatoes became dear owing to scarcity of supplies, causing a temporary rise in the index number.

In the textile group, the average price of wool fell slowly from 12d. per lb. (greasy) in January, 1938, to 10½d. in December, and cotton became cheaper in February. The index number of the group fell by 24 per cent. between June, 1937, and June, 1938, and, with slight variations, remained low during the following twelve months.

Prices of meat fluctuated at a high level during 1938, reaching the peak in August, when an improvement in the seasonal conditions in the pastoral districts stimulated the demand for livestock to replace the losses incurred during the dry period.

The price of butter was increased by 1d. per lb. in June, 1938; eggs were dearer than usual in the autumn and cheaper in the later months of the year.

There was a decline in the index number of building materials in July, 1938, when prices of some kinds of timber were reduced. In November, 1938, the price of bricks was raised by 3s. per 1,000, and in the following month the Industrial Commission was authorised to inquire into the prices of bricks and other building materials. As a result of the Commission's report on the price of bricks, which is summarised on page 942, the price of common bricks was reduced from 68s. per 100 to 58s. 6d., as from 9th June, 1939.

It is interesting to trace the changes in the wholesale prices of the principal products of the rural industries in recent years, as well as in those of the non-rural items included in the index:—

TABLE 842.—Wholesale Price Index Numbers (Sydney) Rural and Non-Rural Commodities 1911 to 1938.

Year.	Wheat.	Wool.	Butter (Local Sales).	Non-rural Commodities.
1911 ... ..	1000	1000	1000	1000
1926 ... ..	1762	1976	1968	1823
1927 ... ..	1545	2106	2061	1851
1928 ... ..	1460	2176	1868	1866
1929 ... ..	1395	1624	2041	1836
1930 ... ..	1100	1094	1725	1778
1931 ... ..	695	1047	1543	1804
1932 ... ..	876	965	1400	1774
1933 ... ..	821	1271	1236	1716
1934 ... ..	769	1471	1330	1666
1935 ... ..	917	1282	1415	1651
1936 ... ..	1198	1682	1415	1650
1937 ... ..	1476	1929	1462	1731
1938 ... ..	1009	1294	1566	1725

The price of wool to which the index numbers relate is the average at auction sales in Sydney where the great bulk of the wool is sold for export oversea. Therefore the price depends upon conditions of world markets

except in so far as it is affected by premium on exchange. Similar factors influence the price of wheat. Subsidies paid to the wheat farmers by the Government in the five seasons 1931-32 to 1935-36 are not included in the price of wheat on which the index is based. The index numbers for wool and wheat in 1937 were the highest since 1928 and they declined by about 32 per cent. in 1938.

The index numbers for butter refer to the supply for local consumption, which is dearer than butter for export. The index number for non-rural commodities fell slowly between 1931 and 1936, but in 1937 and 1938 it was higher by 5 per cent. This index number is based on the prices of the 74 non-rural commodities included in the general index number, no highly manufactured commodities being taken into consideration.

The average wholesale prices of thirty commodities, which are representative of the various groups covered by the index numbers, are shown in the following statement. The quotations represent the mean of the monthly prices in Sydney and are stated in Australian currency.

TABLE 843.—Wholesale Prices (Sydney) 1911 to 1938.

Commodity.	1911.	1921.	1929.	1931.	1932.	1937.	1938.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wheat, milling .. .. bush.	3 6	8 7 <sup>9</sup>	4 10 <sup>6</sup>	2 5 <sup>2</sup>	3 0 <sup>9</sup>	5 0 <sup>8</sup>	3 6 <sup>4</sup>
Flour .. .. ton	169 9	336 7	230 11	191 3	197 0	246 2	185 4
Chaff, wheaten .. .. "	81 0	128 9	137 2	78 2	78 9	113 4	134 3
Hay, oaten .. .. "	94 5	151 11	150 4	148 11	124 6	179 8	106 2
Potatoes (local) .. .. "	111 5	119 0	133 6	180 8	120 0	98 1	183 10
Sugar .. .. "	437 6	980 0	746 8	746 8	746 8	664 0	664 0
Tobacco, dark plug .. .. lb.	5 0	8 2	8 4	10 9	11 0	11 5	11 7
Tea .. .. "	1 1 <sup>5</sup>	2 1	2 2	2 4	2 1	2 1	2 1
Soap .. .. 40 lb.	18 4	28 9	24 0	22 11	22 0	21 10	21 11
Jam .. .. 18 "	6 2	13 0	11 6	10 9	11 7	9 9	10 0
Kerosene .. .. 8½ gal.	7 3	20 8	13 4	13 0	13 2	13 0	13 0
Wool, greasy .. .. lb.	0 8 <sup>5</sup> †	1 0 <sup>5</sup> †	1 1 <sup>8</sup>	0 8 <sup>9</sup>	0 8 <sup>2</sup>	1 4 <sup>4</sup>	0 11 <sup>0</sup>
Leather, sole .. .. "	1 1 <sup>7</sup>	1 11	1 9	1 7	1 8	1 11	2 1
Woolpacks .. .. each	2 4	3 9	3 10	4 2	3 8	2 9	2 10
Iron—Pig, local .. .. ton	78 4	182 6	120 0	115 0	96 8	80 0	85 0
Plate, girder .. .. "	233 4	606 8	390 0	410 2	434 7	416 0	417 1
Corrugated, galv. .. .. "	346 8	979 2	517 6	609 7	571 7	560 0	623 4
Copper, sheet .. .. lb.	0 10 <sup>5</sup>	2 2	1 9	1 9 <sup>5</sup>	1 10 <sup>3</sup>	2 0 <sup>7</sup>	2 1 <sup>3</sup>
Hardwood, local (3 x 2) 160 lin. ft.	8 6	18 0	16 4	16 0	15 1	13 6	14 0
Pine—Local (4½ x 1) 100 sup. ft.	25 5	62 0	61 0	61 8	58 4	58 11	60 9
N.Z. (4½ x 1) .. .. "	22 2	62 0	41 0	42 8	43 6	43 2	44 0
Oregon (2 x 2) .. .. "	15 7	47 1	29 4	36 0	37 8	41 7	38 10
Bricks .. .. 1,000	42 0	68 0	71 7	57 0	57 0	60 11	65 4
Beef—Fores .. .. lb.	0 1 <sup>7</sup>	0 2 <sup>2</sup>	0 4 <sup>3</sup>	0 2 <sup>4</sup>	0 2 <sup>4</sup>	0 2 <sup>6</sup>	0 3 <sup>4</sup>
Hinds .. .. "	0 2 <sup>7</sup>	0 5 <sup>6</sup>	0 6 <sup>9</sup>	0 5 <sup>0</sup>	0 4 <sup>3</sup>	0 4 <sup>6</sup>	0 5 <sup>2</sup>
Mutton .. .. "	0 2	0 4 <sup>2</sup>	0 4 <sup>4</sup>	0 2 <sup>6</sup>	0 2 <sup>3</sup>	0 3 <sup>9</sup>	0 3 <sup>8</sup>
Lamb .. .. "	0 2 <sup>7</sup>	0 6 <sup>8</sup>	0 6 <sup>4</sup>	0 4 <sup>6</sup>	0 3 <sup>9</sup>	0 6 <sup>4</sup>	0 6 <sup>5</sup>
Butter .. .. "	0 10 <sup>6</sup>	1 10	1 10	1 4	1 3	1 3 <sup>5</sup>	1 4 <sup>6</sup>
Eggs, new laid .. .. doz.	1 4	2 4	1 10	1 4	1 3	1 5 <sup>6</sup>	1 6 <sup>2</sup>
Cream of tartar .. .. lb.	0 11 <sup>2</sup>	2 0	1 4	2 0	1 10	1 7	1 8

† Weighted average (season ended June).

The prices of nearly all the commodities listed above were dearer in 1938 than in the previous year, exceptions being wheat and flour, oregon timber, and wool. Sugar, tea and kerosene were unchanged.

The average prices of the following commodities were dearer in 1938 than in 1929, *viz.*, oaten hay, potatoes, tobacco, leather, iron girders, galvanised iron, copper, imported timbers, lamb and cream of tartar.



*Index Numbers of Wholesale Prices—Comparison with Other Countries.*

The following statement shows the index numbers of wholesale prices in various parts of the British Empire and in the United States of America with 1929 as base:—

TABLE 844.—Wholesale Price Index Numbers—International Comparison.

Year.	New South Wales. (Sydney). [Bureau of Statistics.]	Victoria. (Melbourne). (Commonwealth Bureau of Census and Statistics.)	New Zealand. (Census and Statistics Office.)	Canada. [Dominion Bureau of Statistics.]	United Kingdom. [Board of Trade.]	United States of America. Bureau of Labour.]
Number of Commodities.	100	92	180	238	150	550
1929	100	100	100	100	100	100
1930	92	89	97	91	88	91
1931	83	79	91	75	77	77
1932	82	78	87	70	75	68
1933	81	78	88	70	75	69
1934	81	82	89	75	77	79
1935	82	82	93	75	78	84
1936	84	86	94	78	83	85
1937	90	92	101	88	95	91
1938	90	92	102	82	89	82

The index numbers show the trend of wholesale prices in each of the countries specified but they are not comparable one country with another.

RETAIL PRICES OF FOOD.

The average retail prices in Sydney of various commodities, as shown in this chapter, are based on the prices quoted by retail shops in the metropolitan district in returns collected by the Commonwealth Statistician.

The following statement shows annual averages of the principal food commodities. The figures represent the mean of the monthly prices during each year.

TABLE 845.—Retail Prices of Food—Sydney, 1901 to 1938.

Commodity.	1901.		1911.		1921.		1929.		1931.		1932.		1937.		1938.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Bread .. .. .	2lb.	0 2 5	0 3 5	0 6 2	0 5 7	0 5 4	0 5 3	0 5 7	0 5 5	0 5 7	0 5 3	0 5 3	0 5 7	0 5 5	0 5 5	0 5 5
Flour .. .. .	2lb.	0 1 8	0 2 6	0 5 9	0 4 2	0 3 5	0 3 6	0 4 5	0 4 1	0 3 5	0 3 6	0 4 5	0 4 1	0 4 1	0 4 1	0 4 1
Tea .. .. .	1 lb.	1 3 0	1 3 5	1 10 7	2 2 1	2 3 7	2 2 4	2 2 4	2 2 5	2 3 7	2 2 4	2 2 4	2 2 4	2 2 5	2 2 5	2 2 5
Sugar .. .. .	..	0 2 3	0 2 7	0 5 7	0 4 6	0 4 6	0 4 5	0 4 0	0 4 0	0 4 6	0 4 6	0 4 5	0 4 0	0 4 0	0 4 0	0 4 0
Rice .. .. .	..	0 2 5	0 2 7	0 4 9	0 3 7	0 3 5	0 3 5	0 3 0	0 3 1	0 3 7	0 3 5	0 3 5	0 3 0	0 3 0	0 3 1	0 3 1
Oatmeal .. .. .	1 lb.	0 2 3	0 2 5	0 4 0	0 4 1	0 3 1	0 3 1	0 2 8	0 3 2	0 4 1	0 3 1	0 3 1	0 2 8	0 3 2	0 3 2	0 3 2
Potatoes .. .. .	7lb.	0 5 7	0 6 1	0 7 3	1 0 1	0 9 4	0 9 4	0 9 2	0 11 7	0 9 1	0 9 4	0 9 4	0 9 2	0 11 7	0 11 7	0 11 7
Kerosene .. .. .	.. gal	0 10 1	0 11 1	2 10 9	1 11 3	1 0 4	1 0 3	1 7 4	1 7 3	1 0 4	1 0 3	1 7 4	1 7 3	1 7 3	1 7 3	1 7 3
Milk .. .. .	.. quart	0 4 0	0 4 4	0 8 1	0 9 0	0 7 1	0 7 2	0 7 1	0 7 1	0 8 1	0 7 1	0 7 2	0 7 1	0 7 1	0 7 1	0 7 1
Butter .. .. .	1 lb.	1 0 2	1 1 7	2 0 7	2 0 7	1 7 0	1 5 4	1 5 5	1 6 6	2 0 7	1 7 0	1 5 4	1 5 5	1 6 6	1 6 6	1 6 6
Cheese .. .. .	..	0 7 5	0 8 7	1 3 9	1 4 2	0 11 0	0 9 2	1 0 7	1 1 7	0 7 5	0 8 7	1 3 9	1 4 2	1 1 7	1 1 7	1 1 7
Eggs, Fresh .. .. .	.. doz	1 3 0	1 3 5	2 6 5	2 1 1	1 7 3	1 5 8	1 3 3	1 3 1	1 3 0	1 3 5	2 6 5	2 1 1	1 3 3	1 3 1	1 3 1
Bacon, Middle Cut* .. .. .	.. lb.	0 9 0	0 10 5	1 10 9	1 7 7	1 2 2	1 1 4	1 3 5	1 4 4	0 9 0	0 10 5	1 10 9	1 7 7	1 2 2	1 1 4	1 4 4
Beef, Sirloin .. .. .	..	0 4 5	0 4 5	0 9 1	0 11 3	0 9 3	0 8 7	0 9 7	0 10 4	0 4 5	0 4 5	0 9 1	0 11 3	0 9 3	0 8 7	0 9 7
Beef, Rib .. .. .	..	0 3 8	0 3 8	0 6 7	0 8 6	0 7 2	0 6 5	0 7 5	0 8 0	0 3 8	0 3 8	0 6 7	0 8 6	0 7 2	0 6 5	0 7 5
Steak Rump .. .. .	..	0 7 0	0 7 0	1 2 0	1 4 0	1 1 9	1 1 0	1 1 6	1 2 6	0 7 0	0 7 0	1 2 0	1 4 0	1 1 9	1 1 0	1 1 6
Beef, Corned Round .. .. .	..	0 4 0	0 4 0	0 8 1	0 8 6	0 7 8	0 7 3	0 7 7	0 8 3	0 4 0	0 4 0	0 8 1	0 8 6	0 7 8	0 7 3	0 7 7
Mutton, Leg .. .. .	..	0 3 2	0 3 0	0 6 9	0 8 4	0 6 2	0 5 7	0 7 4	0 7 7	0 3 2	0 3 0	0 6 9	0 8 4	0 6 2	0 5 7	0 7 4
Loin .. .. .	..	0 3 8	0 3 8	0 7 6	0 9 8	0 7 6	0 6 6	0 8 2	0 8 7	0 3 8	0 3 8	0 7 6	0 9 8	0 7 6	0 6 6	0 8 2
Chops, Loin .. .. .	..	0 4 2	0 4 0	0 8 6	0 11 0	0 7 9	0 7 1	0 9 0	0 9 6	0 4 2	0 4 0	0 8 6	0 11 0	0 7 9	0 7 1	0 9 0
Leg .. .. .	..	0 3 8	0 3 8	0 8 1	0 9 6	0 7 4	0 6 6	0 8 2	0 8 6	0 3 8	0 3 8	0 8 1	0 9 6	0 7 4	0 6 6	0 8 2
Pork, Leg .. .. .	..	0 6 2	0 7 8	1 3 4	1 2 6	0 11 1	0 10 7	1 0 2	1 1 3	0 6 2	0 7 8	1 3 4	1 2 6	0 11 1	0 10 7	1 0 2
Chops .. .. .	..	0 6 8	0 8 5	1 5 8	1 3 2	0 11 2	0 10 6	1 0 5	1 1 6	0 6 8	0 8 5	1 5 8	1 3 2	0 11 2	0 10 6	1 0 5

\* Rashers in 1932, and later years.

In 1938, the average prices of bread and flour were slightly lower than in 1937, but both these items became dearer in December, 1938, following the imposition of an excise tax on flour. Potatoes were unusually dear. The average prices of butter and cheese were raised by 1d. per lb. during the year and there were increases ranging from ½d. to 1d. per lb. in prices of meat.

A comparative statement of the retail prices of the principal food commodities in Sydney in each month of the years 1928-29, 1937-38 and 1938-39 is shown below. Fresh milk is not included in the table as the price was steady at 9d. per quart in 1928-29 and at 7.1d. per quart in the last two years.

TABLE 846.—Retail Prices of Food—Sydney—Monthly.

Month.	Bread 2-lb. loaf.*	Flour 2 lb.	Tea lb.	Sugar lb.	Potatoes		Butter lb.	Eggs doz.	Beef Ribs (incl. bone) lb.	Mutton.	
					7 lb.					Leg lb.	Loin Chops lb.
1928.	d.	d.	s. d.	d.	s. d.	s. d.	s. d.	d.	d.	d.	
July ...	6-0	4-6	2 2-8	4-6	0 9-2	2 0-0	2 4-5	8-0	8-1	10-6	
August ...	6-0	4-5	2 2-6	4-6	0 8-6	2 0-3	1 7-2	8-0	8-2	10-7	
September	6-0	4-5	2 2-6	4-6	0 8-6	2 0-3	1 9-2	7-8	8-0	10-5	
October ...	6-0	4-5	2 2-6	4-6	0 8-8	2 0-3	1 9-0	7-8	8-1	10-4	
November	6-0	4-4	2 2-6	4-6	1 0-3	1 11-3	1 8-9	7-7	8-0	10-1	
December	6-0	4-4	2 2-6	4-6	0 11-6	2 0-1	1 8-7	7-7	8-0	10-2	
1929.											
January ...	6-0	4-3	2 2-3	4-6	1 11-9	2 1-5	1 8-3	7-8	8-0	10-3	
February	5-7	4-2	2 2-3	4-6	1 10-9	2 1-6	2 2-2	8-4	8-4	11-0	
March ...	5-7	4-1	2 2-0	4-6	1 6-3	2 0-2	2 4-6	8-9	8-8	11-9	
April ...	5-7	4-1	2 2-3	4-6	1 8-8	2 0-2	2 8-8	8-7	8-6	11-8	
May ...	5-7	4-1	2 2-3	4-6	1 5-4	2 0-0	3 0-8	8-2	8-4	11-2	
June ...	5-7	4-1	2 2-3	4-6	1 6-5	2 1-0	2 7-8	8-6	8-4	11-2	
1937.											
July ...	5-9	4-5	2 2-4	4-0	0 7-1	1 6-0	1 11-4	7-2	7-0	8-8	
August ...	5-9	4-4	2 2-2	4-0	0 7-3	1 6-0	1 6-5	7-3	7-1	8-5	
September	5-7	4-4	2 2-2	4-0	0 7-1	1 6-0	1 4-6	7-8	7-6	9-2	
October ...	5-7	4-4	2 2-2	4-0	0 7-9	1 6-0	1 4-6	7-8	7-9	9-6	
November	5-7	4-4	2 2-4	4-0	0 6-9	1 6-0	1 4-6	7-8	7-4	9-2	
December	5-6	4-4	2 2-4	4-0	0 6-9	1 6-0	1 6-4	7-6	7-4	9-2	
1938.											
January ...	5-6	4-4	2 2-4	4-0	0 7-4	1 6-0	1 8-2	7-7	7-4	9-1	
February	5-6	4-4	2 2-4	4-0	0 8-3	1 6-0	1 9-3	7-8	7-4	9-2	
March ...	5-6	4-2	2 2-4	4-0	0 7-9	1 6-0	2 0-0	7-6	7-2	9-0	
April ...	5-6	4-1	2 2-4	4-0	0 9-4	1 6-0	2 2-9	7-6	7-3	9-0	
May ...	5-5	4-0	2 2-4	4-0	0 11-3	1 6-0	2 2-9	7-6	7-3	9-0	
June ...	5-5	4-0	2 2-4	4-0	1 0-3	1 7-0	2 2-9	8-0	7-7	10-0	
July ...	5-3	3-8	2 2-4	4-0	1 0-3	1 7-0	1 9-0	8-4	8-4	10-8	
August ...	5-3	3-8	2 2-4	4-0	1 0-4	1 7-0	1 7-2	8-6	8-4	10-5	
September	5-2	3-6	2 2-4	4-0	1 0-3	1 7-0	1 4-6	8-5	8-3	10-3	
October ...	5-3	3-7	2 2-4	4-0	1 0-4	1 7-0	1 3-8	8-2	7-8	9-8	
November	5-2	3-7	2 2-6	4-0	1 0-4	1 7-0	1 4-8	8-2	7-6	9-4	
December	6-0	5-0	2 2-6	4-0	1 0-8	1 7-0	1 5-6	7-7	7-6	9-2	
1929.											
January ...	6-0	5-0	2 2-6	4-0	1 4-5	1 7-0	1 7-5	7-9	7-4	9-2	
February	6-0	5-0	2 2-6	4-0	1 9-4	1 7-0	2 1-4	7-8	7-4	9-1	
March ...	6-0	4-9	2 2-6	4-0	1 5-6	1 7-0	1 6-6	7-9	7-4	9-2	
April ...	6-0	4-9	2 2-6	4-0	1 4-1	1 7-0	1 10-6	8-0	7-2	7-9	
May ...	6-0	4-9	2 2-5	4-0	1 1-8	1 7-0	1 11-8	7-6	7-1	8-2	
June ...	6-0	4-9	2 2-5	4-0	1 3-2	1 7-0	1 11-9	7-8	7-2	8-4	

\* Delivered.

*Retail Prices of Food—Comparison with other Countries.*

The following statement shows the increases as compared with July, 1914, in the retail prices of the principal articles of food in other countries. The figures for the oversea countries have been taken from the "London Labour Gazette" and other official sources; those relating to Sweden include fuel and lighting. The particulars for the Australian States relate to the capital cities.

TABLE 847.—Retail Prices of Food, Increase Since 1914 in Various Countries.

Country.	Percentage Increases in Retail Food Prices as compared with July, 1914.							
	July, 1932.	July, 1933.	July, 1934.	July, 1935.	July, 1936.	July, 1937.	July, 1938.	March, 1939.
New South Wales ...	32	25	26	30	29	31	43	45
Victoria ...	23	15	20	28	31	36	45	55
Queensland ...	24	18	23	28	31	38	43	50
South Australia ...	10	4	7	13	16	18	24	32
Western Australia ...	7	1	7	10	18	19	20	26
Tasmania ...	16	12	16	17	20	27	28	36
Australia ...	23	16	20	26	27	32	39	45
New Zealand ...	8	4	11	18	25	36	41	44
South Africa ...	6*	2*	3	2	1	2	7	8
United States ...	8	13	17	27	33	36	29	28
Canada ...	8*	5*	1	3	9	17	17	11
United Kingdom ...	25	18	22	26	29	40	46	35
Germany ...	16	14	20	23	24	25	24	23
Sweden ...	28	23	25	32	35	41	45	46
Norway ...	34	32	33	40	45	61	68	62
France (Paris) ...	449	408	391	325	362	500	588	650

\*Percentage decrease.

The index numbers shown above may not be used for exact comparisons between the various countries owing to differences in the scope of the data, and in methods of compilation.

## HOUSE RENTS.

Information relating to housing in New South Wales, which is contained in the chapter, Social Condition, of this Year Book, shows that about 47 per cent. of the private dwellings in New South Wales were occupied by tenants at the date of the Census 1933. The proportion in the metropolis was nearly 58 per cent.

Leases of dwellings are subject to the Landlord and Tenant Act, 1899, and its amendments. A law was passed in New South Wales in October, 1931, to prescribe a general reduction of 22½ per cent. in rents—as part of a plan for the restoration of prosperity in Australia.

The law did not apply to premises which were not leased on 30th June, 1930, unless a lease had been entered into three months before the Act commenced. It expired by effluxion of time on 31st December, 1932, and provision was made by an amendment of the Landlord and Tenant Act that the general reduction of 22½ per cent. in respect of leases existing at 30th June, 1930, be continued until 31st December, 1939. Provision was made however, that, upon application within a certain period, a competent court might increase the rent in certain cases up to the amount stated in the lease (as maximum) or might order a further reduction.

Distrait for rent, as provided by the Landlord and Tenant Act, 1899, was abolished as from 10th December, 1930, and in August, 1931, the right to eject tenants from dwellings leased at rents not exceeding £3 a

week became subject to orders of a competent court. The court may postpone eviction if the occupiers are in impoverished circumstances owing to inability to obtain employment, and postponement may be made subject to a condition that the occupier pay to the owner such sum in such instalments and at such times as the court orders. An order for postponement may not be granted if it would cause the owner to suffer undue hardship, nor if the occupier or other person residing in the dwelling has been guilty of acts of waste depreciating its value. By the Landlord and Tenant (Amendment) Act, 1932, the period of postponement has been limited to four months.

In February, 1939 the Industrial Commission commenced an inquiry into increases during 1937 and 1938 in the rents of dwellings under £3 per week in Sydney, Newcastle and Wollongong.

When the census was taken in June, 1933, the private dwellings occupied by tenants in New South Wales numbered 270,740, and the average weekly rental (unfurnished) was 18s. 10d. *viz.*, private houses 18s. 1d. and flats and tenements 23s. 9d. The number in the metropolitan area was 160,260, and the average rentals 21s. 11d.—private houses 21s. 1d., flats and tenements 25s. 4d. Further details regarding rents in the metropolitan and country districts at the Census date were published in the 1933-34 issue of this Year Book.

A comparative statement of average weekly rents in Sydney from 1865 to 1920 is published in the Statistical Register of New South Wales, 1919-20, and for later years to 1936 in the Statistical Register, 1935-36. The average rentals of wooden and brick houses containing four and five rooms in each of the last ten years are shown below. The averages have been computed from returns supplied by house agents in relation to brick and wooden houses of an average standard—those with special advantages or disadvantages being excluded. The figures represent the mean of the averages for the four quarters of each year.

TABLE 848.—Rents of Dwellings, Sydney, 1929 to 1939.

Year.	Four Rooms.		Five Rooms.		Weighted Average, 4 & 5 rooms
	Wooden.	Brick.	Wooden.	Brick.	
	s. d.	s. d.	s. d.	s. d.	s. d.
1929 ... ..	20 0	22 8	24 7	29 3	25 7
1930 ... ..	20 0	23 9	26 1	29 10	26 4
1931 ... ..	18 3	20 7	21 8	25 3	22 7
1932 ... ..	16 2	18 0	18 6	21 11	19 8
1933 ... ..	15 8	17 6	18 4	21 1	19 0
1934 ... ..	15 4	17 9	19 6	20 11	19 1
1935 ... ..	15 3	18 2	19 2	21 10	19 7
1936 (*) ... ..	15 10	19 3	19 6	22 5	20 4
1937 ... ..	17 0	21 0	19 7	24 0	21 8
1938 ... ..	18 3	21 11	20 5	24 0	22 6
1939—March qr. ... ..	18 10	22 5	21 0	25 3	23 1
June qr. ... ..	19 0	22 7	21 2	25 4	23 2

Note.—Kitchen is included as a room. (\*) Basis amended slightly.

