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The

Official Year Book

of

New South Wales.

1939-40.



S. R. CARVER.

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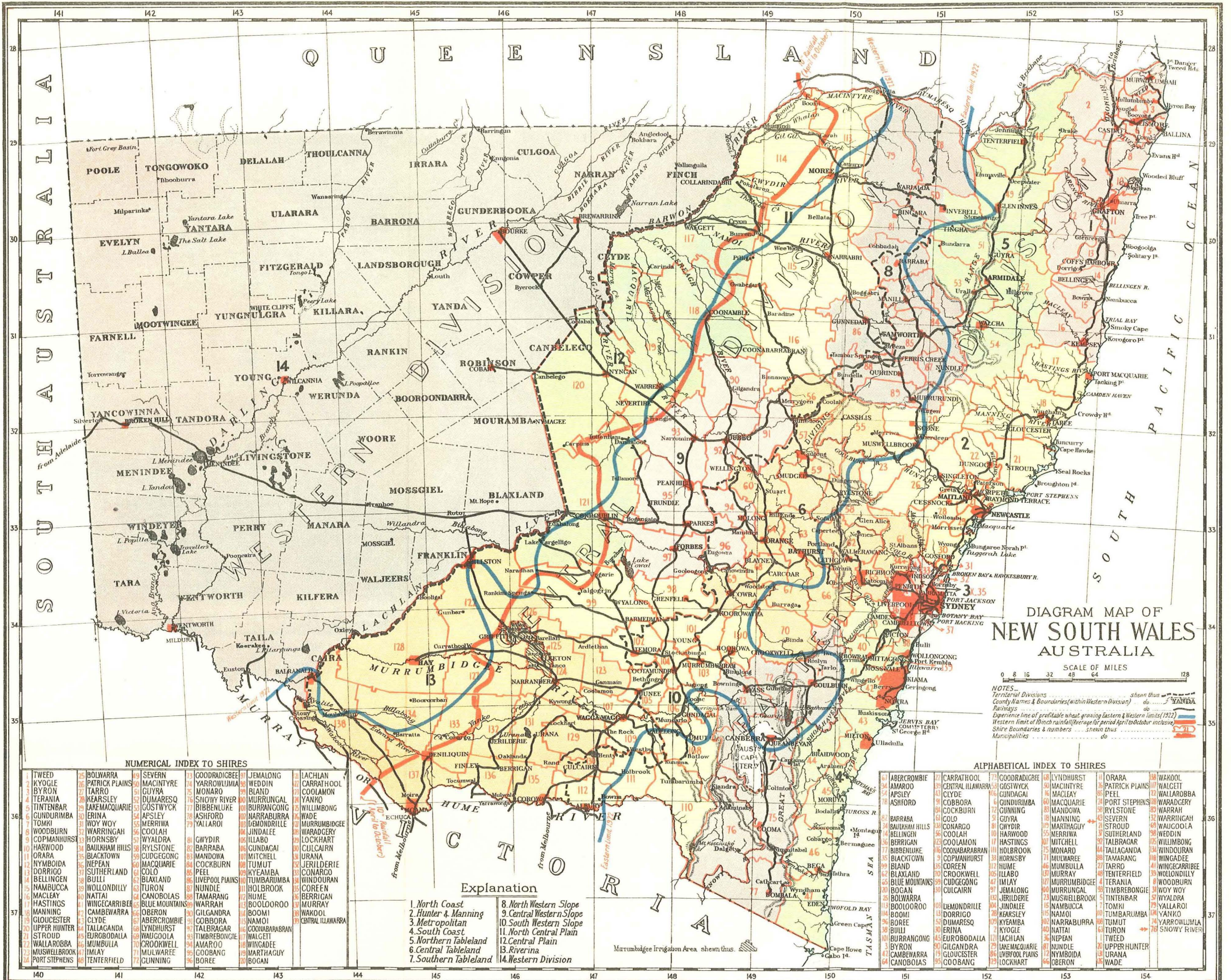
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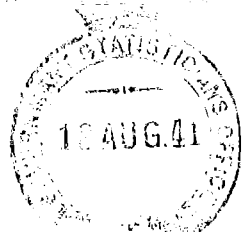
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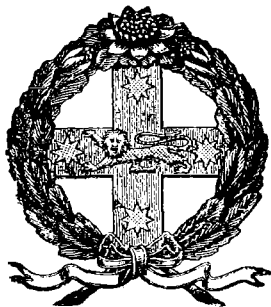
# The Official Year Book of New South Wales, 1939-40







THE  
OFFICIAL YEAR BOOK  
OF  
NEW SOUTH WALES.  
1939-40.



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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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*Registered at the General Post Office, Sydney, for transmission by post as a book.*

*Wholly set up and printed in Australia by*

THOMAS HENRY TENNANT, GOVERNMENT PRINTER, SYDNEY, NEW SOUTH WALES.

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1941.

*Price : Vol.—Cloth, 7s. 6d. ; Paper, 5s,  
Separate Parts, 9d.*

## PREFACE.

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THIS is the forty-seventh 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 Year Book contains an analysis of the statistics of the State for the year 1939-40 and, in relevant cases, for the calendar year 1939 or 1940. Descriptive matter in the text has been revised to the date of going to press.

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. A special tribute is due to the Government Printer and his staff for the speed and accuracy with which the various parts and the volume have been passed through the press and made available to the public.

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 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, Mr. A. E. Seymour, Literary Assistant, Mr. K. Davison, Mr. W. Willcocks, Mr. H. L. Clough and other officers of the Bureau, upon whom the great bulk of work in preparing this volume has devolved.

In publishing the Official Year Book, 1938-39, it was indicated that exigencies of war service might delay or necessitate abridgment of this issue. While data as to oversea trade and certain other items have necessarily been withheld from publication, I am glad to record that publication of the volume itself at this relatively early date has been made possible by the enthusiastic efforts of the depleted staff of the Bureau, many of whom have worked far beyond normal hours to perform work which would in peace time have been carried out by officers now absent on war duties.

S. R. CARVER.  
Government Statistician.

Bureau of Statistics and Economics,  
Sydney, 19th June, 1941.



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## GEOGRAPHY.

**N**EW 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 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 of New South Wales 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.), 33,500†
1825	Tasmania practically separated from New South Wales.	26,215	1,558,174	
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.	911	309,461	1,701,736
1915	Territory at Jervis Bay ceded to Commonwealth.	28	309,433	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 309,433 square miles, or 198,037,000 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 ... ..	309,433	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 ... ..	911	·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 ... ..	309,433	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 length of the principal rivers has 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 where such information

was not available the length was measured on the standard parish map. 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. † 1,623 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 1905-1938. 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	4,931,996
Murrumbidgee \	Wagga Wagga ... ..	396	10,700	2,822,666
Darling ... ..	Menindie ... ..	1,383	221,700	1,462,918
Macquarie ... ..	Narromine ... ..	318	10,090	626,553
Lachlan... ..	Condobolin ... ..	380	10,420	446,623
Namoi ... ..	Narrabri ... ..	302	9,820	491,218
Hunter ... ..	Singleton ... ..	198	6,580	601,136
Lachlan ... ..	Forbes ... ..	253	6,775	600,373

The operation of the Hume Reservoir has affected the Tocumwal run-off since 1929, Burrinjuck has affected Wagga Wagga since 1914, and Wyangala Dam has affected 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 are extensive reserves for recreation, intersected by waterways. The natural fauna and flora have been preserved and the scenery is typical of the Australian Bush. The Hawkesbury River, within 50 miles of Sydney, possesses a grandeur and natural beauty reminiscent of the Rhine.

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 Yarran-gobilly, 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 month is not more than 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) according to average annual rainfall is as follows:—

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.										
		1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	
<b>Coast—</b>												
North ... ..	N	56.66	66.04	68.10	34.11	66.64	67.65	48.64	41.77	72.47	65.01	58.47
	S	57.89	58.99	55.08	41.47	78.53	69.07	50.04	46.55	70.81	59.82	50.46
Hunter and Manning	N	53.26	68.31	51.78	48.88	61.02	63.81	44.05	30.72	65.58	52.13	43.06
	S	35.39	39.02	42.80	30.35	83.68	39.26	23.60	27.52	33.88	29.93	28.18
Metropolitan Area		42.92	41.79	48.35	33.40	41.92	60.95	50.63	30.97	49.87	38.16	32.67
Balance of Cumberland		30.33	25.19	37.24	25.56	33.61	38.54	23.98	27.47	29.17	29.76	21.84
South ... ..	N	41.87	38.83	45.58	34.59	39.66	66.47	33.66	31.32	40.77	38.62	31.14
	S	36.26	32.68	29.86	35.85	40.42	70.54	33.83	36.71	37.34	30.67	34.22
<b>Tablelands—</b>												
North ... ..	E	38.33	42.50	39.04	28.10	51.18	43.09	31.75	30.42	48.04	36.28	40.73
	N	31.67	29.96	41.30	29.08	39.53	37.57	24.21	27.99	28.40	28.51	28.32
Central ... ..	N	25.65	28.25	28.37	23.88	25.36	31.31	20.05	37.01	20.62	18.27	23.58
	S	33.97	34.12	42.26	30.17	35.81	45.35	29.70	33.66	29.95	28.06	31.03
South ... ..	S	25.39	20.69	27.21	24.08	22.60	41.33	20.94	23.24	24.88	22.29	26.48
Kosciusko Plateau...		33.91	32.86	37.64	39.20	33.66	49.89	34.39	37.15	30.08	22.24	36.72
<b>Western Slopes—</b>												
North ... ..	N	26.60	28.72	35.28	22.09	30.94	30.61	18.95	21.89	23.27	22.95	20.77
	S	25.73	24.58	30.81	22.03	32.31	28.55	18.77	25.87	23.31	20.77	19.75
Central ... ..	N	24.36	26.87	30.73	20.70	27.82	28.78	17.51	24.97	21.55	17.49	22.87
	S	22.85	23.24	30.37	21.44	21.07	29.93	18.88	25.64	17.77	16.36	21.91
South ... ..	N	22.79	20.99	33.79	21.71	20.92	30.42	19.21	27.38	17.73	18.20	31.97
	S	30.23	28.41	42.56	31.24	27.50	38.55	31.49	35.01	25.35	19.03	44.85
<b>Plains—</b>												
North ... ..	E	22.94	20.23	30.51	18.37	24.85	26.54	15.30	17.05	21.15	21.95	21.23
	W	19.52	18.63	26.08	14.87	21.59	23.32	11.38	16.66	16.87	17.05	21.23
Central ... ..	N	18.13	20.66	25.92	14.90	17.67	24.19	10.98	21.40	11.29	14.14	21.13
	S	17.72	18.78	24.63	16.79	16.13	22.92	13.06	23.41	11.97	15.30	18.73
Riverina ... ..	E	18.49	19.26	24.83	18.16	18.13	24.61	17.73	20.58	14.25	10.82	30.23
	W	13.78	16.11	19.21	15.36	14.53	15.86	10.45	16.19	8.78	8.57	22.17
<b>Western Division—</b>												
Eastern half ...	N	13.34	14.14	18.37	9.96	15.33	12.90	6.86	18.94	7.40	9.63	18.39
	W	13.30	14.69	16.19	13.77	13.11	14.07	8.38	19.21	9.42	7.66	21.34
Western half ...	N	8.52	12.13	11.37	9.78	7.58	6.44	5.79	15.37	5.99	4.09	13.14
	S	10.02	9.45	12.06	10.45	9.79	7.06	5.19	10.49	9.77	5.28	13.73

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.

Division.		Jan.	Feb.	Mar.	Apr.	May.	Jun.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Inches.													
Coast—													
North	... .. N	6·67	6·68	7·40	5·76	5·57	4·04	3·87	2·59	2·62	2·92	3·01	4·81
	... .. S	6·37	7·28	7·27	6·66	4·98	4·21	2·66	2·26	3·02	3·41	3·84	4·00
Hunter and Manning	... .. N	4·88	5·80	5·59	5·81	4·95	4·37	4·33	2·94	3·39	3·05	3·49	4·63
	... .. S	3·19	3·26	3·55	3·37	2·83	2·92	3·23	2·15	2·51	2·27	2·47	3·47
Metropolitan Area	... ..	3·68	3·47	4·17	5·23	4·46	3·61	4·31	2·43	2·71	2·70	2·66	3·36
Balance of Cumberland	... ..	3·15	2·95	3·26	2·84	2·84	2·21	2·76	1·71	1·81	2·04	2·62	2·94
South	... .. N	4·12	3·81	4·88	4·30	3·02	3·94	4·24	2·63	2·67	2·74	2·64	3·66
	... .. S	3·87	3·56	3·82	3·12	3·19	3·27	2·77	2·05	2·42	2·60	2·42	3·10
Tablelands—													
North	... .. E	5·34	5·06	4·98	2·98	2·26	2·28	1·99	1·29	1·79	2·57	3·43	4·32
	... .. W	3·92	2·94	2·77	1·86	1·73	2·50	2·23	1·94	2·18	2·78	3·09	3·67
Central	... .. N	2·42	2·11	2·20	1·84	1·77	2·37	1·99	1·93	1·95	2·12	2·25	2·60
	... .. S	3·30	2·96	3·16	2·68	2·39	3·08	2·97	2·51	2·44	2·61	2·63	3·12
South	... .. S	2·49	2·02	2·14	1·75	1·84	2·28	2·06	1·89	1·91	2·18	1·92	2·36
Kosciusko Plateau	... ..	2·81	2·30	2·56	2·16	2·56	3·38	2·91	2·93	3·22	3·29	2·62	2·87
Western Slopes—													
North	... .. N	3·17	2·52	2·46	1·68	1·75	2·05	1·96	1·57	1·72	2·26	2·54	2·93
	... .. S	2·78	2·33	2·28	1·68	1·49	2·20	1·93	1·78	1·79	2·16	2·39	2·89
Central	... .. N	2·41	2·33	2·14	1·77	1·62	2·12	2·10	1·67	1·65	1·74	2·12	2·52
	... .. S	2·10	1·64	1·86	1·76	1·69	2·28	1·92	1·90	1·75	1·88	1·76	2·17
South	... .. N	1·90	1·48	1·87	1·83	1·92	2·39	2·42	2·32	2·05	2·16	1·72	1·99
	... .. S	1·96	1·66	2·22	2·12	2·48	3·83	3·05	3·12	2·63	2·78	2·03	2·15
Plains—													
North	... .. E	2·54	2·26	2·16	1·48	1·67	2·03	1·79	1·37	1·43	1·69	2·13	2·49
	... .. W	2·30	2·67	1·87	1·23	1·43	1·76	1·40	1·05	1·10	1·34	1·77	2·16
Central	... .. N	1·80	1·61	1·60	1·47	1·33	1·72	1·45	1·26	1·18	1·27	1·53	1·84
	... .. S	1·60	1·41	1·37	1·44	1·36	1·88	1·49	1·44	1·23	1·40	1·36	1·72
Riverina	... .. E	1·27	1·17	1·32	1·35	1·52	2·19	1·66	1·77	1·54	1·68	1·23	1·33
	... .. W	1·02	0·88	0·98	1·00	1·28	1·62	1·19	1·25	1·11	1·21	0·99	1·13
Western Division—													
Eastern half	... .. N	1·50	1·43	1·25	0·89	1·06	1·27	0·91	0·78	0·79	0·98	1·22	1·52
	... .. S	1·08	1·01	0·99	0·90	1·17	1·43	1·07	1·15	1·05	1·12	0·97	1·25
Western half	... .. N	0·78	0·88	0·73	0·55	0·72	0·82	0·56	0·51	0·52	0·73	0·64	0·99
	... .. S	0·70	0·76	0·66	0·67	1·03	1·14	0·75	0·90	0·81	0·92	0·79	0·84

## 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, measured by loss from exposed water 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 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	9.45	7.85	7.18	4.97	2.90	1.86	1.92	2.86	4.44	6.31	7.51	8.00	66.15
Rainfall	0.80	1.12	0.54	0.53	0.83	0.93	0.67	0.57	0.54	0.82	0.78	1.26	9.39
Walgett—													
Evaporation	7.21	6.04	5.51	3.77	2.52	1.73	1.71	2.52	3.67	5.14	6.27	7.06	53.15
Rainfall	2.30	1.50	1.55	1.08	1.26	1.51	1.38	0.98	0.85	1.30	1.41	2.06	17.18
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	1.28	1.88	1.44	1.62	1.46	1.48	1.33	1.40	16.35
Umberumberka—													
Evaporation	12.79	10.77	9.34	6.01	4.12	2.81	2.88	4.05	5.93	8.63	10.28	12.69	89.70
Rainfall	0.40	0.62	0.50	0.38	0.83	0.79	0.57	0.52	0.65	0.69	0.93	0.62	7.50
Burrinjuck Dam—													
Evaporation	5.92	4.90	4.13	2.35	1.12	0.68	0.67	1.02	1.89	2.97	4.25	5.29	35.19
Rainfall	1.95	1.86	2.14	2.44	2.82	4.23	3.97	3.91	2.76	2.97	2.15	2.26	33.46
Canberra—													
Evaporation	7.29	5.61	4.44	2.71	1.72	1.03	1.16	1.67	2.75	4.05	5.52	6.70	44.65
Rainfall	2.21	1.76	2.15	1.78	1.31	2.06	2.03	2.30	1.60	2.64	1.88	2.00	23.72
Sydney—													
Evaporation	5.42	4.27	3.68	2.65	1.85	1.46	1.54	1.97	2.75	3.91	4.66	5.45	39.61
Rainfall	3.64	3.37	4.74	4.97	4.85	4.49	4.88	2.84	2.72	2.86	2.57	3.18	45.11

## 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.\*

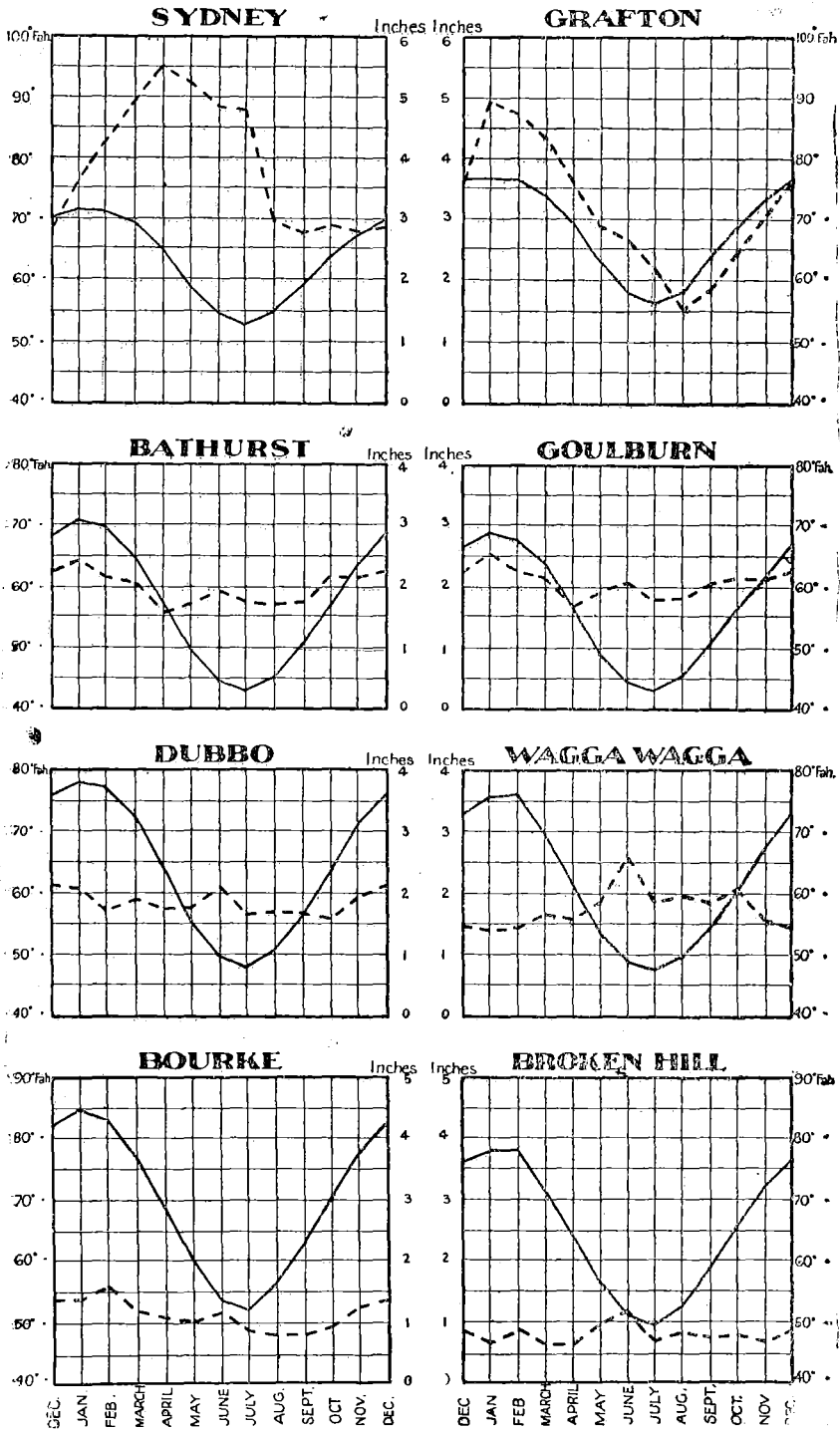
The northern parts of the State are generally warmer than the southern, the difference between the average temperatures of the extreme north and south being about 7° on the coast, 5° on the tablelands, and 7° on the slopes and plains. It should be noted, however, that the length of the State decreases 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 is 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 1920-1939.	
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.		
<i>North Coast—</i>										
	miles.	feet.	°	°	°	°	°	°	°	inches.
Lismore ... ..	13	42	66·6	75·0	56·9	22·8	113·0	23·0	57·98	
Grafton ... ..	22	21	68·4	76·9	58·2	24·7	114·0	24·9	35·47	
<i>Hunter and Manning—</i>										
Jerry's Plains ...	53	367	64·4	75·5	52·2	23·7	120·5	19·0	24·78	
West Maitland ...	18	40	64·5	74·7	53·5	21·7	115·0	28·0	33·62	
Newcastle ... ..	1	106	64·4	72·0	55·5	14·4	112·0	31·0	41·50	
Sydney ... ..	5	138	63·2	71·0	54·3	14·0	113·6	35·7	42·95	
<i>South Coast—</i>										
Wollongong ... ..	0	33	63·0	70·0	55·0	16·6	115·2	33·6	46·74	
Nowra ... ..	6	50	62·8	70·5	54·5	19·7	110·8	31·5	38·08	
Moruya Heads ...	0	55	60·7	67·6	53·0	17·3	114·8	22·6	36·88	
Bega ... ..	8	50	59·8	63·8	50·0	26·4	116·5	20·0	34·89	

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 eighty 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 eighty-one years ended 1939:—

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 ... ..	29·861	71·6	78·4	64·9	3·63	15·26	0·25	14
February.. ... ..	29·953	71·3	77·7	65·0	4·17	18·56	0·12	13
March ... ..	29·999	69·3	75·8	62·9	4·93	18·70	0·42	14
April ... ..	30·091	64·7	71·3	57·9	5·40	24·49	0·06	14
May ... ..	30·159	59·0	65·7	52·1	4·99	23·03	0·18	14
June ... ..	29·933	54·7	61·2	48·2	4·73	16·30	0·19	13
July ... ..	30·103	52·9	59·9	46·0	4·72	13·21	0·12	12
August ... ..	29·706	55·2	63·0	47·5	2·93	14·89	0·04	11
September ... ..	30·051	59·2	67·1	51·4	2·85	14·05	0·08	12
October ... ..	30·066	63·7	71·3	55·8	2·84	11·14	0·21	12
November ... ..	29·882	67·0	74·3	59·6	2·80	9·88	0·07	12
December ... ..	29·893	70·0	77·0	62·9	2·91	15·82	0·23	13
Annual ... ..	29·975	63·2	70·2	56·2	46·90	82·76	23·01	154

#### Tablelands.

On the northern tableland the rainfall ranges 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 4,578 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, 1920-1939.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>Northern Tableland—</i>	miles.	feet.	°	°	°	°	°	°	inches.
Tenterfield ... ..	80	2,837	53·4	68·5	46·9	24·0	101·5	18·0	31·77
Inverell ... ..	124	1,980	59·8	71·5	47·2	29·7	107·0	14·0	29·60
Glen Innes ... ..	90	3,518	56·1	66·4	44·5	24·5	101·4	16·0	32·88
<i>Central Tableland—</i>									
Cassilis (Dalkeith) ...	120	1,500	60·1	71·8	47·7	24·0	109·5	17·5	21·81
Mudgee ... ..	121	1,536	60·1	72·6	47·2	28·0	113·2	15·0	24·68
Bathurst ... ..	96	2,204	57·0	69·4	44·4	27·2	112·9	13·0	22·63
Katoomba ... ..	53	3,349	54·4	63·3	43·5	15·7	101·8	26·5	53·27
Crookwell ... ..	81	2,000	52·9	64·0	41·3	23·8	105·0	15·0	35·45
<i>Southern Tableland—</i>									
Goulburn ... ..	54	2,093	56·4	67·8	44·5	23·2	111·0	13·0	24·81
Canberra ... ..	68	1,837	55·8	67·8	43·9	23·7	109·0	14·0	*23·62
Kiandra ... ..	88	4,578	44·3	55·2	32·7	20·9	94·5	5 below zero	59·39
Bombala ... ..	37	3,000	52·6	62·6	41·9	24·5	104·5	14·0	27·55

\*1924 to 1938.

*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 Shadr).						Rainfall— Mean Annual, 1920-1939.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
<i>North Western—</i>	miles.	feet.	°	°	°	°	°	°	inches.
Moree ... ..	204	680	67·5	80·2	53·4	23·4	117·0	19·0	21·96
Narrabri ... ..	193	697	66·6	80·1	52·1	27·7	117·0	20·5	25·22
Quirindi ... ..	115	1,278	61·8	74·1	48·5	29·3	114·0	13·0	26·46
<i>Central Western—</i>									
Dubbo ... ..	177	870	63·7	77·2	49·7	27·2	115·4	16·9	21·54
<i>South Western—</i>									
Young... ..	140	1,416	59·4	72·4	46·6	25·7	113·0	20·0	25·38
Wagga Wagga ... ..	158	612	61·6	74·8	48·6	24·9	117·0	22·0	22·25
Urana... ..	213	395	62·1	74·9	48·8	25·7	119·0	25·0	17·56
Albury ... ..	175	534	60·9	74·1	48·0	26·6	117·3	19·9	28·37

*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, 1920-1939.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina ... ..	345	430	67·9	81·5	53·5	27·7	120·0	22·0	15·11
Bourke ... ..	386	361	69·1	83·2	54·1	27·7	125·0	25·0	12·72
Wilcannia ... ..	473	267	66·5	80·0	52·5	26·6	122·2	21·8	9·44
Broken Hill ... ..	555	1,000	64·5	77·2	51·5	23·2	115·9	27·0	8·64
Condobolin ... ..	227	700	65·0	78·5	51·0	26·8	120·0	20·0	16·59
Wentworth ... ..	478	125	63·8	75·7	51·8	24·1	118·5	21·0	10·08
Hay ... ..	309	310	62·7	75·2	50·1	26·7	118·2	22·9	13·84
Deniliquin ... ..	287	311	61·8	74·1	49·7	24·2	116·5	22·0	15·49

## METEOROLOGICAL CONDITIONS DURING 1939 AND 1940.

Exceptionally hot weather was experienced in December, 1938, and the earlier weeks of January, 1939. Temperatures in many localities were the highest yet recorded. In Sydney, for instance, the shade temperature reached 113·6 degrees (Fah.) on 14th January, exceeding by 5·1 degrees the highest previously recorded (in January, 1896). After the middle of January moderate to heavy rains fell in all divisions, except the Riverina and south-western slopes. These parts which had experienced a long period of deficient rainfall were relieved in February.

Autumn rains in 1939 were above normal in nearly all parts of the State and excellent conditions, with an abundance of grass and herbage, prevailed in the rural districts during the winter and spring.

Towards the end of the year a dry period set in and summer rainfall was generally below normal. The northern districts received good rains in March, 1940, and other divisions in April. Then followed four consecutive months of deficient rainfall, and by September conditions of drought prevailed throughout the State, except in some coastal districts. Relief rains fell during September over a considerable area.

## OBSERVATORY.

Sydney Observatory, lat. 33° 51' 41·1" south, long. 151° 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, astrophotometer, 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° to 65° 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  $6\frac{1}{4}$  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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THERE 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. The principal modifications in its constitution were in 1901, when the Federal Government was established; in 1906, when Local Government was extended over its present area; and in 1928 when the Federal Constitution was amended to constitute the Australian Loan Council and to sanction the Financial Agreement between the Commonwealth and States.

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 Dominions, 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 Dominions 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 September, 1940, consisted of the following members:—

Premier—The Hon. A. Mair, 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.

Minister for Education.—The Hon. D. H. Drummond, M.L.A.

Secretary for Mines and Minister for Forests.—The Hon. R. S. Vincent, M.L.A.

Secretary for Public Works and Minister for Local Government.—The Hon. L. O. Martin, B.A., LL.B., M.L.A.

Minister for Labour and Industry and Social Services.—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. Richardson, M.L.A.

Minister for Health.—The Hon. H. P. FitzSimons, M.L.A.

Minister of Justice.—The Hon. V. H. Treatt, M.M., M.A., B.C.L., M.L.A.

Colonial Secretary.—The Hon. A. U. Tonking, M.L.A.

Assistant Ministers.—The Hon. H. L. Primrose, M.L.A.; the Hon. M. E. Manfred, M.L.C.

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	As from	As from	As from	As from
	1st July, 1925.	1st April, 1930.	7th Aug., 1931.	1st Dec., 1932.	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.

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. Elections to fill the fifteen seats becoming vacant on 22nd April, 1937, and 1940, respectively, were held on 8th December, 1936, and 1st November, 1939.

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 resign 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 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. A redistribution was made in 1940.

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. Separate quotas of electors are determined for each area by dividing the total number of electors in the area by the number of electors. The number of electors in each electoral district at a redistribution must be within 1,200 of the quota.

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.

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 ...	739,009	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.

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 persons who are 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.
23	23 and 29 Dec., 1913* ...	23 Dec.	1913...	21 Feb.	1917...	3 yrs. 1 mths. 29 dys.	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. Since 1856 when the present system was inaugurated, there have been forty-eight Ministries, but only thirty-two Parliaments. Up to 29th June, 1913, thirty-four Ministries had held office.

TABLE 21.—Ministries of New South Wales since 1913.

Ministry.				In Office.			
Number.	Name of Premier and Party.			From—		To—	
35	Holman (Labour)	...	...	30 June	1913	15 Nov.	1916
36	Holman (National)	...	...	15 Nov.	1916	13 April	1920
37	Storey (Labour)	...	...	13 April	1920	10 Oct.	1921
38	Dooley (Labour)	...	...	10 Oct.	1921	20 Dec.	1921
39	Fuller (National)	...	...	20 Dec.	1921	20 Dec.	1921
40	Dooley (Labour)	...	...	20 Dec.	1921	13 April	1922
41	Fuller (National)*	...	...	13 April	1922	17 June	1925
42	Lang (Labour)	...	...	17 June	1925	26 May	1927
43	Lang (Labour)†	...	...	27 May	1927	18 Oct.	1927
44	Bavin (National)*	...	...	18 Oct.	1927	3 Nov.	1930
45	Lang (Labour)	...	...	4 Nov.	1930	13 May	1932
46	Stevens (National)*	...	...	16 May	1932	11 Feb.	1935
47	Stevens (United Aust.)*†	...	...	11 Feb.	1935	5 Aug.	1939
48	Mair (United Aust.)*	...	...	5 Aug.	1939		‡

\*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.	1935-36.	1938-39.	1939-40.
	£	£	£	£	£
<b>Governor—</b>					
Salary ... ..	5,000	5,000	§ 4,259	5,000	5,000
Salaries, etc., of Staff... ..	3,549	4,028	2,720	3,306	3,781
Other expenses ... ..	1,547	1,945	3,554	5,825	3,353
	10,096	10,973	10,533	14,131	12,134
<b>Executive Council—</b>					
Salaries of Officers ... ..	...	570	337	445	427
Other expenses ... ..	...	333	38	47	58
	...	903	375	492	485
<b>Ministry—</b>					
Salaries of Ministers ... ..	11,040	23,420	16,924	23,420	23,420
Other ... ..	5,244	1,078	6,365	1,457	1,689
	16,284	24,498	23,289	24,877	25,109
<b>Parliament—</b>					
<b>Legislative Council—</b>					
Salaries of President and Chairman of Committees ... ..	1,220	1,900	1,511	2,050	2,038
Railway passes for Members ... ..	6,070	15,906	11,301	11,666	12,176
<b>Legislative Assembly—</b>					
Salaries of Speaker and Chairman of Committees ... ..	1,740	2,790	2,056	2,790	2,790
Allowances to Members* ... ..	40,335	67,417	52,392	68,668	69,319
Railway passes for Members ... ..	10,387	17,462	18,012	18,554	19,276
Postage for Members ... ..	1,770	2,700	2,699	2,685	2,692
<b>Both Houses—Joint expenditure—</b>					
<b>Standing Committee on Public Works—</b>					
Remuneration of Members ... ..	3,599	3,966	...	...	...
Salaries of Staff and contingencies ... ..	2,626	2,145	592	697	702
Salaries of Reporting Staff ... ..	included	8,269	7,470	8,909	8,631
Library—Salaries of Staff ... ..	in	2,541	2,622	3,165	3,185
Contingencies... ..	“ other ”	942	911	1,080	980
Other Salaries of Staff ... ..	below.	23,516	22,107	28,077	27,502
Printing—Hansard ... ..	6,689	6,189	4,741	4,976	5,526
Other ... ..	14,967	13,562	9,487	9,204	13,136
Other Expenses ... ..	24,490	5,478	7,413	14,388	12,291
	113,893	174,783	143,314	176,909	180,244
<b>Electoral—</b>					
Salaries ... ..	1,123	2,104	2,100	2,479	2,463
Contingencies ... ..	56,491 †	8,195	3,182	2,500	8,340
	57,614	10,299	5,282	4,979	10,803
<b>Royal Commissions and Select Committees</b>	4,114	7,790	7,110	11,321	6,579
<b>Grand Total ... ..</b>	£ 202,001	229,246	189,903	232,709	235,354
<b>Per head of population ... ..</b>	2s. 2d.	1s. 11'7d.	1s. 5'1d.	1s. 8'4d.	1s. 8'4d.

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



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 and 1940 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	239,980	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 submitted to referenda were shown in the 1921 edition of this Year Book at page 42, the 1926-27 edition at page 47, the 1931-32 edition at page 32, and the 1937-38 edition at page 33.

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, but was suspended in November, 1929, when the forces were reconstituted on the basis of voluntary enlistment. Universal training was commenced again in 1940.

### MILITARY FORCES.

Under the voluntary system men at ages 18 to 40 years were 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 24.—Military Forces in Training—Commonwealth and New South Wales.

Date.	1901. *1 Mar.	1913. 30 June.	1922. 31 Dec.	1929. 1 Feb.	1935.	1936.	1937.	1938.
Commonwealth ...	28,886	34,537	37,156	47,931	28,061	36,063	36,943	45,690
New South Wales	9,772	12,105	14,561	18,825	10,344	13,016	13,479	16,495

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

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 years 1936 to 1938.

TABLE 25.—Military Forces—Commonwealth and New South Wales—Classification.

Branch of Service.	Commonwealth.			New South Wales.		
	1936.	1937.	1938.	1936.	1937.	1938.
Permanent Forces ... ..	2,032	2,319	2,795	785	950	1,152
Militia Forces ... ..	34,031	34,624	42,895	12,231	12,529	15,343
Engineer and Railway Staff Corps	57	55	63	12	11	14
Unattached List of Officers ...	188	161	154	67	55	43
Reserve of Officers ... ..	5,389	5,358	6,247	1,884	1,862	1,887
Chaplains ... ..	220	226	231	61	62	66
A. A. M. C. Reserve ... ..	1,466	1,434	1,444	531	511	531
<b>Total ... ..</b>	<b>43,383</b>	<b>44,177</b>	<b>53,829</b>	<b>15,571</b>	<b>15,980</b>	<b>19,036</b>

The strength of militia forces in New South Wales on 31st December, 1938, was 15,343, and the senior cadets consisted of 4,119 in regimental detachments and 4,780 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, 1939, there were 288 rifle clubs in New South Wales administered by the District Base Commandant, 2nd Military District, with a total membership of 12,276. In addition, there were 5 clubs administered by other Military Districts, and 16 miniature rifle clubs, having a membership of 439. Members of rifle clubs must fire an annual course of musketry of three different practices, but need 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 June, 1939, the Australian squadron in commission consisted of 4 cruisers, 3 destroyers, 2 escort vessels, a boom defence vessel, a depot ship, and a sloop engaged on surveying duties; and in reserve, 2 cruisers, 2 destroyers and a fleet auxiliary.

At 30th June, 1939, the sea-going force consisted of 409 officers and 4,855 ratings and the auxiliary services of 37 officers and 235 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, 169 officers; (b) Royal Australian Fleet Reserve, 450 men; (c) Royal Australian Naval Reserve (Seagoing), 75 officers; (d) Royal Australian Naval Reserve, 244 officers and 3,869 men; (e) Royal Australian Naval Volunteer Reserve, 176 officers and 50 men.

Junior officers are trained at the Naval College, Flinders Naval Depot, where 65 cadet midshipmen were undergoing training in January, 1939. 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. In addition to Air Force Headquarters with representation in London, the force consists of a number of stations and establishments in various parts of the Commonwealth.

### MUNITIONS SUPPLY.

The Factory 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.

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, 1939, capital amounting to £786,384 had been invested in the small arms factory. At 30th June, 1939, there were 536 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 1940.

- 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—Australian 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 Commissioner's 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 award, engineers)—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—Berriquin 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.
- 1939 Defence Measures—National Security Act—National Register and Wealth Census—National Insurance Scheme postponed—Aerial Survey flight over Indian Ocean (flying boat "Guba")—Commonwealth Arbitration Court adopts 44 hours as standard week—War with Germany (3rd September)—Emergency measures for control of exchange transactions, prevention of profiteering, etc.—Imperial purchase of wool, butter, cheese, meat, eggs, metals, canned and dried fruits—Federal wheat pool.
- 1940 Australian Expeditionary Forces in Palestine and England—Empire Air Training Scheme—Australian Ministers appointed to United States and Japan—General Coal Mining dispute—Graving dock at Sydney commenced—Stabilisation of prices of Commonwealth Government securities—Co-ordination of public works under Australian Loan Council—Tasman Air Service inaugurated—Petrol rationing—Petrol from shale at Glen Davis.

## POPULATION.

### *The Census.*

The number and characteristics of the population of New South Wales have been ascertained by census enumerations at intervals since 1828. Regular musters were held during the first forty years of the existence of the colony, and the first actual census in 1828 was followed by census enumerations in 1833 and 1836 and then at intervals of five years until 1861. Thereafter a census was taken at intervals of ten years until 1921. For reasons of economy, the census due in 1931 was postponed until 30th June, 1933, and the date of the next census has not yet been fixed.

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. The first Australian census taken under Commonwealth 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 1939.*

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, with the latest estimate made subsequent to the census:—

TABLE 26.—Population, 1861 to 1939.

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., 1939.	2,770,348	790	169,501‡	6·52‡	0·98	8·95

\* 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 in Table 42 of this Year Book.

The population of the Australian Capital Territory is excluded in 1911 and subsequent years.

There was a steady growth of population 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 and many 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.

During the twenty years 1891 to 1911 there was 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 effects of the war of 1914-1918 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 decade 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 the annual gain by migration was small. At the same time natural increase was diminished by a decline in the birth rate. (See Tables 61 and 68.)

The average annual rate of increase in population has diminished from 2.46 per cent. (1911 to 1921) to 1.76 per cent. (1921 to 1933) and to 0.98 per cent. (1933 to 1939).

The estimated population at the end of each year and the mean population for each year since 1929 are shown in the following table.

TABLE 27.—Population, Annual and Mean, 1929 to 1939.

Year.	Estimated Population at 31st December.			Mean Population.	
	Males.	Females.	Total.	Year Ended 31st December.	Year Ended 30th June.
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	2,555,871	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
1939 ...	1,396,224	1,374,124	2,770,348	2,749,134	2,733,936

## 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 in New South Wales during each intercensal period since 1861 in comparison with the six and a half years 1933 to 1939.

TABLE 28.—Natural Increase and Immigration, 1861 to 1939.

Period.	Numerical Increase.			Average Annual Rate of Increase.		
	Natural.	Net Immigration.	Total.	Natural.	Net Immigration.	Total.
				per cent.	per cent.	per cent.
1861-1871* ...	106,071	46,067	152,138	2.68	1.24	3.67
1871-1881* ...	139,722	107,105	246,827	2.48	1.95	4.07
1881-1891* ...	204,664	172,648	377,312	2.44	2.09	4.16
1891-1901* ...	230,669	(-) 2,451	228,218	1.90	(-) .02	1.86
1901-1911* ...	250,140	41,239	291,379	1.71	.30	1.97
1911-1921* ...	318,945	134,692	453,637	1.79	.77	2.46
1921-1933§ ...	377,321	123,155	500,476	1.36	.47	1.76
1933-1939† ...	136,163	33,338	169,501	.79	.19	.98
1861-1939 ...	1,763,695	655,793	2,419,488	2.31	1.35	2.66

\* Period of 10 years.

§ Period of 12½ years.

† Period of 6½ years

Natural increase has been by far the greater factor in the growth of population in New South Wales since 1861. In spite of the fall in the rate of natural increase the average annual addition from this source increased up to 1921. The subsequent decline is illustrated in Table 29. There are further details of the natural increase on page 90.

Immigration has intermittently provided considerable additions to the population, although in the period of seventy-two years between the censuses of 1861 and 1933, the net immigration amounted to only 622,455 or about one-quarter of the total increase. Immigration proceeded rapidly until 1886 when it declined so heavily that between 1892 and 1904 the State actually incurred a net loss of more than ten thousand inhabitants. Thereafter the rate of increase due to migration was very variable; there was considerable gain in the years 1907, 1911 to 1914, and 1924 to 1928, then the average annual inflow of migrants became very small.

*Sources of Increase, 1921-1939.*

The sources of increase in population in New South Wales (exclusive of aboriginals of full blood) during each year since 1921 were as follows.

TABLE 29.—Natural Increase and Immigration, 1921 to 1939.

Year	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 ... ..	20,120	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	·78	·14	·92
1939 ... ..	21,188	13,465	34,653	·78	·49	1·27

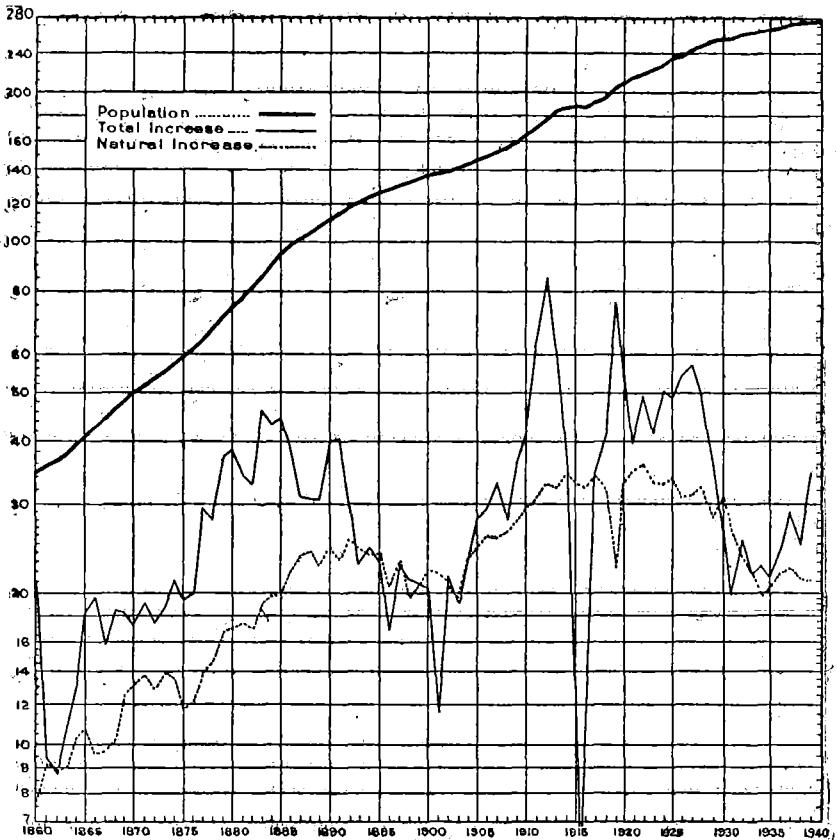
(—) Denotes an excess of Departures over Arrivals.

Net immigration grew rapidly though irregularly from 1921 until 1927, then a decline set in and there was a loss by emigration in 1930 and 1931. The decline was arrested in 1932, but subsequent gains have been relatively small. A plan commenced in 1937 to encourage an inflow of migrants by the provision of assisted passages was interrupted by the outbreak of war in 1939.

The increase in net immigration in 1939 was due mainly to the movement of defence forces.

POPULATION AND ANNUAL INCREASE, 1860 TO 1939.

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, due mainly to a sharp drop in the number of births, in several years, notably 1926 and 1929, there was an increase in the number of deaths and natural increase was very small. The natural increase in 1934 was the lowest recorded since 1885, excepting 1898 and 1903. There was some improvement in the next three years due to an increase in births, but it was not sustained in 1938 and 1939.

The rate of natural increase fell below 1 per cent. for the first time in 1932, and there was further decline to .76 per cent. in 1934 and 1935. It was slightly higher in the next two years, then declined to .78 per cent. in 1938 and 1939.



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.

In 1939 the effect of normal civilian migration was obscured by the migration of defence forces.

Details of migration to and from the State are shown on later pages.

#### DISTRIBUTION OF POPULATION.

The population of New South Wales is preponderantly urban and industrial. At the 31st December, 1939, the city of Sydney contained 89,070 persons in a small area surrounded by an extensive group of suburbs with 1,213,820 inhabitants, making a total of 1,302,890 dwellers in the metropolis. Then scattered throughout the State are 110 municipalities, with a total population of 602,410; of these, 11 municipalities in the County of Cumberland contained 53,240 persons, and the large mining and industrial centres of Greater Newcastle, Broken Hill, Wollongong, Cessnock and Lithgow, 191,400 inhabitants; leaving 357,770 in 94 rural towns incorporated as municipalities. Distributed over the remainder of the State—99.3 per cent. of its area—are 865,048 persons, of whom about one-third live in unincorporated towns of 500 persons or more. Only 19,320 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, 1939, together with the proportion in each division and the average population per square mile, are shown in the following table:—

TABLE 30.—Distribution of Population in Areas, 1939.