The general level of rents of four- and five-roomed houses in Sydney, which had been trending slowly upwards, commenced to decline in the latter part of 1930, and the average per week fell by 3s. 10d. in 1931. There was a further reduction of 3s. 7d. after the enactment of the Reduction of Rents Act. In 1934 rents began to rise steadily, and the average in 1938 was almost as high as in 1931.

#### RETAIL PRICE INDEX NUMBERS.

Retail price index numbers for Sydney and other Australian cities and towns are compiled by the Commonwealth Statistician. The earliest

index numbers relate to the prices of food and groceries and rents of all houses, with the year 1911 as the base. Particulars of this index have been published in earlier issues of the Year Book. It is known as the "All Houses" or "A" series index, and has been practically superseded by the "All Items" or "C" series index.

The latter series originated in the findings of the Royal Commission appointed by the Federal Government in 1919 to inquire into the basic wage. The Commission conducted an investigation into the cost of living for a family consisting of man, wife and three children under 14 years of age, and having determined a standard of living, ascertained the cost in the capital cities of Australia in November of each year from 1914 to 1920. After the inquiry, the Commonwealth Statistician extended the scope of his investigations regarding retail prices to cover all the main groups of household expenditure on the basis of a regimen similar to that adopted by the Commission in order to compile the "All Items" index numbers. The groups of household expenditure covered by the series are food and groceries, rent of four- and five-roomed houses, clothing, and miscellaneous items, including fuel and light.

The "All Items" retail price index numbers for Sydney as compiled by the Commonwealth Statistician are shown below. The index numbers from 1914 to 1922 inclusive relate to the month of November, and annual figures are shown for later years. Separate particulars are stated for the various groups of expenditure. The base of each group of household expenditure is the weighted average for that group in the six capital cities of Australia during the quinquennium 1923-1927, taken as 1,000.

TABLE 849.—Retail Price Index Numbers—"All Items"—Sydney, 1914 to 1939.

Period.	Food and Groceries.	Housing (4 and 5 Rooms).	Food, Groceries and Housing Combined.	Clothing.	Miscellaneous.	Total, Household Expenditure.
1914, November...	638	758	680	755	766	712
1915 ,, ...	844	780	825	805	798	816
1916 ,, ...	833	791	818	903	808	836
1917 ,, ...	877	797	848	1009	889	892
1918 ,, ...	877	832	861	1102	988	938
1919 ,, ...	1073	866	1000	1237	1059	1065
1920 ,, ...	1225	980	1138	1323	1209	1193
1921 ,, ...	964	1000	977	1255	1009	1046
1922 ,, ...	982	1048	1006	1051	1034	1021
1923-27 ... ..	1012	1111	1047	950	1021	1020
1928 ... ..	1021	1143	1064	978	1048	1042
1929 ... ..	1090	1162	1115	983	1046	1073
1930 ... ..	984	1197	1059	931	1040	1026
1931 ... ..	876	1026	929	835	1013	922
1932 ... ..	852	894	867	769	996	867
1933 ... ..	800	864	822	742	988	832
1934 ... ..	825	869	840	746	975	842
1935 ... ..	840	891	858	746	976	852
1936 ... ..	848	930	878	778	949	866
1937 ... ..	863	965	904	818	949	889
1938 ... ..	904	1004	941	833	936	913
1939 (1st quarter)	944	1027	974	835	937	934
(2nd quarter)	930	1033	968	841	939	932

The index number of total household expenditure in Sydney fell by 22½ per cent. between 1929 and 1933. Then it began to rise slowly, and in 1938 it was higher than in any year since 1931, though 13 per cent. below the level of 1929.

## EMPLOYMENT AND PRODUCTION.

## EMPLOYMENT.

*Census Records.*

At the Census taken in June, 1933, the bread-winners (including those unemployed, pensioners, and persons of independent means) numbered 1,209,805, and dependants numbered 1,391,042, being respectively 46.5 per cent. and 53.5 per cent. of the total population of New South Wales. The male bread-winners, 912,591, represented 69 per cent. of the male population, and the female bread-winners, 297,214, were 23 per cent. of the females.

A classification of the bread-winners, according to industry, is shown below:—

TABLE 850.—Breadwinners—Census, 1933.

Industry.	Number.			Proportion of Total (approximate).		
	Males.	Females.	Total.	Males.	Females.	Total.
Agricultural, Pastoral and Dairying— Farming (including mixed and undefined) ... ..	81,999	1,740	83,739	6.2	.1	3.2
Grazing ... ..	43,049	1,153	44,202	3.3	.1	1.7
Dairy-farming ... ..	34,329	2,296	36,625	2.6	.2	1.4
Pig and poultry farming ... ..	3,867	365	4,232	.3	.0	.2
Other ... ..	8,517	147	8,664	.6	.0	.3
Total, Agricultural, Pastoral, etc. ...	171,761	5,701	177,462	13.0	.4	6.8
Forestry, Fishing and Trapping	12,597	56	12,653	.9	.0	.5
Mining and Quarrying ... ..	34,029	69	34,098	2.6	.0	1.3
Industrial—						
Manufacture ... ..	152,793	48,756	201,549	11.6	3.8	7.7
Gas, Water, Electricity (Production and Supply) ... ..	11,398	343	11,741	.9	0.1	.5
Building ... ..	46,485	169	46,654	3.5		
Roads, Railways, Earthworks, etc. ... ..	86,016	166	86,182	6.5		
Total, Industrial ...	296,692	49,434	346,126	22.5	3.9	13.3
Transport and Communication	86,702	4,010	90,712	6.6	.3	3.5
Commerce and Finance ... ..	129,965	42,811	172,776	9.9	3.3	6.6
Public Administration and Professional ... ..	51,249	41,702	92,951	3.9	3.3	3.6
Entertainment, Sport and Recreation ... ..	8,115	1,742	9,857	.6	.1	.4
Personal and Domestic Service... ..	20,536	70,458	90,994	1.6	5.5	3.5
No Industry or Industry not stated* ... ..	50,939	19,329	70,268	3.8	1.5	2.7
Pensioners ... ..	50,003	61,902	111,908	3.8	4.9	4.3
Total, Breadwinners ...	912,591	297,214	1,209,805	69.2	23.2	46.5
Dependants ... ..	405,880	985,162	1,391,042	30.8	76.8	53.5
Total Population ... ..	1,318,471	1,282,376	2,600,847	100.	100.	100.

\* Includes unemployed persons for whom industry was not stated, also persons described as Independent.

Amongst the males, nearly 31 per cent. were dependants (mostly children); 13 per cent. were engaged in rural pursuits and 3½ per cent. in other primary industries; 22½ per cent. in industrial pursuits, about half being in manufacture; 10 per cent. in commerce and finance; and 6½ per cent. in transport and communication.

Of the females classified as bread winners, the domestic group was the largest. It represented 5½ per cent. of the total females; 4 per cent. were in industrial occupations, mainly manufacture; 3 per cent. in commercial pursuits; and a similar proportion in the public administration and professional group, which includes teachers and nurses. There has been an appreciable increase in the proportion of bread-winners amongst females since the previous census, though owing to changes in classification the exact extent of the increase cannot be gauged. The proportion as recorded in 1921 was 16.8 per cent., but it is probable that many pensioners were excluded. In 1933 the proportion, exclusive of pensioners, was 18.3 per cent.

A comparative statement showing the grades of occupation as at each census from 1901 to 1933 is shown below. Dependants and others who may not be classified under the other categories are grouped under the heading "grade not applicable."

TABLE 851.—Grades of Occupations—Census, 1933.

Grade.	Number.				Per cent. of Total.			
	1901.	1911.	1921.	1933.	1901.	1911.	1921.	1933.
Males.								
Employer ... ..	48,920	68,582	44,700	57,301	6.9	8.1	4.2	4.3
Working on own account. ... ..	65,577	49,676	104,483	118,402	9.2	5.9	9.9	9.0
Unremunerated assistant ... ..	17,635	20,387	9,710	13,852	2.5	2.4	.9	1.1
Salary and wage earner	290,203	393,616	455,959	443,862	41.0	46.5	43.0	33.7
Unemployed ... ..	21,110	16,210	54,028	189,666	3.0	1.9	5.1	14.4
Grade not applicable ... ..	264,910	298,038	391,753	493,754	37.4	35.2	36.9	37.5
Not stated ... ..	1,650	11,189	10,868	1,634	...	...	...	...
Total ... ..	710,005	857,698	1,071,501	1,318,471	100	100	100	100
Females.								
Employer ... ..	4,933	5,672	3,192	5,774	.8	.7	.3	.4
Working on own account. ... ..	16,780	12,827	17,280	18,811	2.6	1.6	1.7	1.5
Unremunerated assistant ... ..	6,077	4,869	1,256	1,891	.9	.6	.1	.1
Salary and wage earner	72,190	101,815	130,294	158,459	11.2	12.9	12.7	12.4
Unemployed ... ..	3,639	2,700	7,612	32,776	.6	.4	.8	2.6
Grade not applicable ... ..	540,911	660,030	866,379	1,064,160	83.9	83.8	84.4	83.0
Not stated ... ..	311	1,123	2,857	505	...	...	...	...
Total ... ..	644,841	789,036	1,028,870	1,282,376	100	100	100	100

In 1933 employers represented 4 per cent. of the male population, 9 per cent. were working on their own account and not employing labour, and 48 per cent. were in the wage-earning group (including the unemployed). The balance, 29 per cent., consists for the most part of dependants, pensioners, and persons with private means not actively engaged in business. These ratios are similar to those prevailing at the census of

1921; at the earlier census dates there was a larger proportion of employers. The outstanding change during the period lies in the increase in the proportion unemployed, which is discussed later.

Of the females employers and women working on their own account represented only 2 per cent., and the proportion in the wage-earning group was 15 per cent. in 1933, as compared with 13½ per cent. in 1921.

At the Census of June, 1933, the wage-earning group numbered 824,763, viz.:—Salary and wage-earners, 443,862 men and 158,459 women, and unemployed, 189,666 men and 32,776 women. A classification according to industries is shown below:—

TABLE 852.—Wage Earners in Industries—Census, 1933.

Industry.	Wage Earning Group.			Per cent. of Total.		
	Males.	Females.	Total.	Males.	Females.	Total.
Agricultural, Pastoral, Dairying	78,080	1,068	79,148	12·6	0·6	9·9
Forestry ... ..	3,971	38	4,009	0·6	0·0	0·5
Fishing and Trapping ... ..	1,064	8	1,072	0·2	0·0	0·1
Mining and Quarrying ... ..	30,664	64	30,728	5·0	0·0	3·8
Industrial—						
Manufacture ... ..	136,000	44,438	180,438	21·9	24·2	22·5
Gas, Water, Electricity (Pro- duction and Supply) ... ..	11,373	343	11,716	1·8	0·2	1·4
Building ... ..	39,013	161	39,174	6·3	0·1	4·9
Roads, Railways, Earth- works, etc.* ... ..	84,293	163	84,459	13·7	0·1	10·5
Total Industrial ... ..	270,682	45,105	315,787	43·7	24·6	39·3
Transport and Communication ...	76,803	3,872	80,675	12·4	2·1	10·1
Commerce and Finance ... ..	95,832	37,225	133,057	15·5	20·3	16·6
Public Administration and Pro- fessional † ... ..	42,051	32,660	74,711	6·8	17·8	9·3
Entertainment, Sport and Recrea- tion ... ..	6,388	1,654	8,042	1·0	0·9	1·0
Personal and Domestic Service	13,865	62,000	75,865	2·2	33·7	9·4
No Industry or Industry Not Stated ... ..	14,128	7,541	21,669	...	...	...
Total ... ..	633,528	191,235	824,763	100	100	100

\* Includes labourers, industry undefined.

† Includes clerks and typists, industry undefined.

The distribution of the male salary and wage-earners was: Rural 13 per cent., mining 5 per cent., industrial 44 per cent., distribution and commercial 28 per cent., administrative and professional 8 per cent., and personal and domestic 2 per cent.

The largest group of female salary and wage-earners were: Personal and domestic 34 per cent., factories 24 per cent., commercial 20 per cent., administrative and professional 19 per cent. Only a small proportion were engaged in primary production.

Details as to the unemployed in the principal industries are shown later in this chapter.

#### EMPLOYMENT—ANNUAL RECORDS.

Returns relating to the number of persons employed in the principal rural industries of the State are collected annually, but the information is not comparable with the census figures, because it relates only to persons engaged



regularly on rural holdings of one acre or over. Occupiers and managers are included in the annual returns, also members of their families, who work constantly on a holding, but temporary hands and contract workers engaged for harvesting, shearing, etc., are omitted. Moreover, the census figures relate to a specific date, the workers being distributed amongst the several branches of rural industry according to the work on which they were engaged at the time. On the other hand, the annual records show the average number employed during the period, and those engaged on each of the numerous holdings where more than one class of rural production is undertaken are distributed according to the main purpose for which the holding was used.

In regard to the number of females employed in rural industries, considerable difficulty is experienced in obtaining satisfactory statistics, owing to the fact that a large number of women and girls, especially on dairy farms, are employed only partly in rural production in conjunction with their domestic duties. Usually they do not receive wages, and at a census they are classified as dependants. In the annual returns there is a tendency to include them as rural workers, consequently a wide discrepancy arises between the census and the annual records, the latter being overstated.

The following statement shows the number of persons engaged as working proprietors, unpaid relatives assisting, and permanent employees in the various branches of rural industry in various years since 1911. Casual employees are not included.

TABLE 853.—Persons Permanently Engaged in Rural Industries, 1911 to 1938.

Year.	Agriculture, Poultry, Pig, and Bee-keeping.		Dairying.		Pastoral.		Total, Rural Industries.		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1911	58,299	1,141	27,488	11,293	43,337	770	129,174	13,204	142,378
1920-21	50,162	1,509	26,648	13,176	43,766	1,022	120,576	15,707	136,283
1925-26	44,991	841	30,351	15,027	45,652	420	120,994	16,288	137,282
1926-27	43,268	866	29,106	12,525	47,546	854	119,920	14,245	134,165
1927-28	43,953	713	29,845	12,378	46,882	453	120,680	13,544	134,224
1928-29	40,058	606	30,997	9,765	46,808	306	117,863	10,677	128,540
1929-30	39,860	472	32,494	9,105	44,069	271	116,423	9,848	126,271
1930-31	40,163	518	33,977	8,735	40,849	290	114,989	9,543	124,532
1931-32	39,382	390	36,601	7,923	40,946	209	116,929	8,522	125,451
1932-33	42,556	400	38,196	7,788	41,043	157	121,795	8,345	130,140
1933-34	42,084	301	38,358	7,246	43,748	229	124,190	7,776	131,966
1934-35	42,135	374	38,231	6,823	46,042	213	126,408	7,410	133,818
1935-36	42,204	339	38,150	6,481	46,771	238	127,125	7,058	134,183
1936-37	43,648	341	37,450	5,444	46,908	207	128,006	5,992	133,998
1937-38	43,279	349	35,940	6,027	46,832	203	126,051	6,579	132,630

\* Including proprietors working on their own holdings, and excluding casual workers.

The number of persons engaged in cultivating, etc., was fairly constant at about 42,200 during the four seasons 1933 to 1937. Then there was an increase to 43,600 in 1936-37 followed by a slight decline. The number in the last two seasons was higher than in any year since 1927-28, but is appreciably lower than in the earlier years shown above, though the area under cultivation has increased. Apparently the greater use of machinery and the substitution of motor for horse-drawn vehicles has lessened the need for workers in agriculture. The decrease in permanent employees may have been offset, to some extent, by the employment of contract workers. Details regarding the labour engaged in relation to machinery used in cultivating are shown in the chapter relating to agriculture.

The number of dairy workers declined by 2,200 in the last two years of the period when seasonal conditions were not favourable in the principal dairying districts.

In the pastoral industry the number of permanent employees which increased slightly in 1936-37 was somewhat larger than in 1927-28.

On the whole, the number of men engaged permanently on rural holdings of one acre and over in extent which had been about 120,000 for eight seasons, began to decline in 1928-29, and fell in the course of three seasons to 115,000. It increased in each of the six seasons 1932-33 to 1936-37 and the number in 1936-37, viz., 128,000, was the highest since 1913-14. In 1937-38 there was a decline of nearly 2,000—mainly in dairying.

The figures in the table indicate that the number of women engaged in rural work is less than half the number ten years ago. This may be attributed partly to the exclusion from the returns in the more recent years of women whose chief occupation is domestic rather than rural. The majority of the women are relatives not receiving wages, and the number so classified in the returns was 13,841 in 1925-26 and 4,941 in 1937-38, and the number of women classified as working proprietors or paid employees was 2,447 and 1,638 in the respective years.

The total number of rural workers in 1937-38 included 68,167 men and 917 women, who were classed as working proprietors, i.e., owners, lessees, or share-farmers working on the holdings; 16,347 men and 4,941 women were classed as relatives employed constantly, but not receiving wages. There were 41,537 men and 721 women, including managers and relatives, in receipt of wages. The amount of wages paid to these employees in 1937-38 was £4,759,195 to men and £31,440 to women, excluding the value of board, etc., assessed at £1,667,399 for men and £25,713 for women. In addition, wages amounting to £3,315,596, were paid to casual workers, excluding the value of board, etc., £357,679. Particulars regarding rural labour and wages are shown in the chapter of this Year Book entitled Rural Settlement.

Annual returns relating to employment are collected in respect of mining and other primary industries and the manufacturing industries, and the figures for various years since 1911 are summarised in the following statement. In regard to the manufacturing industries, employees in

establishments with fewer than four persons have not been included unless machinery was used in the factory, and the figures shown in the table represent the average number employed in the factories during each year:—

TABLE 854.—Persons Engaged in Principal Industries, 1911 to 1938.

Year.	Rural Industries. †	Forests, Fisheries, and Trapping.	Mining.	Manufacturing.			Total.		
	Total.			Males.	Males.	Males.	Females.	Total.	Males.
1911	142,378	6,000	33,367	79,005	25,546	104,551	247,546	38,750	286,296
1920-21	136,283	6,700	25,612	107,700	31,511	139,211	260,588	47,218	307,806
1925-26	137,282	7,900	29,186	128,846	40,928	169,774	286,926	57,216	344,142
1928-29	128,510	7,700	26,562	135,773	44,983	180,756	287,898	55,660	343,558
1929-30	126,271	6,300	25,010	122,005	40,908	162,913	269,738	50,756	320,494
1930-31	124,532	5,630	18,370	93,881	33,724	127,605	232,840	43,267	276,107
1931-32	125,451	6,000	17,721*	90,667	35,688	126,355	231,317	44,210	275,527
1932-33	130,140	6,800	17,721*	99,718	38,786	138,504	246,034	47,131	293,165
1932-34	131,966	7,200	16,933	111,599	42,400	153,999	259,922	50,176	310,098
1934-35	133,818	7,500	17,816	127,114	47,919	175,033	278,838	55,329	334,167
1935-36	134,183	7,500	17,864	140,896	52,304	193,200	293,385	59,362	352,747
1936-37	133,998	8,000	18,890	152,064	56,433	208,497	306,960	62,425	369,385
1937-33	132,630	8,000	19,775	164,391	60,470	224,861	318,217	67,049	385,266

Note.—Working Proprietors are included in all groups. \*Calendar year 1932.  
† Excluding casual workers.

Employees engaged in treating minerals at the place of production are included in the returns of the manufacturing industries, and not with the mining employees, viz., those engaged in the manufacture of coke at coke works, in the manufacture of lime, cement, etc., at limestone quarries, and in the treatment of ores at mines. The number of miners, as stated for the 1920-21 and later years, is exclusive of fossickers.

In the coal mines employment increased from 17,000 in 1911 to 21,000 in 1921, and to 24,000 in 1926. Subsequently the industry was affected severely by industrial strife and by trade depression, and the number of coal-miners was only 14,100 in 1932 and 12,800 in 1935. There was an increase to 13,828 in 1937.

In other mines employees increased from 4,639 in 1921 to 5,061 in 1926, then declined to 2,848 in 1931. With the revival in gold mining and improvement in silver, lead and tin mines, the number rose to 5,947 in 1937.

The number of factory workers did not vary greatly between 1926-27 and 1928-29, but there was a decrease of 54,400 between the latter year and 1931-32. In each of the following years there was a substantial increase, and the number in 1937-38 was 44,000 above pre-depression level and the highest yet recorded. The improvement has been general throughout the various classes of factories. The majority of female factory workers are engaged in the clothing trades, and fluctuations in the number of female employees reflect generally the condition of that group of industries. Monthly data as to employment in factories is shown in Table 861 and in the chapter relating to factories.

#### GOVERNMENT EMPLOYEES.

In New South Wales a large number of persons are employed by the State and Commonwealth Governments. In addition to services such as education, police, justice, health, lands administration, and the construction of public works, etc., the State controls railways, tramways, omnibuses and wharves and abattoirs. The Commonwealth services include the post office, telegraphs and telephones, customs, taxation, and defence.

The following statement shows the number of Government employees, as at 30th June, in various years from 1929 to 1938.

Details are shown separately regarding the State employees engaged mainly in administrative services and the staffs of business undertakings and statutory bodies. Amongst the latter group there are a number of persons who are engaged in the construction of public works. Part-time relief workers are not included in the statement.

TABLE 855.—Government Employees in New South Wales, 1929 to 1938.

Services.	1929.	1931.	1932.	1935.	1936.	1937.	1938.		
							Males.	Females.	Total.
<i>State.</i>									
Administrative, etc.—									
Public Service Board—									
Teachers (including Inspectors) ... ..	10,807	11,471	11,155	11,220	11,198	11,271	5,908	5,509	11,417
Hospitals, etc.—General Staffs ... ..	2,514	2,586	2,597	3,011	3,057	2,713	1,270	1,499	2,760
Other ... ..	9,284	9,311	9,261	9,783	9,629	9,725	7,837	2,392	10,220
<b>Total, Public Service Board.</b>	<b>22,605</b>	<b>23,368</b>	<b>23,013</b>	<b>24,014</b>	<b>23,884</b>	<b>23,709</b>	<b>15,015</b>	<b>9,400</b>	<b>24,415</b>
Police ... ..	3,569	3,717	3,656	3,631	3,009	3,843	3,802	14	3,816
Fire Commissioners ... ..	828	833	821	827	826	830	888	35	923
Government Savings (Rural) Bank of New South Wales	1,704	1,690	337	663	941	1,045	788	265	1,053
Miscellaneous ... ..	2,062	2,598	2,886	2,956	3,119	3,454	2,611	977	3,588
<b>Total, Administrative, etc.</b>	<b>31,368</b>	<b>32,206</b>	<b>30,713</b>	<b>32,091</b>	<b>32,679</b>	<b>32,881</b>	<b>23,104</b>	<b>10,601</b>	<b>33,795</b>
Business Undertakings and Construction—									
Railways ... ..				41,600	40,922	42,763	42,598	1,446	44,044
Road Transport and Tramways ... ..	58,011	51,174	49,810	9,145	9,357	9,982	10,294	235	10,520
Maritime Services Board	1,232	727	619	746	1,068	1,130	1,167	29	1,196
Water Conservation and Irrigation Commission	1,548	1,058	1,050	1,110	767	913	1,069	44	1,113
Dept. of Main Roads ...	3,695	1,343	1,358	3,131	3,032	3,604	4,179	81	4,260
Metropolitan Water, Sewerage and Drainage Board ... ..	5,715	1,894	1,801	3,190	3,510	10,325	6,704	103	6,807
Hunter District Water and Sewerage Board	542	270	336	349	292	357	366	56	422
Metropolitan Meat Industry Commission ...	674	704	676	705	773	1,382	1,627	31	1,658
Miscellaneous ... ..	7,372	5,238	4,145	2,858	1,623	1,748	1,431	138	1,569
<b>Total Business Undertakings and Construction...</b>	<b>78,789</b>	<b>62,408</b>	<b>59,795</b>	<b>62,834</b>	<b>61,344</b>	<b>72,204</b>	<b>69,485</b>	<b>2,163</b>	<b>71,598</b>
<b>Total, State ... ..</b>	<b>110,157</b>	<b>94,614</b>	<b>90,508</b>	<b>94,925</b>	<b>94,023</b>	<b>105,085</b>	<b>92,539</b>	<b>12,854</b>	<b>105,393</b>
<i>Commonwealth.</i>									
Public Service Commission	14,824	11,557	11,844	12,049	13,178	13,961	12,699	2,298	14,997
Defence, Repatriation and War Service Homes ...	1,902	1,512	1,712	1,779	1,858	2,028	2,192	234	2,426
Other ... ..	1,159	1,422	3,022	2,739	2,834	2,987	2,713	609	3,322
<b>Total Commonwealth in N.S.W. ...</b>	<b>17,885</b>	<b>14,491</b>	<b>16,578</b>	<b>16,567</b>	<b>17,870</b>	<b>18,976</b>	<b>17,604</b>	<b>3,201</b>	<b>20,805</b>
<b>Total, Government Employees in N.S.W. ... ..</b>	<b>128,042</b>	<b>109,105</b>	<b>107,086</b>	<b>111,492</b>	<b>111,893</b>	<b>124,061</b>	<b>110,143</b>	<b>16,055</b>	<b>126,198</b>

The total number of persons employed by the Government of New South Wales at 30th June, 1938, was 105,396. Of these, 33,795 were in the administrative departments, 11,417 or nearly 34 per cent. being teachers. The employees in State business undertakings and construction numbered 71,598, of whom 54,573 or 76 per cent. were employed in railway and tram-

way and road transport services and 6,807 were employed by the Metropolitan Water, Sewerage and Drainage Board. The staff of the Metropolitan Meat Industry Commissioner has increased during the last two years by reason of the introduction of a new system of slaughtering so that the slaughtermen are now employed by the Commissioner and not as formerly by the carcase butchers. The number of State Government employes in June, 1938, was less by 4,764 than in June, 1929. In the administrative services there was an increase of 2,427, and there were decreases in respect of all the business undertakings and statutory bodies except the Metropolitan Water, Sewerage and Drainage Board, the Meat Industry Commissioner and the Department of Main Roads.