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	89,070	3.2	17,814.0
Suburbs of Sydney ... ..	241	1,213,820	43.8	5,036.6
Metropolis ... ..	246	1,302,890	47.0	5,296.3
Greater Newcastle ... ..	36	117,050	4.2	3,251.4
Other Municipalities				
Population 10,000 and over ...	158	193,350	7.0	1,223.7
„ 5,000 to 9,999 ... ..	197	101,560	3.7	515.5
„ below 5,000 ... ..	1,499	190,450	6.9	127.1
Country Shires... ..	181,873	835,510	30.1	4.6
Western Division (Part unincorporated) ... ..	125,383	19,320	.7	.2
Lord Howe Island ... ..	5	165	.0	33.0
Migratory* ... ..	...	10,053	.4	...
Harbours and Quarantine † ... ..	36	...	...	..
Total, New South Wales ...	309,433	2,770,348	100.0	9.0

\* Shipping and railway travellers. † Portions not included within Municipal or Shire boundaries.

The population of the metropolis, with the residents of adjoining areas who derive their livelihood in the city, represents approximately one-half of the total population. About one-fifth of the people reside in the larger towns including the industrial centres at Newcastle and Wollongong-Port Kembla. Less than one-third of the population live in the rural districts.

The density of population in the metropolitan area of Sydney is 5,296 persons per square mile, whilst in the similar, though smaller, area of Greater Newcastle the density is 3,251 per square mile. That part of County Cumberland which is outside the metropolitan area has a density of 111 and the northern coalfields adjacent to Newcastle has an average of 64 per square mile. The balance of the Coastal division, where the principal industry is dairying (but including the mining and the industrial population of Wollongong-Port Kembla), supports an average of nearly 13 persons per square mile; the most populous portion is the North Coast with an average of nearly 15. 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, which is for the greater part beyond the western limit of commercial wheat growing, the density is only 2.3 persons per square mile. These areas (from coast to plains) constitute the Eastern and Central land divisions of the State and the average density therein is 14.9 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. The remainder of the division is under sparse pastoral occupation, and has an average density of only one person to every 5 square miles.

The average density of population in New South Wales is 9.0 persons per square mile.

#### *Urban and Rural Population.*

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. This is illustrated by comparative statistics recorded at the censuses of 1911 to 1933 which are published in the 1938-39 issue of the Year Book at pages 47 to 52 and the censuses of 1891 to 1921 at page 236 of the Year Book of 1922.

Mechanisation and increasing efficiency tend to restrict employment in the rural industries, and the consequent diversion of rural population to industrial centres 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.

#### THE POPULATION OF THE METROPOLIS.

Until 31st December, 1928, the metropolis (for statistical purposes) included 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. On 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. On 1st January, 1933, the boundaries of the metropolis were

further extended to include the municipalities of Dundas, Emmington and Rydalmere, and the Pitt and Merrylands wards of Holroyd municipality, so that the metropolitan area now embraces all municipalities shown in the following table. This is the area to which the population and vital statistics of the metropolis refer. It measures 246 square miles and the population was 1,302,890 as at 31st December, 1939.

An extended metropolitan area was defined in Schedule Four of the Local Government Act, 1919. Apart from some minor differences in the boundaries, 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. These shires contain centres of population more or less suburban in character, and a large proportion of their inhabitants gain their livelihood in the city. The shires of Hornsby, Sutherland and Warringah contain approximately 443 square miles and the population was 58,750 as at 31st December, 1939.

The following statement shows the population of each municipality within the present boundaries of the metropolis, and of the extra-metropolitan shires, at the censuses of 1911, 1921, and 1933, and at 31st December, 1939, excluding shipping and full blood aboriginals.

TABLE 31.—Population of Metropolitan Municipalities, 1911 to 1939.

Municipality.	Population at Census—			Proportional Increase 1911 to 1933.	31st December, 1939.	
	1911.	1921.	1933.		Estimated Population.	Average Number of Persons per acre.
City of Sydney ...	112,921	104,153	88,308	per cent. (-) 22	89,070	27.66
Inner Industrial—						
Paddington ...	24,317	26,364	24,674	1	24,020	57.05
Redfern ...	24,427	23,978	18,834	(-) 23	17,580	43.51
Waterloo ...	10,072	11,199	11,659	16	11,420	13.81
Alexandria ...	10,123	9,793	9,018	(-) 11	8,480	8.07
Mascot ...	5,836	10,929	14,363	146	15,620	7.03
Botany ...	4,409	6,214	8,287	88	8,880	4.10
St. Peters ...	8,410	12,700	12,554	49	12,540	13.90
Erskineville ...	7,299	7,553	6,645	(-) 9	6,280	33.76
Newtown ...	26,498	28,168	25,290	(-) 5	24,650	51.35
Darlington ...	3,816	3,651	3,053	(-) 20	2,790	51.67
Glebe ...	21,943	22,754	19,874	(-) 9	19,110	36.89
Annandale ...	11,240	12,648	12,205	9	11,760	33.99
Leichhardt ...	24,254	29,356	30,209	25	30,190	26.14
Balmain ...	32,038	32,104	28,272	(-) 12	27,740	28.39
Total ...	214,682	237,411	224,937	5	221,060	18.87
Illawarra-Bankstown—						
Marrickville ...	30,653	42,240	45,385	48	46,220	24.47
Rockdale ...	14,095	25,189	39,123	178	42,250	8.28
Bexley ...	6,517	14,746	20,539	215	22,390	11.72
Kogarah ...	6,953	18,226	30,646	341	33,580	6.99
Hurstville ...	6,533	13,394	22,663	247	25,460	4.16
Canterbury ...	11,335	37,639	79,050	597	84,230	10.20
Enfield ...	3,444	8,530	14,782	329	15,280	9.13
Bankstown ...	2,039	10,670	25,384	1,145	28,400	1.48
Total ...	81,569	170,634	277,672	240	297,810	6.08

TABLE 31.—Population of Metropolitan Municipalities, 1911 to 1939—  
*continued.*

Municipality.	Population at Census—			Proportional Increase 1911 to 1933.	31st December, 1939.	
	1911.	1921.	1933.		Estimated Population	Average Number of Persons per acre.
<b>Inner Western—</b>				per cent.		
Petersham ...	21,712	26,236	26,941	24	27,540	32.40
Ashfield ...	20,431	33,636	39,356	93	41,030	20.09
Drummoyne	8,678	18,761	29,215	237	30,900	15.80
Burwood ...	9,380	15,709	19,373	107	20,160	18.23
Strathfield ...	4,046	7,594	12,147	200	13,130	7.15
Homebush ...	676	1,622	3,189	372	3,290	5.15
Concord ...	4,076	11,013	23,213	470	24,370	9.11
Total ...	68,999	114,571	153,434	122	160,420	14.45
<b>Outer Western—</b>						
Lidcombe ...	5,418	10,522	17,379	221	17,990	3.44
Auburn ...	5,559	13,563	20,114	262	20,670	7.98
Granville ...	7,231	13,328	19,718	173	20,860	5.17
Parramatta ...	12,465	14,594	18,076	45	19,660	8.64
Holroyd* ...	7,082	7,626	8,426	305	9,230	4.19
Total ...	32,755	56,633	83,713	156	88,410	5.41
<b>Northern—</b>						
Manly ...	10,465	18,507	23,259	122	25,860	8.34
Mosman ...	13,243	20,056	23,665	79	25,150	11.68
North Sydney ...	34,646	48,438	49,752	44	52,100	20.61
Willoughby ...	13,036	28,067	42,511	226	46,180	8.37
Ku-ring-gai ...	9,458	19,209	27,931	195	32,400	1.56
Lane Cove ...	3,306	7,592	15,138	358	16,370	6.38
Hunter's Hill ...	5,013	7,300	8,989	79	9,720	6.86
Ryde ...	5,281	14,854	27,861	428	30,970	4.44
Eastwood ...	968	2,133	3,025	212	3,310	1.12
Dundas ...	1,136	3,523	6,017	431	6,690	2.46
Ermington and Rydalmere... ..	1,716	1,981	2,364	38	2,480	1.22
Total ...	98,288	171,660	230,512	135	251,230	4.76
<b>Eastern—</b>						
Vaucluse ...	1,672	3,727	7,205	331	8,210	10.30
Woollahra ...	16,989	25,439	34,727	104	38,820	20.59
Waverley ...	19,831	36,797	55,902	182	62,490	23.60
Randwick ...	19,463	50,841	78,957	306	85,370	10.01
Total ...	57,955	116,804	176,791	205	194,890	14.55
Total, Metropolis Proper†	667,149	971,866	1,235,267	85	1,302,890	8.27
Hornsby Shire ...	8,901	15,287	22,596	154	24,430	.19
Sutherland Shire ...	2,896	7,705	13,525	367	16,120	.18
Warringah Shire ...	2,823	9,643	16,054	469	18,200	.28
Total, Metropolitan and Extra—Metropolitan	681,769	1,004,501	1,287,442	89	1,361,640	3.09

\* Pitt and Merrylands Wards only. † Estimated.  
 ‡ 1933 Boundaries—for previous changes see text, page 47.

The population of the metropolis is not distributed evenly. At the 31st December, 1939, the City of Sydney and the inner industrial suburbs occupying only 9.5 per cent of the area of the metropolis, contained 23.8 per cent of the inhabitants. In two-fifths of this area the density of the

population ranged from 26 to 57 persons per acre. On the other hand, the density of the outlying suburbs is little more than one or two persons to the acre, but considerable development is taking place in these areas.

The population of most of the suburbs in the inner industrial area is either stationary or diminishing as dwellings are being 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 9 per cent. between 1921 and 1939 there were proportionate increases in the other groups of suburbs, viz.:—Inner western 40 per cent., northern 46 per cent., outer western 56 per cent., eastern 67 per cent., Illawarra-Bankstown 75 per cent., and extra metropolitan 80 per cent.

The population in the city and eight of the nearest suburbs,† decreased by more than 5,000 between 1911 and 1921, and by more than 33,000 between 1921 and 1933, representing a total decrease of nearly 16 per cent in the twenty-two and a 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 a quarter years. Despite this marked growth, the density of population in these suburbs in 1939 was only 5.7 persons per acre, compared with 28.7 persons per acre in the city and the eight adjacent suburbs. On the whole, Sydney has a very low average density of population as compared with other cities of the British Empire (see Table 33) and there is ample room for a very great increase without creating undue congestion. If a population of about 4,000,000 persons were accommodated within the present metropolitan boundaries it would not raise the density above the existing average in the inner suburbs,‡ viz., 6 dwellings to the acre and 4.3 persons per dwelling.

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 32.—Population of Metropolis, 1861 to 1939.

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	158,394	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	308,728	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
10th 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.							
1st December, 1939 (b)	621,010	681,880	1,302,890	67,623¶	5.47¶	47.66	47.0

\* 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 page 47.

† Annandale, Balmain, Glebe, Erskineville, Newtown, Redfern, Darlington and Alexandria.  
‡ Leichhardt, Ashfield, Marrickville, Petersham, Balmain and Paddington.

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.

The following comparison shows that Sydney is the third largest city of the British Empire:—

TABLE 33.—Population of Principal Cities of British Empire.

City.	Census.				Latest Estimate.	
	Year.	Area.	Population	Average Number of persons per acre.	Year.	Population.
		Acres.				
London (Registration Area or Administrative County) ... ..	1931	74,850	4,397,003	58·7	1938	4,062,800
“ Outer Ring ” ... ..	1931	368,605	3,806,939	10·3	1938	4,637,200
Greater London ... ..	1931	443,455	8,203,942	18·5	1938	8,700,000
Sydney ... ..	1933	156,149	1,235,267	7·9	1939	1,302,890
Calcutta ... ..	1931	39,040	1,485,582	38·1	...	...
Bombay ... ..	1931	15,360	1,161,383	75·6	...	...
Glasgow ... ..	1931	39,725	1,088,417	27·4	1939	1,131,600
Melbourne ... ..	1933	125,926	991,934	7·9	1939	1,046,750
Birmingham ... ..	1931	51,147	1,002,608	19·6	1938	1,041,000
Montreal ... ..	1931	29,920	813,577	27·4	1939	900,000
Liverpool ... ..	1931	24,795	855,688	34·5	1938	827,400
Manchester ... ..	1931	27,257	766,378	28·1	1938	732,900
Toronto ... ..	1931	21,760	631,207	29·0	1938	648,309
Madras ... ..	1931	18,624	647,230	34·8	...	...

The population of the capital cities (including suburbs) of Australia is shown below:—

TABLE 34.—Population of Capital Cities of Australia, 1911 to 1939.

Metropolis.	Area at 1933 Census.	Population.*					Estimated Population 31st December, 1939.
		Census, 1911.	Census, 1921.	Census, 1933			
		Total.	Total.	Total.	Proportion to Population of Whole State.	Average Number of Persons per Acre.	
	acres.				per cent.		
Sydney ...	156,149	665,067†	967,240†	1,235,267	47·5	7·9	1,302,890
Melbourne ...	125,926	588,971	766,465	991,934	54·5	7·9	1,046,750
Brisbane ...	246,400	139,480	209,946	299,748	31·6	1·2	326,000
Adelaide ...	102,987	189,646	255,375	312,619	53·8	3·0	322,990
Perth ...	119,520	106,792	154,873	207,440	47·3	1·7	224,800
Hobart ...	54,890	39,937	52,361	60,406	26·5	1·1	65,450

\*Excluding aboriginals and Shipping. † Population within the area embraced by the 1933 boundaries.

## THE TOWNS OF NEW SOUTH WALES.

The largest town outside the metropolis is Greater Newcastle with a population of 117,050 dependent mainly on coal-mining and the iron and steel industries. A similar though smaller industrial centre is developing in the Wollongong-Port Kembla district where the population is 39,290 (Municipalities of Wollongong and North Illawarra and Shire of Central Illawarra). The only other town with a population exceeding 25,000 is the silver-lead mining town of Broken Hill with a population of 28,300. Goulburn, the centre of thriving farming districts with a population of 15,380 is the fourth largest town. Cessnock the fifth and Lithgow the sixth largest town outside the Division of Cumberland, are dependent on coal-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 is a comparison of the populations at the last five censuses of the towns which had more than 3,000 inhabitants at the end of 1939. They are listed in the order of numerical importance at that date. Aboriginals and shipping population are not included.

TABLE 35.—Population, Principal Towns of N.S.W., 1891 to 1939.

Municipality.	Population.					
	Census 1891.	Census 1901.	Census 1911.	Census 1921.	Census 1933.	Estimated Dec., 1939
Sydney and Suburbs* ...	383,333	481,830	629,503†	899,059	1,235,267†	1,302,860
Greater Newcastle‡	49,910	53,741	54,603	84,372	104,485	117,050
Broken Hill ...	19,789	27,500	30,972	26,337	26,925	28,300
Wollongong ...	3,041	3,545	4,660	6,708	11,403	17,340
Goulburn ...	10,916	10,612	10,023	12,715	14,849	15,380
Cessnock§	203	165	5,102	9,340	14,385	14,520
Lithgow ...	3,865	5,268	8,196	13,275	13,444	14,190
Lismore ...	2,925	4,378	7,381	8,700	11,762	13,230
Wagga Wagga ...	4,596	5,108	6,419	7,679	11,631	13,120
Maitland (East and West)	10,214	10,073	11,313	12,008	12,329	12,740
Albury ...	5,447	5,821	6,309	7,751	10,543	11,630
Bathurst ...	9,162	9,223	8,575	9,440	10,413	11,080
Tamworth ...	4,602	5,799	7,145	7,284	9,913	10,990
Grafton & Grafton Sth.‡‡	4,445	5,147	5,888	6,077	8,551	10,410
Orange ...	5,064	6,331	6,721	7,398	9,634	10,390
Dubbo ...	3,551	3,409	4,452	5,032	8,344	8,820
Armidale ...	3,826	4,249	4,738	5,407	6,794	7,200
Katoomba ...	1,592	2,270	4,923	9,055	6,445	7,040
Parke ...	2,449	3,181	2,935	3,941	5,846	6,340
Casino ...	1,486	1,926	3,420	3,455	5,287	6,200
Inverell ...	2,534	3,293	4,549	4,360	5,305	6,060
Forbes ...	3,011	4,294	4,436	4,376	5,355	5,790
Glen Innes ...	2,532	2,918	4,089	4,974	5,352	5,510
Cowra ...	1,546	1,811	3,271	3,716	5,056	5,460
Kempsey ...	2,194	2,329	2,862	3,613	4,824	5,410
Taree ...	716	871	1,205	1,765	4,581	5,160

For reference notes see page 53.



TABLE 35.—Population, Principal Towns of N.S.W., 1891 to 1939—  
*continued.*

Municipality.	Population.					
	Census 1891.	Census 1901.	Census 1911.	Census 1921.	Census 1933.	Estimated Dec., 1939.
Cootamundra ... ..	2,026	2,424	2,967	3,531	4,683	4,920
Moree ... ..	1,143	2,298	2,931	3,020	4,355	4,880
Murwillumbah† ... ..	492	772	2,206	2,861	3,895	4,580
Wellington ... ..	1,545	2,984	3,958	3,924	4,320	4,530
Junee ... ..	1,682	2,190	2,531	3,560	4,213	4,370
Young ... ..	2,746	2,755	3,139	3,283	4,011	4,370
Narrandera ... ..	1,815	2,255	2,374	2,985	4,119	4,350
Temora ... ..	915	1,603	2,784	3,048	3,823	4,340
Queanbeyan ... ..	1,262	1,219	1,273	1,825	4,019	4,340
Mudgee ... ..	2,410	2,789	2,942	3,170	3,993	4,180
Gunnedah ... ..	1,362	1,910	3,005	2,664	3,591	4,170
Penrith* ... ..	3,099	3,539	3,682	3,604	3,911	4,130
Singleton ... ..	2,595	2,872	2,996	3,270	3,668	3,830
Gosford** ... ..	685	751	††	††	††	3,770
Deniliquin ... ..	2,273	2,644	2,494	2,660	3,192	3,490
Windsor† ... ..	2,033	2,039	3,466	3,808	3,247	3,480
Muswellbrook ... ..	1,298	1,710	1,861	2,152	3,287	3,460
Narrabri ... ..	1,977	2,286	2,514	2,358	2,911	3,390
Hay ... ..	2,741	3,012	2,461	2,572	3,156	3,330
Nowra ... ..	1,705	1,904	1,884	2,202	2,978	3,240
Ballina ... ..	1,084	1,819	2,061	2,768	3,042	3,210
Bowral ... ..	2,258	1,752	1,751	2,620	3,005	3,160
Corowa§§ ... ..	1,171	2,046	2,063	2,387	2,757	3,100
Yass ... ..	1,770	2,220	2,136	2,502	2,866	3,040

\* 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, including those situated in the extra-metropolitan shires of Hornsby, Sutherland and Warringah with 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 and those which embrace more than one distinct locality.

The population of the larger towns has grown at a fairly uniform rate since 1891 and some towns have shown rapid increase. Newcastle after twenty years of slow progress, has made rapid headway since 1911, 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 have maintained a steady growth throughout, but fluctuations in 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 a manufacturing town, continued to grow rapidly.

until 1927, when the population became stationary 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. The population shown above for 1921 and previous years includes tourists, but for 1933 and 1939 it represents substantially the resident population only.

### 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 36.—Sexes of Population, 1871 to 1933.

Census.	Distribution of Population in Sexes (excluding aboriginals).				Males per 100 Females.
	Number.		Proportion.		
	Males.	Females.	Males.	Females.	
			per cent.	per cent.	
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 of 1914-1918.

The effects of these forces are clearly seen in the following table, which shows the excess of males in each quinquennial age group at each census from 1891 to 1933:—

TABLE 37.—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.
<b>Years.</b>										
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 ...	2,060	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
Not stated ...	898	2,072	687	418	368	...	...	...	...	...
<b>Total .....</b>	<b>92,052*</b>	<b>65,164*</b>	<b>68,662</b>	<b>42,631</b>	<b>36,095</b>	<b>120</b>	<b>110</b>	<b>109</b>	<b>104</b>	<b>103</b>

\* Full blood aboriginals are excluded throughout, and half-caste aboriginals in a nomadic state are excluded in 1891 and 1901.

The censuses of 1861 to 1881 disclosed an excess of males 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 excess 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 excess masculinity apparent in 1891 at ages 25 and over is noticeable at each succeeding census at progressively later ages, 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. The effect of this disturbance was still apparent in the age group 30-44 years at the 1933 census, and the equalising effect of the greater male mortality after middle age was more apparent.

The numerical increase in the excess of males at the earlier ages is due principally to an increase in the annual number of births until about 1928, and the masculinity reflects the average masculinity of births, which

varies between 104 and 106 males per 100 females, and the higher death rate among male infants. At these early ages migration has little effect and a natural order is observable in ages under 20 throughout the whole period reviewed 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 aboriginals.

TABLE 38.—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	91,344	184,591	4,219
35-39 ... ..	79,737	75,886	155,623	87,139	92,606	179,745	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 ... ..	33,694	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	2,993	5,382	2,170
Not stated ... ..	2,639	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 agency, 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 271 and 372 of the "Statistical Register" for 1935-36.

The sex distribution of the population at various ages is analysed in Table 37.

The changing age constitution of the population is illustrated in the following table, which shows the proportion of persons recorded in quinquennial age groups at each census since 1861 and as estimated at 30th June, 1939.

TABLE 39.—Age Distribution of Population, 1861 to 1939.

Age Group.	Proportion per cent. of Total Population.								
	Census.								Estimate.
	1861.	1871.	1881.	1891.	1901.	1911.	1921.	1933.	1939.
Years.									
0-4	16.22	16.30	14.84	14.66	11.75	12.26	11.40	8.86	8.05
5-9	12.10	14.02	13.22	12.76	12.29	10.27	11.11	9.71	7.94
10-14	10.38	11.47	11.81	10.92	11.95	9.69	9.79	9.64	9.08
15-19	9.77	8.48	10.11	9.62	10.44	10.01	8.37	9.41	9.23
20-24	9.69	8.41	9.95	9.85	9.41	10.38	8.22	8.83	8.81
25-29	10.00	8.67	8.08	9.45	8.31	9.08	8.53	7.92	8.47
30-34	7.80	7.55	6.76	7.86	7.34	7.58	8.62	7.12	7.62
35-39	5.82	6.56	6.19	5.99	6.95	6.46	7.43	6.93	6.76
40-44	5.74	5.15	5.28	4.75	5.80	5.76	6.17	6.95	6.44
45-49	4.17	3.61	4.18	4.04	4.24	5.14	5.04	6.39	6.45
50-54	3.39	3.54	3.27	3.33	3.33	4.23	4.39	5.14	5.96
55-59	1.81	2.26	2.00	2.43	2.59	2.96	3.67	3.85	4.84
60-64	1.71	1.85	1.85	1.81	2.14	2.22	2.97	3.25	3.48
65-69	.64	.97	1.11	1.06	1.65	1.73	1.90	2.51	2.75
70-74	.43	.72	.74	.77	.96	1.17	1.20	1.81	1.99
75-79	.18	.25	.35	.42	.48	.73	.72	1.03	1.26
80-84				.19	.26	.30	.32	.44	.62
85 and over	.15	.19	.26	.09	.11	.13	.15	.21	.25
Total ...	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Under 15	38.70	41.79	39.87	38.34	35.99	32.12	32.30	28.21	25.07
15-64	59.90	56.08	57.67	59.13	60.55	63.82	63.41	65.79	68.06
65 and over	1.40	2.13	2.46	2.53	3.46	4.06	4.29	6.00	6.87
21 and over	†	48.06	48.02	49.93	51.62	55.77	57.57	60.55	63.98

† 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 offset to some extent by the arrival of immigrants, its extent is indicated by the decline in the proportion of children at ages under 10 years at each census. The decline in the birth rate, accentuated as it was in the years immediately preceding the census of 1933, culminated in an actual loss of numbers in the age group 0-4 years in 1933, as shown in Table 38. The loss was confined to ages under two years, which declined by 12,994, representing 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 increased slightly to reduce the loss in the group to 9,535.

During the period of sixty-eight years from 1871 to 1939, the proportion of children under 15 years of age to the total population fell from 41.8 per cent. to 25.1 per cent., and the proportion of aged persons over 64 years of age and of persons at what may be called the productive ages (15 to 64 years) increased considerably. The proportion of persons of dependent age, viz., those under 15 years and over 64, decreased from 43.92 per cent. in 1871 to 31.94 per cent. in 1939.

The proportion of adults in the population has grown very steadily since 1881.

#### CONJUGAL CONDITION OF THE POPULATION.

The proportion of married persons in New South Wales at the census of 1933 was considerably more than one-third of the population, being 39.58 per cent., as compared with 37.4 per cent. in 1921 and 33.5 per cent. in 1911. The population (exclusive of aboriginals) at the census of 1933 arranged according to conjugal condition, was as follows:—

TABLE 40.—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	396,919	311,619	698,538	29·44	24·36	26·93
Married ...	512,886	513,786	1,026,672	39·03	40·16	39·58
Widowed ...	37,488	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 males over the age of 15 years who had never been married numbered 386,919, and females 311,619. The proportion of married to 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 proportion of males and females in each group as recorded at each census from 1861 to 1933 is shown below:—

TABLE 41.—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	·2
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	35·03	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 proportion of males and females never married, and a corresponding increase in the proportion 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 continuously, 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 number and proportion of widowed and divorced persons 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 preponderatingly 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 there were only 5,097 aboriginals of full blood. Since that date the number recorded at successive censuses has declined greatly. The number of aboriginals of full blood enumerated at censuses since 1871 was as follows:—

TABLE 42.—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 endeavour has been made to obtain an annual census of aboriginals with the assistance of the Aborigines' Protection Board and the police. Owing to the difficulty of tracing individuals, it is not considered that a precise enumeration is obtained by this means, but the figures may be regarded as reliable estimates. The number recorded at

the annual collection of 30th June, 1933, was 195 greater than the census enumeration of the whole population. At 30th June, 1939, the number of aboriginals of full blood recorded in this way was 794, of whom 502 were males and 292 were females. Of the total 46 were nomadic, 265 were in regular employment, and there were 483 others. The number living in supervised camps was 516.

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, 1939, was 10,069, of whom 5,391 were males and 4,678 females. However, it is probable that this number is considerably overstated through the inclusion of full-bloods, and possibly of quadroons and persons of lesser caste.

Of the half-castes recorded in 1939, 472 were nomadic, 2,595 were in regular employment, and there were 7,002 others. The number living in supervised camps was 4,410.

#### 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.

TABLE 43.—Population of Each State, 1921, 1933 and 1939.

State or Territory.	Population, Census 1921.	Population, Census 1933.	Estimated Population 31st Dec., 1939.	Proportion in each State or Territory.		
				Census, 1921.	Census, 1933.	31st Dec., 1939.
New South Wales ...	2,100,371	2,600,847	2,770,348	per cent. 38·67	per cent. 39·23	per cent. 39·59
Victoria ... ..	1,531,280	1,820,261	1,887,278	28·19	27·46	26·97
Queensland ... ..	755,972	947,534	1,015,927	13·92	14·29	14·52
South Australia ...	495,160	580,949	597,045	9·13	8·76	8·53
Western Australia ...	332,732	438,852	465,916	6·06	6·62	6·66
Tasmania ... ..	213,780	227,599	241,576	3·91	3·43	3·45
Northern Territory ..	3,867	4,850	6,973	0·07	0·07	0·10
Australian Capital Ter.	2,572	8,947	12,263	0·05	0·14	0·18
Commonwealth ...	5,435,734	6,629,839	6,997,326	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; where the rates were 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 ratio 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, 1938-39. 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 44.—Population of World.

Region or Country.	Area in Square Miles.	Estimated Population at 31st December, 1937.	Proportionate Distribution.		Number of Persons per Square Mile.
			Area.	Population.	
<b>Continental Divisions—</b>	000	000	per cent.	per cent.	
Europe§ ... ..	2,095	396,930	4·1	18·7	189·5
Asia§ ... ..	10,348	1,124,100	20·2	52·9	103·6
U.S.S.R. † in Europe and Asia	8,176	169,000	15·9	8·0	20·7
Africa ... ..	11,699	153,600	22·8	7·2	13·1
North and Central America ...	8,659	181,620	16·9	8·5	21·0
South America ... ..	7,047	89,700	13·7	4·2	12·7
Australasia and Oceania ...	3,301	10,570	6·4	·5	3·2
<b>World Total*</b> ... ..	<b>51,325</b>	<b>2,125,520</b>	<b>100·0</b>	<b>100·0</b>	<b>41·4</b>
<b>Countries (including Dependencies)†</b>					
British Empire ... ..	11,320	513,711	22·1	24·2	45·4
China¶ ... ..	4,287	450,000	8·4	21·2	105·0
U.S.S.R. † ... ..	8,176	169,000	15·9	8·0	20·7
United States of America ...	3,738	145,770	7·3	6·9	39·0
France ... ..	4,623	105,336	9·0	4·9	22·8
Japan ... ..	262	102,674	·5	4·8	391·9
Netherlands ... ..	809	76,306	1·6	3·6	94·3
Germany ** ... ..	214	74,826	·4	3·5	349·7
Italy ... ..	1,460	51,620	2·8	2·4	35·4
Brazil ... ..	3,236	43,247	6·4	2·0	13·2
Other Countries ... ..	13,150	393,030	25·6	18·5	29·9
<b>World Total*</b> ... ..	<b>51,325</b>	<b>2,125,520</b>	<b>100·0</b>	<b>100·0</b>	<b>41·4</b>

\* Excluding Arctic and Antarctic Regions.

† Excluding Mandated Territories.

‡ Union of Soviet Socialist Republics (Russia).

§ Excluding U.S.S.R.

¶ Including Manchukuo.

\*\* Including the Saar Territory; also Austria absorbed into the German Reich in March, 1938.

## 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 45.—Interstate and Overseas Migration, 1929 to 1939.

Year.	Arrivals in New South Wales.			Departures from New South Wales.			Excess of Arrivals over Departures. (Net Immigration.)		
	Inter-state. *	From Oversea Countries Direct.	Total.	Inter-state. *	To Oversea Countries Direct.	Total.	Inter-state. *	Oversea Countries Direct.	Total.
1929	212,069	52,406	264,475	209,165	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	132,171	28,637	160,808	134,804	32,494	167,298	(-) 2,633	(-) 3,867	(-) 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	145,323	30,073	175,396	(-) 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	146,812	43,237	190,049	4,774	1,966	6,740
1938	155,606	50,040	205,646	155,231	46,672	201,903	375	3,368	3,743
1939	148,294	49,119	197,413	140,541	43,407	183,948	7,753	5,712	13,465

(-) Denotes excess of departures.

\* Including movement of population to and from oversea countries *via* other States.

The arrivals from and departures to "oversea countries direct" as shown above represent complete records of persons arriving or departing oversea direct. They include persons permanently transferring their residences as well as casual movements of Australians and of oversea visitors. The numbers are dissected into these categories in Table 46.

The records of interstate migration are not complete but relate to interstate movement by sea and air plus such transfers by land as are represented by single rail tickets interstate (since 1st July, 1926). Part of the decline in interstate migration (as recorded above) is due to an increase in motor transport by road. The number of persons crossing the borders by this means is not recorded. Although it has undoubtedly increased it is improbable that the net annual movement of population is affected by it.

The fluctuations in net migration are largely due to the influence of economic conditions. The onset of depression in 1929 was marked by a heavy diminution in net immigration and followed in 1930 and 1931 by substantial net emigration. With a recovery in economic conditions in the subsequent years, the State has shown small annual gains of population by migration. The significance of the movement in 1939 is not apparent because migration in connection with war activities is included.

#### Oversea Migration.

The aggregate overseas movement of population shown in the last table may be analysed 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 number in the various categories in the years 1936 to 1939, comparing the totals for New South Wales with those for all Australia.

TABLE 46.—Migrants—New South Wales and Commonwealth, 1936 to 1939.

Arrivals and Departures Oversea Direct.	1936.		1937.		1938.		1939.	
	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.	New South Wales.	Commonwealth.
<b>Arrivals—</b>								
Permanent Arrivals... New	6,284	12,653	7,533	16,291	9,113	19,548	12,135	24,068
Australians returning ...	13,099	21,749	15,520	25,198	15,285	24,900	16,139	24,756
Visitors ...	19,236	25,492	22,150	28,313	25,642	33,480	20,845	26,261
<b>Total arrivals</b>	<b>38,619</b>	<b>59,894</b>	<b>45,203</b>	<b>69,802</b>	<b>50,040</b>	<b>77,928</b>	<b>49,119</b>	<b>75,085</b>
<b>Departures—</b>								
Australian residents departing permanently ...	5,851	11,370	6,055	11,216	6,575	11,403	7,496	11,541
Australians who intend to return ...	12,799	22,050	14,231	24,350	13,855	24,163	11,625	19,361
Visitors ...	19,699	24,977	22,951	29,033	26,242	33,225	24,286	30,292
<b>Total departures</b>	<b>38,349</b>	<b>58,397</b>	<b>43,237</b>	<b>64,599</b>	<b>46,672</b>	<b>68,791</b>	<b>43,407</b>	<b>61,194</b>

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. The majority of travellers between Australia and other countries (particularly visitors from abroad) embark or disembark at ports in New South Wales (principally Sydney).

*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 the last three years:—

TABLE 47.—Nationality of Overseas Migrants, 1937 to 1939.

Nationality.	1937.			1938.			1939.		
	Arri-vals.	Depar-tures.	Excess of Arri-vals.*	Arri-vals.	Depar-tures.	Excess of Arri-vals.*	Arri-vals.	Depar-tures.	Excess of Arri-vals.*
British ... ..	37,816	37,907	(-) 91	41,144	40,896	248	38,266	37,376	890
French ... ..	534	500	(-) 26	507	493	14	378	438	(-) 60
German ... ..	552	313	239	1,554	336	1,218	3,281	540	2,741
Greek ... ..	540	100	440	341	120	221	406	104	302
Italian ... ..	839	268	571	835	294	541	766	245	521
Russian ... ..	119	84	35	197	74	123	215	121	94
United States of America ...	1,545	1,321	224	1,727	1,547	180	1,564	1,541	23
Yugoslav ... ..	262	173	89	335	289	96	217	143	74
Other European ... ..	987	557	430	1,191	717	474	1,864	828	1,026
Total, European ... ..	43,194	41,283	1,911	47,831	44,716	3,115	46,947	41,336	5,611
Chinese ... ..	1,207	1,225	(-) 18	1,360	1,229	131	1,342	1,283	59
Indian ... ..	427	380	47	468	412	56	449	430	19
Japanese ... ..	213	267	(-) 54	151	173	(-) 22	178	200	(-) 22
Syrian ... ..	57	21	36	79	13	66	59	16	43
Other Asiatic ... ..	37	21	16	43	39	4	49	39	10
Polynesian, Melanesian, etc.	62	37	25	81	75	6	57	72	(-) 15
Other Non-European ... ..	6	3	3	27	15	12	38	31	7
Total, Non-European ... ..	2,009	1,954	55	2,209	1,956	253	2,172	2,071	101
Grand Total ... ..	45,203	43,237	1,966	50,040	46,672	3,368	49,119	43,407	5,712

\* (-) 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 give a better indication of the trends in oversea migration and its relation to the nationality or racial origin of the population.

The following table shows the net permanent movement of persons of certain nationalities since 1931. The figures represent the gain or loss between those departing permanently and those who intend to reside for one year or more.

TABLE 48.—Net Permanent Oversea Migration by Nationality, 1931 to 1939.

Nationality.	1931. *	1932. *	1933.	1934.	1935.	1936.	1937.	1938.	1939.
British ... ..	(-) 4,728	(-) 1,769	(-) 846	(-) 210	(-) 51	(-) 407	(-) 581	(-) 762	(-) 435
German ... ..	20	26	7	19	13	51	262	1,211	2,706
Greek ... ..	(-) 89	(-) 34	...	59	89	181	443	259	288
Italian ... ..	(-) 156	20	247	549	513	342	645	626	544
Yugoslav ... ..	(-) 67	5	27	17	47	56	145	158	114
United States America ...	(-) 153	(-) 46	(-) 20	23	83	43	48	93	57
Other European ... ..	(-) 265	(-) 112	34	74	26	189	445	617	1,216
Total European ... ..	(-) 5,438	(-) 1,904	(-) 565	536	720	455	1,407	2,202	4,490
Chinese ... ..	(-) 303	(-) 182	(-) 220	(-) 37	(-) 15	(-) 32	1	235	73
Natives of India, Ceylon	21	9	...	22	20	39	15	20	5
Japanese ... ..	(-) 16	(-) 23	30	13	20	(-) 43	(-) 4	1	(-) 12
Syrian ... ..	...	3	17	17	22	14	40	50	43
Other Asiatic ... ..	1	(-) 7	(-) 10	(-) 7	1	(-) 2	13	17	35
Other Non-European ... ..	(-) 4	(-) 5	...	(-) 8	1	2	6	13	5
Total Non-European ... ..	(-) 301	(-) 205	(-) 183	...	49	(-) 22	71	336	149
Grand Total ... ..	(-) 5,739	(-) 2,109	(-) 748	536	769	433	1,478	2,538	4,639

\* Approximate. (-) Denotes excess of departures.

There has been a small annual loss of people of British nationality by permanent migration in each year since 1929. In the last three years there has been a progressive increase in the net influx of refugee migrants from certain European countries. The effects of economic and political adjustment after the war of 1914-1918, 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 earlier issues of the Year Book.

#### *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, 1901-1940, 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; 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 further restrictions were not imposed until the outbreak of war in 1939.

#### *Registration of Aliens.*

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 entry into the Commonwealth, but not, except in war-time, for recording their movements within the Commonwealth.

The War Precautions Aliens Regulations, 1916, was the first Commonwealth law for this purpose, and was followed 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 repealed later.

The Aliens Registration Act, 1939, which was to have come into force late in 1939, contained provision for the continuous registration of aliens, but it has been superseded by the Aliens Control Regulations under the National Security Act. These regulations are more stringent than the peace time measure, particularly in respect to enemy aliens. They provide for the registration of aliens, and, if necessary, for control of their residence, travel, movement, possessions, employment, assembly and propaganda and for internment of enemy aliens.

All aliens over the age of 16 years must register, excepting:—

- (a) Consuls (other than those of an enemy country), and their staffs, and their wives.
- (b) Aliens exempted from registration by the Minister; and
- (c) Masters and crews of public vessels or aircraft of any Government.

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 intermittent. The degree of assistance afforded, types of persons to be admitted, method of choosing them and countries whence they came as matters of Government policy have always been dependent to a very large extent upon local conditions. Since the war of 1914-18, Governments of the State and Commonwealth and 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 being 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 were interrupted by world-wide economic depression, and in December, 1930, 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 various categories of migrants to whom assistance was offered under the new provisions are shown on pages 70 and 71 of the Year Book for 1938-39. The number of assisted migrants in each category who arrived in New South Wales in 1938 and 1939 is shown below:—

TABLE 49.—Migrants Assisted, 1938 and 1939.

Migrants Assisted by—	1938.	1939.
<b>Commonwealth—</b>		
Nomination by individuals or single nomination by approved organisations... ..	61	265
Persons possessing certain Capital ... ..	17	60
Retired army officers and civil servants, etc... ..	...	6
<b>State—</b>		
Nomination by individuals or single nomination by approved organisations ... ..	146	323
Group nominations by approved organisations ... ..	178	655

Upon the outbreak of war in September, 1939, the United Kingdom Government and the State and Commonwealth Governments decided to suspend assisted migration. Exceptions are made in cases of family reunion involving wives and dependent children, and in exceptional cases for which special approval is obtained; also personal nominees, whose nomination was approved prior to the outbreak of war and whose sailing was deferred on account of ships being requisitioned for other duties.

Details are shown later regarding the approved auxiliary organisations from whom group nominations are accepted, and under whose care juvenile migrants and others are brought to the State.

#### *Cost of Passages for Assisted Migrants.*

The contract passenger rates for migrants during 1937 to 1939 and the amount of Government subsidy and payment by the migrant are shown on page 72 of the 1938-39 Year Book.

*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 latest assisted passage scheme.

TABLE 50.—Arrivals of Assisted Migrants, 1919 to 1939.

Period.	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
1939 ... ..	...	1,309	630	444	143	92	1,309

The following statement shows the migration to the State since 1832, and the total number of assisted migrants who arrived in New South Wales inclusive of Victoria and Queensland before their separation. The number of migrants nominated by residents of the State and the number selected abroad since 1905 are shown separately.

TABLE 51.—Arrivals of Assisted Migrants, 1832 to 1939.

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
1939 ...	...	1,309	773	536	1,309
1832-1939 ...	29,028†	105,828†	168,547†	169,424†	346,828

\* Information not available.  
 § To 30th June.

† Excluding migrants, 1905-1909. ‡ 1905 to 1939.  
 \*\* 5½ years ended 31st December, 1924.



Nominations were restricted by the State Government from October, 1927, 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 52.—Country of Origin of Assisted Migrants, 1919 to 1939.

Year	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
1939 ... ..	1,309	...	...	...	...	...	1,309	...	1,309

#### *Group Nomination.*

A number of auxiliary migration organisations operate 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. Particulars of some of these organisations are published in the 1938-39 issue of the Year Book. The more important are the Dr. Barnardo Homes, the Fairbridge Farm School, 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 organisation were suspended from December, 1930, until late in 1937, 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 is 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.

*Migrants Welfare Committees.*

Some of the auxiliary migration organisations 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 number of persons who arrived in New South Wales, as group nominees under the auspices of various auxiliary migration organisations, in the last three years.

TABLE 53.—Migrants Assisted by Organisations, 1937 to 1939.

Organisation.	Year of Inauguration.	Arrivals.			
		1937.	1938.	1939.	Total from Inauguration to 1939.
Dreadnought Trust Fund—Boys ...	1911	...	...	73	8,021
Dr. Barnardo Homes—Boys ...	1921	23	...	35	870
Girls ...	1923	18	...	18	520
Church of England Migration Council—					
Farm learners ... ..	1921	...	47	124	871
Household workers ... ..	...	...	35	87	...
Burnside Homes (Presbyterian Church)—					
Boys ... ..	1922	...	...	13	35
Girls ... ..	1939	...	...	4	4
Big Brother Movement—Little brothers	1925	...	...	78	470
Fairbridge Farm School—Boys ...	1938	...	49	38	87
Girls ... ..	1938	...	8	10	18
Salvation Army—Farm learners ...	...	...	19	112	...
Household workers ... ..	...	...	20	60	...
Presbyterian Church—					
Household workers ... ..	1939	...	...	3	3

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 in so far 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 628 persons naturalised during 1939. The total number of persons naturalised since 1849 was 24,650, of whom 7,140 were of German origin; 1,901 were Swedes; 1,352 Danes; 3,079 Italians; and 977 French. The number classified as Russians was 1,538, and (since 1922) 273 as Poles, 138 as Finns, and 303 as natives of Esthonia, Latvia or Lithuania. The number of Asiatics was 1,371, of whom 923 were Chinese and 411 Syrians. Almost 33 per cent of the persons naturalised obtained their certificates since 1919. The principal nationality affected was that of Greeks, of whom 1,408 changed during the last twenty years as against 428 previously. Corresponding figures for others were Italians 2,184 and 895; Germans, 754 and 6,356; Syrians, 268 and 143; Swedes, 235 and 1,666; Danes, 236 and 1,116; and Russians, 468 and 1,070. Only 15 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 Federal statute, the Nationality Act, 1920-1936.

#### PASSPORTS.

The Passports Act, 1938, of the Commonwealth, which came into operation on 1st July, 1939, replaced an Act of 1920. It is uniform with similar legislation in other British countries. Under its provisions it is not compulsory for persons leaving Australia to be possessed of a valid passport. But in practice a passport is usually needed because it must be produced for entry into most British and foreign countries. Moreover it is prescribed by the Immigration Act, 1901-1940, that all persons over 16 years of age who desire to enter Australia must be in possession of a valid passport in addition to landing permit or other necessary authority even on return after temporary absence.

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 period does not exceed ten years; then a fresh passport must be obtained. A fee of 2s. is charged for each year of renewal.

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 some foreign countries.

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## 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 a 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, 1940, 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 are registered promptly in order to obtain the benefit of the maternity allowances.

The registration of stillbirths was commenced on 1st April, 1935, and the law requires that registrations 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 1940 there were 2,428 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.: 615 belonged to the Church of England, 739 were Roman Catholic, 313 Methodist, 297 Presbyterian, 87 Congregational, 105 Baptist, 76 belonged to the Salvation Army, 67 were Seventh Day Adventists, 33 belonged to the Church of Christ, 13 to the Latter Day Saints, and 8 to the Jewish faith. There were 37 other religious bodies, represented by 75 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 54.—Marriages, 1880 to 1939.

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	1925-29	19,481	8.11
1885-89	7,679	7.67	1930-34	17,746	6.88
1890-94	7,954	6.80	1935-39	23,694	8.79
1895-99	8,700	6.74	1935	22,361	8.45
1900-04	10,240	7.37	1936	22,873	8.57
1905-09	12,080	7.97	1937	23,188	8.61
1910-14	15,978	9.17	1938	24,579	9.03
1915-19	15,345	7.96	1939	25,471	9.27
1920-24	18,374	8.52			

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 declined in the next three years, then after the return of men from active service rose appreciably in 1919 and 1920. The average for the five years 1925-1929, though 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 to 1938 synchronised with improved economic conditions.

In the early part of 1939 there was a slackening in the post-depression increase in marriages, and the number in the twelve months ended August, 1939 was less by 79 than in the preceding twelve months. After the outbreak of war in September, 1939, there was a sudden change, and the number in the last four months of 1939 was higher by 1,056 than the number in these months of 1938, and the number in the year 1939 was the highest on record.

The rate in this year, 9.27 per 1,000 of population, was exceeded only in the years 1912, 1914, 1915 and 1920.

\* 58099—B

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 1939, compared with the rates of the previous five years:—

TABLE 55.—Marriage Rates, States, 1934 to 1939.

State.	1934.	1935.	1936.	1937.	1938.	1939.
<i>New South Wales</i> ...	7·70	8·45	8·57	8·61	9·03	9·27
Victoria ...	7·57	8·38	8·61	8·74	9·16	9·23
Queensland ...	7·99	8·57	8·49	8·44	8·85	8·99
South Australia ...	7·39	8·28	8·82	9·06	9·26	9·51
Western Australia ...	8·34	8·85	9·43	9·18	9·03	9·04
Tasmania ...	7·32	8·16	8·98	8·73	8·83	9·51
Commonwealth ...	7·71	8·45	8·66	8·70	9·05	9·23
New Zealand ...	7·62	8·20	9·25	9·55	10·09	11·12

### Conjugal Condition before Marriage.

The males married during the year 1939 were 23,367 bachelors, 1,237 widowers, and 867 divorced men. Of the females 23,809 were spinsters, 834 were widows, and 828 were divorced. The proportion of males re-married was 8.26 per cent., and of females 6.52 per cent.