## VOLUME OF EMPLOYMENT AND UNEMPLOYMENT.

Prior to 1933 the only records of total employment and unemployment in New South Wales were those obtained at the decennial census. The first such record was obtained in 1891, and subsequent census records were on a substantially comparable basis. These are shown below in comparison with an estimate for 1939, based on the census of 1933 with an adjustment for subsequent increase in number of wage-earners and for increase in numbers in employment as shown by wage tax returns. The numbers shown as unemployed include those unemployed on account of illness, accident, "voluntarily," etc., but are mainly those unemployed through scarcity of work.

TABLE 856.—Employment and Unemployment (all causes).

Year.	Wage Earners Employed.	Unemployed.(a)	Total.	Proportion Unemployed. (All causes).
				Per cent.
Census, 1891 (April) ... ..	278,093	22,328	300,421	7.4
Census, 1901 (March) ... ..	362,393	24,749	387,142	6.4
Census, 1911 (April) ... ..	495,431	18,910	514,341	3.7
Census, 1921 (April) ... ..	586,253	61,640	647,893	9.5
Census, 1933 (June) ... ..	602,321	222,442 (c)	824,763	27.0
Estimate, 1939 (March) ... ..	834,100	(c)75,900 (b)	910,000 (b)	8.3

(a) Unemployed all causes—including illness, etc., and some normally self-employed who were without occupation and recorded themselves as unemployed at the Census.

(b) Including part-time relief workers.

(c) Including approximately 15,000 unemployed through sickness, accident, etc., and causes other than shortage of work.

In 1901 recovery from the long continued depression of the previous decade had been proceeding slowly for some years, and the proportion of unemployment was still approximately the same as it was in 1891—a few years before the worst point of the intervening depression had been reached. The growth of prosperity was approaching its zenith in 1911, and unemployment was at a relatively low level. In the years immediately following there developed an acute shortage of skilled labour. The Census of 1921 was held at a time of trade reaction from the post-war boom, and unemployment was considered to be at an abnormally high level having regard to the experience up to that time. The post-war depression in New South Wales was slight and short lived as compared with that which commenced in 1929. The Census of June, 1933, occurred at a time

when economic recovery had been proceeding steadily for a little over a year. It was believed that the ratio of unemployment at its worst point had been in the vicinity of 33 per cent. in the first half of 1932. Economic recovery has proceeded uninterrupted until June, 1938, when unemployment due to all causes was estimated to be in the vicinity of 7 per cent.

The number of unemployed at the Census of 1891 was ascertained from the enumerators' classification. The number included as unemployed on account of sickness and old age in 1901 was 4,694, or 1.2 per cent. of the total wage-earners. At the Census of 1901 and 1911 persons were classified as being unemployed if out of work for more than a week immediately prior to the Census. Information as to cause of unemployment was not obtained at the Census of 1911, but all persons unemployed for a year or more were classified as permanently incapacitated for work and were excluded from the wage-earning and unemployed groups.

At the Census of 1921 and 1933 all persons who stated that they were unemployed at the time of the Census (including all who recorded themselves as unemployed for one day or more) were included as unemployed. Owing to the long continued severity of the depression which began in 1929 most of the unemployed recorded at the Census of 1933 had been unemployed for periods ranging up to four years. Less than 10 per cent. of the total had been unemployed for more than four years.

Comparative numbers of employed and unemployed according to sex at each Census from 1901 to 1933 are shown below:—

TABLE 857.—Employment and Unemployment—Males and Females—  
Census, 1901 to 1933.

Particulars.	1901.	1911.	1921.	1933.
Wage earning Group—				
Males ... ..	311,313	409,826	509,987	633,528
Females ... ..	75,829	104,515	137,906	191,235
Total ... ..	387,142	514,341	647,893	824,763
Unemployed—				
Number—Males ... ..	21,110	16,210	54,028	189,666
Females ... ..	3,639	2,700	7,612	32,776
Total ... ..	24,749	18,910	61,640	222,442 (a)
Per cent. of Wage-earning				
Group—Males ... ..	6.8	4.0	10.6	29.9
Females ... ..	4.8	2.6	5.5	17.1
Total ... ..	6.4	3.7	9.5	27.0 (a)

(a) Including 15,142 persons or 1.8 per cent. of total wage earners unemployed on account of illness, accident and causes other than scarcity of work.

The "wage-earning group" includes all persons employed on wages or salary, including "employed part time" and all who were recorded as unemployed. Persons working on their own account and unpaid helpers are excluded, except to the extent that they were without occupation and recorded themselves as unemployed.

The persons stated to be unemployed in June, 1933, included 8,971 males and 3,427 females who did not supply information as to the cause of their unemployment; 169,533 males and 25,319 females out of work on account of scarcity of employment; and 11,112 males and 4,030 females whose unemployment was stated to be due to some other cause. If the last-mentioned group be excluded, the proportion of male wage-earners unemployed owing to business depression was 28.2 per cent., and the proportion of female wage-earners 15 per cent.

The number of unemployed persons under 21 years of age of whom it was stated that they had not been employed prior to the Census was 12,108, viz., 7,856 boys and 4,252 girls.

The following table shows the number and proportion of males and females in various industrial groups who were returned as unemployed at the census of 1933 :—

TABLE 858.—Employed and Unemployed in Industries—Census, 1933.

Industry.	Wage-earning Group.			Percentage in each Industry.	
	Employed.	Un-employed.	Total.	Employed.	Un-employed.
<i>Males.</i>					
Agricultural, Pastoral and Dairying ...	65,255	12,825	78,080	83·6	16·4
Forestry, Fishing, and Trapping ...	4,112	923	5,035	81·7	18·3
Mining and Quarrying ... ..	18,007	12,657	30,664	58·7	41·3
Industrial—					
Manufacture ... ..	98,122	37,878	136,000	72·1	27·9
Gas, Water, Electricity (Production and Supply) ... ..	9,170	2,203	11,373	80·6	19·4
Building ... ..	15,436	23,577	39,013	39·6	60·4
Roads, Railways, Earthworks, etc. *...	39,222	45,074	84,296	46·5	53·5
Total, Industrial ... ..	161,950	108,732	270,682	59·8	40·2
Transport and Communication ... ..	64,563	12,240	76,803	84·1	15·9
Commerce and Finance ... ..	77,193	18,639	95,832	80·6	19·4
Public Administration and Professional†	36,310	5,741	42,051	86·3	13·7
Entertainment, Sport and Recreation ...	4,755	1,633	6,388	74·4	25·6
Personal and Domestic Service ... ..	10,585	3,280	13,865	76·3	23·7
No Industry or Industry Not Stated ...	1,132	12,996	14,128	8·0	92·0
Total, Males ... ..	443,862	189,666	633,528	70·1	29·9
<i>Females.</i>					
Agricultural, Pastoral, Dairying, etc. ...	1,163	15	1,178	98·7	1·3
Industrial ... ..	36,890	8,215	45,105	81·8	18·2
Transport and Communication ... ..	3,734	138	3,872	96·4	3·6
Commerce and Finance ... ..	32,988	4,237	37,225	88·6	11·4
Public Administration and Professional†	28,689	3,971	32,660	87·8	12·2
Entertainment, Sport and Recreation ...	1,361	293	1,654	82·3	17·7
Personal and Domestic Service ... ..	53,030	8,970	62,000	85·5	14·5
No Industry or Industry not stated ...	604	6,937	7,541	8·0	92·0
Total, Females ... ..	158,459	32,776	191,235	82·9	17·1
Grand Total (Males and Females) ...	602,321	222,442	824,763	73·0	27·0

\* Includes Labourers, industry undefined.

† Includes clerks and typists, industry undefined.

The duration of unemployment was stated in respect of 174,164 males and 20,280 females, at the Census of 1933, as shown below:—

TABLE 859.—Duration of Unemployment—Census, 1933.

Duration.	Number.			Per cent. of Total.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 3 months ...	16,410	5,365	21,775	9·4	20·4	10·9
3 months and under 6 ...	12,754	3,128	15,882	7·4	11·9	7·9
6 months and under 12... ..	20,945	4,445	25,390	12·0	16·9	12·7
1 year and under 2 ...	25,276	4,469	29,745	14·5	17·0	14·8
2 years and under 3 ...	37,537	4,627	42,164	21·6	17·6	21·0
3 years and under 4 ...	43,071	3,051	46,122	24·7	11·6	23·0
4 years and over ...	18,171	1,195	19,366	10·4	4·6	9·7
Not stated ...	15,502	6,496	21,998	...	...	...
Total ...	189,666	32,776	222,442	100	100	100

Of the males unemployed in June, 1933, more than 71 per cent. had been without regular employment for a year or more, and 35 per cent. for three years or over. The average period of unemployment was much shorter in the case of females, though 51 per cent. of them had been unemployed for at least a year. In contrast, the records of the Census of 1921 indicate that the proportion of both males and females unemployed for more than three months was less than 29 per cent.

#### EMPLOYMENT AND UNEMPLOYMENT SINCE 1933.

In view of the great importance (both from the standpoint of public policy and of economic analysis) of maintaining as accurate a record as possible of the volume of employment and unemployment, endeavour has been made to provide a reliable monthly record comparable with that obtained at the Census of 1933.

Comprehensive records of numbers of employees on pay rolls have been derived from information supplied by employers in remitting wages tax and from records of persons in Government employment. The number of wage and salary earners in employment of whom direct record is not available is relatively small, and is considered to vary in the same ratio as does recorded employment. The resultant monthly record of total numbers in employment is therefore a close approximation to the actual totals.

While this information is of great value in itself, endeavour has been made to render it more useful by relating it to the numbers available for employment. In this way there have been derived approximate percentages representing the proportion of wage-earners in employment and residual percentages representing the approximate proportion of wage-earners unemployed. The indexes so constructed were made to relate to wage-earners available for employment by excluding those who recorded themselves as unemployed on account of illness, accident, etc., at the Census of 1933.



The main element of approximation in these estimated ratios of employment and unemployment arises from minor difficulties encountered in estimating the number of wage-earners. Without going into details of the very extensive investigations made, it may be noted briefly that factors such as the following affect the accuracy of estimates of number of wage-earners at dates subsequent to the Census of 1933:—

- (a) The Census was taken at an abnormal period, when opportunities for employment were very restricted. This may have had several special effects, viz., some persons normally working on their own account who had been for a considerable period without occupation probably recorded themselves as unemployed; some adolescents who would under normal circumstances have sought employment remained at school or at home or in family businesses assisting without wages.
- (b) It is always possible that the uneven growth of avenues of employment subsequent to the Census of 1933, extending latterly to the creation of a shortage of certain classes of skilled labour and a general shortage of female and juvenile labour, may have attracted into employment some who at the time of the Census were recorded as dependants. Again, the conditions under which extensive relief works and full-time Governmental works were made available subsequent to the Census may have had a corresponding effect in relation to persons such as hawkers, small shopkeepers, small farmers, etc.
- (c) Interstate and oversea migration of wage-earners is not recorded as such, but as the total migration has been relatively small since 1933, difficulty on this account is relatively unimportant.

The number of wage-earners in the population is estimated by increasing the total number of wage-earners in employment (plus the unemployed) at the Census of 1933 in ratio to the annual increase in persons aged 15 to 64 years. In order to increase the degree of precision in the index, adjustment has been made in the number of wage-earners thus estimated to allow for (a) the increase in the proportion of females who are wage-earners, and (b) youths who (according to details recently made available) were without occupation but were not recorded in the wage-earning group at the Census of 1933. Adjustment for seasonal variations in employment is not made except in respect of casual employees in retail shops in December.

The percentages of employment and unemployment compiled on the basis described are believed to have a much greater degree of precision than is usually associated with such indexes. There is, however, an inherent difficulty in determining the employment and employability of a small section of the wage-earning population, and determination of aggregate percentages of employment and unemployment must in any circumstances involve approximations. The percentages which are shown below relate to all wage-earners of both sexes. Separate estimates for males and females cannot be made from the data available. It is known, however, that there is relatively little unemployment among females; unemployment among males is probably between 1 per cent. and 1.5 per cent. greater than the ratio for both sexes combined.

The following estimates are considered to represent with a near approach to accuracy the changes in ratios of total employment and unemployment that have occurred in New South Wales since the Census of 1933:—

TABLE 860.—Index of Employment and Unemployment.

Middle of Month.	Percentage of employed and unemployed amongst persons (males and females) dependent upon and available for employment—*				Number of persons in—	
	Including with employed the full-time equivalent of part-time Relief Workers.		Excluding part-time Relief Workers from employed.		Private employment.	Governmental and Private employment. †
	Employed.	Unemployed.	Employed.	Unemployed.		
1933—June (Census)						
June 30)	74.4	25.6	73.5	26.5	477,600	594,300
September	76.0	24.0	74.8	25.2	491,200	607,600
December†	78.5	21.5	76.5	23.5	510,700	629,800
1934—March.....	79.5	20.5	77.1	22.9	512,800	631,700
June .....	80.5	19.5	77.8	22.2	518,600	639,600
September	82.6	17.4	80.0	20.0	539,800	660,500
December†	85.2	14.8	82.8	17.2	570,000	694,200
1935—March.....	84.4	15.6	81.9	18.1	557,100	682,100
June .....	85.9	14.1	83.1	16.9	567,100	694,800
September	88.4	11.6	85.6	14.4	591,400	719,600
December†	90.3	9.7	87.8	12.2	619,900	749,600
1936—March.....	88.9	11.1	86.7	13.3	603,400	734,900
June .....	89.3	10.7	87.1	12.9	613,600	741,900
September	90.0	10.0	88.6	11.4	625,800	757,600
December†	91.9	8.1	90.5	9.5	649,700	786,300
1937—March.....	92.2	7.8	90.8	9.2	643,800	783,300
June .....	93.5	6.5	92.3	7.7	652,900	800,400
September	95.1	4.9	93.9	6.1	668,100	817,700
December†	97.2	2.8	96.0	4.0	699,200	850,000
1938—January ...	94.6	5.4	93.5	6.5	670,900	819,800
February	96.0	4.0	95.0	5.0	684,800	833,800
March.....	96.0	4.0	94.9	5.1	685,200	835,200
April .....	96.0	4.0	94.9	5.1	686,600	835,800
May .....	95.8	4.2	94.8	5.2	685,600	835,600
June .....	96.1	3.9	95.1	4.9	688,900	839,500
July .....	95.9	4.1	94.9	5.1	687,900	838,600
August ...	95.3	4.7	94.2	5.8	684,900	834,600
September	95.8	4.2	94.8	5.2	691,300	840,500
October ...	95.4	4.6	94.3	5.7	689,000	837,400
November	95.6	4.4	94.6	5.4	692,500	841,400
December†	96.5	3.5	95.4	4.6	708,900	859,700
1939—January ...	93.0	7.0	91.9	8.1	670,300	820,400
February	94.4	5.6	93.3	6.7	683,400	833,600
March.....	94.2	5.8	93.2	6.8	683,100	834,100
April .....	94.6	5.4	93.5	6.5	685,600	837,700
May .....	94.3	5.7	93.3	6.7	683,200	836,200
June .....	93.7	6.3	92.6	7.4	678,600	831,600

\* Persons unemployed on account of illness, accident, etc., are excluded. These numbered 15,142 or 1.8 per cent. of wage earners at the census of 1933. The percentages unemployed here shown relate to those unemployed on account of scarcity of work.

† Casual seasonal assistants in retail stores excluded from Index.

‡ Exclusive of part-time relief workers.

In each year from 1933 to 1937 the index of employment rose month by month from January to December, and after a fall in January due to the holiday season, the upward trend commenced again at a higher level than in the preceding year. There was little variation after January, 1938, and a tendency to decline became apparent in the later months of the year.

The number of persons in private employment increased from 477,600 to 688,900 between June, 1933, and June, 1938, the successive increases in each year being 41,000, 48,500, 46,500, 39,300 and 36,000. There was a decrease of 10,300 between June, 1938, and June, 1939.

## EMPLOYMENT IN FACTORIES AND SHOPS.

An index of employment in factories in New South Wales during the years 1927-28 to 1938-39, and in each month since July, 1936, is shown below, with the year 1928-29 as base, equal to 100. The annual movement in factory employment in relation to the increase in population of working age is shown also by means of an index:—

TABLE 861.—Employment in Factories.

Year ended June.	Average Number of Employees in Factories (including Working Proprietors).		Index of Factory Employment divided by Index of Population of Working Age (15-64 years).	Middle of Month.	Estimated Number of Employees in Factories (including Working Proprietors).					
	Persons.	Index (Base, 1928-29 = 100).			Persons.			Index (Base, 1928-29 = 100.		
					1936-37.	1937-38.	1938-39. (a)	1936-37.	1937-38.	1938-39. (a)
1928	177,698	99	102	July	199,300	216,400	227,000	110	120	126
1929	180,756	100	100	Aug.	201,000	219,300	227,600	111	121	126
1930	162,913	90	88	Sept.	203,400	221,100	228,300	112	122	126
1931	127,605	71	68	Oct.	206,800	224,000	228,100	114	124	126
1932	126,355	70	67	Nov.	209,100	226,100	227,900	116	125	126
1933	138,504	77	72	Dec.	209,000	228,100	228,500	116	126	126
1934	153,999	85	78	Jan.	204,300	222,300	218,200	113	123	121
1935	175,033	97	88	Feb.	211,100	226,300	222,700	117	125	123
1936	193,200	107	96	Mar.	214,400	229,200	225,200	119	127	125
1937	208,497	115	101	April	213,100	227,900	224,000	118	126	124
1938	221,861	124	108	May	214,600	228,800	223,100	119	127	123
1939	224,475 <sup>a</sup>	124	107	June	216,900	229,900	223,100	120	127	123

(a) Preliminary, subject to revision. The monthly index is based on sample returns.

Factory employment in New South Wales declined by 30 per cent. between 1928-29 and 1931-32. In each succeeding year there was an appreciable increase offsetting by 1936-37 the decline since 1928-29 in the ratio of factory employees to the population of working age. There was a marked rise in 1937-38, and a slight decline in the ratio in the following year.

The course of employment in retail stores in each month since July, 1934, is illustrated by the following index, which relates to 599 establishments. Employment in these stores in July, 1933, is taken as a base, equal to 100; no adjustment has been made for increase in population:—

TABLE 862.—Index of Employment in Retail Stores.

Month.	Index of Employment in Retail Stores.					Month.	Index of Employment in Retail Stores.				
	1934.	1935.	1936.	1937.	1938.		1935.	1936.	1937.	1938.	1939.
July	108	116	122	129	134	Jan.	109	116	123	128	129
Aug.	105	113	120	126	129	Feb.	112	119	125	131	134
Sept.	107	113	120	126	128	Mar.	109	117	123	128	129
Oct.	108	115	121	127	129	April	111	118	124	129	129
Nov.	110	119	123	129	132	May	112	119	126	129	131
Dec.	123	133	137	144	148	June	112	120	126	131	130

## RELIEF OF UNEMPLOYMENT.

The State maintains a system of labour exchanges for the purpose of bringing together employers and persons seeking employment and in organising labour for public works.

In recent years the exchanges have been active in the registration of unemployed persons in need of sustenance, and in the organisation of relief works. Social aid services have been established for unemployed persons and others in need of sustenance, and assistance is given in respect of housing, as described in the chapter "Social Condition" of this volume.

There is an Employment Council for the general supervision of the training and placement of the unemployed. A number of committees were appointed during 1938 to report upon various phases of the problem of unemployment, and arrangements are being made for combined action by the Commonwealth and the States for research into the matter of youth employment. Particulars regarding subsidies paid by the Government of New South Wales for the training of young men as apprentices are given on page 990.

*State Labour Exchanges.*

There are State Labour Exchanges, staffed by departmental officers, in Sydney, Newcastle, West Maitland, Wollongong, Broken Hill and seven other towns. In the country, agencies are conducted by the police in more than 400 localities. Persons over 14 years of age may register for employment and they must report at least once a month to maintain registration. When work is available in a district, registered persons are summoned by press notice to report at the exchanges—usually in order of registration. Fees are not charged for the services provided by the exchanges or agencies.

The number of men registered at the principal State Labour Exchanges and the total number registered, at half-yearly intervals since June, 1934, are shown below:—

TABLE 863.—Men (adults) registered at State Labour Exchanges  
1934 to 1939.

Month.	Metropolitan.	Newcastle.	Maitland Coalfields	Wollongong.	Broken Hill.	Rest of State.	Total.
1934—June ... ..	46,257	7,418	5,337	3,073	2,498	19,930	84,513
December ... ..	41,333	6,815	5,194	2,922	2,480	19,641	78,385
1935—June ... ..	44,408	7,502	5,469	3,195	2,648	18,623	81,845
December ... ..	39,165	6,588	4,994	2,312	1,971	16,861	71,891
1936—June ... ..	38,937	6,716	4,559	1,753	798	19,283	72,046
December ... ..	31,727	4,565	3,667	879	800	17,972	59,610
1937—June ... ..	25,945	3,901	3,171	661	505	16,540	50,723
December ... ..	23,648	3,495	3,396	443	595	10,937	42,514
1938—June ... ..	27,641	3,824	3,697	758	477	12,043	48,440
December ... ..	27,423	4,309	3,397	720	660	10,741	47,250
1939—June ... ..	28,647	3,790	2,776	1,131	717	13,864	50,925

*Private Employment Agencies.*

Private employment agencies are subject to supervision by the State authorities in terms of the Industrial Arbitration Act. Such agencies may be conducted by licensed persons only, and they are required to keep registers of persons applying for labour or employment, and of engagements made. The scale of fees chargeable is fixed by regulation, and if an applicant

does not obtain labour or employment within fourteen days the fee must be repaid, less out-of-pocket expenses. Licensees are prohibited from sharing fees with employers, and from keeping as lodgers persons seeking employment.

At 30th June, 1939, there were 123 private agencies on the register, including 41 in Sydney, 52 in the suburbs, and 30 in the country.

In addition to these private agencies there were 9 licensed theatrical agencies. These licenses are issued subject to conditions for the protection of theatrical employees and for securing the payment of their salaries and expenses. Theatrical employers also may be required to hold permits to carry on business, but both employers and agencies may be exempted by Ministerial authority from these provisions of the law. The number of such permits at 30th June, 1939, was 22.

#### SPECIAL MEASURES FOR THE RELIEF OF UNEMPLOYMENT.

Substantial grants were made from the State revenues during the year 1929 for relief works and for sustenance in many cases of unemployment, and as the volume of unemployment expanded the Prevention and Relief of Unemployment Act was passed in June, 1930, to make provision for further relief. A council was set up to formulate schemes to absorb unemployed persons in public works and private enterprises, to investigate schemes for relief and training, and to make recommendations regarding the expenditure of moneys available for the purposes of relief.

The Act expired in October, 1937, and the Industrial Arbitration (Eight Hours) Act was amended to make provision for the continuation of relief works.

In order to provide the requisite funds, a special levy—the Unemployment Relief Tax—was imposed on salaries, wages and other income from employment as from 1st July, 1930, and on income from the other sources derived during the year ended 30th June, 1930, and later years. The proceeds were paid into the Unemployment Relief Fund and expenditures therefrom were subject to the approval of the Unemployment Relief Council until 1st July, 1932. Then the fund was merged into the Consolidated Revenue Fund, and became subject to Parliamentary appropriation. In December, 1933, the tax was replaced by a wages tax on income from employment, and a special income tax on other income. Particulars of the rates, proceeds, etc., are shown in the chapter of this volume entitled Public Finance.

#### *Works for the Relief of Unemployment.*

During the early stages of the depression sustenance was provided for rapidly increasing numbers of unemployed men and women, and the expenditure on this form of relief amounted to £5,070,700 in 1931-32. In later years efforts were directed towards providing part-time employment on public works. Since 1936 this was gradually curtailed with a view to promoting full-time employment as far as practicable.

Employment on Government relief works was exempted, by proclamation in terms of the Prevention and Relief of Unemployment Act, from the provisions of industrial awards and agreements, and wages, hours and other conditions of employment on proclaimed works have been subject to Ministerial decision. Commencing in July, 1937, transition was gradually effected from this system to a system of rationed work at award rates of pay.

Prior to 1932 relief work was provided for short periods for men who were replaced after two weeks' work. Later a scheme of rationed employment was introduced, with alternating periods on and off work, or, in some cases, work for a limited number of hours each week.

In May, 1933, a supplementary scheme, known as emergency relief work, was introduced by the State Government in co-operation with the councils of municipalities and shires. Under this scheme, the councils undertook works of a nature which would not ordinarily be carried out from their revenues and the State Government paid the wages of the men employed, and a proportion of the other costs, such as materials and incidental expenses.

At first emergency relief work was restricted to persons who were eligible for food relief and was not available to applicants with family income in excess of that applying in respect of food relief. Subsequently, this rule was relaxed, and the scales of work—which varied according to the number of dependants in the worker's household—were increased, as shown in earlier issues of this Year Book. Wages were paid on the basis of the living wage declared from time to time by the Industrial Commission. The rate in 1938-39 ranged from 78s. to 80s. per week of 44 hours. Additional bonuses ranging from 1d. to 3d. per hour are paid for certain skilled or semi-skilled work.

In order to facilitate the gradual abolition of part-time emergency relief work, an Act was passed in December, 1935, to enable municipal and shire councils to raise loans, with Government assistance, for works which will provide full-time employment at award rates of wages. Then the Government entered into agreements with a large number of councils for approved works, the amount of Government subsidy being a matter of arrangement with individual councils. In addition, many relief workers employed by statutory bodies were transferred from part-time work to full-time, with award rates of wages, so that since 1st October, 1937, part-time relief work has been restricted, as far as practicable, to relief workers not absorbed under the full-time schemes. For these, works are undertaken by Government departments or statutory bodies. The usual scale of part time work is two weeks in eight weeks, if single, or two weeks in four, if married, and longer periods are arranged for men with the larger families. Wages are paid at award rates.

The following statement shows the number of men employed on part-time relief work or in receipt of food relief at annual intervals since June, 1933. Minors are not eligible for relief work unless married and the figures relate generally to adults.

TABLE 864.—Men in Receipt of Relief, 1933 to 1939.

June.	Men employed on Part Time Relief Work by—			Men in receipt of Food Relief.	Total.
	Government Departments and Statutory Bodies.	Councils of Municipalities and Shires.	Total.		
1933	11,864	22,365	34,229	65,527	99,756
1934	28,838	46,810	75,648	17,865	93,513
1935	20,380	51,983	72,373	16,060	88,433
1936	9,209	46,561	55,770	18,202	73,972
1937	14,181	10,795	24,976	23,074	48,050
1938	16,684	2,514	19,198	26,509	45,707
1939	18,689	1,540	20,229	30,066	50,295

A decline of 47,600 in the number of men in receipt of food relief in the year 1933-34 was due mainly to their transfer to relief work. In the following year there was a decrease in both groups, then the number of part-time relief workers began to decrease rapidly, so that the number in June, 1938, was less than 27 per cent. of the number in June, 1935. The decrease was offset to some extent by an increase in recipients of food relief. Nevertheless, the total number of men in receipt of relief by way of part-time work or food in June, 1938, was less by 54,049 than in June, 1933.

In the twelve months ended June, 1939, the number of men employed on part-time relief work increased by 1,000 and those receiving food relief by 3,550. The increase in recipients of food relief occurred in the country districts, where activities were affected by the low prices of the principal rural products, *e.g.*, wool and wheat.

## EXPENDITURE ON FOOD RELIEF AND RELIEF WORKS.

The following statement shows the expenditure on food relief and charitable assistance for the unemployed, and on relief works. These amounts do not represent the total expenditure in respect of relief of unemployment. They are exclusive, for instance, of interest or other debt charges on loan moneys expended on relief, and of the additional cost of family allowances and charitable and social services arising from widespread unemployment. The figures are exclusive also of expenditure for the prevention of unemployment.

TABLE 865.—Expenditure on Food Relief and Relief Works, 1931 to 1939.

Year.	Expenditure from Revenue.						Expenditure from Loans.
	Food Relief.	Cash Payments Clothing and Medical Services.	Grants and Loans for Relief Works.	Training of Unemployed youths.	Administrative Expenses, etc.	Total of Foregoing Items.	
1930-31	£ 1,837,886	£ 101,858	£ 2,373,030	...	£ 44,310	£ 4,357,084	£ ...
1931-32	5,070,732	130,943	766,613	...	137,164	6,105,452	...
1932-33	3,510,194	63,296	276,384	...	156,783	4,006,657	2,801,727
1933-34	1,467,953	247,498	75,430	...	179,099	1,969,980	5,249,776
1934-35	1,076,670	123,728	41,386	...	173,716	1,415,500	6,993,427
1935-36	980,759	116,115	836,799	...	192,283	2,125,956	5,423,827
1936-37	1,114,950	144,614	997,672	...	200,425	2,457,661	3,252,458
1937-38	1,263,901	137,854	1,465,414	7,896	221,263	3,096,328	3,373,386
1938-39(a)	1,419,836	146,226	473,817	197,545	241,617	2,479,041	4,426,892

(a) Preliminary.

## INDUSTRIAL HYGIENE.

In both State and Federal departments of public health a section has been created to deal with industrial hygiene. The work of these units embraces the investigation of occupational diseases, the supervision of health conditions in industry, and the dissemination of advice regarding measures which safeguard the health of the workers.

Legislation in regard to industrial hygiene is contained in a number of Acts which apply to various classes of industry. The Factories and Shops Act, 1912, and its amendments, impose upon occupiers of factories the obligation of providing suitable buildings and of keeping the premises clean, of securing adequate protection against fire, and of safeguarding dangerous machinery. The employment of women and juveniles and of outworkers is subject to limitations, and outworkers in the clothing trade must be licensed by the Industrial Registrar.

The provisions of the law in relation to the safety of employees were extended in 1936 and safety committees consisting of representatives of employers and employees may be established to report upon conditions of work and means adopted for the prevention of accidents.

Shops in proclaimed shopping districts and factories must be registered annually. Particulars of registered shops are shown in Table 869. Inspection, with the object of securing compliance with the law, is conducted by a staff of inspectors attached to the Department of Labour and Industry.

In match factories the use of white phosphorus is prohibited by the White Phosphorus Matches Act, 1915.

In terms of the Scaffolding and Lifts Act, 1912, the use of scaffolding, lifts, cranes, hoists, and derricks is subject to supervision in order to minimise the risk of accident. In the metropolitan, Newcastle and Wollongong districts where the Act is operative regulations have been promulgated regarding the construction of scaffolding, lifts, etc. Lift attendants and crane-drivers must obtain certificates of competency, which are issued by the Department of Labour and Industry.

Under the Rural Workers Accommodation Act, 1926, employers are required to provide proper accommodation for rural workers who reside on the premises. The Act applies in proclaimed districts in respect of workers employed for a period exceeding twenty-four hours in agricultural, dairying, or pastoral occupations.

The conditions under which mining is conducted are subject to regulation in terms of Acts which are described in the chapter relating to the mining industry. The Navigation Acts—State and federal—prescribe conditions to be observed for safeguarding the health of seamen.

#### INDUSTRIAL ACCIDENTS.

Under various enactments relating to industrial hygiene, employers are required to give notice to the statutory authority of accidents which cause injury to workers, but the available data do not supply a comprehensive record of such occurrences. In factories, employers are required to report accidents causing loss of life; accidents due to machinery or to hot liquid or other hot substance, or to explosion, escape of gas or steam, or to electricity or to acid or alkaline solutions, if an employee is so disabled as to prevent him from returning to his work in the factory within forty-eight hours; and other accidents if an employee is disabled for seven days or more.

In the year 1938 there were 14 fatal accidents in factories and 8,902 non-fatal, including 160 which caused permanent injury. There were also 12 fatal and 38 non-fatal accidents in connection with lifts, scaffolding and cranes. Particulars of accidents in mines and of railway and tramway accidents are shown in other chapters of this Year Book.



## WORKERS' COMPENSATION.

Under State legislation provision has been made for the payment of compensation to workers who suffer injury in the course of their employment. The principal enactment is the Workers' Compensation Act, 1926-1938, which commenced on 1st July, 1926. Special provision for workers who are disabled by the effects of silica dust is made under the Workmen's Compensation (Silicosis) Act, 1920-1936, and cases of disablement by pneumoconiosis, tuberculosis, and lead poisoning in the Broken Hill mines are compensated under the Workmen's Compensation (Broken Hill) Act, 1920-1934, and the Workmen's Compensation (Lead Poisoning—Broken Hill) Acts, 1922 and 1924.

Compensation to members of the police force, killed or disabled by injury in the execution of duty, is payable in terms of the Police Regulation (Superannuation) Act, which is described in the section of this Year Book relating to the police. The amount of compensation is determined by the Governor.

The laws of the Commonwealth provide for compensation to men in a particular class of work, such as that of seamen, which is subject to special risks, and to workers in the service of the Commonwealth Government.

Under the Workers' Compensation Act, 1926-1938, compensation is payable to workers whose remuneration does not exceed £550 per annum.

A worker and, in the case of his death, his dependants are entitled to compensation if he receives personal injury or contracts a disease, arising out of and in the course of his employment, except a disease caused by silica dust, in respect of which special legislation has been enacted. The Act does not impose the obligation of compensation in respect of an injury unless it disables a worker for at least seven days.

Where death results from an injury persons wholly dependent on the worker's earnings are entitled to a sum equal to four years' earnings or £400, whichever is the larger, but not exceeding £800. The amount of any weekly payments or lump sum received by the worker is to be deducted from the amount payable, but may not reduce it below £200. In addition a sum of £25 is payable in respect of each child and step-child under 16 years who was wholly dependent on the worker's earnings.

Where there are no persons totally dependent, compensation, as determined by agreement or by the Workers' Compensation Commission, may be paid to persons partially dependent. Where there are no dependants reasonable burial expenses up to £30 are payable.

In cases of total or partial incapacity the compensation payable includes: (a) weekly payments, and (b) the cost of medical and hospital treatment and ambulance service.

The maximum weekly payment in respect of the worker is two-thirds of the average weekly earnings up to £3 a week. Where the weekly earnings of an adult worker are less than £3 he may be paid 100 per cent. up to £2 per week and a minor earning less than 45s. a week may receive as compensation 100 per cent. of his earnings up to 30s. a week. In addition, a worker is entitled to £1 a week in respect of his wife and 8s. 6d. per week in respect of each child and step child under 14 years totally or mainly dependent upon his earnings. Where no compensation is payable in respect of a wife, a worker may receive £1 a week in respect of one female dependant, who is an adult and is caring for a child of the worker under 14 years, or is a member of his family over 14 years. Where no compensation is payable in respect of children, a worker may receive 8s. 6d.

a week in respect of each dependent brother and sister under 14 years. The total weekly payments to the worker and his dependants may not exceed his average weekly earnings, or £5 whichever is the smaller amount, and the total liability of the employer in respect of weekly payments may not exceed £1,000.

The employer's liability for ambulance service rendered to a worker is limited to two guineas unless the Commission allows a further sum on account of distance travelled. For medical treatment the maximum is £25 in respect of the same injury. For hospital treatment the maximum is £25, treatment as an out-patient being calculated at a rate of 3s. per treatment up to one guinea per week, and as an in-patient at a rate not exceeding three guineas per week.

With the consent of a worker, the liability for a weekly payment may be redeemed wholly or in part by the payment of a lump sum determined by the Commission, having regard to the worker's injury, age, occupation, and diminished ability to compete in an open labour market. By agreement or order of the Commission the lump sum may be invested or applied for the benefit of the person entitled thereto. The Act contains a list of amounts which, if the worker so elects, may be paid for specific injuries.

The Act prescribes that every employer must insure with a licensed insurer against his liability to pay compensation, unless he is authorised by the Workers' Compensation Commission to undertake the liability on his own account. Insurers transacting workers' compensation business must obtain a license from the Commission, and must deposit with the State Treasurer a sum of £6,000 or £10,000 according to premium income as a guarantee that compensation payments will be met when due. Self-insurers must deposit an amount determined by the Commission.

The members of the Workers' Compensation Commission, numbering at least three and not more than four, are appointed by the Governor, each being a District Court judge, a practising barrister of at least five years standing or a practising solicitor of at least seven years standing. One member is appointed chairman. The members have the same status as District Court judges and may hold office during ability and good behaviour until the age of 70 years. As a general rule, the Commission may be constituted by one member, and more than one sitting may be held at the same time. The Commission exercises judicial functions in regard to the determination of compensation claims, and its decisions are final. The Commission is required to furnish workers and employers with information as to their rights and liabilities under the Act, and to make reasonable efforts to conciliate the parties to any dispute which may arise. The Commission may appoint medical practitioners as referees, and may summon a medical referee to sit as an assessor, or may submit any matter to a medical referee or a board of medical referees for report.

Salaries and other expenses incurred by the Commission are payable from a fund constituted for the purpose by contributions from insurers, who are required to pay thereto a percentage, fixed by the Commission, of their total premiums in respect of workers' compensation insurance.

Facilities to enable employers to insure have been provided by the State Insurance Office as well as by private insurers.

Returns supplied to the Commission by insurers indicate that 84,407 claims in respect of workers within the meaning of the Workers' Compensation Act, 1926-38, were admitted to compensation during the year ended 30th June, 1938. This number includes many injuries, not strictly compensatable in terms of the Act, for which medical expenses only were

paid by the insurers. It includes also cases in which the workers elected to take benefit under the Government Railways and Transport Act which makes provision for officers incapacitated in the Government transport services.

The number of cases reported does not represent the actual number of injuries sustained by workers in the course of their employment. There are groups of employees outside the scope of the Workers' Compensation Act, such as casual workers (unless employed for purposes of the employer's trade or business), outworkers, employees whose remuneration exceeds £550 per annum, and the police and others for whom special provision is made under other Acts. Also there are groups of employees who are paid full wages in cases of illness or accident and, as a general rule, claims for compensation are not made in respect thereof unless they result in death or serious disability.

From the returns supplied to the Workers' Compensation Commission the details shown in tables 866 and 867 have been compiled. The returns supplied for individual years cover a large sample of the cases admitted to compensation, but do not provide data for a complete review of each year's operations. In the first place, there have been excluded cases of compensation by insurers in terms of their contracts with employers for which the employer was not liable under the Workers' Compensation Act, *e.g.*, injuries which did not disable the worker for at least seven days. In the second place, a measure of deficiency arises from the non-supply of returns to the Commission or from retardation in this respect so that returns furnished during one year may include a carryover from an earlier period.

The following statement is a summary of the 65,201 cases admitted to compensation in terms of the Workers' Compensation Act, for which returns were supplied to the Commission in 1937-38:—

TABLE 866.—Workers' Compensation Act—Classification of Cases, 1937-38.

Workers.	Fatal Cases.	Disability Cases Compensated.					Grand Total, all Cases.	
		By Lump Sum.	By Weekly Payments.			Total Disability Cases.		
			On Account of Workers.	On Account of Dependents.	Medical Treatment, etc.			
			<i>Cases.</i>					
Males ... ..	138	1,208	(c) 59,839	(a) (72,153)	(b) (43,305)	61,047	61,185	
Females ... ..	...	58	3,9£8	(105)	(3,285)	4,016	4,016	
Total ... ..	138	1,266	63,797	(72,258)	(46,590)	65,063	65,201	
			<i>Compensation Paid.</i>					
		£	£	£	£	£	£	
Males ... ..	89,027	203,530	517,456	154,235	190,985	1,066,206	1,155,233	
Females ... ..	...	10,637	21,283	530	14,584	47,034	47,034	
Total ... ..	89,027	214,167	538,739	154,765	205,569	1,113,240	1,202,267	

(b) Number of cases in which cost of treatment was paid (included in column (c)). (a) Number of dependants for whom compensation was paid (not included in total cases).

The average compensation paid to male workers in the last five years was £613 in fatal cases; £173 in cases of disability compensated by lump sums, and £13 12s. in weekly payments and medical expenses. The average amounts paid in respect to female workers were as follows:—Fatal cases, £67; disability, lump sum, £164; other, £8 17s.

The average payment for medical treatment per case in which the cost of treatment was actually paid was £4 8s. for males and £4 9s. for females in 1937-38.

The following is a comparative statement of the cases of compensation recorded by the Commission in each of the last five years. The details are not entirely satisfactory for purposes of comparison one year with another owing to the variation in the proportion of each year's cases for which returns were supplied.

TABLE 867.—Workers' Compensation Act—Cases, 1934 to 1938.

Year.	Accidents.			Industrial Diseases.			Total Cases Reported.	Compensation Paid during Year.
	Fatal.	Non-Fatal.	Total.	Fatal.	Non-Fatal.	Total.		
<i>Males.</i>								
1933-34	104	31,558	31,662	12	204	216	31,878	£ 605,842
1934-35	89	38,053	38,142	10	318	328	38,470	664,433
1935-36	97	43,678	43,775	13	231	244	44,019	784,516
1936-37	99	49,809	49,908	16	235	251	50,159	924,745
1937-38	121	60,627	60,748	17	420	437	61,185	1,155,233
<i>Females.</i>								
1933-34	1	2,028	2,029	1	215	216	2,245	26,523
1934-35	...	2,579	2,579	1	186	187	2,766	27,142
1935-36	...	3,295	3,295	...	178	178	3,473	33,688
1936-37	2	3,534	3,536	1	208	209	3,745	38,787
1937-38	...	3,735	3,735	...	281	281	4,016	47,034

The compensation paid in each year includes payments in respect of cases continued from earlier years, but balances payable in respect of cases not brought to finality at the end of the year are excluded.

The Workmen's Compensation (Lead Poisoning—Broken Hill) Acts, 1922 and 1924, provide for the payment of compensation in respect of lead poisoning amongst men who had been employed by Broken Hill mine owners prior to 31st May, 1919, when mining operations were interrupted as a result of an industrial dispute. The duties of certifying surgeon or medical referees are entrusted to a board consisting of three medical practitioners appointed by the Governor, including one nominated by the mine owners and one by the workmen. No certificates of death or disablement due to lead-poisoning were issued in the years 1936 to 1938.

In terms of the Workmen's Compensation (Broken Hill) Acts, 1920 to 1934, which will remain in force until Parliament otherwise provides, compensation is payable in respect of persons who contracted pneumoconiosis or tuberculosis by reason of employment in the Broken Hill mines. Compensation in respect of those who were employed in the mines after the commencement of the Act of 1920 is paid by the mine-owners. At 30th June, 1938, compensation was payable in respect of 61 cases, including 45 employees who were living. The amount of compensation during the year was £11,137.

Payments to other persons eligible under Workmen's Compensation (Broken Hill) Acts are made from a fund which is maintained by contributions—one-half by the Government of New South Wales and one-half by the mine-owners. At 30th June, 1938, compensation was payable from the fund in respect of 601 workers, including 274 who were living, and the total number of beneficiaries was 933. The amount paid as compensation during 1937-38 was £98,472, funeral and special expenses amounted to £583, and fees and administrative expenses to £2,265. The total disbursements from the fund from 1st January, 1921, to 30th June, 1938, amounted to £1,681,711.

The Workmen's Compensation (Silicosis) Act, 1920-1936, empowers the Government to provide by scheme for the payment of compensation with respect to workmen who suffer death or disablement owing to fibroid phthisis or silicosis of the lung, or other diseases of the pulmonary or respiratory organs caused by exposure to silica dust. Provision may be made by the scheme for the establishment of a general compensation fund to which employers in any specified industry involving exposure to silica dust may be required to contribute. In this manner liability in respect of a disease contracted by a gradual process may be distributed amongst the employers concerned.

A scheme of compensation for stonemasons, quarrymen, rock-choppers, and sewer miners employed in the county of Cumberland, entitled the Workmen's Compensation (Silicosis) Scheme No. 1, 1927, was brought into operation in September, 1927, and extended to the counties of Camden and Northumberland in February, 1936.

The maximum amount of compensation payable in cases of death was £500; and in the cases of incapacity a weekly payment up to 66 $\frac{2}{3}$  per cent. of the workman's average weekly earnings during the twelve months preceding the date of his inquiry, but not exceeding £3; the maximum liability in each case being £1,000. The compensation fund into which the employers paid contributions at the rate of 3 per cent. on wages is administered by a joint committee appointed by the Minister for Labour and Industry. At 30th June, 1938, compensation was being paid in respect of 62 incapacitated workmen and dependants of 27 deceased workmen. The compensation paid in 1937-38 included payments to beneficiaries, £7,358, and deposits on trust for dependants, £1,017; and medical expenses amounted to £1,305.

This scheme was replaced in March, 1938, by an extended scheme covering registered workmen throughout the State engaged in quarrying, cutting, dressing, or excavating sandstone, or working in sandstone tunnels while excavating is in progress. For registration workmen must comply with prescribed conditions as to physique, term of residence in New South Wales and of employment in the sandstone industry.

A second scheme of compensation under the Workmen's Compensation (Silicosis) Act, 1920-1936, was proclaimed in March, 1938. It relates to workmen engaged in certain processes in the iron, steel and stove-making industries, ore-milling (grinding of silica), refractory brickmaking, and tile and pottery making, and sandblasting in the glass making industry. Registration of workmen under the scheme is prescribed as in the case of sandstone workers.

*Cost of Workers' Compensation Insurance.*

The approximate cost to the employers of insurance in terms of the Workers' Compensation Act, 1926-1929, is shown below in relation to the total amount of wages paid. The estimates refer to three periods since the inception of the Act on 1st July, 1926, and to the years ended June, 1937 and 1938. The three periods correspond with change in the phases of the industrial cycle in 1929 and 1933 and in the scope of the Act which was restricted by amending legislation in 1929. The estimates of the average annual amount of wages relates to all wage and salary earners, the amounts paid to workers covered by the Act being between 85 per cent. and 90 per cent. of the total.

TABLE 868.—Estimates of Wages and Cost of Workers' Compensation.

Period.	Estimated Total Wages paid in New South Wales (all Workers).	Injuries Compensatable.	Estimated Cost to Employers of Workers' Compensation Insurance.	Compensatable Injuries per £1,000,000 Wages Paid.	Cost of Workers' Compensation Insurance per cent of Total Wages.
	£ million.	No.	£	No.	Per cent.
Average per year—					
July, 1926, to June, 1929 (3 years).	153.6	57,043	2,209,360	371	1.44
July, 1929, to June, 1933 (4 years).	123.7	39,625	1,306,150	320	1.05
July, 1933, to June, 1937 (4 years).	136.8	60,048	1,498,227	439	1.09
Year ended June, 1937 ...	155.9	74,835	1,955,819	480	1.25
Year ended June, 1938 ...	177.3	84,407	2,411,049	476	1.36

The relatively high cost of insurance in the period 1926 to 1929 was due to two factors—(1) in 1926 and 1927, until risks under the Act were determined by experience, the rates of premium were at a higher level than was actually necessary; and (2) the liability for compensation was greater until amending legislation was brought into operation in November, 1929. The increase in the cost in the last two years was partly a result of a revision of rates of premium in January, 1936.

The ratio of the number of compensatable injuries to wages paid is affected by changes in rates of wages, and these were higher during the period 1926 to 1929 than in later years. Changes in the volume of employment in the different industries also influence the cost of insurance. For instance, in such industries as the metal trades and building in which both rates of wages and risk of accident are above the average, depression and subsequent recovery were greater than in other industries.

## REGISTRATION OF SHOPS.

Provision for the annual registration of shops is made by the Factories and Shops (Amendment) Act, 1936, which commenced on 31st July of that year. The provision for registration does not apply to the whole State but to proclaimed shopping districts including the metropolitan shopping district which is bounded approximately by a line joining (and including) Manly, Hornsby, Parramatta and George's River, and the Newcastle shopping district consisting of the City of Newcastle and ten adjoining suburban municipalities. All the other municipalities and most of the unincorporated country towns are shopping districts.

The number of shops of various kinds registered as at 30th June, 1938, is shown below, also the number of paid employees engaged in or in connection with the sale of goods. Waiters and waitresses are included as shop employees in restaurants—which are classified as a separate group in the table. But such persons as those engaged in factory or other work preparing goods to be sold, commercial travellers, newsboys, sellers in theatres, hairdressers working in saloons attached to shops selling hairdressers' goods, and mechanics working in garages where petrol is sold are excluded.

TABLE 869.—Shops Registered, June, 1938.

Class of Shop.	Shops.			Wage-earning employees engaged in or in connection with the sale of goods.								
	Not employing labour.	Employing labour.	Total.	Males.		Females.		Total.				
				Adults.	Minors.	Adults.	Minors.	Males.	Females.	Total.		
Butcher ... ..	296	1,183	1,479	2,345	674	289	152	3,019	441	3,460		
Chemist ... ..	185	761	946	734	726	197	121	1,460	318	1,778		
Confectionery ...	1,601	592	2,233	283	249	463	503	512	966	1,478		
Cooked Provisions	614	288	902	171	92	141	124	263	265	528		
Fish ... ..	197	130	327	117	46	88	69	163	157	320		
Flower ... ..	169	113	282	25	19	77	130	44	207	251		
Fruit and Vegetables ...	1,307	616	1,923	453	244	185	201	697	386	1,083		
Hairdressing Goods	650	510	1,160	150	81	453	362	531	815	1,046		
Tobacconist ... ..	916	595	1,511	533	225	156	90	758	246	1,004		
Newsgent ... ..	246	421	667	260	265	227	253	525	480	1,005		
Petrol and Oil ...	287	720	1,007	1,203	869	116	134	2,072	250	2,322		
Refreshment ... ..	365	576	941	308	135	605	666	443	1,271	1,714		
Restaurant ... ..	140	598	738	623	167	2,214	575	795	2,789	3,584		
General (including Grocers, Drapers, etc.) ... ..	7,065	8,463	15,528	20,532	9,363	13,404	11,541	29,895	24,945	54,840		
Total—												
Metropolitan ...	9,046	8,238	17,284	15,877	7,138	13,345	8,925	23,015	22,270	45,285		
Newcastle ... ..	623	635	1,258	1,287	718	902	918	2,005	1,820	3,825		
Other Districts ...	4,459	6,693	11,152	10,558	5,299	4,368	5,078	15,857	9,446	25,303		
Grand Total ... ..	14,128	15,566	29,694	27,722	13,155	18,615	14,921	40,877	33,536	74,413		

In the metropolitan shopping district more than half the shops did not employ paid labour in selling goods. The average number of paid employees was 2.6 per registered shop and 5.5 per shop in which paid labour was employed. Male employees outnumbered the females; 35 per cent. were men and 29 per cent. women of adult age. Sixteen per cent. were boys and 20 per cent. were girls under 21 years of age.

In the districts outside the metropolitan area paid labour was employed in 59 per cent. of the registered shops. Male employees formed the largest group—the proportions being: Men 41 per cent., boys 20 per cent., women 18 per cent., and girls 21 per cent.

Returns of registered shops were first collected as at 30th June, 1937, and the statistics compiled therefrom are not comparable with those shown above for June, 1938. In the first place, the collection of returns, especially in the country shopping districts, was more nearly complete in 1938, when steps were taken to direct the attention of the shopkeepers to the obligation to register and to supply returns. In the second place, many employees not actually engaged in the sale of goods were included in the returns for 1937, but omitted in 1938.

This change, affecting in particular the statistics of employees in the metropolitan district, followed upon an award for metropolitan shop assistants made by the Industrial Commission of New South Wales in October, 1937. The award provided for the allocation of work between males and females, and fixed a relative proportion of juniors to seniors. Certain groups of shops are classified according to the commodities offered for sale therein. In one group, which includes shops or departments for the sale of groceries, mercery, hardware, furniture, sports goods, motor vehicles or bicycles, all the assistants must be paid wages at the rates prescribed for males. In the second group of shops or departments the employer may employ all female assistants to sell such goods as women's clothing, haberdashery, fancy goods, etc. In shops not classified in these two groups, 50 per cent. of the assistants must be males, but this rule does not apply where less than three shop assistants are employed. As a general rule, the proportion of juniors to seniors must not exceed one to one; a senior is defined as an assistant 23 years of age or over receiving the full rate of wages, including any employer actively engaged in the shop.

#### TRADE UNIONS.

The Trade Union Act of 1881-1936 provides for the registration of trade unions, the appointment of trustees, in whom the union property is vested, and for the constitution of rules. If union funds are used for political purposes payments must be made from a separate fund, to which contribution by members is optional.

There are two classes of trade unions, viz., unions of employers and unions of employees. The latter constitute the bulk of the registered organisations.

The organisation of employees in trade unions increased with the development of industrial arbitration, as unions formed for the purposes of arbitration must be registered under the Trade Union Act, as well as the Industrial Arbitration Act. Moreover, a wider recognition of the principle of preference to unionists led to an increase in membership.