The following table shows particulars relating to first marriages and re-marriages in quinquennial periods since 1890.

TABLE 56.—Conjugal Condition at Marriage, 1890 to 1939.

Period.	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	36,610	3,068	97	36,565	3,043	165	9,205	770	25	9,194	764	42
1895-99	39,952	3,246	273	40,031	3,033	434	9,191	746	63	9,202	698	100
1900-04	47,243	3,057	301	47,593	3,122	486	9,227	714	59	9,295	610	95
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	525	68	9,410	482	102
1915-19	71,502	4,461	764	71,559	4,235	933	9,319	581	100	9,326	552	122
1920-24	84,834	5,671	1,463	84,723	5,423	1,717	9,234	607	159	9,222	591	187
1925-29	80,794	6,555	2,055	90,622	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	366	257
1935-39	109,131	5,778	3,563	110,915	3,817	3,710	9,211	488	301	9,362	325	313
1935	20,700	1,073	579	21,068	644	649	9,261	480	259	9,422	288	290
1936	21,148	1,116	809	21,434	778	661	9,246	433	266	9,371	340	289
1937	21,319	1,154	715	21,642	807	739	9,194	498	308	9,333	348	319
1938	22,588	1,198	793	22,962	784	833	9,190	437	323	9,342	319	339
1939	23,367	1,237	867	23,809	834	828	9,174	486	340	9,348	327	325

The proportion of re-marriages is greater among men than women. The numbers of widowers re-married has exceeded the number of widows in every year except the three years 1920 to 1922, when the variation was probably due to re-marriages of war widows. The excess of widowers over widows re-married has increased since 1925; this is probably due in part to the introduction of widows pensions in March, 1926.

In each year, from 1893 to 1938 the proportion of re-marriages of divorced women exceeded that of divorced men, but to a diminishing extent.

In 1939 re-marriages of divorced men outnumbered those of divorced women.

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, as representing age last birthday.

TABLE 57.—Age at Marriage, 1935 to 1939.

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.
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 ...	1,263	15,707	6,095	1,514	5,380	15,112	3,284	803
1939	{ B. 1,300	16,243	5,254	570	S. 5,433	15,471	2,606	299
	{ W. ...	73	384	780	W. 4	119	299	412
	{ D. ...	102	539	226	D. 2	237	477	112

B, bachelors; S, spinsters; W, widowed; D, divorced.

Further details of the ages and conjugal condition of persons married each year are published in the Statistical Register of New South Wales.

In 1939 approximately 69 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 64 per cent. among both men and women.

The following statement shows the average age at marriage of bridegrooms and 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 58.—Average Age at Marriage, 1905 to 1939.

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	1934	years. 28·9	years. 27·6	years. 25·4	years. 24·4
1910	29·0	28·2	25·3	24·7	1935	28·9	27·6	25·4	24·5
1915	28·7	28·0	25·5	25·0	1936	28·9	27·6	25·5	24·5
1920	29·5	28·5	26·1	25·2	1937	29·2	27·8	25·7	24·6
1925	29·4	28·0	25·8	24·8	1938	29·2	27·8	25·6	24·6
1930	29·0	27·6	25·3	24·2	1939	29·2	27·7	25·6	24·7

The average age at marriage shows little variation from year to year,

*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 1939 was 9 at 14, 50 at 15, 268 at 16, 623 at 17, 1,221 at 18, 1,538 at 19, 1,730 at 20. The corresponding numbers of bridegrooms were 8 at 16, 36 at 17, 162 at 18, 430 at 19, and 664 at 20.

The following are the numbers and proportions of brides and bridegrooms married under the age of 21 years:—

TABLE 59.—Minors Married, 1875 to 1939.

Period.	Minors.		Proportion to Total Marriages.		Period.	Minors.		Proportion to Total Marriages.	
	Bridegrooms.	Brides.	Bridegrooms.	Brides.		Bridegrooms.	Brides.	Bridegrooms.	Brides.
			per cent.	per cent.				per cent.	per cent.
1875-79...	683	7,278	2.74	29.19	1925-29...	7,000	25,508	7.19	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	1935-39...	6,372	26,502	5.38	22.37
1890-94...	847	9,803	2.13	24.65					
1895-99...	1,197	10,475	2.75	24.08	1935 ...	1,251	5,266	5.59	23.55
1900-04...	1,669	11,970	3.26	23.38	1936 ...	1,312	5,266	5.74	23.02
1905-09...	2,609	14,378	4.32	23.80	1937 ...	1,246	5,151	5.37	22.21
1910-14...	3,579	17,821	4.48	22.31	1938 ...	1,263	5,380	5.14	21.89
1915-19...	3,188	15,718	4.15	20.49	1939 ...	1,300	5,439	5.10	21.35
1920-24...	4,712	19,982	5.13	21.75					

The proportion of minors among bridegrooms trended upwards, except in war years, until 1931, when the proportion was 9.12 per cent. There was a decline in each subsequent year.

Among brides the proportion of minors has always been much larger than among bridegrooms, but it declined continuously for a long period until it fell below 20 per cent in the post war years 1919 and 1920. Then the proportion increased rapidly to 30.55 per cent in 1931, the highest level since 1875. It has declined in each of the last eight years.

*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 in recent years it has been less than 1 per 1,000. The number of persons who signed in this way was only 32 in 1939 equal to 0.6 per 1,000 persons married in the year.



*Marriages according to Denomination.*

Of the marriages performed in New South Wales in 1939, 22,854, equivalent to 89.73 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 2,617, being 10.27 per cent. of the total.

The following table gives the number and proportion per cent. of marriages registered by the several denominations during 1939 in comparison with the previous ten years:—

TABLE 60.—Denominational and Civil Marriages, 1929 to 1939.

Denomination.	1929-1938.		1939.		1930-1939.	
	Marriages.	Proportion.	Marriages.	Proportion.	Marriages.	Proportion.
Church of England ... ..	81,473	per cent. 40.48	10,020	per cent. 39.34	83,431	per cent. 40.26
Roman Catholic ... ..	42,248	20.99	5,313	20.86	43,490	20.99
Presbyterian ... ..	24,428	12.14	3,038	11.93	24,903	12.02
Methodist ... ..	22,821	11.34	2,822	11.08	23,401	11.29
Congregational ... ..	4,182	2.08	516	2.02	4,239	2.04
Baptist ... ..	3,506	1.74	449	1.76	3,623	1.75
Church of Christ ... ..	1,133	.56	119	.47	1,153	.56
Salvation Army ... ..	936	.47	109	.43	951	.46
Hebrew ... ..	549	.27	109	.43	599	.29
All Other Sects ... ..	2,799	1.39	359	1.41	2,939	1.42
Total Denominational ... ..	184,075	91.46	22,854	89.73	188,729	91.08
Registrar's Offices ... ..	17,192	8.54	2,617	10.27	18,474	8.92
Total Marriages ... ..	201,267	100.00	25,471	100.00	207,203	100.00

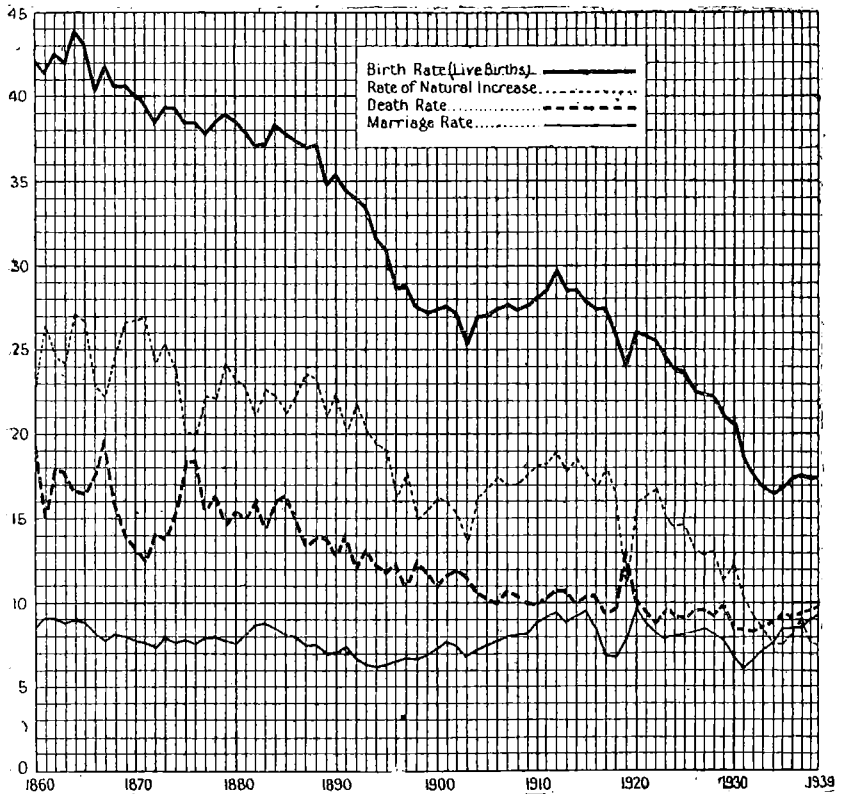
*Divorces.*

The number of marriages dissolved annually by divorce and decree for nullity is increasing rapidly and they represent a substantial ratio to the number of marriages celebrated.

The number dissolved by decrees for divorce and nullity of marriage made absolute in 1939 was 1,545, being in the proportion of 6.1 per cent to the number of marriages celebrated during the year.

Particulars of the duration of marriages dissolved and number of issue are shown in the chapter, "Law Courts," of this Year Book.

RATES OF BIRTHS, DEATHS, MARRIAGES, AND OF NATURAL  
INCREASE, 1860-1939.



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, then there was 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 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 it has since increased slightly, as a consequence of a rapid increase in the 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 61.—Live Births, 1880 to 1939.

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	1935-39	46,738	17·34
1895-99	37,042	28·68			
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	1939	48,003	17·46

The rates shown above are calculated by the usual "crude" method of relating the births to the total population.

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 has been made for differences in sex and age constitution of the respective populations

TABLE 62.—Live Births, Comparative Rates, 1934 to 1939.

State.	1934.	1935.	1936.	1937.	1938.	1939.
<i>New South Wales</i> ...	16·52	16·89	17·31	17·63	17·39	17·46
<i>Victoria</i> ...	15·20	15·16	15·63	16·02	16·25	16·20
<i>Queensland</i> ...	18·17	18·31	19·17	19·36	18·98	20·08
<i>South Australia</i> ...	14·50	14·14	15·17	15·25	15·88	16·13
<i>Western Australia</i> ...	17·66	18·23	18·84	18·95	19·87	19·43
<i>Tasmania</i> ...	19·51	19·41	19·84	20·69	20·82	21·03
<i>Commonwealth</i> ...	16·39	16·55	17·13	17·43	17·46	17·65
<i>New Zealand</i> ...	16·47	16·13	16·64	17·29	17·93	18·73

#### *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 population and changes in the conjugal condition.

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 to 44 years), may be calculated. Data for precise calculations are available only in census years and years immediately preceding or succeeding a census.

In a long-term comparison to determine the trend in fertility, 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. This has been done in the following table which shows the birth rate per 1,000 women in various age groups from 15 to 44 years in each census year, 1891 to 1933 and in the year 1939.

TABLE 63.—Births per 1,000 Women of Reproductive Age, 1891 to 1939.

Age Group (years).	1891.	1901.	1911.	1921.	1933.	1939.	Decrease per cent. in rates 1891 to 1939
15-19	35·80	30·87	33·75	32·72	29·73	25·27	28·4
20-24	170·90	134·65	141·45	146·57	106·05	112·30	34·3
25-29	247·48	177·95	187·35	169·99	119·68	131·49	46·9
30-34	238·81	168·42	161·20	140·18	94·39	92·78	61·1
35-39	196·15	136·60	122·27	101·71	59·23	54·28	72·3
40-44	96·61	70·79	54·51	43·78	21·04	17·83	81·5
15-44	161·74	117·46	118·50	109·84	72·57	74·11	54·2

There has been a decline of 54.2 per cent. in the birth rate since 1891 and the decline has been general in all age-groups. It was greater at the later than at the earlier ages, and became more 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 at ages 40 to 44 years in 1891 was 174 per cent. greater than the rate for those aged 15 to 19 years, the corresponding proportion in 1921 was only 34 per cent. greater, and in 1939 it was 29 per cent. lower. The fluctuations in the age groups 20-24 years and 25-29 years are probably the result of the trend in the marriage rate. This is particularly noticeable in the year 1933 which was in a period of economic depression. The marriage rate in 1931 was the lowest ever recorded and the increase in marriages in subsequent years did not cause recovery in the birth rate until 1935. Because of this the 1939 figures give a better indication of the decline in the birth rate than those for 1933.

An outstanding feature of the comparison is the rapidity with which the downward trend of the birth rate gathered momentum after 1921. The relative decline during the 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 as compared with 14.2 per cent. between 1891 and 1921. The relative decline of births to women of reproductive age in each group is shown below:—

TABLE 64.—Decline in Birth Rates, 1891 to 1939.

Age Group.	Proportionate Decrease in Birth Rates.			
	1891 to 1921. (30 years.)	1921 to 1933. (12 years.)	1933 to 1939. (6 years.)	1921 to 1939. (18 years.)
Years.	Per cent.	Per cent.	Per cent.	Per cent.
15-19 ... ..	7.3	9.0	15.0	22.8
20-24 ... ..	14.2	27.6	+ 6.0	23.4
25-29 ... ..	31.3	29.6	+ 9.9	22.6
30-34 ... ..	41.3	32.7	1.7	33.8
35-39 ... ..	48.1	41.8	8.4	46.6
40-44 ... ..	54.7	45.1	25.8	59.3
15-44 ... ..	32.1	33.9	+ 2.1	32.5

+ Denotes increase.

The crude birth rate for New South Wales was 25.0 per cent. lower in 1921 than in 1891 and 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 lower by 32.1 per cent. and 33.9 per cent., respectively.

The following table shows the average annual number of female births per 1,000 women at each age:—

TABLE 65.—Female Births per 1,000 Women, 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, 1,753 female children would result from 1,000 mothers; 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 how many of these females would have survived to each year of the child-bearing age on the level of mortality prevailing in the periods specified. If, the specific female birth rate at each age is applied only to the number, who, from 1,000 females born, would live throughout that year of age, the actual reproduction which would occur on the level of experience for each 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 listed below, which have been calculated in the same manner. These figures have been taken from the Statistical Year Book of the League of Nations, 1938-39.

TABLE 66.—Gross and Net Reproduction Rates.

Country.	Year.	Gross.	Net.	Country.	Year.	Gross.	Net.
Africa—				Europe— <i>continued.</i>			
Union of South Africa ...	1924-29	1.074	1.424	Estonia ... ..	1933-35	.901	.728
	1936	1.444	1.264	Finland ... ..	1911-20	1.716	1.161
America—				France ... ..	1931-35	1.718	.956
Canada ... ..	1931	1.555	1.319	" 1908-13	1.232	.930	
United States (whites) ...	1931	1.156	1.031	" 1920-23	1.233	.977	
	1935	1.062	.961	" 1935	1.003	.866	
Asia—				Germany... ..	1931	.862	.748
Japan ... ..	1925	2.599	1.640	" 1936	1.003	.934	
	1930	2.372	1.571	Hungary ... ..	1932-35	1.251	1.008
Europe—				Italy ... ..	1931	1.570	1.200
Austria ... ..	1928	.969	.782	" 1935-37	1.425	1.138	
	1935	...	.64	Netherlands	1.937	1.236	1.110
Belgium ... ..	1936	.958	.831	Poland ... ..	1934	1.50	1.11
Bulgaria ... ..	1921-26	2.502	1.534	" 1936	1.069	.914	
	1933-36	1.673	1.192	Scotland ... ..	1934	1.10	.91
Czechoslovakia ... ..	1929-32	1.204	.959	Oceania—			
Denmark ... ..	1921-25	1.384	1.136	Australia ... ..	1920-22	1.517	1.319
	1937	1.056	.947	" 1932-34	1.047	.955	
				" 1935-36	1.048	.956	
England and Wales ...	1920-22	1.35	1.11	" 1937	1.076	.980	
	1930-32	.93	.81	" 1921-22	1.442	1.291	
	1934-36	.87	.76	" 1935-36	1.021	.949	
	1937	.883	.782	" 1937	1.076	1.001	
				New Zealand ... ..			

*Live Births to Mothers at Individual Ages.*

The number of live births to married and unmarried mothers in age groups during 1939 is shown in the following table. These figures should be distinguished from the number of confinements shown in Table 77. The summary accompanying the latter gives the relationship between the two sets of figures:—

TABLE 67.—Live Births, Age of Mother, 1939.

Age Group.	Nuptial Live Births.			Ex-nuptial Live Births.			All Live Births.		
	Males.	Females.	Total.	M.	F.	Total.	Males.	Females.	Total.
Years.									
Under 15 ... ..	1	...	1	5	3	8	6	3	9
15-19 ... ..	1,379	1,280	2,659	277	240	517	1,656	1,520	3,176
20-24 ... ..	6,522	6,254	12,776	339	328	667	6,861	6,582	13,443
25-29 ... ..	7,620	7,137	14,757	183	189	372	7,803	7,326	15,129
30-34 ... ..	4,679	4,586	9,265	105	113	218	4,784	4,699	9,483
35-39 ... ..	2,445	2,373	4,818	80	75	155	2,525	2,448	4,973
40-44 ... ..	807	776	1,583	19	23	42	826	799	1,625
45-49 ... ..	90	64	154	4	5	9	94	60	163
50 and over ... ..	1	...	1	...	...	...	1	...	1
Not stated ... ..	...	...	...	1	...	1	1	...	1
Total ... ..	23,544	22,470	46,014	1,013	976	1,989	24,557	23,446	48,003

Similar information for single ages is published 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 prior to 1st January, 1927, because the births since that date have been allocated according to the usual address of the mother and not as formerly according to the district in which the birth occurred. Within the period covered by the following table the metropolitan boundary was extended (in 1933) and for the purpose of comparison the figures in the following table for the metropolis and the remainder of the State for years prior to 1933 have been adjusted to the present boundaries.

TABLE 68.—Live Births, Metropolis and Country, 1929 to 1939.

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.
1929	22,606*	30,066*	52,672	19·88*	22·01*	21·04
1930	22,201*	29,935*	52,136	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	16·62
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	18,659	28,760	47,319	14·48	19·98	17·39
1939	19,323	28,680	48,003	14·93	19·71	17·46

\* These figures are on the basis of boundaries as existing from 1933.

The age and sex constitution of the metropolitan population differs considerably from that of the remainder of the State, therefore, comparisons of crude birth-rates are to be taken with reserve. The birth-rate per 1,000 women aged 15 to 44 years in 1933 was 54.66 in the metropolis and 92.19 in the remainder of the State. The proportion of married women amongst those of child bearing age was 51 per cent. in the metropolis and 57 per cent in the remainder of the State in 1921—the latest date for which the information is available.

*The Sexes of Children.*

Of the 48,003 children born during 1939 (exclusive of those still-born), 24,557 were males and 23,446 were females, the proportion being 104.7 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 69.—Live Births, Masculinity, 1880 to 1939.

Period.	Nuptial Live Births.	Ex-Nuptial Live Births.	All Live Births.	Period.	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	1935-39	104.4	106.0	104.5
1895-99	105.0	105.4	105.1				
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	1939	104.8	103.8	104.7

*Ex-nuptial Live Births.*

The number of ex-nuptial live births in 1939 was 1,989, equal to 4.14 per cent of the total live births and 0.72 per 1,000 of population. A statement of the ex-nuptial live births in New South Wales since 1900 is given below:—

TABLE 70.—Ex-nuptial Live Births, 1900 to 1939.

Period.	Average Annual 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	1939 ...	1,989	4.14	.72
1935-39 ...	2,039	4.36	.76				



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, then declined rapidly 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 the ratio was fairly constant until 1930, and 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, and it indicates that the proportion of such births was increasing up to about 1890 and it declined considerably in the next forty years. The proportion of ex-nuptial children born, per 1,000 unmarried women aged 15 to 44, was 18.41 in 1891, 14.18 in 1911, and 8.20 in 1933, a decrease of 55 per cent. since 1891.

*Order of Birth.*

Details of the previous issue of women who gave birth to children were recorded for the years 1894 to 1907, the record was then discontinued until 1938. The summarised figures for 1939 are as follow:—

TABLE 71.—Previous Issue and Age of Mother, 1939.

Age of Mother.	Previous Issue.											Total Mothers	Average Number of Children.
	0	1	2	3	4	5	6	7	8	9	10 & over.		
Under 15 ...	1	...	...	...	...	...	...	...	...	...	...	1	1.00
15-19 ...	2,146	439	56	1	...	...	...	...	...	...	...	2,642	1.22
20-24 ...	7,066	3,672	1,428	413	93	20	2	...	...	...	...	12,694	1.66
25-29 ...	5,587	4,327	2,372	1,198	701	279	99	...	...	...	...	14,610	2.23
30-34 ...	2,044	2,853	1,667	1,139	789	525	324	155	77	34	21	9,128	3.10
35-39 ...	621	778	790	681	516	402	328	265	174	73	119	4,747	4.31
40-44 ...	109	145	171	174	185	168	150	120	117	81	135	1,555	5.83
45-49 ...	11	6	9	13	12	14	8	16	15	16	33	153	7.54
50 and over	...	...	...	...	...	...	...	...	...	...	1	1	13.00
Total ...	17,585	11,720	6,493	3,619	2,296	1,408	911	592	391	207	309	45,531	2.54
Proportion per cent of Total Mothers.	38.62	25.74	14.26	7.95	5.04	3.00	2.00	1.30	.86	.46	.68	100.00	...

Fuller details are published in the Statistical Register for 1938-39.

In 1894, 51 per cent. of the children born represented the fourth or later child. In 1938 such proportion was only 22.5 per cent., and in 1939 only 21.4 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 is apparent 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 since 1893. By first live birth is meant the first child born alive to a mother since the marriage and includes only the first born alive of twins and triplets. The figures are restricted to births to married mothers as details as to other issue of the mother are not recorded 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 72.—First Live Births, 1895 to 1939.

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
1935-39 ...	81,523	141,970	223,493	36·5
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
1939 ...	17,585	28,429	46,014	38·2

There has been a persistent rise in the proportion of first births, but the proportion of first births to recent marriages began to fall only in the last decade, and there has been a much greater decline in births after the first than in first births. Evidence of this trend is seen in the birth rates in age groups as shown in Table 63, which indicate that between 1891 and 1939 the decrease in birth rates in quinquennial age groups became progressively greater as age advanced, and the lower ages at which first births are most frequent showed a smaller decline than the 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 1939 is as follows:—

TABLE 73.—First Live Births, Age of Mother and Interval Since Marriage, 1939.

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 ...	...	40	56	25	11	3	2	1	138
1-2 months ...	...	65	61	21	14	1	3	...	165
2-3 " ...	...	86	94	19	7	2	...	...	208
3-4 " ...	...	123	138	33	15	4	3	...	316
4-5 " ...	1	190	212	59	17	8	1	...	488
5-6 " ...	...	307	369	104	17	4	3	...	804
6-7 " ...	...	365	558	144	37	6	2	1	1,113
7-8 " ...	...	281	498	168	37	17	1	...	1,002
8-9 " ...	...	93	315	146	49	10	1	...	614
9-10 " ...	...	103	560	345	115	36	3	...	1,162
10-11 " ...	...	81	502	333	84	20	3	...	1,023
11-12 " ...	...	77	448	247	79	16	1	1	869
1-2 years ...	...	302	2,233	1,799	487	140	30	1	4,992
2-3 " ...	...	28	666	1,029	308	85	9	1	2,126
3-4 " ...	...	4	245	534	219	73	14	3	1,092
4-5 " ...	...	1	78	314	166	36	8	1	604
5 years and over ...	...	...	33	267	382	160	25	2	869
	1	2,146	7,066	5,587	2,044	621	109	11	17,585

STILLBIRTHS.

The number of stillbirths registered in the State in 1939 was 1,360. Of these 789 were males and 571 females, the masculinity (138 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 1939 the respective proportions were 37.27 ex-nuptial and 27.13 nuptial stillbirths to 1,000 of all births (live and still).

Of the total stillbirths 562 were in the metropolis and 798 in the remainder of the State the proportion per 1,000 of all births (live and still) being 28.26 in the former and 27.07 in the latter.

Details of the stillbirths registered since the inception of compulsory registration on the 1st April, 1935, are as follow:—

TABLE 74.—Stillbirths (N.S.W.) 1935 to 1939.

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	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
1939 ... ..	741	542	48	29	1,360	27.13	37.27	27.55	5.66	1,382

A comparison of the experience of New South Wales with that of other Australian States where stillbirths are registered and New Zealand is shown below.

TABLE 75.—Stillbirths, States, 1936 to 1939.

State.	Number.				Per 1,000 of all Births (Live and Still).			
	1936.	1937.	1938.	1939.	1936.	1937.	1938.	1939.
New South Wales.....	1,419	1,452	1,473	1,360	29.80	29.66	30.19	27.55
Victoria ... ..	828	789	897	862	27.87	25.85	28.71	27.49
South Australia.....	...	163*	285	268	...	26.38	29.40	27.11
Western Australia .....	251	241	224	213	28.75	27.23	23.92	23.03
New Zealand .....	732	761	743	900	28.63	28.42	26.54	30.27

\* Eight months, May-December.

## PLURAL BIRTHS.

Prior to 1935 cases of plural births with one child only born alive were often recorded as single births. Since the introduction of compulsory registration of stillbirths (from 1st April, 1935), all cases of plural births are recorded.

During the year 1939 there were 549 cases of plural births. They consisted of 541 cases of twins and 8 cases of triplets. The live children born as twins numbered 1,008 (501 males and 507 females), and 74 were still-born; the live children born as triplets numbered 22 (14 males and 8 females), and two were stillborn. Of the plural births, 19 cases of twins were ex-nuptial, including 2 cases in which both were stillborn.

The following table shows the number of cases of twins and triplets born in New South Wales during the year 1939, distinguishing nuptial and ex-nuptial:—

TABLE 76.—Plural Births, 1939.

Plural Births.	Twins.				Triplets.		
	Both Born Living.	One Born Living, One Stillborn.	Both Still-born.	Total.	All Born Living.	Two Still-born.	Total.
Nuptial ...	469	38	15	522	7	1	8
Ex-nuptial ...	15	2	2	19	...	...	...
Total ...	484	40	17	541	7	1	8

The number of cases of plural births recorded in 1939 represented 11.25 cases per 1,000 confinements, while the number of children born at plural births was 2.24 per cent. of all births (both live and still).

There were 2,141 cases of twins, and 18 cases of triplets in the four years 1936-1939. In this period the number of confinements was 192,539, hence the rates per 100,000 confinements were 1,112 cases of twins and 9 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 shows the number of confinements, live births, stillbirths and plural births in the year 1939:—

TABLE 77.—Confinements and Children Born, 1939.

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 ...	46,229	2,028	45,016	1,957	1,213	71	46,229	2,028	48,257
Twins—									
Both Living ...	469	15	938	30	...	...	938	30	968
One living, one stillborn ...	38	2	38	2	38	2	76	4	80
Both stillborn	15	2	...	...	30	4	30	4	34
			976	32	68	6	1,044	38	1,082
Triplets—									
All living ...	7	...	21	...	...	...	21	...	21
One stillborn ...	...	...	...	...	...	...	...	...	...
Two stillborn ...	1	...	1	...	2	...	3	...	3
			22	...	2	...	24	...	24
Total	46,759	2,047	46,014	1,989	1,283	77	47,297	2,066	...
	48,806		48,003		1,360		.....		49,363

The number of confinements to married and unmarried mothers in age groups in 1939 is shown below. Details are shown in the Statistical Register:—

TABLE 78.—Confinements, Ages of Mothers, 1939.

Age Group.	Number of Confinements.		
	Married Mothers.	Unmarried Mothers.	Total.
Years—			
Under 15 ...	1	9	10
15-19 ...	2,688	529	3,217
20-24 ...	12,939	688	13,627
25-29 ...	14,962	373	15,335
30-34 ...	9,414	221	9,635
35-39 ...	4,951	166	5,117
40-44 ...	1,641	45	1,686
45-49 ...	162	9	171
50 and over ...	1	...	1
Not stated ...	...	7	7
Total ...	46,759	2,047	48,806

## 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 1939 was 14,478. The number in each of the last ten years is shown in the following table:—

TABLE 79.—Legitimations, 1902 to 1939.

Year	Registrations.	Year.	Registrations.
1902-1929	10,123	1935	507
1930	385	1936	395
1931	472	1937	463
1932	443	1938	371
1933	456	1939	385
1934	478		
		1902-1939	14,478

## NATURAL INCREASE.

Figures as to natural increase are intended to show 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 82. During 1939 the natural increase was equal to 7.71 per 1,000 of the population.

The following table shows the natural increase of population since 1880:—

TABLE 80.—Natural Increase, 1880 to 1939.

Period.	Natural Increase—Whole State. (Excess of Births over Deaths.)			Annual Rates per 1,000 of Population.		
	Males.	Females.	Total.	Blrths.	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
1930-34 ... ..	57,160	65,440	122,606	18.02	8.51	9.51
1935-39 ... ..	47,702	58,908	106,610	17.34	9.43	7.91
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
1939 ... ..	9,441	11,747	21,188	17.46	9.75	7.71

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 is reflected in the rate of natural increase for the period. In 1919 deaths were increased by the influenza epidemic, and the birth rate was low. There was an improvement in both rates in the year 1920 to 1922. Then the birth rate declined rapidly and the death rate remained relatively steady at approximately 9 per 1,000 population. The birth rate continued to fall until 1934, and despite the slight improvement in the years 1935 to 1937 the rate of natural increase in the five years 1934-1938 was the lowest on record.

Although there are more males born than females, the increase of population from the excess of births over deaths is greatly in favour of the latter, since the death rate is higher among males. During the ten years ended 1939, the number of females added to the population by excess of births over deaths, exceeded the males by 19,492, or nearly 19 per cent.

The increases in population from natural and migratory causes are shown in Chapter "Population" 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, and 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 1934.

TABLE 81.—Natural Increase, States, 1934 to 1939.

State.	1934.	1935.	1936.	1937.	1938.	1939.
<i>New South Wales</i> ...	7.57	7.61	8.17	8.27	7.80	7.71
Victoria ...	5.01	5.13	5.47	5.99	6.10	5.48
Queensland ...	9.59	9.15	10.39	10.26	9.79	10.68
South Australia ...	5.24	5.31	5.87	6.34	6.53	6.50
Western Australia	8.43	8.98	9.44	10.00	10.67	10.11
Tasmania ...	9.27	9.16	9.60	11.18	11.11	10.84
Commonwealth ...	7.07	7.09	7.70	7.99	7.82	7.72
New Zealand ...	7.99	7.91	7.89	8.21	8.22	9.53

#### 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 1939 numbered 26,815, equal to a rate of 9.75 per 1,000 of the mean population. Of the total, 15,116 were males and 11,699 females, the rate for the former being 10.91 and

for the latter 8.58 per 1,000 living. The average annual number of deaths since 1880, with the rate per 1,000 of population, in quinquennial periods, was as follows:—

TABLE 82.—Deaths, 1880 to 1939.

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	6,583	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	11,686	8,713	20,400	10.64	8.25	9.47	129
1925-29	12,886	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
1935-39	14,344	11,072	25,416	10.54	8.30	9.43	127
1935	13,591	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
1939	15,116	11,699	26,815	10.91	8.58	9.75	127

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 64 per cent. higher than in the five years 1935-39. 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 discussed 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 1934 to 1939 is shown below:—

TABLE 83.—Death Rates, States, 1934 to 1939.

State.	1934.	1935.	1936.	1937.	1938.	1939
<i>New South Wales</i> ...	8.95	9.28	9.14	9.36	9.59	9.75
Victoria ...	10.19	10.03	10.16	10.03	10.15	10.72
Queensland ...	8.57	9.16	8.78	9.10	9.19	9.40
South Australia ...	9.26	8.83	9.30	8.91	9.35	9.63
Western Australia ...	9.23	9.25	9.40	8.95	9.20	9.32
Tasmania ...	10.23	10.25	10.34	9.51	9.71	10.19
Commonwealth ...	9.32	9.46	9.43	9.44	9.64	9.93
New Zealand ...	8.48	8.22	8.75	9.08	9.71	9.20

This comparison is based on crude death rates and 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 concerned 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 84.—Index of Mortality, States, 1934 to 1939.

State.	1934.	1935.	1936.	1937.	1938.	1939.
New South Wales	8·96	9·18	9·12	9·30	9·52	9·68
Victoria ... ..	9·30	9·08	9·23	9·02	9·07	9·55
Queensland .. ..	8·84	9·39	9·02	9·32	9·51	9·65
South Australia ...	8·39	7·97	8·36	8·02	8·34	8·63
Western Australia..	9·45	9·47	9·62	9·25	9·47	9·71
Tasmania ... ..	9·43	9·54	9·60	8·77	8·90	9·28
Commonwealth ...	9·04	9·10	9·12	9·09	9·28	9·54
New Zealand .. ..	8·10	7·71	8·01	8·03	8·53	7·83

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 limitations in the use of crude birth rates apply also to the 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 in Table 39.

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 in Table 36 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 three years around each census since 1881.

TABLE 85.—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 (Crude Rate)	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 ... ..	7.90	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 (Crude Rate)	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 (Crude Rate)	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 the 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 86.—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 eleven years is shown below. Data are not available on a comparable basis prior to 1st January, 1927. Since then deaths have been allocated according to the usual residence of the deceased persons, whereas they were allocated formerly to the district in which death occurred. Within the period covered by the following table the metropolitan boundary was extended (in 1933), and for the purposes

of the comparison shown below the figures for the Metropolis and the remainder of the State for years prior to 1933 have been adjusted to the present boundaries.

TABLE 87.—Deaths, Metropolis and Country, 1929 to 1939.

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.
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*	7·66*	21,357	8·28
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	11,995	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
1939	13,621	10·53	13,194	9·07	26,815	9·75

\* These figures on basis of boundaries as existing from 1933.

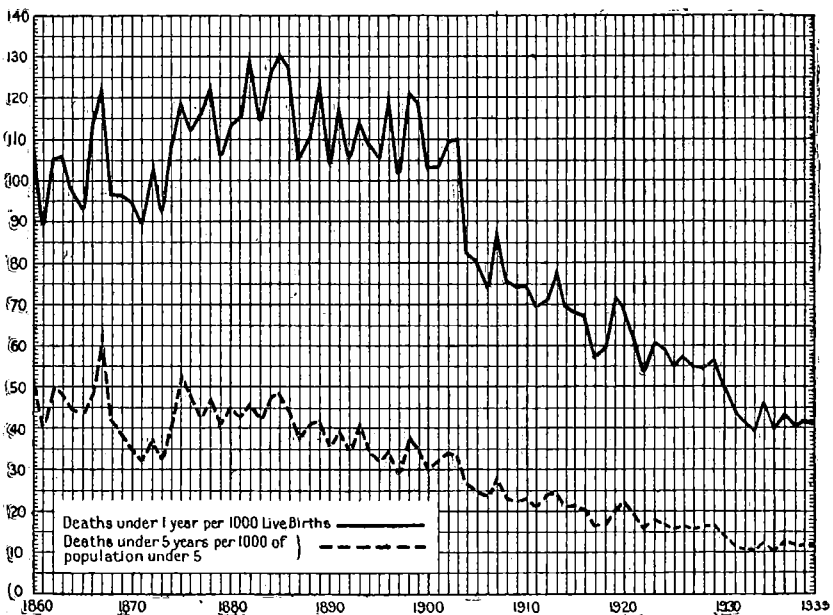
The death rate appears to be higher in the metropolis than in the country, but crude rates should be used with caution, owing to differences in the proportions of each sex and in the age composition of the population of these divisions.

#### THE MORTALITY OF INFANTS.

*Deaths of Children under 1 Year of Age (excluding Stillbirths).*

During the year 1939 the children who died before completing the first year of life (excluding stillbirths) numbered 1,969, equivalent to a rate of 41.02 per 1,000 live births.

#### INFANTILE MORTALITY, 1860-1939.



The death rate is higher for male infants than for females, the rates in 1939 being 46.3 and 35.5 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 88.—Infantile Mortality, 1880 to 1939.

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	2,077	108.5	1,738	94.6	3,815	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
1935-39	1,098	46.0	832	36.4	1,930	41.3
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
1939	1,136	46.3	833	35.5	1,969	41.0

During the period reviewed the excess of the male rate over the female rate has always been pronounced, but it has grown greater with the passing of time. In the ten years 1880 to 1889 the excess was between 13 and 14 per cent., and 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 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.

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, the formation of a number of public bodies which are affiliated with the **Royal Society for the Welfare of Mothers and Babies** and the establishment of a division of **Maternal and Baby Welfare** in the Department of Public Health. Particulars relating to these are published in chapter "Social Condition" of this Year Book.

The decline in infantile mortality, especially in diarrhoeal diseases, is illustrated by the following table, which gives the mortality rate from diarrhoeal diseases, and from all other causes since 1900:—

TABLE 89.—Infantile Mortality, Diarrhoeal Diseases, 1900 to 1939.

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	29·52	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
1935-39	2·53	38·77	41·30	1939	3·23	37·79	41·02

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. In 1939 the proportion was 8 per cent. of the total—the highest for nine years.

#### Infantile Mortality by Age.

Of the total number of deaths of infants under 1 year of age in 1939 56 per cent. occurred within a week of birth, 67 per cent. within the first month, and 73 per cent. within three months. The following statement shows the number of deaths at various ages under 1 year in the metropolis and in the whole State and the rates per 1,000 live births.

TABLE 90.—Infantile Mortality, Metropolis and State, Age, 1938 and 1939.

Age at Death.	1938.				1939.			
	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	390	21·01	1,108	23·42	373	19·30	1,102	22·96
1 week	41	2·21	118	2·49	40	2·07	121	2·52
2 weeks	20	1·08	51	1·08	19	·98	52	1·08
3 "	14	·76	43	·91	14	·73	42	·88
Under 1 month, Total	465	25·06	1,320	27·90	446	23·08	1,317	27·44
1 month	41	2·21	114	2·41	33	1·71	66	1·38
2 months	29	1·56	66	1·40	23	1·19	53	1·10
3 "	20	1·08	56	1·18	21	1·08	66	1·37
4 "	22	1·18	55	1·16	12	·62	49	1·02
5 "	19	1·02	53	1·12	13	·67	56	1·17
6 "	29	1·56	65	1·37	27	1·40	69	1·44
7 "	15	·81	55	1·16	19	·98	54	1·12
8 "	16	·86	51	1·03	16	·83	59	1·23
9 "	15	·81	38	·80	17	·88	68	1·42
10 "	25	1·35	47	·99	22	1·14	50	1·04
11 "	18	·97	60	1·27	14	·73	62	1·29
Under 1 year, Total	714	38·47	1,980	41·84	663	34·31	1,969	41·02

Despite the marked decline in infantile mortality, the death rate 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. Thus 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 23.16 per 1,000 live births in the five years 1935-39—an increase of 6 per cent.—and the corresponding rates among children over one week and under twelve months old were 75.18 per 1,000 in 1901-05, and 17.14 per 1,000 in 1935-39—a decline of 77 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, *e.g.*, congenital debility, premature birth, injury at birth, which in 1939 were responsible for 96 per cent. of the deaths of children during the first week of life, and caused 21.98 deaths per 1,000 live births out of the total rate of 22.96. These causes are not generally connected with post-natal care of children, and they tend, when considered in relation to 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 die from pre-natal causes, it is recognised that the rate of mortality among infants in the first week of life will not be reduced appreciably 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 91.—Infantile Mortality, Age, 1901 to 1939.

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.
1901-04*	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	11.39	55.77
1930-34	22.64	5.29	4.28	32.21	4.33	7.65	44.19
1935-39	23.16	5.05	3.37	31.58	3.32	6.40	41.30
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	3.80	31.70	3.46	6.68	41.84
1939	22.96	4.48	2.48	29.92	3.56	7.54	41.02

\* 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. The improvement has been greatest among children aged one month and over. Up to that age the majority of deaths are due to pre-natal causes.

In 1930 the rate was below 50 deaths per 1,000 live births for the first time on record, and in 1933 it fell below 40 per 1,000, the rate in this year and 1935 being the lowest on record.

*Infantile Mortality in Metropolis and Remainder of State.*

The number of deaths of children under one year of age in the metropolis in 1939 was 663 or 34.31 per 1,000 live births, and in the remainder of the State 1,306 or 45.54 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 rate per 1,000 live births, in 1939 and the previous ten years. The basis of the tabulation as to locality is the usual residence of the mother:—

TABLE 92.—Infantile Mortality, Metropolis and Country, 1929 to 1939.

Year.	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.
1929	1,270*	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*	38.88*	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	1,220	41.89	1,932	40.68
1938	714	38.47	1,266	44.02	1,980	41.84
1939	663	34.31	1,306	45.54	1,969	41.02

\* 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 relation between the rates prevailing in the countries named.

TABLE 93.—Infantile Mortality, States and Countries, 1937 and 1939.

State or Country.	Infantile Mortality Rate.		Country.	Infantile Mortality Rate, 1937.
	1937.	1939.		
New Zealand ...	31.21	31.14	Netherlands ...	38
Queensland ...	35.64	34.65	Norway ...	41
South Australia ...	33.06	34.93	Sweden ...	46
Victoria ...	36.70	35.58	Switzerland ...	47
Commonwealth ...	38.06	38.08	England and Wales	50
Tasmania ...	41.73	40.37	United States ...	54
Western Australia ...	37.52	40.73	*South Africa ...	58
<i>New South Wales</i> ...	40.68	41.02	Germany ...	64
			France ...	65
			Denmark ...	66
			Northern Ireland	71
			Scotland ...	71
			Eire ...	73
			Canada ...	76
			Belgium ...	80
			Japan ...	106
			Italy ...	109
			Spain ...	110†
			Czechoslovakia	122
			Hungary ...	137‡
			Ceylon ...	158
			Rumania ...	178

\* White people only.

† Year 1935.

‡ Year 1936.



The rate of infantile mortality in New Zealand is lower than in any of the Australian States. The rates for Australasia generally are greatly superior to those prevailing in most other countries for which comparable records are available. In comparing the rates for various countries, allowance should be made for wide differences in climate and economic conditions.

*Causes of Infantile Mortality.*

A table published annually in the Statistical Register shows the rates of infantile mortality from each of the principal causes in the last forty years. This indicates that there has been a great decline in the mortality from diarrhoea and enteritis and other digestive diseases, nervous diseases, tubercular diseases, and bronchitis, accident, and general diseases. There has also been a decline in congenital debility, but a proportionate increase in deaths from malformation, premature birth, and diseases of early infancy. 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 1939, showing the experience in the metropolis in comparison with that in the whole State:—

TABLE 94.—Infantile Mortality—Causes of Death, 1939.

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 ...	...	...	1.03	1.03	...	.08	1.40	1.48
Tuberculosis ...	...	...	.15	.15	...	...	.10	.10
Syphilis ...	...	.05	.16	.21	...	.02	.09	.11
Meningitis ...	...	.05	.41	.46	...	.02	.40	.42
Convulsions ...	...	...	.10	.10	...	.02	.06	.10
Bronchitis ...	...	...	...	...	...	...	.21	.23
Pneumonia ...	.31	.67	2.85	3.83	.27	.40	3.21	3.88
Diarrhoea and Enteritis ...	...	.10	2.07	2.17	...	.17	3.06	3.23
Malformation ...	2.33	.88	1.50	4.71	2.79	.81	1.27	4.87
Congenital Debility ...	.72	.16	.52	1.40	1.32	.31	.31	1.94
Premature Birth ...	9.21	.62	.16	9.99	11.60	1.23	.25	13.08
Injury at Birth ...	4.04	.47	.05	4.56	3.96	.33	.04	4.33
Other Diseases of early Infancy ...	2.43	.52	.21	3.16	2.31	.57	.16	3.04
All Other Causes ...	.26	.26	2.02	2.54	.67	.52	3.02	4.21
Total ...	19.30	3.78	11.23	34.31	22.96	4.48	13.58	41.02

In the State in 1939, 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 27.37 per 1,000 live 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 1939 there were 46,014 nuptial and 1,989 ex-nuptial children born alive. During the same period the deaths of nuptial children under 1 year of age numbered 1,812 and of ex-nuptial children 157.

The infantile mortality rate of ex-nuptial children was double 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 1939 and the quinquennium 1935-39.

TABLE 95.—Infantile Mortality, Nuptiality and Age, 1935 to 1939.

Age at Death.	Deaths per 1,000 Live Births, 39.				Deaths per 1,000 Live Births, 1935-1939			
	Nuptial.	Ex-nuptial.		Total.	Nuptial.	Ex-nuptial.		Total.
		Rate.	Per cent. of Nuptial Rate.			Rate.	Per cent. of Nuptial Rate.	
Under 1 week ...	22.21	40.22	181	22.96	22.42	39.04	177	23.16
1 week ...	2.44	4.53	186	2.52	2.65	5.30	200	2.77
2 weeks...	1.04	2.01	193	1.08	1.17	2.35	201	1.22
3 " ...	.80	2.51	314	.88	1.01	1.96	194	1.06
Total— under 1 month	26.49	49.27	186	27.44	27.25	48.65	179	28.21
1 month ...	1.30	3.02	232	1.38	2.00	3.04	152	2.04
2 months ...	.98	4.02	309	1.10	1.21	3.73	308	1.33
3 " ...	1.24	4.52	365	1.37	1.14	2.75	241	1.21
4 " ...	.93	3.02	325	1.02	1.04	2.16	208	1.08
5 " ...	1.17	1.01	86	1.17	.99	1.76	178	1.03
6 " ...	1.41	2.01	143	1.44	1.17	2.75	235	1.24
7 " ...	1.07	2.51	235	1.12	1.07	1.86	174	1.10
8 " ...	1.20	2.01	168	1.23	.93	2.75	296	1.01
9 " ...	1.37	2.51	183	1.42	1.02	1.86	182	1.06
10 " ...	.96	3.02	315	1.04	.88	2.16	245	.94
11 " ...	1.26	2.01	160	1.29	1.03	1.37	133	1.05
Total— under 1 year	39.38	78.93	200	41.02	39.73	74.84	188	41.30

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 1935-39 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. The mortality of ex-nuptial children exceeded that of nuptial children by 79 per cent. in the first month of life, by 52 per cent. in the second, by 208 per cent. in the third, 141 per cent. in the fourth and 108 per cent. in the fifth. The excess of the ex-nuptial rate was considerable also in later months.

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 96.—Deaths under 1 Month and 1 Year, 1900 to 1939.