After the introduction of the Commonwealth system of industrial arbitration in 1904 some of the unions previously on the State registry became merged into federal associations, but unless a union elects to be regulated exclusively under federal arbitration and conciliation the branch in New South Wales retains its registration under the Trade Union Act.



Statistics relating to the trade unions of employees in the State are shown in the following statement for various years since 1911. The figures exclude certain unions registered under federal law only:—

TABLE 870.—Trade Unions of Employees, 1911 to 1937.

Year.	Unions of Employees	Members.			Receipts.	Expenditure	Funds at end of Year.
		Males.	Females.	Total.			
1911	179	145,784	4,743	150,527	£ 157,202	£ 146,757	£ 112,494
1916	202	218,609	12,941	231,550	241,644	249,691	202,950
1921	197	234,898	23,965	258,863	363,067	345,854	194,360
1926	170	286,245	33,354	319,599	494,341	494,979	322,912
1927	170	306,380	38,689	345,069	487,723	454,190	357,588
1928	165	302,282	38,661	340,943	504,640	498,020	362,118
1929	172	287,573	40,025	327,598	633,918	631,517	372,728
1930	167	265,487	36,831	302,318	488,348	527,847	329,262
1931	175	240,605	39,223	279,828	346,840	351,548	318,856
1932	170	241,127	39,718	280,845	330,167	316,931	336,574
1933	171	239,048	40,584	279,632	293,430	283,542	334,737
1934	173	242,905	41,021	283,926	327,578	303,574	358,980
1935	176	251,369	44,649	296,018	343,851	319,625	382,319
1936	177	253,621	47,486	301,107	371,243	345,428	401,837
1937	179	267,568	50,833	318,401	412,429	384,397	428,666

At the end of the year 1937 there were 179 registered trade unions of employees. The membership, especially amongst women, increased rapidly between 1911 and 1921 as a result of organisation for the purposes of industrial arbitration and conciliation. The expansion continued until 1927, then the number of male members began to decline owing to a diminution in employment, the decrease in the years 1927 to 1933 being 67,300. During the next four years there was an increase of 28,500 and the number in 1937 was the highest since 1929. The number of women in the trade unions was 40,025 in 1929. There was a temporary decline of 3,200 in 1930, then the number began to rise again, passing the pre-depression peak in 1933 to reach the maximum on record, 50,833, in 1937.

The average membership per union, excluding the labour council and eight-hour committees, was 1,850 in 1937. The majority of the unions are small. In 1937 there were 29 with less than 100 members; 74 with 100 to 1,000 members; 52 with 1,000 to 5,000 members; 11 with 5,000 to 10,000; and 6 unions had more than 10,000 members.

The receipts during 1937 amounted to £412,429, including contributions, £390,594. Of the total expenditure, payments in respect of benefits amounted to £89,472, and management and other expenses, including legal charges in connection with industrial awards, etc., to £294,925. The total receipts and expenditure are liable to fluctuate under the influence of prevailing industrial conditions, the amounts being inflated in some years by the inclusion of donations for relief from one union to another. The funds include cash and freehold property and assets such as shares in Trades Halls and newspapers.

The following statement shows the membership, receipts, expenditure, and accumulated funds of trade unions of employees, according to industrial classification, in the year 1937:—

TABLE 871.—Trade Unions of Employees—Members and Funds, 1937.

Industrial Classification.	Unions.	Membership at end of year.			Receipts.	Expenditure.	Funds at end of year.	Funds per Member.
		Males.	Females	Total.				
	No.	No.	No.	£	£	£	s. d.	
Engineering and Metal Working ...	17	15,240	365	45,605	95,817	89,590	33,689 41 1	
Food, Drink, and Narcotics ...	19	25,026	8,696	33,722	27,632	26,472	16,228 9 7	
Clothing ...	7	7,157	20,405	27,562	11,643	10,391	17,174 12 5	
Printing, Bookbinding, etc. ...	3	6,307	2,131	8,438	18,246	14,238	48,462 114 10	
Manufacturing, n.e.i. ...	20	18,783	2,228	21,011	20,081	18,716	23,125 22 0	
Building ...	13	22,159	59	22,218	14,474	14,635	15,861 14 3	
Mining and Smelting ...	15	17,527	...	17,527	69,725	62,033	63,009 71 11	
Railways and Tramways ...	13	33,334	586	38,920	48,957	47,901	26,433 13 7	
Other Land Transport ...	6	5,430	...	5,430	5,208	5,149	3,450 12 8	
Shipping and Sea Transport ...	11	6,786	12	6,798	10,631	10,028	4,255 12 6	
Pastoral, etc. ...	4	11,600	1,019	12,619	16,694	16,025	1,571 2 6	
Governmental, n.e.i. ...	17	33,429	4,995	38,424	36,977	36,919	65,288 34 0	
Miscellaneous Industries ...	31	29,790	10,337	40,127	33,528	29,757	41,743 20 10	
Labour Council and Eight-hour Committees ...	3	...	...	...	2,816	2,543	8,378 ...	
Total Unions of Employees ...	179	267,568	50,833	318,401	412,429	384,397	428,666 26 11	

#### Unions of Employers.

Few unions of employers seek registration under the Trade Union Act, so that the available information concerning them is scanty and does not afford any indication of the extent of organisation amongst employers.

The unions of employers registered under the Trade Union Act in 1937 numbered 21. The membership at the end of the year was 10,961, and the funds amounted to £74,599. The receipts during 1937 amounted to £41,747, and the expenditure to £32,467. The members included 7,919 in the pastoral industry and 1,340 licensed victuallers.

Any employer or group of employers with at least 50 employees may register as an industrial union under the Industrial Arbitration Act.

## INDUSTRIAL ARBITRATION

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In New South Wales there are both State and Federal systems of industrial arbitration for the adjustment of relations between employers and employees. The operation of the system under State law is confined to the area of the State; and the Commonwealth system applies to industrial disputes extending beyond the limits of one State. Provision is made under both systems for arbitration, conciliation and collective bargaining and the registration and enforcement of industrial awards and agreements.

The industrial conditions of employment in the public service of the Commonwealth are determined by an arbitrator appointed in terms of the Arbitration (Public Service) Act, 1920-1929.

### *Relation between State and Commonwealth Systems.*

The relation between the State and Commonwealth in respect of industrial awards and orders rests upon the provision of the Commonwealth Constitution Act that if a State law is inconsistent with a Federal law, the latter prevails and the former becomes inoperative so far as it is inconsistent. The industrial authorities have adopted generally the same broad principles for the promotion of industrial peace and the maintenance of standard conditions. Nevertheless fundamental differences in legislation and in the extent of their constitutional authority have prevented them from co-ordinating their methods and practices and from blending their determinations into an industrial code for the guidance of employees and employers in all branches of industry throughout the Commonwealth. Thus differences have arisen in regard to wage determinations, hours and other industrial matters prescribed by State and Federal awards.

An important difference lies in the scope of the State and Federal industrial jurisdiction. The latter is operative only in cases of interstate disputes—actual or impending, and the Commonwealth Court cannot apply any of its awards as a common rule in an industry concerned. The State tribunals, on the other hand, exercise the authority bestowed on them by the Parliament of New South Wales, over all engaged in the industries under their supervision, though the Federal award is paramount in case of conflict.

It is prescribed in the Commonwealth law that a Federal tribunal may order a State industrial authority to cease dealing with any matter covered by a Federal award, or the subject of proceedings before a Federal tribunal. Judges of the Commonwealth Court may confer with State industrial authorities in relation to any industrial matter with a view to securing co-ordination between awards and orders of the Federal and State authorities.

In practice, the influence of the Commonwealth jurisdiction has been extended in New South Wales as a result of the adoption of the basic wage determinations of the Federal Court as the basis of State awards and agreements (see page 996). Moreover, the terms of Commonwealth awards in particular industries have been embodied in State awards and agreements for the purpose of uniformity.

### STATE SYSTEM OF INDUSTRIAL ARBITRATION.

#### *Industrial Unions.*

For the purpose of bringing an industry under the review of the State industrial tribunals, the employees must be organised as a trade union under the Trade Union Act, and must obtain registration as an industrial

union under the Industrial Arbitration Act. Registration for the purpose has been effected by practically all classes of employees throughout the State, but employees in rural industries were removed from the operation of the State industrial system in December, 1929.

Registration as a union of employers may be granted to persons or groups of persons who have employed, on a monthly average, not less than fifty employees during the period of six months next preceding the date of application for registration. Prior registration under the Trade Union Act is not prescribed as in the case of unions of employees.

The Industrial Commission may cancel registration at its discretion, or upon the request of the union (unless an award or agreement relating to its members is in force), or if the union is accessory to an illegal lockout or strike.

At 30th April, 1939, there were 190 unions of employers and 156 unions of employees on the register.

#### *State Industrial Tribunals.*

The principal tribunal is the Industrial Commission, first constituted in 1926 in terms of the Industrial Arbitration (Amendment) Act, 1926, to replace the Court of Industrial Arbitration. Subsidiary tribunals are the Conciliation Commissioner and conciliation committees.

The Industrial Commission is constituted as a superior court of record, by the president and not less than four nor more than five other members, all having the same status as puisne judges of the Supreme Court. At sittings of the Commission three members must be present as arranged by the President, though in a particular matter it may delegate its powers to one member, his decision being subject to appeal to the full Commission. An additional member of the Commission may be appointed temporarily if required to expedite its work.

Persons eligible for appointment as member of the Commission are Supreme or District Court Judges, practising barristers of not less than five years standing, and practising solicitors of not less than seven years standing.

The Industrial Commission is authorised to determine industrial matters referred by the Minister, or arising from the operations of the conciliation committees; to hear appeals; and to summon conferences with a view to the settlement of industrial matters.

The duty of fixing standard hours for industries within its jurisdiction is also a function of the Industrial Commission. Prior to September, 1937, it fixed living wages for men and women to be used as a basis of awards as to wages, but by an amending law the basic rates determined by the Commonwealth industrial authority are to be used for this purpose under the direction of the Commission.

In December, 1938, the Commission was authorised to investigate and report upon prices of certain commodities and services and rents of dwelling houses and shops and the existence of monopolies for the purpose of unfairly keeping up prices. Following a report on the prices of bricks in the metropolitan district its powers were further extended to the regulation of prices where in the interests of the public they are found to be excessive by reason of monopolistic control.

Details regarding these powers of the Commission and the report on the prices of bricks are shown on page 942.

A conciliation committee may be appointed for any industry or calling, upon the recommendation of the Industrial Commission. Each committee consists of the Conciliation Commissioner as chairman and an equal number of representatives of employers and employees engaged in or acquainted with the working of the industry or calling concerned. The Conciliation Commissioner is appointed by the Governor for a term of seven years, and additional Conciliation Commissioners may be appointed for a specified period up to twelve months.

When exercising the powers of a chairman of a conciliation committee the Conciliation Commissioner endeavours to bring the parties to an agreement with respect to matters brought before the committee. He may sit with or without the members of the committee, and they sit as assessors only and without vote. If agreement is reached it is drawn up in the form of an award and upon compliance with certain requirements of the law it operates as an award. Where agreement is not arrived at the matter is referred to the Industrial Commissioner, and appeal from the decisions of the conciliation committee lies to the Industrial Commission. Where an industrial dispute or dislocation is threatened or has occurred, the Conciliation Commissioner may summon the parties to a compulsory conference in an endeavor to effect a settlement.

At 31st March, 1939 there were 308 conciliation committees.

The industrial tribunals may make awards fixing minimum rates of wages and salaries up to a maximum of £15 per week or £750 per annum, minimum prices for piece-work, overtime rates, number of apprentices, and hours and times to be worked to entitle employees to the wages fixed. Awards may prescribe that preference of employment be given to unionists, under conditions described on page 988.

An Apprenticeship Commissioner appointed in terms of the Industrial Arbitration Act and the members of the conciliation committee for an industry constitute the apprenticeship council for the industry, with power to regulate wages, hours, and other conditions of apprenticeship.

The Industrial Registrar—a public servant appointed by the Governor—conducts inquiries at the direction of the Industrial Commission regarding cases before the Act, registers the industrial unions, grants permits to aged, infirm or slow workers to work for less than the minimum wages prescribed by award or agreement, adjusts the rates of wages in current awards or agreements when the living wages are varied and discharges other duties as prescribed by the Act or regulations.

Proceedings before an industrial tribunal are initiated usually upon the application of employers of not less than twenty employees in any industry or calling, or by an industrial union of employees. Matters may be referred also by the Minister for Labour and Industry, and where the public interests are likely to be affected the Crown may intervene in any proceedings before a tribunal or may appeal from an award.

Awards are binding on all persons engaged in the industries or callings, and within the locality covered, for a period not exceeding three years specified therein, and after such period until varied or rescinded.

*Industrial Agreements.*

Industrial unions and trade unions are empowered to make with employers written agreements, which when filed in the prescribed manner become binding between the parties and on all the members of the union concerned.

The maximum term for which an agreement may be made is five years, but it continues in force after the expiration of the specified term until varied or rescinded, or terminated, after notice by a party thereto. An industrial agreement may not provide for wages (except for apprentices or trainee apprentices) lower than the living wages prescribed for the industry concerned, and upon any variation of the living wages the rates of pay in an agreement may be adjusted accordingly by the Industrial Registrar upon application by any party to the agreement.

*Number of Industrial Awards and Agreements.*

The number of awards and agreements made by the State industrial tribunals during each of the last five years is shown below:—

TABLE 872.—Industrial Awards and Agreements, 1935 to 1939.

Year.	Awards Published.		Agreements Filed.	In Force at end of Year.	
	Principal.	Subsidiary.		Awards.	Agreements.
1935 ... ..	44	1,455	32	484	159
1936 ... ..	52	816	40	480	170
1937 ... ..	69	1,131	48	559	149
1938* ... ..	61	1,219	57	540	147
1939* ... ..	73	1,311	22	566	155

\* Year ended 30th June.

The subsidiary awards include a large number made by the Industrial Registrar in consequence of variations in the living wages.

Complaints regarding breaches of award and industrial agreements are investigated by officers of the Labour and Industry Department, who may direct prosecutions. Proceedings may be taken also by employers and by the secretaries of industrial unions, and the cases are dealt with by the Industrial Registrar or the industrial magistrates.

*THE COMMONWEALTH SYSTEM OF INDUSTRIAL ARBITRATION.*

The chief tribunal is the Court of Conciliation and Arbitration, consisting of a Chief Judge and other judges appointed by the Governor-General, with life tenure. Each judge is charged with the duty of endeavouring to reconcile the parties in industrial disputes, and for the purpose he may convene compulsory conferences. Conciliation commissioners, not more than three in number, may be appointed by the Governor-General for a term of five years, with authority to intervene in industrial disputes and to summon conferences.

In the Commonwealth system of industrial arbitration provision is made for both conciliation and arbitration. Registration is a necessary qualification to entitle unions to submit disputes to the Court, or to be represented in proceedings relating to disputes, and industrial organisations of employers and of employees, representing at least 100 employees, may be registered on compliance with prescribed conditions.

The Court or the conciliation commissioners endeavour to induce the settlement of disputes by amicable agreement, or, failing an agreement, may determine the disputes by award. Industrial agreements, when certified by a judge of the Court or a conciliation commissioner and filed in the

office of the Registrar, are binding on the parties thereto. The awards and agreements are made for a specified period up to a maximum of five years, and after the expiration of the definite period an award continues until a new award is made, unless the Court or conciliation commissioner orders otherwise. Agreements continue unless rescinded, or terminated by notice.

The powers conferred upon the Court include the power to determine rates of wages, hours, and other conditions of employment, and to grant preference to members of organisations. Similar authority may be exercised by a conciliation commissioner in so far as it may be exercised by a single judge.

Awards or interpretations or variations thereof which would result in the alteration of standard hours or of the basic wage or the principles on which it is computed are determined by the Chief Judge and not less than two other judges. In such cases the Attorney-General, by public notification, may authorise any person, union, or organisation interested in the matter to apply to the Court for liberty to be heard and to examine and cross-examine witnesses.

The industries subject to federal awards and agreements include coal-mining, shipping, pastoral industries, shipbuilding, timber trades, clothing factories, breweries, glass works, and rubber works, and large sections of the metal and printing trades and of the railway and tramway employees.

At 31st December, 1937, there were 141 awards of the Commonwealth Court in force in New South Wales, also 44 agreements filed under the provisions of the Commonwealth Act.

#### CROWN EMPLOYEES AND ARBITRATION.

Under the State Arbitration system, employees of the State Government and of governmental agencies, with the exception of the police, have access to the ordinary industrial tribunals for the settlement of disputes and the regulation of the conditions of their employment.

The police are excluded from the jurisdiction of the industrial tribunals and are controlled by the Commissioner of Police. An appeal tribunal has been constituted to determine appeals against his decisions in regard to promotions and punishments. The tribunal is constituted by a Judge of the District Court, with or without assessors.

The rates of pay and terms and conditions of employment in the public services of the Commonwealth are regulated by a special tribunal constituted by an arbitrator appointed by the Governor-General to deal exclusively with the public service. There is no appeal against the decisions of the arbitrator, but they do not come into operation until they have been laid before both Houses of the Commonwealth Parliament, and they may be disallowed by a resolution of either House.

It has been decided by the High Court of Australia that in certain cases the Commonwealth Court of Conciliation and Arbitration may make awards in respect of State employees, and it has been the practice of the Court to make an award in such cases unless the rates paid and the conditions of work conform with the usual rates and conditions laid down by the Court.

In 1930 the salaries of Crown employees in the State and Federal services became subject to special reductions prescribed by the Legislature for purposes of economy, as well as to reductions resulting from decreases in the living or basic wages. The special deductions, as described in earlier issues of the Year Book, were restored gradually between 1933 and 1936-37, complete restoration being effective in September, 1936, in the Federal services, and in July, 1937, in the State services.

## HOURS OF WORK.

With the development of the industrial arbitration system the working hours in organised trades and callings have become subject to awards and agreements and special legislation has been enacted for the direction of the industrial tribunals in regulating hours of work. Thus the Eight Hours Act of 1916 prescribed a standard working week of 48 hours. In 1920 the Act was amended and, on the recommendation of a special court, the 44-hours week was proclaimed in many industries.

In September, 1922, the amending Act of 1920 was repealed and the Court of Industrial Arbitration restored the 48-hours week in most of the cases in which the working time had been reduced. The 44-hours week became the standard again (except in the rural industries) as from 4th January, 1926, and has remained in operation, except in the latter half of the year 1930, when the hours were 48 per week.

At the end of the year 1932 the Industrial Commission was charged with the duty of determining, after public inquiry, the standard hours for industries within its jurisdiction. The Commission announced, after its first inquiry in June, 1933, that it had decided to declare 44 hours per week as the standard applicable to industry generally, and to apply the standard with a degree of elasticity—as under former statutes—in order to meet the varying needs of different industries.

It is a general provision of the law that rates of wages prescribed by award or agreement are to be adjusted when standard hours are varied so that an employee working full time will receive the same amount of wages as for working full time prior to the variation. Nevertheless, after a declaration has been made and the rates of wages adjusted, the Industrial Commission may reduce the working hours in any industry and provide for a proportionate reduction in wages.

Overtime may be permitted under certain conditions or it may be prohibited or restricted for the purpose of relieving unemployment by distributing the work available.

Notwithstanding the provision of awards or agreements, work may be shared or rationed amongst employees of the Crown, *i.e.*, the Government departments and statutory bodies, but the application of the system in other employment is liable to be restricted in terms of awards, etc.

The hours of work in factories and shops are restricted in a general way by provisions of the Factories and Shops Act which prohibit the employment of youths under 16 and of women for more than 44 hours in any week, though overtime not exceeding 3 hours in any day is allowed on 24 days in a year, or by written permission of the Minister, where necessary to meet the exigencies of trade, on 48 days.

The Factories and Shops (Amendment) Act, 1936, prescribes that the closing times of shops in shopping districts are to be the hours fixed by the industrial awards and agreements for the cessation of work by the employees. With the exception of certain classes of shops, the closing hour is 5.45 p.m. in the metropolitan district and 5.30 p.m. in Newcastle on four days; and 8.30 p.m. on Fridays; and there is a half-holiday on Saturday.



The closing times for various classes of shops in the metropolitan and Newcastle shopping districts are shown below:—

TABLE 873.—Shops—Closing Times—Sydney and Newcastle.

Class of Shops.	Closing Times.		
	Monday to Thursday.	Friday.	Saturday.
Farriers ... ..	p.m. 5 0	p.m. 5 0	p.m. ...
Motor vehicle shops—			
Metropolitan ... ..	5 45	8 30	5 45
Newcastle ... ..	5 30	8 30	5 30
Grocers, Drapers, Ironmongers, Radio and General Shops, n.e.i.—			
Metropolitan ... ..	5 45	8 30	12 30
Newcastle ... ..	5 30	8 30	1 0
Hairdressers' Saloons ... ..	7 0	7 0	1 0 (a)
Hairdressers' Shops ... ..	7 0	8 30	7 0
Chemists, Druggists, Dispensaries ... ..	7 30	9 0	1 0 (b)
Newsagents ... ..	8 0	9 0	8 0
Flowers ... ..	8 30	9 30	9 30
Fruit, Vegetable, Fish, Cakes and Pastry, Cooked Provisions, Tobacconists, Confectioners, Refreshments ... ..	11 30	11 30	11 30
Restaurants, Fish and Oysters (consumed on premises)... ..	midnight	midnight	midnight
Petrol, Oil and Accessories ... ..	midnight	midnight	midnight
Butchers—			
Metropolitan ... ..	5 30	5 30	12 30
Newcastle ... ..	4 15	4 15	12 0

(a) One o'clock closing either Wednesday or Saturday.

(b) May re-open from 7 p.m. to 9 p.m.

The hours of work in the coal-mines are eight hours bank to bank, inclusive of one half-hour for meal time, on Monday to Friday, and six hours bank to bank, inclusive of one half-hour for meal time, on Saturday, Sunday, and holidays, the usual number of shifts being eleven per fortnight. The hours are reckoned from the time the first person working on a shift leaves the surface to the time the last man on the same shift returns to the surface.

The following statement compiled by the Commonwealth Statistician for each State of the Commonwealth shows the average number of hours in a full working week (without overtime) for adult male workers in industrial occupations, except shipping and rural industries:—

TABLE 874.—Hours of Work in Australian States, 1914 to 1938.

End of Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1914 (April) ... ..	49.42	48.80	48.78	48.60	47.78	48.62	48.93
1916 ... ..	48.51	48.22	48.27	48.14	48.11	48.55	48.33
1921 ... ..	45.66	46.95	45.52	47.07	46.24	46.84	46.22
1926 ... ..	44.55	46.94	43.95	46.95	45.80	47.27	45.57
1929 ... ..	44.14	46.83	43.96	46.83	45.58	47.09	45.34
1930 ... ..	45.64	46.85	44.43	46.83	45.55	47.00	45.98
1931 ... ..	44.22	46.88	44.98	46.83	45.55	46.76	45.51
1932 ... ..	44.19	46.86	44.99	46.83	45.51	46.75	45.49
1933 ... ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
1934 ... ..	44.23	46.82	44.00	46.83	45.51	46.77	45.36
1935 ... ..	44.18	46.74	43.69	46.63	45.48	46.75	45.26
1936 ... ..	44.08	46.41	43.69	46.55	45.30	46.33	45.09
1937 ... ..	44.07	46.22	43.68	46.57	45.25	46.24	45.03
1938 ... ..	44.01	45.85	43.67	46.31	45.11	46.00	44.85

Between April, 1914, and December, 1929, the average nominal working week for adult males in New South Wales was reduced by  $5\frac{1}{2}$  hours to 44.1 hours per week. Then an amendment of the State law, as quoted above, caused a temporary increase of  $1\frac{1}{2}$  hours. The average has since declined to 44 hours, and is less than in any other State except Queensland.

#### PUBLIC HOLIDAYS.

Certain days are observed as public holidays, on which work is suspended as far as practicable. In continuous processes and in transport and other services where the employees work on holidays they receive recreation leave in lieu thereof, and in some cases extra wages.

The days which are observed generally throughout the State as public holidays are as follows:—1st January (New Year's Day), 26th January (the Anniversary of the first settlement in Australia), Good Friday, Easter Monday, 25th April (Anzac Day), Christmas Day, 26th December (Boxing Day), and the King's Birthday.

If a public holiday falls upon a Sunday, or if Boxing Day falls upon a Monday, the following day is a holiday. As a general rule, when the King's Birthday falls upon any day of the week other than Monday the following Monday is a holiday in lieu thereof. The birthday of King George VI is 14th December and the holiday in each year has been transferred to the second Monday in June, so that it would not occur in the busy week preceding the Christmas holidays. Anniversary Day was observed on the Monday following its date in the years 1935 to 1937 and in 1939.

In addition to the days listed above, the day after Good Friday and the first Monday in August are bank holidays, observed in respect of banks and many other financial institutions and public offices. The Governor may appoint by proclamation a special day to be observed as a public holiday throughout the State or any part of the State. It is customary in certain districts to proclaim a day in each year as Eight Hour Day. In the county of Cumberland the first Monday in October is Eight Hour Day.

#### PREFERENCE TO UNIONISTS.

The laws relating to industrial arbitration confer upon both State and Federal industrial tribunals the authority to embody the principle of preference to unionists in their awards, etc., but this may not operate to prevent the employment of returned soldiers or sailors.

The State industrial tribunals may prescribe by award that, as between members of a union specified in the award and other persons offering or desiring employment at the same time, preference of employment be given to members of a union, other things being equal. It is a general rule to grant preference to a union which substantially represents the trade concerned.

The Commonwealth Court is authorised to grant preference to members of registered organisations, but in the exercise of the authority the Court adheres to the general principle that only in case of strong necessity should there be any interference with the employer's discretion in choosing his employees. Consequently it has been the usual practice to refuse to order preference if the respondents undertake not to discriminate against unionists. In 1932, however, preference was awarded in respect of women and girls in clothing factories with the object of preventing the exploitation of labour of this class.

## APPRENTICESHIP.

Conditions of apprenticeship in New South Wales are subject to general regulation in terms of the Apprentices Act of 1901, which prescribes that children may not be indentured until they reach the age of 14 years, the maximum term of apprenticeship being seven years. The hours of work may not exceed 48 per week, except in farming occupations and in domestic service.