Period.	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†	51.62†	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	6,957	27.01	532	45.32	9,354	42.41	912	77.68
1935-39	223,493	10,195	6,095	27.27	496	48.65	8,888	39.77	763	74.84
1935	42,653	2,023	1,130	26.49	110	54.38	1,601	37.54	161	79.58
1936	44,099	2,094	1,289	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	163	79.77
1938	45,336	1,983	1,228	27.08	92	46.39	1,829	40.34	151	76.15
1939	46,014	1,989	1,219	26.49	98	49.27	1,812	39.38	157	78.93

\* 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 1939 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 97.—Deaths under 5 Years, 1890 to 1939.

Period.	Deaths under 5 years.		Year.	Deaths under 5 years.	
	Average Annual Number.	Rate per 1,000 Living.		Number.	Rate per 1,000 Living.
1890-94	6,220	37.5			
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	23.9	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
1935-39	2,567	11.8	1939	2,646	11.9

The rate of mortality in the quinquennium 1935-39, compared with that of 1890-94, represents an annual saving of 26 lives 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 1939 there were 1,360 stillbirths and 1,969 deaths under one year of age, making a total loss of 3,329 infants out of 49,363 live births and stillbirths. This represents a rate of 67.44 per 1,000 of all births.

The rate on this basis was 61.60 in the metropolis and 71.38 in the remainder of the State—the difference between the rates being less than is 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 in tabulating causes of death to the end of 1939 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 1939, compared with the average annual number in the period 1934-38, adjusted to the population of the year 1939. The proportion to the total in the five years 1935-39 is also shown:—

TABLE 98.—Causes of Death, 1939.

Causes of Death.	Adjusted Average 1934-38.	Number. 1939.	Proportion of Total 1935-39.	Causes of Death:	Adjusted Average 1934-38.	Number. 1939.	Proportion of Total, 1935-39.
			per cent.				per cent.
Typhoid Fever ... ..	20	13	.07	Other Diseases of the Circulatory System ...	37	57	1.06
Measles ... ..	30	100	.17	Bronchitis ... ..	279	277	1.05
Scarlet Fever ... ..	19	11	.07	Pneumonia ... ..	1,771	1,608	6.83
Whooping-cough ... ..	132	21	.30	Other Diseases of the Respiratory System ...	276	307	1.05
Diphtheria and Croup ...	187	192	.71	Diseases of the Stomach...	134	153	.54
Influenza ... ..	332	335	1.31	Diarrhoea and Enteritis (under 2 years)...	145	198	.60
Plague ... ..	...	...	...	Diarrhoea and Enteritis (2 years and over) ...	100	125	.40
Brushtyphus ... ..	19	8	.07	Appendicitis ... ..	249	250	.96
Acute Poliomyelitis and Acute Poliomyelitis	15	6	.05	Hernia, Intestinal Obstruction ... ..	217	219	.82
Lethargic Encephalitis ...	11	5	.03	Cirrhosis of the Liver ...	111	129	.45
Epidemic Cerebro-spinal Meningitis ... ..	6	6	.02	Other Diseases of the Digestive System ... ..	400	394	1.55
Other Epidemic Diseases	22	23	.08	Nephritis ... ..	1,583	1,408	5.95
Tuberculosis, Respiratory System ... ..	985	922	3.74	Other Genito-Urinary Diseases ... ..	405	412	1.59
Tuberculosis Meninges and Nervous System ... ..	35	35	.13	Criminal Abortion ... ..	50	33	.18
Other Tuberculous Diseases ... ..	60	54	.23	Puerperal Septicæmia ...	65	38	.23
Cancer ... ..	2,893	3,107	11.41	Other Puerperal Diseases	153	124	.56
Diabetes ... ..	452	475	1.78	Malformations ... ..	270	290	1.04
Other General Diseases ...	605	601	2.35	Congenital Debility ... ..	91	93	.37
Diseases of the Blood ...	235	196	.85	Premature Birth ... ..	646	623	2.47
Chronic Poisonings and Intoxications ... ..	26	30	.10	Other Developmental Diseases ... ..	374	354	1.45
Meningitis... ..	109	93	.40	Senility ... ..	756	734	2.04
Cerebral Hemorrhage and Apoplexy ... ..	737	793	2.79	Suicide ... ..	330	329	1.25
Insanity ... ..	84	86	.33	Accident ... ..	1,298	1,678*	5.46
Convulsions of Infants ...	13	7	.05	Other Violence ... ..	120	96	.43
Other Diseases of the Nervous System ... ..	623	687	2.40	All other Causes ... ..	207	201	.77
Diseases of the Heart†	6,260	7,138	25.29				
Diseases of the Arteries, Atheroma, &c....	1,493	1,681	6.17	Total ... ..	25,475	26,815	100.00

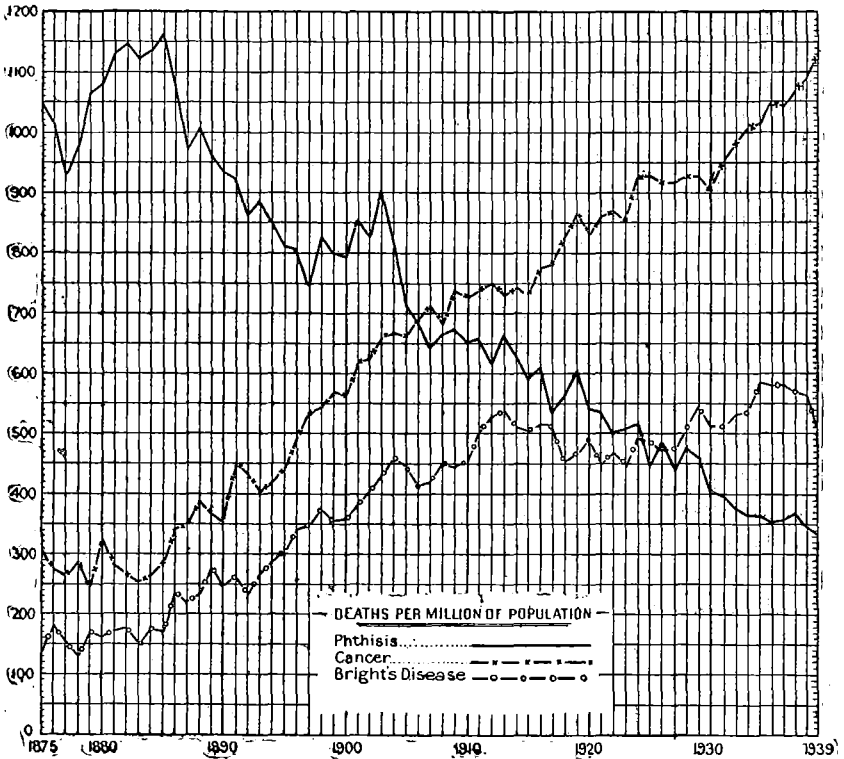
\* Includes 498 from motor accidents.

† See remarks in paragraph on Heart Diseases on page 120.

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—1875-1939.**



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 6.50 per cent. of all deaths in the quinquennium of 1935-39 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 poliomyelitis. Of the remaining deaths, more

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than half were due to five major causes, diseases of the heart, cancer, pneumonia, tuberculosis, and nephritis. Deaths from violence represented 7.14 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 99.—Typhoid Fever, 1884 to 1939.

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	15.54	748	1.93	507	1.42	1,255	1.69
1909-13	11,506	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
1935	173	.65	15	0.11	5	0.01	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
1939	62	.23	10	0.07	3	0.02	13	0.05

\*Notifiable throughout the State from 1st January, 1898.

The rate of mortality from typhoid fever in 1939 represents only 5 persons per million living. This rate is 34 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. There has been further marked improvement since 1903, and the rate in 1939 was only 0.9 per cent. of the rate in the period 1884-88.

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. In 1939, however, there were 7 deaths of persons who resided in the metropolis and only 6 in other districts. The rates per 10,000 living were 0.05 and 0.04 respectively.

Experience shows that most deaths from typhoid fever occur during the summer and autumn. In 1939 there were 5 deaths during the summer months of December, January, and February, and 4 during the autumn months of March, April and May; making a total of 9 out of 13 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 100.—Measles, 1884 to 1939.

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
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	...	...	...	...	...	...
1939	55	0.40	45	0.33	100	0.36

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 1893 when 730 deaths were recorded; in 1898-9, when there were 719 fatal cases; in 1912, when there were 371; and in 1915, when there were 324. In later years the mortality from measles was very low. In 1938 there were no deaths, but in 1939 there were 100 deaths and the rate was the highest for nine years.

#### *Scarlet Fever.*

In 1939 the number of deaths from this disease was 11, equivalent to a rate of 0.04 per 10,000 of the population. Of these, 3 occurred in the metropolis, and 8 in the remainder of the State, showing rates of 0.02 and 0.05 per 10,000 for the respective divisions. The rate of mortality from this cause during 1939 was 42 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 101.—Scarlet Fever, 1884 to 1939.

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
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
1939	3,205	11.66	3	0.02	8	0.06	11	0.04

\*Notifiable throughout the State from 1st January, 1893.

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 1939, 8 were of children under 10 years of age, viz., 3 males and 5 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 ranged from 2.59 in that year to 0.04 in 1921, 1938 and 1939.



*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 102.—Whooping Cough, 1884 to 1939.

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
1935	31	0.23	32	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
1939	6	0.04	15	0.11	21	0.08

Whooping-cough may justly be regarded as a constantly recurring ailment of infancy and childhood. The table shows that periods of decline have generally been followed by increases in the death-rate, which is maintained by epidemic outbreaks. An epidemic occurred in 1907, when 594 cases proved fatal, and the death-rate was the highest since 1878. In 1934 there were 286 deaths and this is the only year since 1929 in which the number exceeded 200.

Records kept since 1913 show that epidemics of whooping cough among school children are only second in magnitude to those of measles.

It is shown in Table 129 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 the death rate fell sharply after the introduction of diphtheria antitoxin in 1894.

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 192 deaths in 1939. Deaths from these diseases in the metropolitan area numbered 85, and those in the remainder of the State

107, the respective rates per 10,000 living being 0.66 and 0.74. The following table shows the number of cases notified and deaths and the equivalent annual rates since 1884:—

TABLE 103.—Diphtheria, 1884 to 1939.

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	2.34
1899-1903	4,360	6.36	310	0.86	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	0.68	842	0.72
1929-33	20,979	16.42	434	0.67	454	0.72	888	0.70
1934-38	26,334	19.72	467	0.69	439	0.66	906	0.68
1935	4,913	15.57	99	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
1939	4,113	14.96	97	0.70	95	0.70	192	0.70

\* Notifiable throughout the State from 1st January, 1898.

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 1935-1939 shows the disease to be most fatal during the months of April, May, and June. Ninety-five per cent. of the persons who died from diphtheria during 1939 were under 10 years of age, and 69 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 submitted for inoculation were not encouraging the campaign was gradually extended up to 1928 when it lapsed.

Following upon favourable 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, co-operate with the Department of Health. A scheme has been in operation since 1st June, 1936, whereby the Department of Health repays the councils the cost of the anatoxin used and supplies certain other requirements. At the end of 1939, approximately 190,400

children had been immunised under this scheme and between 45,000 and 50,000 otherwise; the corresponding figures, to the end of September, 1940, were 224,400 and 50,000.

### *Influenza.*

During 1939 there were 335 deaths due to influenza, the rate of mortality being slightly higher than 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, and there was a severe epidemic in 1919, when 6,387 persons died from the disease. An examination of the experience of this year will be found in the 1920 issue of this Year Book. The mortality was very great in 1923, 1929 and 1935.

In the following table the deaths at each outbreak are shown together with those in the intervening periods:—

TABLE 104.—Influenza, 1875 to 1939.

Period.	Deaths.			Annual Rate per 10,000.
	Males.	Females.	Total.	
1875-1890	388	322	710	0.53
1891	549	439	988	8.65
1892-1917	2,790	2,397	5,196	1.27
1918	218	154	372	1.91
1919	3,851	2,536	6,387	31.93
1920-1922	460	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
1939	166	169	335	1.22

Prior to 1919 influenza was regarded as 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). A comparison of the deaths from 1920 to 1934 with those of 1914-18 and 1919 in age groups representing approximately the different stages of life has been published in issues of this Year Book up to 1933-34. This indicates 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 1939 was 1,011, or 4 per cent. of the actual mortality in the State, and equal to 3.68 per 10,000 living—a rate slightly more than 6 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 which have a material influence on the rates.

TABLE 105.—Tuberculous Diseases, States, 1934 to 1939.

State.	Death-rate from tuberculous diseases per 1,000 of Total Population.					
	1934.	1935.	1936.	1937.	1938.	1939.
New South Wales ...	0·40	0·39	0·39	0·40	0·38	0·37
Victoria ...	0·49	0·48	0·47	0·43	0·41	0·45
Queensland ...	0·35	0·34	0·34	0·30	0·31	0·30
South Australia ...	0·48	0·44	0·40	0·43	0·37	0·38
Western Australia ...	0·55	0·51	0·46	0·43	0·41	0·42
Tasmania ...	0·49	0·57	0·58	0·51	0·52	0·53
Commonwealth ...	0·43	0·42	0·42	0·49	0·39	0·39
New Zealand ...	0·42	0·39	0·46	0·39	0·39	0·40

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 922 deaths, or 91 per cent. of the number due to tuberculosis during the year 1939, being fifth in the order of magnitude among the fatal diseases of the State. The mortality rate per 10,000 living was 6 per cent. lower than in the previous quinquennium. The male rate in 1939 was 4·27, and the female rate 2·42.

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 106.—Tuberculosis of Respiratory System, 1884 to 1939.

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	9·48	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	2,286	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	5·87	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
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
1939	592	4·27	330	2·42	922	3·35

The general rate in the last 5 years has decreased by 67 per cent. in comparison with the first quinquennium shown, the rate for females slightly more than 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 and conditions of employment, etc., the enforcement of the various Health Acts, but principally to improved methods of medical treatment.

Notification of cases of pulmonary tuberculosis by medical practitioners has been compulsory 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 three years around each census since 1891.

TABLE 107.—Tuberculosis of Respiratory System, Specific Mortality, 1890 to 1934.

Age Group (Years).	Death Rate per 10,000 Living.				
	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 (Crude Rate) ...	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 (Crude Rate) ...	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 (Crude Rate) ...	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 1,011 deaths during 1939 from tuberculosis, only 89 were from tuberculosis of organs other than the respiratory system, and of these 23, or 26 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 great improvements in the death-rates since the decennium 1891-1900:—

TABLE 108.—Other Tuberculous Diseases, 1891 to 1939.

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
1931-1939	1.33	1.00	1.17	.42	.31	.37
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
1939	1.33	.77	1.03	.40	.25	.32

#### *Cancer.*

In 1939 the deaths from cancer numbered 3,107, equal to a rate of 11.30 per 10,000 living. The average rate of mortality in the five years 1935-39 was much higher than in any preceding period, being 10.76 per 10,000 living as compared with 3.30 for the period 1884-88. The total for 1939 included 1,590 males and 1,517 females, the rates being 11.48 and 11.12 per 10,000 living of each sex respectively.

Classified according to the parts of the body affected (according to the grouping of the International List) and arranged in order of fatality, cancer caused the following deaths in 1939:—Stomach and duodenum 665,

intestines 443, other of digestive tract 494, female genital organs 342, breast 288, male genito-urinary organs 250, respiratory organs 174, buccal cavity 125, skin 94, and other organs 232. Details of the particular sites grouped under these headings are shown in the Statistical Register of New South Wales.

The following table shows the deaths and rates of each sex since 1884:—

TABLE 109.—Cancer, 1884 to 1939.

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	6·55
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
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
1939	1,590	11·48	1,517	11·12	3,107	11·30

Although fatal cancer occurs at all ages, the disease is one of advanced age, and 97 per cent. of the persons who died from cancer in 1939 were 35 years or over. This fact, taken in conjunction with the increasing proportion of persons of advanced age in the population (see Table 39) makes it difficult to draw valid conclusions from comparisons of crude rates as shown above.

The following table shows the death-rates from cancer in age groups and the standardised rate for "all ages," which represents the death-rate which would have resulted if the age constitution of the male and female population had been the same as it was at the census of 1933. (Standardised rates for both sexes combined have not been calculated.) Crude rates are shown also in order to emphasise the fact that these greatly exaggerate the increase in death rates from cancer.

TABLE 110.—Cancer, Specific Mortality 1900 to 1939.

Age Group (years).	Death Rate per 10,000 Living—Cancer.				
	1900-02.	1910-12.	1920-22.	1932-34.	1937-39.
Males.					
25-29	·70	·64	·91	·85	·81
30-34	1·37	1·31	·97	1·14	1·02
35-39	2·45	2·53	2·82	2·13	2·05
40-44	5·70	6·06	4·55	4·12	4·30
45-49	9·84	9·68	8·57	8·90	8·86
50-54	16·49	17·99	19·33	14·91	13·97
55-59	29·55	30·89	29·59	27·96	27·35
60-64	45·74	44·55	48·74	46·22	44·16
65-69	65·52	72·04	69·63	69·23	67·53
70-74	68·71	79·20	90·07	108·98	94·00
75-79	77·89	86·39	115·48	122·48	140·22
80-84	76·40	113·03	109·64	139·18	144·18
85-89	104·35	114·21	140·21	138·03	161·98
90-94	55·66	61·90	119·05	175·04	119·05
95-99	132·45	285·71	77·52	45·87	273·97
All Ages—Crude	6·46	7·67	8·74	10·53	11·25
Standardised	9·16	9·90	10·39	10·53	10·24
Females.					
25-29	·59	·86	·76	·66	·92
30-34	1·55	2·24	2·17	1·89	2·09
35-39	4·28	4·84	4·05	4·34	3·87
40-44	9·47	9·42	9·03	8·45	7·33
45-49	17·45	16·77	15·97	13·67	12·05
50-54	18·76	21·52	21·58	20·57	18·89
55-59	28·33	32·26	31·33	29·00	25·29
60-64	40·80	39·41	41·55	38·25	39·04
65-69	47·82	58·05	61·08	46·89	52·03
70-74	74·15	62·11	73·90	67·85	69·65
75-79	76·46	95·00	100·49	82·82	94·94
80-84	68·97	89·86	100·20	104·18	108·33
85-89	110·17	79·20	135·62	128·15	127·28
90-94	73·17	161·29	103·57	95·61	49·64
95-99	...	104·17	80·64	73·26	137·46
All Ages—Crude	5·57	7·12	8·36	9·48	10·66
Standardised	9·52	10·12	10·58	9·48	9·40
Persons.					
25-34	1·03	1·21	1·20	1·11	*
35-44	5·10	5·50	4·91	4·77	*
45-54	14·97	15·60	15·97	14·08	*
55-64	35·65	36·10	37·11	34·79	*
65-74	62·87	67·98	72·15	71·13	*
75 and over	78·33	95·23	110·34	111·02	*
All Ages—Crude	6·04	7·41	8·55	10·01	*

\* Figures had not been calculated at time of publication.

The death-rate from cancer is higher amongst females than males up to 55 years, but the male rate is the higher in later ages. It is for this reason that the crude rate is higher for males than for females. The standardised rate, however, shows that the female mortality from cancer was the higher in the first thirty years covered by the table, but the standardised male rate was higher in the period 1932-34 and has apparently remained so.

This change may be due to the operation of two factors, viz., (1) the success of operations upon the relatively more accessible cancers of females; and (2) the better diagnosis of the less accessible cancer of females as a consequence of improved medical appliances and knowledge.

The crude rate for males increased by 74 per cent. between 1900-02 and 1937-39, and the crude rate for females increased by 91 per cent. during this period. When correction is made for change in the age structure of



the population as outlined above, the standardised rate for males shows an increase of only 12 per cent., and the standardised rate for females a decline of 1.26 per cent.

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.

A number of centres for the diagnosis and treatment of cancer 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 medical practitioners.

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 co-operation of the State Governments, created the National Health and Medical Research Council, to review public health matters and to foster medical research in Australia. The Council was instituted in September, 1936, and it is expected that cancer research will benefit from annual allocations of funds.

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 111.—Cancer, States, 1934 to 1939.

State.	Cancer Death-rate per 1,000 of Total Population.					
	1934.	1935.	1936.	1937.	1938.	1939
<i>New South Wales</i> ... ..	1.01	1.05	1.04	1.07	1.09	1.13
Victoria ... ..	1.19	1.23	1.24	1.27	1.27	1.33
Queensland ... ..	0.92	0.96	0.99	1.01	1.01	1.00
South Australia ... ..	1.12	1.04	1.26	1.23	1.30	1.18
Western Australia ... ..	1.02	1.06	1.07	0.98	1.22	1.05
Tasmania ... ..	1.13	1.14	1.23	1.23	1.08	1.14
Commonwealth ... ..	1.06	1.09	1.11	1.13	1.15	1.16
New Zealand ... ..	1.15	1.12	1.18	1.18	1.18	1.18

### *Diabetes.*

Although diabetes is responsible for less than 2 per cent. of the annual number of deaths the rate of mortality from this cause has increased, the average of the last five years being 95 per cent. higher than that for the period 1906-10.

The deaths due to diabetes in 1939 numbered 475, equal to a rate of 1.73 per 10,000 living. The rate for males was 1.21 and for females 2.26 per 10,000 living of each sex. Most of the deaths occurred after middle life, 435 out of 475 deaths in 1939, or 92 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 93 deaths during 1939; the corresponding rate being 0.34 per 10,000 living. Of this number, 55 were males and 38 females, and the rates per 10,000 living of each sex were 0.40 and 0.28 respectively. The deaths in the metropolis and country were 45 and 48, with corresponding rates of 0.35 and 0.33 per 10,000 living.

Of those who died during 1939, 40, or 43 per cent., were under 5 years of age.

*Cerebral Hæmorrhage.*

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 hæmorrhage 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 with additional information as to cause of death has resulted in further reduction of the number ascribed to cerebral hæmorrhage.

The number of deaths attributed to cerebral hæmorrhage and apoplexy during the year 1939 under the new classification was 793, of which 346 were males and 447 females. The rate was 2.88 per 10,000 living, viz., 2.50 for males and 3.28 for females.

The following tables shows the number of deaths and the rates for both sexes from cerebral hæmorrhage and apoplexy since 1884, but the comparison over the last fifteen years is affected by the alterations in classification mentioned above.

TABLE 112.—Cerebral Hæmorrhage, 1884 to 1939.

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
1934-38	1,655	2.45	1,926	2.92	3,581	2.68
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
1939	346	2.50	447	3.28	793	2.88

*Convulsions of Children.*

Convulsions of children (under 5 years of age) caused 7 deaths during 1939, or 0.03 per 10,000 living at all ages, which is 45 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 113.—Convulsions of Children, 1875 to 1939.

Period.	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
1935-39	35	0.05	23	0.03	58	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
1939	7	0.05	...	...	7	0.03

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.

This ailment is limited to children under 5 years of age, and the death-rate in 1939 was 0.31 per 10,000 children under 5 years of age as compared with 0.57 in the previous quinquennium. Of the deaths in 1939, 5 occurred during the first year of life, the equivalent rate being 0.10 per 1,000 births.

*Insanity.*

For the purposes of this chapter insanity is deemed to include general paralysis of the insane and 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, 1939, there were 11,686 persons under official cognisance, excluding 53 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 4.25 or about 3.7 per cent. above the average for the previous five years.

The number of deaths from insanity in the year 1939 was 86—58 males and 28 females. The death-rate per 10,000 living was 0.42 for males, 0.21 for females, and 0.31 for both sexes combined. In England and Wales the corresponding rates in 1938 were 0.52, 0.36 and 0.43.