The Industrial Arbitration Act of New South Wales confers upon the industrial tribunals authority to attach certain conditions to the employment of apprentices, the term being defined to include all employees serving a period of training under indenture or other written contract for the purpose of rendering them fit to be qualified workers in an industry.

In recent years authority under the Act has been exercised by an Apprenticeship Commissioner appointed for a term of seven years. Apprenticeship Councils are constituted for the various industries. They consist of the Apprenticeship Commissioner, and the members of the conciliation committee for the industry concerned. The Commissioner is chairman and the other members sit as assessors only and without a vote. The councils may determine matters in regard to apprenticeship in the respective industries and in the exercise of their jurisdiction they are not bound by the provisions of the Apprentices Act or the Industrial Arbitration Act. Their decisions operate as awards. Appeal lies to the Industrial Commission and the Commission may require the members of the council concerned, other than the Apprenticeship Commissioner, to sit as assessors without a vote.

Contracts of apprenticeship must be registered within a month of execution, and apprentices (or trainee apprentices) may not be employed without the consent of the apprenticeship council. The normal period of apprenticeship is usually five years in the case of boys entering the trade before reaching the age of 17 years. Shorter periods are arranged for those entering at older ages, and such apprentices are required usually to attend trade or continuation schools, and, in some cases, to pass through courses of intensive training. In several occupations adult apprenticeship may be allowed under special contract.

To obviate difficulties which arise from the intermittent employment of those qualified to undertake the training of apprentices, apprentices may be transferred from one master to another, and organisations of employers and operatives, by official representatives, may be masters of apprentices. The apprenticeship councils prescribe the hours, wages and other conditions of apprenticeship and may fix the proportion of apprentices to journeymen in the various industries.

In the years 1930 to 1932 there was a rapid falling off in the number of indentures registered due to the unwillingness of employers to bind themselves for a period of five years under adverse economic conditions, and in September, 1933, a new system of apprenticeship without indentures, known as "trainee apprenticeship" was introduced as supplementary to the existing system.

Under the trainee system an employer who will provide facilities for trainees to learn a trade may upon application to the appropriate apprenticeship council be registered as an employer of trainee apprentices. The trainees are required to attend technical classes where available and they are paid wages at 15 per cent. above the rates for indentured apprentices.

At the end of the year 1937 the Government arranged to subsidise the employment of young men aged 19 to 25 years to enable them to be employed in skilled trades as indentured or trainee apprentices. Generally the training will extend over a period of four years, but the period may be reduced if the trainee has had previous experience. The scale of subsidies and the total rates of pay during the first three years are shown below. In the fourth year the rate of pay is £4 a week without subsidy:—

TABLE 875.—Apprentices—Government Subsidies for Trainees.

Age at commencement of training.		Subsidy per week.			Total weekly wages (including subsidy).		
		1st year.	2nd year.	3rd year.	1st year.	2nd year.	3rd year.
Years.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
19	...	20 0	17 6	15 0	40 0	57 6	75 0
20	...	20 0	17 6	15 0	40 0	57 6	78 0
21	...	30 0	38 0	18 0	50 0	78 0	78 0
22 or over	...	58 0	38 0	18 0	78 0	78 0	78 0

If a trainee in subsidised employment is discharged owing to lack of work he may attend day training classes at a technical school pending transfer to another employer and may receive from the Government sustenance payments at the rate of 24s. a week if single, or 38s. if married.

The number of indentured apprentices registered during each of the last eleven years is shown below; also the number of trainees registered since October, 1933:—

TABLE 876.—Apprentices Registered, 1928 to 1938.

Year.	Indentured Apprentices Registered.	Year.	Apprentices Registered.		
			Indentured.	Trainee.	Total.
1928	1,823	1933	529	58*	587
1929	1,446	1934	813	373	1,186
1930	1,005	1935	967	621	1,588
1931	543	1936	1,263	963	2,226
1932	403	1937	1,436	1,347	2,783
		1938	1,708	3,796	5,504

\* October to December.

Subsidies were arranged in the case of 168 indentured and 2,302 trainee apprentices registered in 1938.

The following statement shows the distribution of indentured apprentices amongst the various trades at the end of 1928 and subsequent years.

TABLE 877.—Apprenticeships Subsisting December, 1928 to 1938.

Trades.	1928.	1932.	1934.	1935.	1936.	1937.	1938.
Baking ... ..	118	217	219	252	246	256	317
Boilermaking ... ..	293	104	24	28	58	105	147
Bootmaking ... ..	141	155	209	298	314	336	325
Building ... ..	1,791	807	207	264	466	640	708
Butchering ... ..	29	23	16	16	12	9	13
Coachmaking ... ..	362	70	18	26	41	45	37
Confectioners ... ..	10	12	33	36	36	34	31
Electrical ... ..	952	566	350	347	432	551	615
Engineering ... ..	1,398	351	280	317	484	646	856
Farriery ... ..	50	32	19	14	12	13	12
Furniture ... ..	875	308	119	141	201	268	281
Gas meter making ... ..	25	21	17	10	9	...	3
Glass-working ... ..	25	31	15	33	57	78	95
Hairdressing ... ..	169	85	111	156	270	367	465
Jewellery, Electroplating etc.	24	31	31	59	94	107	129
Metal Moulding ... ..	174	43	35	45	73	112	118
Optical Trades... ..	10	17	14	20	25	32	43
Pastrycooks ... ..	66	90	69	67	76	86	92
Pharmacists ... ..	...	...	...	...	...	46	94
Printing ... ..	688	233	200	227	249	268	296
Sheet Metal-working and Tin-smithing.	38	17	5	8	13	15	16
Ship and Boat building	43	15	20	19	27	34	41
Other ... ..	51	52	35	40	49	58	56
Total ... ..	7,332	3,280	2,046	2,423	3,244	4,106	4,790

The foregoing figures do not include indentures of apprenticeship which are not required by award or regulation to be filed with the State Industrial Registrar.

The number of trainee apprenticeships subsisting at the end of the year 1938, was 6,126, including engineering 2,295, building trades 1,890, electrical 623, metal moulding 313, boilermaking 230, bootmaking 220, sheet metal working 162 and coachmaking 152.

#### INDUSTRIAL DISLOCATIONS CONTINGENT UPON DISPUTES.

Under the State law strikes may be recognised as lawful if fourteen days' notice of the intention to strike has been given to the Minister for Labour and Industry, except strikes by employees of the Government or of municipal and shire councils, or by workers engaged in military or naval contracts. Strikes are illegal also in industries in which conditions of employment are regulated by award or agreement, unless the award has been in operation for at least twelve months and the union has decided by a secret ballot to withdraw from its conditions.

When a strike is contemplated, or at any time during a strike, the Minister may direct that a secret ballot be taken in order to ascertain whether the majority of the unionists concerned is or is not in favour of the strike.

The Industrial Commission may cancel the registration of a union and any award or agreement relating thereto if the union is inciting or aiding any other union or its members in a lock-out or an illegal strike.

The maximum penalty for an illegal strike is £500 in the case of a union, and £50, or six months' imprisonment, in regard to an individual. Penalties may be imposed also for obstructing a ballot, for picketing in connection with an illegal strike, or for inducing persons to refrain from handling any commodity during a strike.

A penalty up to £1,000 may be imposed if any person or union of employers takes part in a lockout, unless the employees in the industry concerned are taking part in an illegal strike.

Provisions of the Commonwealth Conciliation and Arbitration Act by which lockouts and strikes were prohibited under severe penalty were repealed in August, 1930. Lockouts and strikes may be prohibited, however, by the terms of an award and the insertion of a clause to this effect renders the parties liable to penalty for breach of the award if they take part in a lockout or strike. The maximum penalty is £100 in the case of an organisation, and £10 in the case of an individual.

*Particulars of Industrial Disputes.*

Records relating to industrial disputes in all classes of industry in New South Wales are kept by the Department of Labour and Industry. In the compilation of statistical tables relating thereto, it is the rule of the Department in counting the number of disputes that if a section of employees in an industry ceases work and the dispute extends subsequently to other employees in that industry in the same or in other localities, one dispute is recorded. On the other hand, if employees in other industries cease work in sympathy with the militant unions, the sympathy strikes are counted as another dispute, that is, one in addition to the original dispute.

In the coal-mining industry, when the action of one section of the employees has caused a complete cessation of the operations of the mine, the number counted is the full complement of the mine. Where a section has ceased work and the operations of the mine have continued, only those who ceased work have been included as workers involved.

In calculating the duration, only actual working days, viz., days on which work would be performed ordinarily, have been counted, but apparently no allowance has been made for intermittency of employment, and it has been assumed that if the dispute had not occurred work would have been continuous during the period of its currency. Consequently the figures are inflated, particularly in the mining industry, where there is considerable intermittency due to causes other than disputes.

The following statement shows, so far as can be ascertained, the number of workers involved, and, subject to the remarks above with respect to intermittency, the time lost in industrial disputes in each year since 1929. Particulars are shown separately regarding disputes which originated during the year specified, and those which commenced at an earlier date:—

TABLE 878.—Industrial Disputes, 1929 to 1938.

Year.	Disputes.			Workers Involved.			Duration—Working Days.		
	Anterior.	New.	Total.	Anterior.	New.	Total.	Anterior.	New.	Total.
1929	2	330	332	567	100,676	101,243	4,303	3,209,761	3,214,064
1930	6	185	191	11,136	52,045	63,181	1,210,266	339,783	1,550,049
1931	5	99	104	1,352	26,772	28,124	211,380	103,661	315,041
1932	2	122	124	622	45,183	45,805	159,522	92,743	252,265
1933	1	92	93	100	23,409	23,509	300	59,002	59,302
1934	1	171	172	80	50,780	50,860	720	211,406	212,126
1935	3	224	227	568	54,766	55,334	8,122	262,853	270,975
1936	3	281	284	1,935	84,407	86,342	84,803	383,514	468,317
1937	1	511	512	360	183,848	184,208	1,080	545,668	546,748
1938	1	480	481	269	182,961	183,230	22,327	916,939	939,266

The loss in working days during 1933 was the smallest in any year of the period—1914 to 1933—for which complete records are available. According to departmental records, the loss in 1931 includes 158,900 days, and in 1932 includes 159,522 days, in respect of two anterior disputes in metalliferous mines, where work was not resumed owing to adverse trade conditions.

A classification of the disputes according to mining and non-mining industries reveals the fact that disputes leading to a suspension of work occur more frequently and are more extensive in the mining industry than in any other. Moreover, the time lost in coal-mining, as a general rule, exceeds the aggregate loss in other industries. In calculating the duration of the dislocations, however, allowance is not made for intermittency, and it is probable that the over-statement arising from this factor is far greater in coal-mining than in other occupations. For instance, in 1929 the principal collieries in the northern district were closed in March owing to a dispute, and were still idle at the end of the year. As a result the loss of working days attributed to disputes in coal-mining in 1929 was 2,476,536 days, while the loss due to other causes (which are inoperative during a dispute dislocation) was 751,865 days in the principal mines. On the other hand the loss due to industrial disputes was only 36,068 days in 1933 and the loss on account of slackness of trade and other causes was 2,051,206 days.

In analysing statistics of industrial disputes, especially if they are being compared with those of other countries, careful consideration should be given to the method of computation and the definition of terms, as shown on the preceding page, because the practices vary greatly in the different countries in which such data are published.

The following statement shows the particulars of the disputes in mining and in other industries which commenced in each of the last ten years. The working days during each dispute have been assigned to the year in which the cessation of work occurred, and for this reason the figures differ from those in the previous table, which show the working days classified according to the year specified.

TABLE 879.—Industrial Disputes According to Year of Commencement, 1929 to 1938.

Year.	Disputes.			Workers Involved.			Duration—Working Days.		
	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.	Mining.	Non-mining.	Total.
1929	300	30	330	94,692	5,984	100,676	3,689,891	746,486	4,436,377
1930	158	27	185	44,453	7,502	52,045	617,538	76,797	694,335
1931	81	18	99	25,116	1,656	26,772	95,932	7,729	103,661
1932	97	25	122	41,172	4,011	45,183	84,064	8,979	93,043
1933	72	20	92	18,133	5,276	23,409	44,157	15,565	59,722
1934	133	38	171	38,888	11,892	50,780	135,763	83,765	219,528
1935	192	32	224	46,851	7,915	54,766	164,169	183,487	347,656
1936	254	27	281	79,163	5,244	84,407	219,574	165,020	384,594
1937	417	94	511	145,167	38,681	183,848	315,333	252,662	567,995
1938	423	57	480	170,541	12,420	182,961	726,014	191,775	917,789

The loss in the mining industry attributed to disputes which commenced in 1929 included 3,463,922 working days—2,300,772 in 1929 and 1,163,150 in 1930—on account of the closing of the northern collieries from 1st March, 1929, to 3rd June, 1930. A serious dispute occurred, also, in the timber industry in 1929; following an extension of hours by award of the Commonwealth Court of Conciliation and Arbitration. The dislocation lasted from January to October.

In 1936 there was a dispute regarding hours in the iron and steelworks at Port Kembla, the loss being 143,100 working days. In 1937 there was a number of disputes about wages in the iron trades. In 1938 there was a general stoppage in the coalmines from 10th to 26th September following a claim for shorter hours and changes in other conditions of employment; also a dispute regarding piece work rates in galvanised iron works at Newcastle, the loss being 125,096 working days.

It is difficult to obtain reliable information regarding the cost of industrial disputes. An estimate of the losses in wages in each of the ten years is shown below, the method adopted being as follows:—The working days lost were classified into the fourteen industrial groups, for which average rates of wages are shown subsequently in this chapter, the days being assigned to the year in which the dispute commenced; the days lost in respect of each group in each year were then multiplied by the rate of wages which is the mean of the average rate for adult males in that group as at the end of that year and at the end of the previous year.

TABLE 880.—Industrial Disputes, Duration and Wages lost, 1929 to 1938.

Year.	Duration—Working Days.			Estimated Loss of Wages.		
	Mining.	Non-mining.	All Industries.	Mining.	Non-mining.	All Industries.
	Days	Days.	Days.	£	£	£
1929	3,689,891	746,486	4,436,377	5,451,500	668,500	4,120,000
1930	617,538	76,797	694,335	569,900	63,600	633,500
1931	95,932	7,729	103,661	86,100	6,000	92,100
1932	84,064	8,979	93,043	73,400	6,700	80,100
1933	44,157	15,565	59,722	37,900	4,000	41,900
1934	135,763	83,765	219,528	116,500	55,500	172,000
1935	164,169	183,487	347,656	141,000	131,000	272,000
1936	219,574	165,020	384,594	188,800	120,000	308,800
1937	315,333	252,662	567,995	279,300	193,600	472,900
1938	726,014	191,775	917,789	671,000	157,700	828,700

Apart from the matter of intermittency which is discussed on the previous page, these quotations of estimated loss of wages are open to question in so far as the records are deficient in regard to the sex and age of the workers involved, therefore allowance has not been made for the proportion of women and juveniles. The proportion is small, however, as disputes have been relatively unimportant in industries in which the majority of the women and juvenile workers are employed. Another factor for which allowance has not been made is the extent to which losses in wages during a dispute may have been compensated by higher rates of pay after resumption of work.



Information is given in the following table regarding the duration of the disputes which originated during the year 1938:—

TABLE 881.—Industrial Disputes—Duration 1938.

Duration in Working Days.	Mining.			Non-Mining.			All Industries.		
	Disputes.	Workers Involved.	Duration—Work Days.	Disputes.	Workers Involved.	Duration—Work Days.	Disputes.	Workers Involved.	Duration—Work Days.
Under 1 day ... ..	10	2,603	829	13	2,687	1,085	23	5,290	1,014
One day ... ..	291	118,275	118,275	14	3,449	3,449	305	121,724	121,724
Over 1 and not exceeding 10 ... ..	54	24,705	291,934	18	3,218	18,948	72	27,923	310,882
Over 10 and not exceeding 50 ... ..	65	23,649	231,419	8	1,183	22,887	73	24,832	254,306
Over 50 and not exceeding 100 ... ..	3	1,309	83,557	3	1,816	135,926	6	3,125	219,483
Over 100 and not exceeding 150 ... ..	...	...	...	1	67	9,480	1	67	9,480
Total ... ..	423	170,541	726,014	57	12,420	191,775	480	182,961	917,789

A very large proportion of the disputes are of brief duration. The number of workers affected by disputes lasting one day or less during 1938 was 120,878, with a loss of 119,104 working days in mining, and 6,136 workers and loss 4,534 work days in other industries.

The causes of the disputes in the mining industries and in the non-mining group during 1938 are classified in the following statement. Disputes regarding the employment of non-union labour are included in the category, "employment of persons, etc." Those pertaining to the recognition of a union and the enforcement of union rules are classified under the head of "trade unionism."

TABLE 882.—Industrial Disputes—Causes, 1938.

Cause.	Mining.			Non-Mining.			All Industries.		
	Dislocations.	Workers Involved.	Duration—Working days.	Dislocations.	Workers Involved.	Duration—Working days.	Dislocations.	Workers Involved.	Duration—Working days.
Wages ... ..	82	41,485	499,389	24	5,300	149,322	106	46,785	648,711
Hours ... ..	21	5,523	8,183	1	70	40	22	5,593	8,223
Working conditions ... ..	136	43,757	105,291	6	819	3,710	142	44,576	109,001
Employment of persons or classes of persons ... ..	74	20,040	41,129	20	5,036	34,677	94	25,076	75,806
Trade unionism ... ..	10	2,398	2,758	...	...	...	10	2,398	2,758
Sympathy ... ..	4	1,084	3,685	1	52	208	5	1,136	3,893
Miscellaneous ... ..	75	50,412	57,465	4	1,130	3,805	79	61,542	61,270
Not stated ... ..	21	5,842	8,114	1	13	13	22	5,855	8,127
Total ... ..	423	170,541	726,014	57	12,420	191,775	480	182,961	917,789

In the mining industries disputes about wages were the cause of 70 per cent. of the loss of working time during 1938, and disputes about working conditions 15 per cent.

In non-mining industries 78 per cent. of the loss was the result of disputes about wages, 18 per cent. was lost in disputes about the employment of persons or classes of persons.

\* 23283—C

## WAGES.

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Wages paid to industrial workers in New South Wales are regulated for the most part by the industrial arbitration tribunals, described in the foregoing chapter.

### THE LIVING WAGE.

Early legislation empowering industrial tribunals to fix minimum wages, as incidental to the preservation of industrial peace, did not give any direction regarding the principles to be observed in the exercise of the function. In practice, the tribunals adopted the principle of basing their determinations on the living wage, which must be sufficient to secure to the unskilled worker a reasonable standard of living, as distinct from the secondary wage, which is remuneration for skill or other special qualifications.

Details regarding the development of the living wage principle since it was defined by Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, in the well-known *Harvester* case in 1907, are published in earlier issues of the "Year Book," with particulars relating to the standard of living and the living wage determinations. In this issue only a brief description of recent developments and the existing practice is inserted.

In the State jurisdiction, the Court of Industrial Arbitration, in 1914, adopted the practice of fixing a living wage for the guidance of wage-fixing tribunals, and in 1918 a living wage—determined by the chief industrial tribunal after inquiry into the cost of living—became a statutory right of men and women working under industrial awards. The function of determining the rates was exercised by the Board of Trade from 1918 until it was replaced by the Industrial Commission in 1926. The Industrial Commission was authorised to determine a standard of living not more frequently than once in every six months, after public inquiry, and to declare living wages, based upon the determined standard, for adult men and women; also in terms of an Act passed in December, 1932, to adjust the living wages in April and October in each year, to accord with the increased or decreased cost of maintaining the determined standard. The living wages fixed by the Commission had statutory force as the basis of industrial awards and agreements, and when they were varied the rates of pay in current awards and agreements were deemed to be varied by the same amount of increase or decrease as the living wages. By an amending Act passed in September, 1937, this system was terminated and provision was made for the assessment of the basic rates for State awards and agreements in accordance with the methods adopted by the Commonwealth Court and as far as practicable for uniformity with the basic wages in Federal awards and agreements.

Where there is more than one dependent child in the family, wages which do not exceed the living or basic wage standard may be supplemented by family allowances, described on page 207 of this Year Book.

The following statement shows the variations in the living wages, as determined by the industrial authority constituted under State legislation from February, 1914, to April, 1937, the date of the last declaration by the Industrial Commissioner, prior to the adoption of the basic rates of Commonwealth Court. The determinations were made by the Court of Industrial Arbitration in the years 1914 to 1916, by the Board of Trade from 1918 to 1925, and later by the Industrial Commission:—

TABLE 883.—Living Wages Declared by State Industrial Authority, 1914 to 1937.

Year.	Men.			Women.	
	Date of Declaration.	Living Wage per week.	Number of Children included in Family Unit.	Date of Declaration.	Living Wage per week.
		£ s. d.			£ s. d.
1914	16th February ...	2 8 0	Two	...	...
1915	17th December ...	2 12 6	"	...	...
1916	18th August ...	2 15 6	"	...	...
1918	5th September ...	3 0 0	"	17th December...	1 10 0
1919	8th October ...	3 17 0	"	23rd December...	1 19 0
1920	8th October ...	4 5 0	"	23rd December...	2 3 0
1921	8th October ...	4 2 0	"	22nd December...	2 1 0
1922	12th May...	3 18 0	"	9th October ...	1 19 6
1923	10th April ...	3 19 0	"	10th April ...	2 0 0
1923	7th September ...	4 2 0	"	7th September...	2 1 6
1925	24th August ...	4 4 0	"	24th August ...	2 2 6
1927	27th June ...	4 5 0	None	27th June ...	2 6 0
1929	20th December ...	4 2 6	One	20th December...	2 4 6
1932	26th August ...	3 10 0	"	26th August ...	1 18 0
1933	11th April ...	3 8 6	"	11th April ...	1 17 0
1933	20th October ...	3 6 6	"	20th October ...	1 16 0
1934	26th April ...	3 7 6	"	26th April ...	1 16 6
1935	18th April ...	3 8 6	"	18th April ...	1 17 0
1936	24th April ...	3 9 0	"	24th April ...	1 17 6
1936	27th October ...	3 10 0	"	27th October ...	1 18 0
1937*	24th April ...	3 11 6	"	24th April ...	1 18 6

\* Subsequent changes in the living wages are shown in Table 884.

The family unit covered by the living wage for men consisted of a man, wife, and two children from 1914 to 1925, inclusive; a man and wife only in 1927, with family allowances for dependent children; and a man, wife, and one child in 1929, one child being excluded from family endowment.

The living wage determinations of the Industrial Commission applied generally throughout the State to all industries within its jurisdiction. When the Commonwealth Court's method of determining basic wages was adopted by the State in October, 1937, provision was made for assessing different rates for certain districts, according to the practice of the Commonwealth Court. As explained on page 999 the basic wage under the Federal jurisdiction consists of the "needs basic wage," which is subject to periodical adjustment, and a fixed loading addition. It is the general rule that the "needs basic wage" for the metropolitan area and the districts of Newcastle and Port Kembla-Wollongong is assessed according to the retail price index numbers for Sydney, the rate for the county of Yancowinna according to the index numbers for Broken Hill, and the rate for other localities is 3s. per week less than the metropolitan rate. The fixed loading addition is 6s. a week.

An exception is made in regard to awards for Crown employees, for whom the "needs basic wage" in all districts is derived from the index numbers (weighted average) for the five towns, Sydney, Newcastle, Broken Hill, Goulburn and Bathurst, and the fixed loading is 5s.—the amount applied by the Commonwealth Court in its award for employees of the railways of New South Wales. The basic wages for women are, as a general rule, 54 per cent. (calculated to the nearest 6d.) of the corresponding rates for men.

Unless it is provided otherwise, the basic wages are subject to adjustment in September, December, March and June according to the retail price index numbers of the preceding quarter. Provision is made, however, for uniformity—according to the Commonwealth award—in regard to basic wages and periods of adjustment where there are both State and Commonwealth awards for the same industry.

The basic wages per week for the various districts and for Crown employees in New South Wales, as from October, 1937, are shown below:—

TABLE 884.—Living Wages—State Awards and Agreements, 1937 to 1939.

Date.	Sydney, Newcastle Wollongong— Port Kembla.		County of Yanco- winna.	Other Districts.		Crown Employees (all Districts).	
	Men.	Women.	Men.	Men.	Women.	Men.	Women.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1937—October ... ..	78 0	42 0	78 0	75 0	40 6	76 0	41 0
December ... ..	78 0	42 0	79 0	75 0	40 6	77 0	41 6
1938—March ... ..	79 0	42 6	79 0	76 0	41 0	77 0	41 6
June ... ..	79 0	42 6	81 0	76 0	41 0	78 0	42 0
September ... ..	80 0	43 0	82 0	77 0	41 6	78 0	42 0
December ... ..	81 0	43 6	82 0	78 0	42 0	80 0	43 0
1939—March ... ..	81 0	43 6	83 0	78 0	42 0	80 0	43 0
June ... ..	82 0	44 0	85 0	79 0	42 6	80 0	43 0
September ... ..	81 0	43 6	84 0	78 0	42 0	80 0	43 0

#### THE LIVING WAGE IN FEDERAL AWARDS.

The Commonwealth Conciliation and Arbitration Act does not define the basic wage nor the principles to be adopted for its determination, though it prescribes that cases relating to alterations in the basic wage or the principles on which it is computed are to be decided by the Chief Judge and at least two other Judges.

In 1908 the Court adopted as a standard wage the Harvester rate, 7s. per day in Melbourne in 1907, which was based apparently on the needs of a family of "about five persons." Later there developed a custom of inserting in awards and agreements provision for the periodical adjustment of the prescribed rates of wages, according to changes in the cost of living. The adjustments are computed by the use of the retail price index numbers, and may be made at intervals of three or six months or, as in the case of pastoral awards, once a year.

In 1921 the President of the Court (Mr. Justice Powers) decided to add to the Harvester equivalent (ascertained by applying the retail price index numbers to the Harvester wage), the sum of 3s. to cover possible increases in the cost of living during the interval between adjustments.

In February, 1931, the Court directed that a reduction of 10 per cent. should be made in the rates of wages prescribed by federal awards—except those exempted for special reasons. The reduction was applied not only to the basic wage element but also to the “Powers 3s.” and margins above basic rates, which hitherto had remained constant during the currency of awards. This deduction of 10 per cent. operated until May, 1934, though its effect was modified to some extent twelve months earlier by a change in the method of computing the periodical adjustments.

In April, 1934, the Court announced its decision to abolish the “Powers 3s.” to restore the 10 per cent. to margins over the basic wage, to give the basic wage itself a new starting point, and to simplify the method of assessment and adjustment, for which it directed that “All Items” index numbers be used (see page 951). A measure of stability was given by an order that, after 1st June, 1934 (when the basic rates had been adjusted by the index numbers for the quarter January-March, 1934), no change was to be made unless it amounted to at least 2s. per week.

Basic rates were determined for a number of provincial towns specified in the judgment, including Newcastle and Broken Hill, and the rates for other localities outside the metropolitan areas were, as a general rule, 3s. less than the rate for the capital city in the same State. By later decisions the Sydney rates were applied to Port Kembla and to certain industries in Newcastle, *e.g.*, metal trades and timber industry.

In June, 1937, the Commonwealth Court, upon application by unions of employees, reviewed the basic wage and arrived at the conclusion “that the present degree of prosperity in the Commonwealth and the existing circumstances of industry make desirable appreciable increases in the basic wage.”

To give effect to its decision, the Court added a fixed loading to current rates, so that the basic wage in the majority of federal awards consists of (a) the “needs” basic wage, which is adjustable upon retail price index numbers, and (b) a loading addition which remains constant at the amount fixed by the Court. The loading was brought into operation in two instalments, the first in July, 1937, and the second in October. The amount is 6s. in New South Wales, Victoria, and Queensland, 4s. in South Australia, Western Australia and Tasmania, and 5s. where the wage is the average for four, five, or six capital cities of Australia; 5s. in the railway undertakings in New South Wales and Victoria, and 3s. in the railways of South Australia and Tasmania.

The Court decided also to issue its own series of index numbers for the periodical adjustment of the basic wage in its awards. The “Court series” corresponds with the Commonwealth Statistician’s “All Items” series of retail price index numbers described on page 951. The minimum variation in the needs basic wage for men is 1s. per week, and the rates are adjusted to the nearest shilling.

In making an award as to basic wages in a particular industry, the Commonwealth Court may take into consideration any special circumstances affecting the industry, and the cost of living in localities to which the award relates. For this reason the basic rates in various Federal awards sometimes differ from one another in a substantial degree.

The trend of the basic rates generally used in awards of the Federal tribunals is illustrated in the following statement of the rates per week for each capital city of Australia at intervals since February, 1929. The Harvester equivalent for Sydney was at the peak in February, 1930.

TABLE 885.—Basic Wages, Federal Awards—Australian Capitals, 1929 to 1939.

Date.	Sydney.†	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Average Six Capital Cities.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1929—Feb. ...	91 0	86 0	80 0	84 0	85 0	83 0	87 0
1930—Feb. ...	95 6	90 0	81 0	87 0	83 6	86 8	90 6
Nov. ...	88 0	83 0	70 6	78 0	79 0	82 0	83 0
1931—Feb. ...	76 6	70 2	60 9	68 2	66 2	70 2	71 1
1932—Feb. ...	68 10	63 5	58 6	58 1	60 9	64 10	64 4
1933—Feb. ...	66 7	60 4	55 10	55 4	58 1	63 5	61 8
May ...	67 10	63 4	59 4	59 2	59 9	64 10	64 2
1934—Feb. ...	66 11	63 4	59 4	60 2	59 3	64 10	63 9
May ...	67 0	64 0	61 0	61 0	66 0	65 0	65 0
June ...	68 0	64 0	62 0	62 0	66 0	65 0	66 0
1935—June ...	68 0	66 0	62 0	65 0	68 0	69 0	66 0
Dec. ...	70 0	66 0	64 0	67 0	68 0	69 0	68 0
1936—Dec. ...	70 0	69 0	66 0	69 0	71 0	69 0	68 0
1937—Mar. ...	70 0	69 0	66 0	69 0	71 0	69 0	70 0
June ...	72 0	69 0	68 0	69 0	71 0	69 0	70 0
July ...	75 0	72 0	71 0	70 0	72 0	72 0	73 0
Sept. ...	75 0	73 0	70 0	71 0	73 0	73 0	73 0
Oct. ...	78 0	76 0	73 0	73 0	75 0	75 0	75 0
Dec. ...	78 0	77 0	74 0	74 0	75 0	75 0	76 0
1938—Mar. ...	79 0	77 0	74 0	75 0	74 0	76 0	77 0
June ...	79 0	77 0	75 0	75 0	75 0	76 0	77 0
Sept. ...	80 0	78 0	75 0	76 0	76 0	76 0	77 0
Dec. ...	81 0	79 0	75 0	76 0	76 0	76 0	78 0
1939—Mar. ...	81 0	79 0	75 0	76 0	76 0	76 0	78 0
June ...	82 0	81 0	77 0	78 0	77 0	77 0	79 0
Sept. ...	81 0	81 0	76 0	78 0	77 0	77 0	79 0

† Family Endowment excluded, see page 207.

When necessary for an award, the Commonwealth Court assesses a minimum wage for women with regard to the needs of the employees in the industry concerned, and the ratio between the minimum wage for the women and the minimum for the men is preserved in periodical adjustments during the currency of the award. The majority of women working under Federal awards are employed in the clothing and printing industries.

#### LIVING WAGE DETERMINATIONS IN THE VARIOUS STATES.

In Queensland, South Australia and Western Australia a standard living wage is fixed by industrial tribunals established under State jurisdiction. In Victoria and Tasmania the rates of wages in the various industries are fixed by wages boards by a process of collective bargaining between the employers and the employees in the industry concerned. In Victoria it had become the usual practice to assess a basic rate according to the method used by the Commonwealth Court of Conciliation and Arbitration,

and an Act which commenced in October, 1934, prescribes that the wages boards must adopt Federal award rates where applicable. In Tasmania the standard of the Commonwealth Court is observed to some extent.

In Western Australia the State Arbitration Court determines a basic wage in June of each year, and may review the wage during its currency, if data supplied at quarterly intervals by the State Government Statistician indicate that a change of one shilling or more per week has occurred in the cost of living.

The family unit upon which the basic wage is determined by the State tribunal in Queensland consists of a man, wife, and three children. In South Australia and Western Australia the unit is not defined by legislation, but the respective tribunals have adopted a family unit which includes three children in South Australia and two children in Western Australia. In New South Wales the unit was a man, his wife and one child and the wage may be supplemented by family allowances at the maximum rate of 5s. per week for each additional child.

The following statement shows the basic wages for adult males which were current in 1928 and subsequent variations as determined by the State industrial tribunals. The rates are per week:—

TABLE 886.—Living Wages declared by Industrial Tribunals in Various States, 1928 to 1938.

Year.	Sydney.		Brisbane.		Adelaide.		Perth.	
	Date of Declaration.	Rate.*	Date of Declaration.	Rate.	Date of Declaration.	Rate.	Date of Declaration.	Rate.
1928 ...	...	s. d. 85 0	...	s. d. 85 0	...	s. d. 85 6	...	s. d. 85 0
1929 ...	Dec. ...	82 6	...	85 0	...	85 6	July ...	87 0
1930 ...	...	82 6	{ Aug. ... Dec ... }	{ 80 0 77 0 }	Oct. ...	75 0	July ...	86 0
1931 ...	...	82 6	May ...	74 0	Aug.	63 0	{ Mar. ... Nov. ... }	{ 78 0 73 6 }
1932 ...	Aug. ...	70 0	...	74 0	...	63 0	{ Mar. ... Nov. ... }	{ 72 0 70 6 }
1933 ...	{ Apr. ... Nov. ... }	{ 68 6 66 6 }	...	74 0	...	63 0	{ Feb. ... July ... Aug. ... }	{ 69 0 68 0 69 3 }
1934 ...	Apr. ...	67 6	...	74 0	...	63 0	{ July ... Aug. ... }	{ 69 6 71 0 }
1935 ...	Apr. ...	68 6	...	74 0	Oct. ...	66 0	July ...	70 6
1936 ...	{ Apr. ... Oct. ... }	{ 69 0 70 0 }	...	74 0	Dec. ...	69 6	{ Aug. ... Nov. ... }	{ 72 0 73 9 }
1937 ...	{ Apr. ... Oct. ... }	{ 71 6 78 0 }	Apr. ...	78 0	Nov. ...	74 0	July ...	74 11
1938 ...	{ Mar. ... Sept. ... Dec. ... }	{ 79 0 80 0 81 0 }	Apr. ...	81 0	...	74 0	July ...	{ 80 0 81 1 }
1939 ...	{ June ... Sept. ... }	{ 82 0 81 0 }	July ...	84 0	Jan. ...	78 0	April ...	82 2

\*Family Endowment excluded (see page 207.)

SECONDARY WAGES.

Having ascertained the basic rates of wages for unskilled labour, the assessment of the secondary wages is a matter to be considered separately in connection with each occupation. It is the usual practice, under the State system in New South Wales, when varying wages on account of an increase or decrease in the cost of living, to preserve unaltered the recog-

nisd margin between the skilled and the unskilled workmen in an industry, and to vary all rates of wages by the amount by which the basic wage has been increased or reduced.

The Commonwealth Court determines in each case an amount which it considers to be the fair value, as at the date of the award, of the skill required. The 10 per cent. reduction in operation by order of the court from February, 1931, to May, 1934, was applied to the secondary as well as the basic wages.

#### RATES OF WAGES.

The rates of wages for various occupations at intervals since 1901 are shown in the following statement. Except where specified, the figures indicate the minimum amounts payable for a full week's work on the basis of the weekly, daily, or hourly rates fixed by industrial awards and agreements, and for occupations not subject to industrial determinations, the ruling or predominant rates are stated. The table contains particulars of a few occupations only, but similar information relating to a large number of callings is published annually in the "Statistical Register of New South Wales." In the Register for the year 1920-21 the rates are stated for each year from 1901 to 1913, inclusive, and for 1921; and the following issue contains the rates for each year from 1914 to 1922:—

TABLE 887.—Rates of Wages in Various Occupations, 1901 to 1938.

Occupation.	1901.	1911.	1921.	1929.	1931.	1932.	1935.	1936.	1937.	1938.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Manufacturing—</b>										
Cabinetmaker ...	52 0	56 0	101 9	108 6	98 0	96 0	94 6	96 0	104 0	107 0
Boilermaker .....	60 0	66 0	107 6	123 0	92 3	89 1	97 0	97 0	108 0	111 0
Coppersmith .....	60 0	68 0	109 6	118 6	93 2	90 0	98 0	98 0	109 0	112 0
Fitter ...	60 0	64 0	107 6	118 6	92 3	89 1	97 0	97 0	108 0	111 0
„ electrical ...	60 0	66 0	108 6	118 6	118 6	106 0	104 6	106 0	114 0	117 0
Baker ...	52 6	56 0	100 6	128 6	128 6	113 6	103 0	104 6	112 6	119 0
Bootlicker ...	45 0	54 0	98 6	102 6	88 0	84 9	81 0	83 0	99 0	104 0
Tailor (ready-made) ...	50 0	55 0	102 6	108 0	87 4	81 0	88 0	88 0	96 0	97 0
Compositor (jobbing) ...	52 0	60 0	105 0	116 0	90 11	86 5	92 0	96 0	102 0	108 0
<b>Building—</b>										
Bricklayer ...	60 0	69 0	108 0	126 6	126 6	101 0	103 6	105 0	118 0	125 6
Carpenter ...	60 0	63 0	110 0	125 0	125 0	112 6	103 6	105 0	118 0	125 6
Painter ...	54 0	60 0	104 0	116 0	116 0	103 6	102 0	103 6	111 6	114 6
Plumber ...	60 0	66 0	110 0	127 0	127 0	114 6	113 0	114 6	121 0	124 6
<b>Mining—</b>										
Coalwheeler ...	42 0	42 2	103 6	109 6	106 6	95 0	95 0	95 0	100 0	100 0
			to	to	to	to	to	to	to	to
			106 6	112 6	109 6	109 6	109 6	109 6	115 0	115 0
Silverminer ...	54 0	66 0	99 0	112 0	99 0	93 0	94 0	95 6	98 6	104 6
<b>Transport—</b>										
Railway loco-Driver ...	66 0	66 0	106 0	114 0	106 6	94 0	92 6	94 0	101 0	103 0
	to	to	to	to	to	to	to	to	to	to
	90 0	90 0	130 0	130 0	130 6	118 0	116 6	118 0	125 0	127 0
Wharf-labourer per hour	1 0	1 3	1 6	2 9	2 11	2 2	2 3½	2 5½	2 6½	2 9½
<b>Rural Industries</b>										
Shearer per 100 sheep ...	20 0	24 0	40 0	41 0†	32 6(a)	29 3(b)	30 0	32 6	35 0	35 6
Station-hand, with keep ...	20 0	25 0	48 0	54 8	42 6	38 2(c)	40 0	40 0	45 6	45 6
Farm-labourer, with keep	15 0	20 0	42 0	55 0	20 0	25 0	25 0	25 0	25 0	25 0
	to	to	to	to	to	to	to	to	to	to
	20 0	25 0	42 0	55 0	35 0	35 0	35 0	35 0	35 0	35 0
<b>Miscellaneous—</b>										
Pick and shovel man ...	42 0	48 0	94 6	95 0	95 0	81 0	79 0	80 6	91 0	93 6
Standard minimum wage ...	*	45 0	82 0	82 6	82 6	70 0	68 6	71 6	78 0	80 0

\* Standard not fixed. † Less 2s. 3d. per week.

(a) Less 7s. 6d. per week. (b) 27s. 3d. per 100 as from 1st January, 1933.

(c) 36s. as from 1st January, 1933.



Prior to the determination of the Harvester rate in 1907 a standard wage was not fixed, and an inspection of the predominant rates in 1901 shows that wages as low as 30s. per week were paid for unskilled labour in some factories, but the average was probably about 35s. per week.

The wages of coalminers are based on contract rates, which vary according to the condition of the seams or places where the coal is mined.

The wages of railway engine-drivers are increased on the completion of each of the first four years of service, the highest rates being paid to drivers of mail and passenger trains. An hourly rate is prescribed for wharf-labouring, and intermittency is a constant factor owing to irregularity in the daily volume of shipping trade. Extra rates are paid for handling special cargoes such as wheat, explosives, and frozen meat.

In the rural industries, rates for shearers and other pastoral employees are fixed by the Commonwealth Court of Conciliation and Arbitration. The contract rate for shearing ordinary flock sheep is subject to annual adjustments in March in each year for cost of living variations.

TABLE 888.—Wages Rates—Shearers, 1927 to 1938.

Period.	Rate per 100 Sheep (Ordinary Flock).		Cost of Living Adjustment (per week).	
	s.	d.	s.	d.
September, 1927, to March, 1928 ... ..	41	0	...	...
March, 1928, to March, 1930 ... ..	41	0	Deduct ...	2 3
March, 1930, to July, 1930 ... ..	41	0	Add ...	3 4
July, 1930, to March, 1931 ... ..	32	6	Add ...	3 4
March, 1931, to March, 1932 ... ..	32	6	Deduct ...	7 6
March, 1932, to July, 1932 ... ..	32	6	Deduct ...	21 0
July, 1932, to December, 1932 ... ..	29	3	...	...
January, 1933, to May, 1934 ... ..	27	3	...	...
May, 1934, to June, 1936 ... ..	30	0	...	...
July, 1936, to June 1937 ... ..	32	6	...	...
July, 1937 to September, 1938 ... ..	35	0	...	...
September, 1938... ..	35	6	...	...

Wages of farm labourers were not fixed by award or agreement until October, 1921, when a living wage for rural workers was declared at the rate of 66s. per week without board or residence, or 42s. per week for those who were provided with board and lodging. The declaration lapsed after a period of twelve months. In October, 1926, an award covering agricultural workers was issued by the Conciliation Committee relating to the industry, and in July, 1927, the living wage for rural employees at the rate of 84s. per week was declared by the Industrial Commission. In December, 1929, rural workers were excluded from the jurisdiction of the State industrial arbitration system, and State awards and agreements applying to such employees were rescinded.

The rates shown in Table 887 for pick and shovel men relate to those engaged in the work of railway construction.

The average weekly rates of wages payable to adult males in various groups of industries, and the weighted average for all groups combined are determined for New South Wales by the Commonwealth Statistician. For the computations particulars are obtained in respect of 874 occupations. The industrial awards and agreements are the main sources of

information, and for occupations not subject to industrial determinations, the ruling or predominant rates are ascertained from employers and from secretaries of trade unions. The occupations are classified into fourteen industrial groups, and the averages are calculated on the basis of the weekly rates payable to adult male employees in the metropolitan district, except in regard to the mining, shipping, and rural industries, which are conducted for the most part outside the metropolitan area.

In determining the average wage in each group an arithmetic mean is taken; that is, the sum of the rates is divided by the number of occupations, no detailed system of weights being applied owing to the difficulty of obtaining satisfactory data as to the number of persons employed in each occupation. In computing the average for all the industries combined, the average for each industrial group was weighted in accordance with the relative number of all male workers engaged in that group.

A comparative statement of the average weekly rates of wages (all industries) payable to adult males is as follows:—

TABLE 889.—Average Rate of Wages in Sydney, 1891 to 1938.

End of year.	Average rate per week.	End of year.	Average rate per week.	End of year.	Average rate per week.
	s. d.		s. d.		s. d.
1891 ...	44 1	1919 ...	76 9	1930 ...	99 1
1896 ...	42 1	1920 ...	94 0	1931 ...	93 5
1901 ...	43 11	1921 ...	95 10	1932 ...	84 11
1911 ...	51 5	1922 ...	91 6	1933 ...	81 11
1912 ...	54 3	1923 ...	94 6	1934 ...	83 2
1913 ...	55 9	1924 ...	93 6	1935 ...	84 2
1914 ...	56 2	1925 ...	96 0	1936 ...	85 6
1915 ...	57 7	1926 ...	100 5	1937 ...	92 1
1916 ...	61 11	1927 ...	101 10	1938 ...	95 0
1917 ...	64 5	1928 ...	102 7		
1918 ...	65 11	1929 ...	102 11		

At the end of 1921 the average rate of wages for all industries was 86.4 per cent. above the average of 1911. In the following years the average rose and fell alternately, and in 1925 it was at a point slightly above the average in 1921. There was an increase in each succeeding year until June, 1929, when the average, 103s. 6d. per week, was double the average of the year 1911.

At the end of the year 1929 the living wage declared by the Industrial Commission of New South Wales was reduced by 2s. 6d. per week, and State rural awards were rescinded. During 1930 and 1931 the "Harvester equivalent" for Sydney declined, the wages of coal-miners and of pastoral workers under federal jurisdiction were reduced, and the majority of rates determined under federal jurisdiction were reduced by 10 per cent. by order of the court. Under these influences the average nominal wage declined to 93s. 5d., though the living wage in State jurisdiction remained constant at 82s. 6d. from December, 1929, to August, 1932. During 1932 the basic rates under State and Federal jurisdiction were lowered by 12s. 6d. and 3s. 2d. respectively, and the average nominal wage fell by 8s. 6d. to 84s. 11d.

The living wages reached the lowest level of the depression period in 1933 and the average nominal wage in December was 81s. 11d., or 21s. per week less than in December, 1929. During the years 1934 to 1936 wages rose slowly and the upward movement was accelerated during the latter part of 1937 by the addition of a prosperity loading to the basic wages, as described on pages 997 and 999.

Changes in the average rates in the various groups since 1911 are illustrated below. In the shipping, pastoral, and domestic industries, where food and lodging are supplied, the value of such has been added to the rates of wages:—

TABLE 890.—Average Rates of Wages in Industries, 1911 to 1938.

Group of Industries.	Average Weekly Rates of Wages at end of Year.—Adult Males.						
	1911.	1921.	1929.	1931.	1932.	1937.	1938.
1. Wood, Furniture, Sawmill, Timber Works, etc. ...	s. d. 55 6	s. d. 101 0	s. d. 107 9	s. d. 91 6	s. d. 88 5	s. d. 98 9	s. d. 101 9
2. Engineering, Shipbuilding, Smelting, Metal Works, etc. ...	55 4	98 7	103 10	95 11	85 5	96 8	99 8
3. Food, Drink, and Tobacco Manufacture and Distribution ...	51 4	95 2	101 2	95 8	86 5	95 8	98 6
4. Clothing, Hats, Boots, Textiles, Rope, Cordage, etc. ...	51 7	91 10	96 10	85 5	76 7	88 1	90 9
5. Books, Printing, Bookbinding, etc. ...	64 4	106 3	123 6	107 8	101 8	113 9	119 4
6. Other Manufacturing ...	51 7	97 7	103 7	91 9	84 3	94 7	98 0
7. Building ...	£3 4	104 7	114 7	109 4	100 7	106 0	109 0
8. Mining, Quarries, etc. ...	60 0	105 4	112 0	106 7	103 1	109 4	112 4
9. Railway and Tramway Services ...	55 2	95 5	107 8	97 2	83 9	93 2	96 10
10. Other Land Transport ...	44 4	92 0	97 1	96 10	84 4	92 7	95 10
11. Shipping, Wharf Labour, etc. ...	44 6	100 5	106 2	82 11	80 2	96 0	93 0
12. Pastoral, Agricultural, Rural, Horticultural, etc. ...	43 5	92 0	100 0	84 0	75 11	75 1	77 1
13. Domestic, Hotels, etc. ...	44 3	89 0	92 7	92 1	79 7	88 1	91 7
14. Miscellaneous ...	40 0	91 5	96 5	91 4	81 4	90 2	93 3
All Industries ...	51 5	95 10	102 11	93 5	84 11	92 1	95 0

## INDEX NUMBERS—NOMINAL AND EFFECTIVE WAGES.

The foregoing tables relate to the nominal rates of wages, that is the actual amounts of money payable in return for labour, and in order to show the effective value of these amounts it is necessary to relate them to the purchasing power of money as in the following statement. For this purpose the average rates of wages have been reduced to index numbers, and these index numbers have been divided by index numbers of retail prices in Sydney computed from the Commonwealth Statistician's "All Items" index numbers, "C" series (see page 951). The results indicate the changes in the effective wage.

For the years 1921 and 1922 the "All Items" index numbers of retail prices are available for the month of November only, and in the statement.

they are related to the average nominal wage at the end of these years. The nominal wages for other years represent the means of the average rates at the end of the four quarters.

TABLE 891.—Index Numbers of Nominal and Effective Wages, 1921 to 1938.

Year.	Average Nominal Wage for a Full Week's Work.		Index Number of Retail Prices, Sydney, "all Items." ‡	Index Number of Effective Wage. (Full Work.)
	Amount.	Index Number.		
1921	s. d. 95 10*	998	1025†	974
1922	91 6*	953	1001†	952
1923-27	96 0	1000	1000	1000
1928	102 7	1069	1022	1046
1929	103 1	1074	1052	1021
1930	101 8	1059	1006	1053
1931	94 10	988	904	1093
1932	88 10	925	850	1088
1933	84 0	875	816	1072
1934	82 10	863	825	1046
1935	83 7	871	835	1043
1936	84 9	883	849	1040
1937	88 4	920	872	1055
1938	93 9	977	895	1092

\* At end of year. † November. ‡ Commonwealth Statistician's index numbers, with the average of six capitals in 1923-27 as base, converted by taking the index number for Sydney in base period as equal to 1,000.

During the early years of depression, retail prices declined more rapidly than rates of wages, and in 1931 the effective wage for full work was more than 9 per cent. higher than in the base period 1923 to 1927. In 1934 it fell by 3½ per cent., then declined slowly until 1937. In the following year it was restored to the same level as in 1931.

The rates of wages, nominal and effective, as stated in the foregoing tables, are based on the rates payable to employees under awards or agreements or on predominant rates for work without intermittency or overtime, and not on actual earnings, which are liable to fluctuate on account of the rise and fall in the volume of employment.

## PRODUCTION

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The value of production, as shown in this section, relates to the primary industries—pastoral, agricultural, dairying and farmyard, mining, forestry, fisheries, and trapping—and to the manufacturing industries.

The values of rural production in table 892 are stated as at the point or place of production, on the basis of the prices to the producers, which are somewhat less than the wholesale prices in the metropolitan market. No deduction has been made on account of the cost of items such as seed, fertilisers, containers fodder for animals, machinery, etc. The net values are shown in table 894.

Some of the quotations of the value of production are known to be understated. For instance, the values as estimated for agricultural and farmyard produce are deficient, because records are not available as to production (which in the aggregate must be large) on areas less than one acre in extent. The production from fisheries includes only the catches of licensed fishermen.

The figures showing the estimated value of mining production in each year from 1911 to 1919-20 inclusive are based on the records of the Department of Mines, of which details are stated in the chapter of this volume relating to the mining industry. The values as recorded by the Department have been reduced by the exclusion of certain values which are included here in the production of the manufacturing industries, *e.g.*, coke produced at coke works, also the value added to minerals in the manufacture of lime and cement at limestone quarries, and in the treatment of ores at mines. The values shown for 1921 and subsequent years are those supplied by the mine-owners in returns collected under the Census Act, and they indicate the estimated value at the mines of the minerals raised during each year. The figures do not represent exact values, but may be considered to be the best estimates which may be made from the data available. The values for 1925-26 and later years include the production from quarries; in earlier years only the output from quarries held under mining title was included.

The value of the manufacturing production is taken as the value at the factory of the manufactured goods less the cost of materials, water, fuel, and electricity, and containers used, and of tools replaced. With a few exceptions returns are not collected as to the production in small establishments employing less than four hands where manual labour only is used, nor from butchers' smallgoods factories.

For the foregoing reasons the aggregate value of production as stated is not complete, and should not be assumed to be the total fund available as the wages fund of the State nor as remuneration for the agents of production in the form of wages, rent for land, and interest on capital invested. The values quoted for the specified industries do not include the value added by reason of transportation to market and distribution to the consumer, nor, in the case of exports, carriage to the point of shipment. Moreover, the earnings of many important activities, such as the building industry, of which records are not available, or from railway construction or commercial and other pursuits are not included.

Thus it will be seen that the amounts quoted have several shortcomings, nevertheless they are valuable as indicating the increase or decrease in the annual production of the industries specified and as important data for measuring variations in the national income.

The following statement shows the estimated value of production of the specified industries, at the place of production, at intervals since 1871. The values relate to the calendar year up to 1915-16 when the year ended June was substituted. The values for mines and quarries are an exception, as those stated for the years 1915-16 to 1931-32 relate to the calendar years 1916 to 1932, and those for 1932-33 to 1937-38 to the calendar years 1932 to 1937 respectively:—

TABLE 892.—Value of Production, 1871 to 1938.

Year.	Primary Industries.							Manufacturing Industries	Total, Primary and Manufacturing Industries.
	Rural Industries.				Forests, Fisheries, and Trapping.	Mines and Quarries.	Total, Primary Industries.		
	Pastoral.	Agri-cultural.	Dairying and Pannyard.	Total, Rural Industries.					
1871	£ 000 7,609	£ 000 2,220	£ 000 1,110	£ 000 10,939	£ 000 324	£ 000 1,626	£ 000 12,889	£ 000 2,490	£ 000 15,379
1881	10,866	4,216	2,285	17,367	492	2,138	19,997	5,183	25,180
1891	14,725	3,615	2,735	21,075	758	6,434	28,267	7,799	36,066
1901	12,447	7,060	3,188	22,695	986	5,681	29,362	10,011	39,373
1911	20,586	9,749	6,534	36,869	2,213	7,392	46,474	19,432	65,906
1912	19,431	11,817	7,192	38,440	2,347	8,177	48,964	22,681	71,645
1913	21,555	12,378	7,063	40,906	2,644	8,712	52,352	23,764	76,116
1915-16	23,494	20,362	7,649	51,505	2,603	7,478	61,586	25,235	86,821
1920-21	20,336	32,373	16,447	69,156	4,089	10,192	83,437	43,128	126,565
1925-26	32,704	19,655	14,574	66,933	5,778	13,324	86,035	64,838	150,873
1926-27	42,911	21,816	14,581	79,308	6,305	13,873	99,486	69,849	169,335
1927-28	41,593	15,444	15,132	72,169	5,396	11,936	89,501	71,805	161,306
1928-29	40,679	19,356	14,559	74,594	5,298	10,207	90,099	73,627	163,726
1929-30	26,354	15,269	14,539	56,162	4,316	8,444	68,922	66,848	135,770
1930-31	17,835	12,328	12,039	42,202	2,669	6,341	51,212	49,524	100,736
1931-32	19,331	14,547†	11,525	45,403	2,578	6,227*	54,208	46,653	100,861
1932-33	21,373	17,474†	11,462	50,309	2,706	6,227*	59,242	49,569	108,811
1933-34	34,662	14,302†	11,713	60,677	3,381	6,685	70,745	54,042	124,785
1934-35	23,931	15,161†	12,885	51,977	3,437	7,239	62,653	61,430	124,083
1935-36	33,641	16,796†	14,112	64,549	4,165	8,045	76,759	69,470	146,229
1936-37	40,306	23,416	14,592	78,314	4,196	9,690	92,200	76,754	168,954
1937-38	35,257	20,430	16,113	71,800	3,853	12,014	87,667	85,168	172,835

† Including Government assistance to wheat growers, viz., £992,500 in 1931-32, £1,012,902 in 1932-33, £911,094 in 1933-34, £1,121,000 in 1934-35 and £564,368 in 1935-36.

\* Calendar year 1932, see context above.

The total value of production increased in each decade between 1871 and 1891. During the early nineties there was a decline from which the recovery was slow. In 1901, however, the value of production was considerably higher than in 1891. During the succeeding decennium the State entered upon a period of industrial expansion, and the value of production rose rapidly. The increase during the decade 1911 to 1921 was due mainly to enhanced prices.

In 1926-27 the value, £169,300,000, was higher than the value in any earlier year, and it was maintained at a high level in the two following seasons. Then there was a rapid decline in all industries and the value in 1930-31 and 1931-32 was less than £101,000,000. In 1932-33 and 1933-34 there were increases of £8,000,000 and £16,000,000 respectively. The total value receded slightly in 1934-35, then rose by more than £22,000,000 in the next two years and by £4,000,000 in 1937-38 when the value £172,835,000 was the maximum yet recorded.

Apart from seasonal influences, fluctuations in the value of pastoral production are mainly the result of variations in the prices of wool. These prices were very low in the three seasons 1930-31 to 1932-33, and the average annual value of the wool was only £15,000,000, as compared with £32,700,000 in the three seasons ended June, 1929. In 1933-34 its value was nearly £30,000,000, then it declined again to £18,000,000. The value in 1936-37 was £32,000,000 and there was a decline to £24,000,000 in 1937-38.

In agriculture wheat is the outstanding product, and seasonal conditions which affect the extent of cultivation and the size of the harvests are the cause of frequent fluctuations in the annual values of production, apart from the variations in the price of this cereal which depends upon the state of oversea markets, rather than upon local supply and demand. When the influence of both factors—season and price—bears in the same direction, up or down, the fluctuations are considerable. The highest value of agricultural production was recorded in 1920-21, when the wheat harvest was bountiful and the price unusually high, the value of the grain, 55,600,000 bushels, being £20,000,000. Harvests in recent years exceeded the crop of 1920-21, but the value was comparatively small until 1936-37. The crop in 1934-35 and 1935-36 was approximately 49,000,000 bushels, for which the growers received £7,100,000 and £8,100,000 respectively, including Government subsidy. The value of the 1936-37 crop of 55,700,000 bushels was nearly £13,000,000. In the following season the crop was nearly as large, but the value was only £9,300,000.

The annual value of dairying and farmyard production was remarkably constant from 1924-25 to 1929-30 then it declined by 21 per cent. in the course of two seasons. During more recent seasons production expanded sufficiently to offset a heavy decline in prices, and in the three seasons, 1935-36 to 1937-38, when production was lower, prices were higher and values rose above the former level.

In the mining industry coal is the principal product, and the value of the output of the collieries decreased from £9,600,000 in 1927 to £4,100,000 in 1932, and it remained below £5,000,000 until 1937. The condition of the oversea market usually exerts the most powerful influence on the production of metals, which fluctuates accordingly. The output

from metalliferous mines declined from £3,000,000 in 1926 to £1,300,000 in 1931, then rose slowly to £2,400,000 in 1935. During the next two years the value doubled and the production from all mines in 1937 was the highest since 1926-27. The production in 1937 was estimated as follows:— Coal mines £5,542,000, other mines £4,810,000, and quarries £1,662,000. Corresponding values in 1938 were £5,653,000, £4,346,000 and £1,655,000.

The figures relating to the manufacturing industries disclose a steady advance from the beginning of the period under review, when it was less than £2,500,000, until 1928-29, when the value was £73,627,000. In the next three years there were successive decreases and the value in 1931-32 was lower by £27,000,000 than in 1928-29. In each succeeding year there was steady improvement, and in 1937-38 the value, £85,163,000, was the highest yet recorded.

In the following table the estimated value of production, as at place of production, is shown in relation to the population in each year.

TABLE 893.—Value of Production Per Capita, 1871 to 1938.

Year.	Primary Industries.							Manufacturing Industries.	Total Primary and Manufacturing Industries.
	Rural Industries.				Forests, Fisheries, and Trapping.	Mining.	Total, Primary Industries.		
	Pastoral.	Agricultural.	Dairying and Farmyard.	Total, Rural Industries.					
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1871	14 19 5	4 7 5	2 3 8	21 10 6	0 12 9	3 4 0	25 7 3	4 13 0	30 5 3
1881	14 4 0	5 10 2	2 19 9	22 13 11	0 12 11	2 15 11	26 2 9	6 15 6	32 18 3
1891	12 17 10	3 3 4	2 7 11	18 9 1	0 13 3	5 12 8	24 15 0	6 16 7	31 11 7
1901	9 2 1	5 3 4	2 6 8	16 12 1	0 14 5	4 3 1	21 9 7	7 6 6	23 16 1
1911	12 7 3	5 17 1	3 18 6	22 2 10	1 6 7	4 8 9	27 18 2	11 13 5	39 11 7
1912	11 2 10	6 15 6	4 2 6	22 0 10	1 6 11	4 13 9	28 1 6	13 0 2	41 1 8
1913	11 16 11	6 16 0	3 17 7	22 10 6	1 9 1	4 15 8	28 15 3	13 1 2	41 16 5
1915-16	12 8 1	10 14 11	4 0 9	27 3 9	1 7 6	3 18 11	32 10 2	13 6 5	45 16 7
1920-21	9 14 8	15 9 11	7 17 5	33 2 0	1 19 1	4 17 7	39 18 8	20 12 10	60 11 6
1925-26	14 1 11	8 9 5	6 5 8	28 17 0	2 9 9	5 14 10	37 1 7	27 18 11	65 0 6
1926-27	18 1 4	9 3 8	6 2 9	33 7 9	2 13 1	5 16 10	41 17 8	29 8 2	71 5 10
1927-28	17 1 10	6 7 0	6 4 5	29 13 3	2 4 4	4 18 2	36 15 9	29 10 3	66 6 0
1928-29	16 7 6	7 15 10	5 17 2	30 0 6	2 2 8	4 2 2	36 5 4	29 12 9	65 18 1
1929-30	10 9 3	6 1 3	5 15 5	22 5 11	1 14 4	3 7 0	27 7 3	26 10 10	53 18 1
1930-31	7 0 2	4 16 11	4 14 7	16 11 8	1 1 0	2 9 10	20 2 6	19 9 2	39 11 8
1931-32	7 10 7	5 13 3	4 9 10	17 13 8	1 0 1	2 8 6	21 2 3	13 3 4	39 5 7
1932-33	8 5 0	6 14 10	4 8 6	19 8 4	1 0 11	2 8 1	22 17 4	19 2 7	41 19 11
1933-34	13 5 3	5 9 5	4 9 8	23 4 4	1 5 11	2 11 2	27 1 5	20 13 7	47 15 0
1934-35	9 1 8	5 15 1	4 17 10	19 14 7	1 6 1	2 15 0	23 15 8	23 6 4	47 2 0
1935-36	12 13 3	6 6 6	5 6 3	24 6 0	1 11 4	3 0 7	28 17 11	26 3 0	55 0 11
1936-37	15 0 8	8 14 8	5 8 11	29 4 3	1 11 3	3 12 4	34 7 10	28 12 8	63 0 6
1937-38	13 0 4	7 10 10	5 18 11	26 10 1	1 8 5	4 8 9	32 7 3	31 8 10	63 16 1



The value of production per head from the pastoral industry was considerably greater in 1871 and 1881—when sheep-raising was the staple industry of the colony and pastoral output represented nearly half the total value of production—than in subsequent years when the population had entered into other activities and the export trade in wheat, butter, etc., was developed.

The development in the manufacturing industries in 1871 and in 1881, as measured by the value of output per head of population, was not so great as the figures appear to indicate. The production included the output from several classes of machines used in connection with the agricultural industry and not, strictly speaking, factories; and most of the industries were subsidiary to agricultural and pastoral activities, viz., boiling-down works, fellmongering, woolwashing, grain mills, chaffcutting, soap and candle works.

ESTIMATED NET VALUE OF PRODUCTION—PRIMARY INDUSTRIES.

The foregoing estimates of the value of primary production represent gross values (at the place of production), including such costs as fodder consumed by farm stock, seed, fertilisers, spraying, power and water used in irrigating, etc. By deducting the estimated cost of these items from the gross values, the net values of primary production have been estimated for the years 1925-26 to 1937-38 as follows. No deduction has been made for depreciation of capital, machinery or plant:—

TABLE 894.—Net Value of Primary Production, 1926 to 1938.

Year.	Pastoral.	Agricultural.	Dairying and Farm-yard.	Total Rural Industries	Forestry, Fisheries, Trapping.	Mining.	Total Primary.
	£000	£000	£000	£000	£000	£000	£000
1925-26 ...	32,365	16,178	12,409	60,952	5,756	11,058	77,766
1926-27 ...	42,701	17,743	12,003	72,447	6,268	11,421	90,136
1927-28 ...	41,095	12,137	12,844	66,076	5,355	10,031	81,462
1928-29 ...	40,356	15,631	12,092	68,079	5,241	8,722	82,042
1929-30 ...	25,951	11,373	11,719	49,043	4,252	7,019	60,314
1930-31 ...	17,592	9,776	10,383	37,751	2,608	5,249	45,608
1931-32 ...	19,024	12,969	9,624	41,617	2,527	5,074	49,218
1932-33 ...	20,993	15,124	9,291	45,408	2,653	5,074	53,135
1933-34 ...	34,259	11,724	9,843	55,826	3,337	5,597	64,760
1934-35 ...	23,311	12,787	10,788	46,886	3,386	6,055	56,327
1935-36 ...	32,799	14,139	11,466	58,404	4,117	6,792	69,313
1936-37 ...	39,300	20,515	11,357	71,172	4,145	8,350	83,667
1937-38 ...	33,939	16,260	12,480	62,679	3,798	10,416	76,893

Details regarding deductions from the gross values are published in the chapters of this Year Book relating to the rural industries.

## PRINCIPAL PRODUCTS.

The following statement shows, in regard to the principal commodities, the average annual production, absolute and per head of population, during four periods of three years each, viz., (1) the pre-war years 1911 to 1913, which were years of high production, (2 and 3) the years at the beginning and end of the period of post-war expansion, and (4) the three years ended June, 1938:—

TABLE 895.—Production of Principal Commodities.

Product.	Average Annual Production (000 omitted).				Average Production Per Head of Population.			
	1911-13.	1921-23.	1927-29.	1936-38.	1911-13.	1921-23.	1927-29.	1935-37.
Wool (as in the grease) ... lb.	370,221	315,341	475,367	490,400	212·4	147·8	195·6	182·9
Meat, Frozen (Exported)—								
Beef ... ..	11,120	10,271	6,895	13,710	6·4	4·8	2·8	5·1
Mutton ... ..	63,828	41,525	28,767	59,072	36·6	19·5	11·8	22·0
Butter ... ..	79,198	86,222	98,130	118,628	45·4	40·5	40·4	44·2
Cheese ... ..	5,845	6,234	6,787	7,593	3·4	3·0	2·8	2·8
Bacon and Ham ... ..	15,940	18,642	24,390	21,834	9·1	8·8	10·0	8·1
Wheat ... .. bush	31,865	42,353	41,280	53,198	18·3	19·9	17·0	19·8
Maize ... ..	4,091	3,813	3,345	3,344	2·7	1·8	1·4	1·2
Potatoes ... .. cwt.	1,824	1,046	847	1,200	1·0	0·5	0·4	0·4
Hay ... ..	18,612	23,100	16,168	17,129	10·7	10·8	6·7	6·4
Coal ... .. ton	9,064	10,485	9,397	9,317	5·5	4·0	3·8	3·5
Coke ... ..	461	813	1,035	1,335	0·3	0·4	0·4	0·5
Gold ... .. oz.	200	32	13	60	0·1	0·0	0·0	0·0
Silver* ... ..	14,183	8,741	9,009	9,143	8·1	4·1	3·7	3·4
Lead* ... .. cwt.	4,204	2,244	3,457	3,786	2·4	1·1	1·4	1·4
Zinc* ... ..	3,553	2,447	2,798	2,492	2·0	1·2	1·1	0·9
Timber, (Native) Sawn sup. ft.	156,617	148,938	148,506	149,104	97·0	74·0	62·8	55·6
Fish, Fresh ... .. lb.	15,499	20,588	27,498	25,572	8·9	9·7	11·2	9·5
Rabbit Skins (Exported) ...	5,305	6,747	9,800	4,375	3·0	3·2	4·0	1·6
Iron, Pig ... .. cwt.	771	5,373	9,056	17,509	0·4	2·5	3·7	6·5
Steel Ingots ... ..		3,989	8,327	20,353		1·9	3·4	7·6
Portland Cement ... ..	2,374	3,778	8,418	7,003	1·4	1·7	3·5	2·6
Beer and Stout ... .. gal.	22,253	24,845	28,308	27,634	12·8	11·7	11·6	10·3
Tobacco ... .. lb.	6,370	12,211	14,914	14,629	3·7	5·7	6·1	5·5
Biscuits ... ..	24,175	39,244	43,744	41,063	13·9	18·4	18·0	15·3
Boots and Shoes ... .. pairs	3,752	4,174	5,007	7,541	2·2	2·0	2·1	2·8
Bricks ... .. 1,000	366,985	339,721	435,631	323,872	210·5	159·2	179·2	120·8
Electricity ... .. units	165,249	386,742	892,365	1,636,182	94·8	181·3	367·1	610·1
Gas ... .. 1,000 cub. ft.	4,878	8,465	10,555	10,113	2·8	4·0	4·3	3·9
Jam and Preserved Fruit ... lb.	27,767	30,396	31,498	50,103	15·9	14·3	13·0	18·7
Soap ... ..	31,670	37,085	52,341	50,871	18·2	17·4	21·5	19·0
Sugar Refined ... .. cwt.	1,834	2,373	3,038	2,715	1·1	1·1	1·2	1·0
Meat, Preserved ... .. lb	25,501	4,320	4,948	4,997	14·6	2·0	2·0	1·9

\* Estimated contents of ore raised.

The statement shows that there has been a substantial increase since 1911-13 in the annual production of such commodities as wool, butter, cheese, bacon and hams, wheat, coke, fish, iron and steel, cement, tobacco, biscuits, boots and shoes, electricity, gas, jam, soap and sugar. In some cases, however, the increase has not been proportionate to the growth of population. There has been a decline in the annual production of frozen mutton and preserved meat, potatoes, coal, silver, lead and zinc, native timber, and bricks.

In comparison with the experience of the three years ended June, 1929, the annual production of wheat, butter, coke, iron and steel, cement, boots and shoes, electricity and jam and preserved fruits and the annual exports of frozen meat were greater, absolutely and relatively to the population, during the three years ended June, 1938.

Annual variations in the quantity and value of the chief rural products—wool, wheat, and butter—are shown below. A comparison of average values per unit is shown also, viz., (a) the average price per lb. of greasy wool at Sydney auctions where the bulk of the clip is sold; (b) the average price per bushel paid to the farmers for wheat delivered at country railway stations—less the cost of bags, but exclusive of bounties and subsidies from

State or Commonwealth Governments which amounted to 4½d. per bushel in 1931-32, about 3d. in 1932-33, nearly 4d. in 1933-34, about 5½d. in 1934-35 and 2½d. in 1935-36; (c) the average price paid at the butter factories to suppliers for milk and cream used for butter, stated as per lb. of butter made therefrom:—

TABLE 896.—Production of Wool, Wheat and Butter, 1911 to 1939.

Year.	Wool.			Wheat—(grain).			Butter.*		
	Quantity (as in grease).	Value to Grower.	Average Price per lb. (greasy) Sydney Sales.	Quantity.	Value to farmer.	Average price per bush. at Country Railway (less cost of bags).	Quantity.	Value of milk used.	
								Total.	Per lb. of butter.
	000 lb.	£000	d.	000 bush.	£000	s. d.	000 lb.	£000	d.
1911	404,655	14,085	8½	25,088	4,113	3 3	83,205	3,631	10½
1912	326,557	12,488	8½	32,487	5,239	3 3	76,610	3,895	12½
1913	379,450	14,437	9½	38,020	5,988	3 2	77,779	3,450	10½
1920-21	275,269	13,023	12½	55,625	20,164	7 3	84,268	8,411	24
1925-26	402,490	26,223	6½	33,806	8,590	5 1	106,968	7,045	15½
1928-29	482,920	30,879	16½	49,257	9,851	4 0	95,337*	6,779	17
1929-30	459,970	18,099	10½	34,407	5,448	3 2	104,175*	6,842	15½
1930-31	427,220	13,705	8½	65,877	5,215	1 7	113,237*	5,931	12½
1931-32	501,648	15,233	8½	54,966	8,130†	2 7†	123,253*	5,750	11½
1932-33	532,080	16,659	8½	78,389	9,800†	2 3†	128,210*	5,018	9½
1933-34	484,390	29,951	15½	57,057	7,013†	2 2†	147,963*	5,167	8½
1934-35	494,981	18,045	9½	48,678	7,150†	2 6†	145,278*	5,694	9½
1935-36	472,585	25,408	14	48,822	8,137†	3 1†	124,266*	5,765	11½
1936-37	503,616	32,091	16½	55,668	12,989	4 8	109,134*	5,548	12½
1937-38	495,027	24,060	12½	55,104	9,299	3 5	120,237*	6,513	13
1938-39 (a)	436,000	16,500	10½	59,124	7,300†	1 11†	119,000	6,500	13

\* Made in New South Wales from cream produced in the State, butter made from cream imported or exported interstate being excluded. † Excluding Government bounty, etc.  
 ‡ Includes Government bounties and subsidies. (a) Preliminary Estimates.

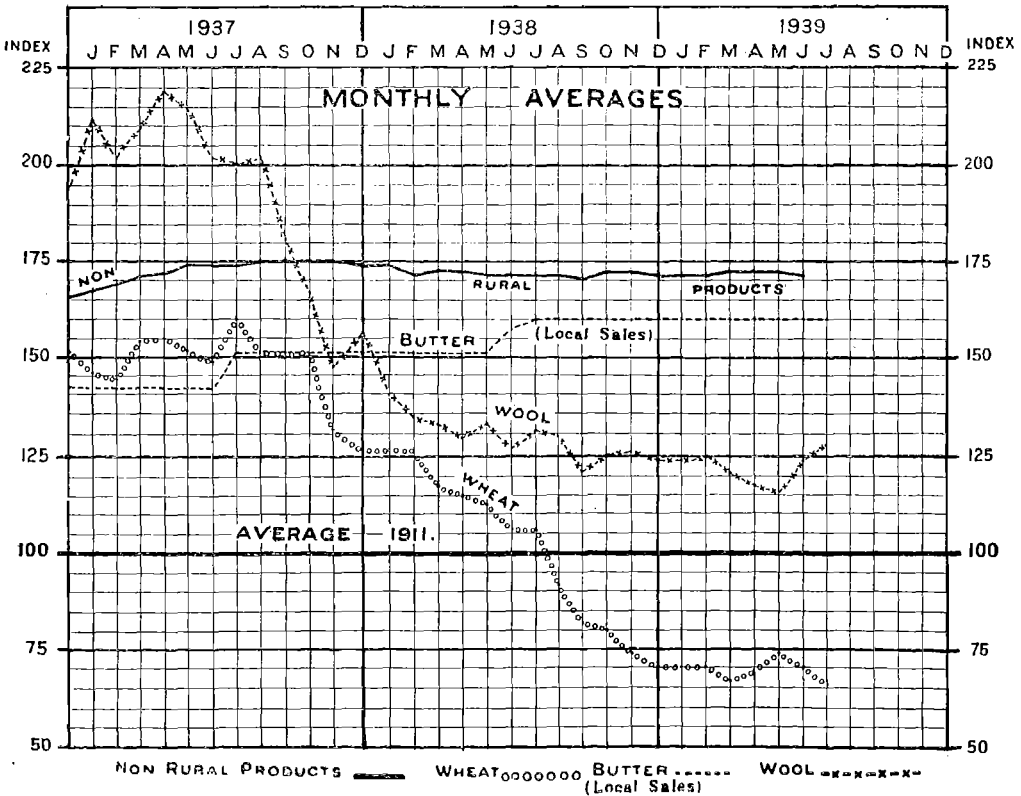
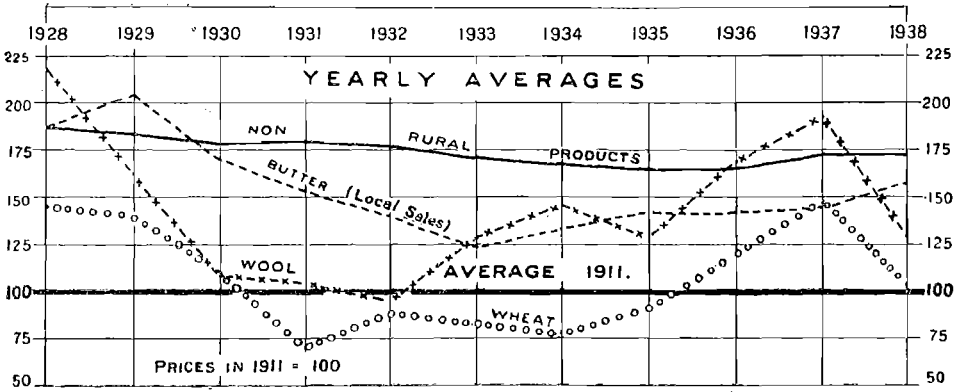
The average price of greasy wool during the three years 1911 to 1913 was 8½d. per lb. and it reached an extraordinary level, 25½d., in 1924-25. Increased production offset to a large extent the fall in prices in later seasons until 1929-30 when the average price declined to 10½d. per lb. Then a further decline occurred, the average for greasy wool being 8.7d. per lb. in 1930-31, and 8.3d. per lb. in 1931-32. The average price of the wool produced in 1932-33 was slightly higher, and towards the close of the sales there was a definite rise in prices, leading to an average of 15.8d. for the season 1933-34. In the following season the average was only 9½d., then a substantial improvement took place and the averages for 1935-36 and 1936-37 were 14d. and 16.4d. respectively. There was a decline to 12.7d. in 1937-38 and a further decline to 10.3d. in 1938-39.

In 1920-21 the wheat harvest was large and the prices high. Variations in the value of the crop in other seasons under review were due to changes in the volume of production rather than in prices until 1931 when the return was lower than in any year since 1911, though the crop exceeded previous records. The price was much higher in 1931-32, but did not improve further until 1935, and the farmers were assisted by Government subsidy as shown above.

Dairy farmers are paid for cream supplied to butter factories according to the amount of butter made therefrom, and since 1st January, 1926, the prices of butter have been subject to arrangements for stabilising markets, as described in the chapter "Dairying Industry" of this volume.

The movements in prices of wheat, wool, butter (local sales), and non-rural products since 1928 are illustrated in the following graph:—

**WHOLESALE PRICES, SYDNEY, 1928 to 1939.**  
**WOOL, BUTTER, WHEAT AND NON-RURAL PRODUCTS.**



The quotations for the various commodities, as illustrated in the graph, are as follows:—

*Wheat.*—The average of shippers' and millers' quotations for bagged wheat ex trucks, Sydney.

*Wool.*—Average prices for greasy wool based on the actual prices realised at Sydney auctions during each month for typical grades of merino wool.

*Butter.*—The average wholesale price in Sydney of choicest quality for local consumption as fixed by the committee organised for supervising the marketing of the butter.

The index numbers of non-rural products relate only to seventy-four items included in the general index of wholesale prices (see Table 842), and no highly manufactured commodities have been taken into consideration.

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Sydney: Thomas Henry Tennant, Acting Government Printer—1939.

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