In the year 1938-39 there were 700 deaths in mental hospitals, equivalent to 65.72 per 1,000 of the average number of patients in residence. The rate of mortality, however, is not comparable with that shown above because many patients die from causes other than the mental ailments. 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 is due to the fact that many mentally afflicted children are cared for in their homes. Moreover, 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 is the changing age composition of the population. A larger proportion of the people is 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 114.—Diseases of the Heart, 1884 to 1939.

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
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
1939	4,195	30.28	2,943	21.58	7,138	25.96

Part of the increase in 1931 and subsequent years was due to the inclusion of deaths from diseases of the coronary arteries, but even of these he excluded the total rate shows a steady increase, viz from 15.42 in 1931 to 20.35 in 1939.

The ages of persons who died from diseases of the heart during 1939 ranged from under 1 year to 105 years, and 95 per cent. were 45 years or over.

In the following table are shown the death rates for each sex in age groups during the three years around each census since 1891:—

TABLE 115.—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 (Crude Rate) ...	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 (Crude Rate) ...	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	1·65	1·21
20-24 ... ..	2·08	1·68	2·07	1·68	1·25
25-34 ... ..	3·33	2·35	2·80	2·61	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 (Crude Rate) ...	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 120. 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 females, thereafter the male rate is much higher, the result, no doubt, of the more strenuous life of males.

#### *Bronchitis.*

Bronchitis caused 277 deaths during 1939, equal to a rate of 1.01 per 10,000 living. Of the total, 163 were males and 114 females, the corresponding rates per 10,000 of each sex being 1.18 and 0.84. The rate for the State was slightly lower than that experienced during the previous five years. Deaths in the metropolis numbered 139 and there were 138 in other parts of the State. The corresponding rates were 1.07 and 0.95 per 10,000 living. Of the total deaths, 81 were caused by acute bronchitis, 131 cases were recorded as being due to the disease in its chronic form, and 65 were unspecified. Of those persons who died of acute bronchitis, 5 per cent. were under 1 year of age, and 81 per cent. were 55 years or over, whilst 79 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 1,608 deaths during 1939, the equivalent rate per 10,000 living being 5.85, which was 9 per cent. below the average for the preceding quinquennium. Of the total, 935 were males and 673 females. The male and female rates per 10,000 living were 6.75 and 4.93 respectively. The deaths in the metropolis numbered 771, and those in the remainder of the State 837, the rates being 5.96 and 5.75 per 10,000 living respectively.

An analysis of the deaths according to age shows that the majority of cases are children under 5 years of age and adults over 55 years; these represented 18 per cent. and 57 per cent. respectively of the total number in 1939. The rate of mortality from pneumonia is lowest among children between 10 and 14 years of age, then it increases with advancing age.

The following table gives deaths and rates, according to sex, since the year 1884:—

TABLE 116.—Pneumonia, 1884 to 1939.

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
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
1939	935	6.75	673	4.93	1,608	5.85

The greatest mortality from pneumonia occurs in the cold weather and early spring.

The following table shows the death rates for each sex in age groups, during the three years around each census since 1891:—

TABLE 117.—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	4.09	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 (Crude Rate) ...	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 (Crude Rate) ...	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 (Crude Rate) ...	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. during 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 857 males and 611 females during 1939, the respective rates per 10,000 living being 6.19 and 4.48. The rate corresponding to the total deaths from these diseases in the State was 5.34 per 10,000 living, and was 11 per cent. above that experienced during the previous five years. Deaths resulting from diseases of the digestive system are caused in the main by diarrhœa 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 discussed later.

*Diarrhœa and Enteritis.*

The incidence of these diseases is mainly upon young children, the deaths under 1 year of age from these causes in 1939 being 155—93 males and 62 females. In 1939 there were 323 deaths from these causes at all ages, equivalent to a rate of 1.17 per 10,000 of the general population, the rate for males being 1.24 and for females 1.11. The combined rate was 32 per cent. above the average for the preceding quinquennium. The following table shows the number of deaths and the rates since 1884, distinguishing between the sexes:—

TABLE 118.—Diarrhœa and Enteritis, 1884 to 1939.

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	12.29	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
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
1939	172	1.24	151	1.11	323	1.17

There was a considerable drop in the rate after 1888, due probably to the 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 until the year 1920, when an upward tendency was manifested. After 1920 the rate fell rapidly.

The low mortality in recent years is probably due in a large measure to the work of the Baby Health Centres previously mentioned. Seasonal conditions may also have helped, but the effects of this factor are difficult to determine for the State as a whole.

A comparison of rates calculated on the population at all ages is not satisfactory because those who die from this cause are mainly children in the early years of life and the proportion of the population under 5 years of age has declined considerably since 1871. This has been an important factor in the decline in the rates. In 1939, 61 per cent. of those who died were under 2 years and 70 per cent. were under 5 years of age.

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.

TABLE 119.—Diarrhoea and Enteritis, Specific Mortality, 1881 to 1939.

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	1939	226	10.2
1936	150	17.6			
1937	141	16.0			
1938	148	16.4			
1939	198	21.8			

In the five years 1935-39, 38 per cent. of the deaths from diarrhoea and enteritis occurred in the summer, 27 per cent. in the autumn, 20 per cent. in the spring and 15 per cent. in winter.

#### *Appendicitis.*

To this cause 250 deaths were ascribed in 1939, the rate being 0.91 per 10,000 living, which is slightly higher than the average of the preceding quinquennium. Appendicitis is more fatal to males than to females, the rate for the former in 1939 being 1.18 and for the latter 0.63 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 1939 numbered 129—82 males and 47 females, the rate being 0.47 per 10,000 living—16 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 1939 being 0.59 and for the latter 0.34 per 10,000 living of each sex.

*Nephritis.*

Nephritis or Bright's disease 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 was more than doubled. Then the upward movement slackened and after 1918 the rate began to decline, so that the annual average for the years 1919 to 1923 was 456 per million inhabitants as against 501 in 1914-18. From 1928 onwards, however, the rates exceeded 500, reaching a maximum of 584 per million in 1934, but showing a slight decline in each succeeding year to 512 per million in 1939.

During 1939 there were 1,820 deaths due to diseases of the genito-urinary system, of which 1,408 were caused by all forms of nephritis. The rate was 5.12 per 10,000 living, and for males and females 5.66 and 4.58 respectively, the general rate being approximately 11 per cent. below that experienced during the previous quinquennium. The deaths due to these diseases in the metropolis were 729, and in the rest of the State 679, the corresponding rates per 10,000 living being 5.63 and 4.67. 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 nephritis are shown below:—

TABLE 120.—Nephritis, 1884 to 1939.

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	1,109	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	5.23
1934-1938	4,315	6.39	3,375	5.11	7,690	5.76
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
1939	784	5.66	624	4.58	1,408	5.12

During the period covered by the foregoing table the rate of mortality (unadjusted for changing age constitution) both for males and females has more than doubled. The rate for males in the last five years was 26 per cent. higher than that for females. Comparatively few persons under 35 years of age die from nephritis, the proportion in 1939 being 5.8 per cent of the total.

A more reliable indication of the trend of the death rate from nephritis is provided by the following table which shows the death rates for each sex in age groups during the three years around each census since 1891:—

TABLE 121.—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.
<b>Males.</b>					
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	20.16	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 (Crude Rate) ...	2.77	4.57	5.98	5.42	6.14
Rate in 1890-92 = 100...	100	165	216	196	222
<b>Females.</b>					
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	3.86
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 (Crude Rate) ...	2.17	3.01	3.87	3.63	4.85
Rate in 1890-92 = 100...	100	139	178	167	224
<b>Persons.</b>					
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 (Crude Rate) ...	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 a slow increase is noted till the age of 45 is reached, then the increase becomes 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 1939 the deaths of 200 women—182 married and 18 single—were due to puerperal causes. The ages of the married women ranged from 17 years to 47 years, 4 being under 21 years; and the ages of the single women ranged from 16 years to 38 years, 5 being under 21. The age at marriage of these mothers ranged from 15 to 42 years. In 10 cases the duration of marriage was 20 years or over, but 8 mothers died within a year of marriage. In 61 cases there was no previous issue and in 32 of these cases the death occurred within two years of marriage; 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 approximation 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 decline from 1895

to 1922. The succeeding fourteen years was a period in which the rate was on a higher level, but a sudden improvement occurred in 1937 and the decline has continued. The following table provides a summary for the period under review:—

TABLE 122.—Maternal Deaths, 1895 to 1939.

Period.	Number of Deaths.				Rate per 1,000 Live Births.					
	Including Criminal Abortion.		Excluding Criminal Abortion.		Including Criminal Abortion.			Excluding Criminal Abortion.		
	Married.	Single.	Married.	Single.	Married.	Single.	Total.	Married.	Single.	Total.
1895-1899 ...	1,248	138	...	...	7.23	11.00	7.48	...	...	...
1900-1904 ...	1,192	134	...	...	6.83	10.32	7.07	...	...	...
1905-1909 ...	1,222	153	1,191	124	6.29	10.50	6.58	6.13	8.51	6.29
1910-1914 ...	1,342	128	1,311	104	5.67	8.91	5.86	5.54	7.24	5.64
1915-1919 ...	1,301	125	1,247	101	5.34	9.69	5.56	5.12	7.83	5.25
1920-1924 ...	1,338	127	1,233	75	5.18	9.56	5.39	4.77	5.65	4.82
1925-1929 ...	1,423	135	1,289	78	5.57	9.91	5.79	5.05	5.73	5.08
1930-1934 ...	1,231	146	1,075	80	5.58	12.44	5.93	4.87	6.81	4.97
1935-1939 ...	1,034	141	940	67	4.89	14.12	5.30	4.21	6.57	4.31
1935 ...	246	36	214	16	5.77	17.80	6.31	5.02	7.91	5.15
1936 ...	260	32	221	15	5.90	15.28	6.32	5.01	7.16	5.11
1937 ...	209	24	181	17	4.60	11.40	4.91	3.99	8.07	4.17
1938 ...	197	34	170	11	4.35	17.15	4.83	3.75	5.55	3.82
1939 ...	182	18	154	8	3.96	9.05	4.17	3.35	4.02	3.38

Details as to conjugal condition, etc., have been recorded annually since 1893. Throughout the ensuing period the maternal death rate was always higher among single than among married women—particularly if criminal abortion is taken into account. During the last ten years half the deaths of single women in this group were due to criminal abortion, as compared with 13 per cent. of the deaths of married women.

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) and in the definition of "live birth" a further difference arises in the classification of criminal abortion (illegal operations). In the International List of Causes of Death in use up to the end of 1939 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 totals excluding criminal abortion are also shown to enable comparison to be made with other countries where such deaths are not included.

TABLE 123.—Maternal Deaths, 1938 and 1939.

Cause of Death.	Deaths, 1938.		Deaths, 1934-38		Deaths, 1939.		Deaths, 1935-39.	
	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 ...	18	·38	103	·45	16	·33	99	·43
Puerperal Hæmorrhage ...	31	·66	177	·77	29	·61	176	·75
Puerperal Septicæmia ...	38	·80	191	·83	24	·50	176	·75
Post Abortive Septicæmia ...	9	·19	125	·55	14	·29	115	·49
Albuminuria and Eclampsia ...	46	·97	264	1·15	45	·94	245	1·05
Phlegmasia Alba Dolens, Embolus, Sudden Death.	19	·40	88	·38	11	·23	88	·38
Other Casualties of Childbirth	20	·42	111	·49	23	·48	108	·46
Total, excluding Criminal Abortion.	181	3·82	1,059	4·62	162	3·38	1,007	4·31
Criminal Abortion ...	50	1·06	242	1·06	38	·79	231	·99
Total, including Criminal Abortion.	231	4·88	1,301	5·68	200	4·17	1,238	5·30

More than any other cause of death during childbirth, puerperal septicæmia (including post-abortive sepsis) can be classed as a preventable disease. In the last five years nearly 29 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 but similar improvement has not occurred in mortality from puerperal septicæmia.

The annual rates of mortality of mothers in childbirth per 1,000 live births in the Metropolis and the remainder of the State in the last 11 years were as follows:—

TABLE 124.—Maternal Deaths, Metropolis and Country, 1929 to 1939.

Year.	Deaths from Puerperal Septicæmia per 1,000 Live Births.			Total Deaths of Mothers in Childbirth per 1,000 Live Births,					
				Including Criminal Abortion.			Excluding Criminal Abortion.		
	Metropolis.	Remainder of State.	State.	Metropolis.	Remainder of State.	State.	Metropolis.	Remainder of State.	State.
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	5·81	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	5·62	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
1939	·83	·77	·79	4·61	3·87	4·17	3·05	3·59	3·38

Rates for the year 1939 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.

TABLE 125.—Maternal Deaths, Special Rates, 1939.

Cause of Death.	Deaths per 1,000 All Births (Live and Still).			Deaths per 1,000 Confinements.		
	Married.	Single.	Total.	Married.	Single.	Total.
Accidents of Pregnancy ... ..	·27	1·45	·32	·28	1·46	·33
Puerperal Hæmorrhage ... ..	·59	·49	·59	·60	·49	·59
Puerperal Septicæmia ... ..	·49	·48	·49	·49	·49	·49
Post Abortive Septicæmia ... ..	·30	...	·28	·30	...	·29
Albuminuria and Eclampsia ... ..	·89	1·45	·91	·90	1·47	·92
Phlegmasia Alba Dolens, Embolus, Sudden Death.	·23	...	·22	·23	...	·23
Other Casualties of Childbirth... ..	·49	...	·47	·49	...	·47
Total, excluding Criminal Abor- tion.	3·26	3·87	3·28	3·29	3·91	3·32
Criminal Abortion ... ..	·59	4·84	·77	·60	4·88	·78
Total, including Criminal Abor- tion.	3·85	8·71	4·05	3·89	8·79	4·10

The proportion of deaths due to each cause in 1939 is shown below in comparison with the average for the previous five years, and the five years 1935-39.

TABLE 126.—Maternal Deaths, Proportion each Cause, 1939.

Cause of Death.	Proportion per cent. due to each Cause.								
	1934-38.			1939.			1935-39.		
	Mar- ried.	Single.	Total.	Mar- ried.	Single.	Total.	Mar- ried.	Single.	Total.
Accidents of Pregnancy ...	7·9	7·9	7·9	7·1	16·7	8·0	7·7	10·4	8·0
Puerperal Hæmorrhage ...	14·8	4·6	13·6	15·4	5·5	14·5	15·6	3·5	14·2
Puerperal Septicæmia ...	15·7	7·2	14·7	12·6	5·5	12·0	15·0	8·3	14·2
Post Abortive Septicæmia	9·8	8·5	9·6	7·7	...	7·0	9·5	7·6	9·3
Albuminuria and Eclampsia	21·2	13·2	20·3	23·1	16·7	22·5	20·8	11·8	19·8
Phlegmasia Alba Dolens, Embolus, Sudden Death.	7·4	2·0	6·8	6·1	...	5·5	7·9	1·4	7·1
Other Casualties of Child- birth.	9·2	3·3	8·5	12·6	...	11·5	9·4	3·5	8·7
Total, excluding Crimi- nal Abortion.	86·0	46·7	81·4	84·6	44·4	81·0	85·9	46·5	81·3
Criminal Abortion ... ..	14·0	53·3	18·6	15·4	55·6	19·0	14·1	53·5	18·7
Total, including Crimi- nal Abortion.	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

In the five years 1935-39, criminal abortion 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 decreased.

Deaths from violence in 1939 numbered 2,103, or 7.8 per cent. of the total deaths in the year. This number includes 329 suicides, 1,678 accidents, 35 homicides, and 61 "open verdicts." The rate, 7.65 per 10,000 living, was 20 per cent. above the rate in the preceding quinquennium, which was 6.36. In the year 1939 the males numbered 1,571, or 11.34 per 10,000 living, and the females 532 or 3.90 per 10,000 which is 34 per cent. of the male rate.

*Deaths from Suicide.*

The number of persons who took their own lives in 1939 was 329, and the rate 1.20 per 10,000 living, was slightly below the average for the preceding quinquennium. The number of male suicides was 251, or a rate of 1.81 per 10,000 living, and of female 78, or a rate of 0.57 per 10,000 living,—the male rate being over three times that of the female.

The number of deaths from suicide and the rates since 1884 are shown in the following table:—

TABLE 127.—Suicide, 1884 to 1939.

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
1934-1938	1,235	1.83	367	0.56	1,602	1.20
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	76	0.56	330	1.21
1939	251	1.81	78	0.57	329	1.20

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 1935-39, 26 were by the agency of poison, 25 by shooting, 13 by gas, 12 by cutting, 11 by hanging, and 7 by drowning.

Experience indicates that the suicidal tendency is probably influenced by the seasons. During the last ten years, 1930-39, the proportion of male suicides per 1,000 was approximately as follows.—In spring, 253, summer 264, autumn 247 and winter 236. Female suicides, being numerically smaller give more variable results as to seasonal trends; in the last ten years the proportion per 1,000 was—spring, 249, summer, 273, autumn, 244, winter, 234.

### Deaths from Accident.

During the year 1939 the number of deaths due to accident was 1,678, viz., 1,247 of males and 431 of females, or equal to rates of 9.00 and 3.16 per 10,000 living of each sex, and the general rate was 6.10 per 10,000 living.

The number of deaths from accident and the rates since 1884 are shown in the table below:—

TABLE 128.—Accident, 1884 to 1939.

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	5.65
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	4,697	7.08	1,344	2.14	5,941	4.65
1934-1938	4,814	7.13	1,490	2.26	6,304	4.72
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
1939	1,247	9.00	431	3.16	1,678	6.10

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 was in use from 1931 to the end of 1939. They include inattention at birth, and, prior to 1896, injury at birth and traumatic tetanus. In the years 1927 to 1930 "open verdicts" were included as they were not recorded separately.

Although the death-rate from accidents is still high as compared with that of more closely settled countries, it has decreased; the lowest rate on record was 3.99 per 10,000 living in 1934.

The experience of the five years ended 1939 shows that out of every 1,000 fatal accidents 401 are due to vehicles and horses, 79 to drowning, 152 to falls, 59 to burns or scalds, 59 to railway or tramway accidents, and

20 to accidents in mines and quarries. Fatalities due to weather, i.e. excessive cold or heat, or lightning were responsible for 55 in every 1,000 but this figure is above normal because there were a large number of deaths from heat in the early part of 1939.

Out of 569 deaths caused by accidents with vehicles and horses in 1939, 498 were due to accidents in which a motor vehicle was involved.

Detailed statistics relating to fatal and non-fatal traffic accidents are published elsewhere in this Year Book.

#### 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 1935-39, 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 129.—Seasonal Prevalence of Diseases, 1935-39.

Month.	Typhoid Fever.	In- fluenza.	Diph- theria and Croup.	Whoop- ing- Cough.	Tuberculosi- of the Respiratory System.	Pneu- monia.	Bron- chitis.	Diarrhea, Enteritis, and Dysentery.	Neph- ritis.
January ...	32	26	57	133	80	63	50	142	79
February..	155	21	87	95	72	59	47	130	76
March ...	217	24	82	57	80	54	63	100	71
April ...	146	19	125	40	81	59	61	105	75
May ...	174	50	131	57	86	82	81	67	81
June ...	45	83	102	46	89	96	115	52	93
July ..	32	233	99	34	99	131	152	53	101
August ...	43	232	71	60	95	134	135	51	98
September.	11	147	62	105	81	109	95	65	89
October ...	...	83	61	105	81	79	81	61	80
November.	68	50	58	156	76	67	59	66	81
December .	77	32	65	112	80	67	61	108	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 are not horizontally; the figures are proportions per thousand and not absolute numbers.

The chief feature of the foregoing table is the contrast between the figures relating to typhoid fever and 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 tuberculosis of the respiratory system varies little throughout the year, but it is somewhat higher in the colder months. Nephritis also shows a higher mortality during the cold weather.

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## SOCIAL CONDITION.

Natural conditions of climate and soil in New South Wales are highly favourable for health, and there are ample resources for the production of food and other commodities essential for a comfortable standard of living. Death rates are low and the average expectation of life is increasing. Health and Social well being are promoted by means of organised services for the prevention of disease, the treatment of sickness and accident, and the improvement of housing and by facilities for free education and for recreation.

The system of government is based on democratic principles, with a broad franchise embracing every adult citizen and the legal system is designed to give equal status to all. The interests of employees are protected by industrial laws. Freedom of association is recognised, wages and hours are regulated, industrial hygiene is fostered and compensation for occupational accidents is insured. Legal provision has been made also for the regulation of prices and rents of dwellings when necessary.

Residents are encouraged to acquire their own homes, and allowances are paid to enable mothers with small incomes and widows to maintain their children. Pensions are provided for the aged and infirm, and a comprehensive system of social aid for the unemployed and other persons requiring assistance.

### PUBLIC HEALTH AND RELIEF SERVICES.

Public Health services are organised in 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 consisting of ten members, including five legally qualified medical practitioners, all being nominated by the Government, is the central executive and administrative authority. 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.

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 of the Department 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 there are divisions for industrial hygiene, maternal and baby welfare, tuberculosis, laboratories, sanitation, and pure food, each in charge of a specially-qualified officer.

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 Federal Department of Public Health administers the quarantine services and conducts research into matters affecting public hygiene. The National Health and Medical Research Council, consisting of the principal health officers in Australia, 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 charitable services of the State Government 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, as well as war pensions.

#### GOVERNMENT EXPENDITURE ON PUBLIC HEALTH AND CHARITABLE RELIEF.

The expenditure from revenue by the Government of New South Wales on eleemosynary objects, exclusive of capital charges on loans expended on such objects, amounted to £9,612,207, or £3 9s. 6d. per head of population, in 1939-40, and the Commonwealth expenditure on old-age and invalid pensions and maternity allowances in this State was £6,788,977, or £2 9s. 1d. per head. 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, subsequently merged into the Consolidated Revenue Fund, and in 1939-40, payments from the Unemployment Relief and Social Services Funds.

TABLE 130.—Government Expenditure of Public Health and Charitable Relief, 1932 to 1940.

Expenditure from Revenue on—	1931-32.	1936-37.	1937-38.	1938-39.	1939-40.
<b>Public Health—</b>	£	£	£	£	£
Government hospitals; subsidies to hospitals, etc. ... ..	727,638	1,027,402	1,153,918	1,160,640	1,426,647
Mental hospitals and like institutions	594,737	696,935	768,211	809,705	815,491
Baby health centres, maternity homes, etc. ... ..	47,594	59,694	74,330	70,476	68,618
Inspection of food, dairies, etc. ... ..	17,756	15,830	16,955	18,007	18,048
Medical examination of school children	20,939	24,619	28,447	37,540	40,019
Administration, medical services, etc.	124,635	139,226	163,344	171,395	169,288
Other ... ..	9,614	4,708	1,092	523	65
<b>Total ... ..</b>	<b>1,542,913</b>	<b>1,968,414</b>	<b>2,206,297</b>	<b>2,268,286</b>	<b>2,538,170</b>
<b>Social amelioration—</b>					
Relief of destitute, blind, aged, etc. ...	332,623	390,191	390,344	430,369	487,300
Maintenance of deserted wives, widows and children ... ..	502,674	298,295	305,608	334,278	324,118
Widows' pensions ... ..	645,457	539,623	601,511	630,321	630,721
Care of aboriginals ... ..	47,885	50,787	53,773	76,454	69,000
Unemployment Relief ... ..	766,613	1,051,308	†1,495,969	†608,579	†2,007,962
Food relief ... ..	5,070,732	1,114,950	1,263,901	1,410,830	1,791,222
Family allowances ... ..	1,805,685	1,595,183	1,469,932	1,363,833	1,337,020
Administration ... ..	329,876*	218,105	239,884	264,540	335,736
Homes for Unemployed Trusts ... ..	...	...	25,000	...	13,000
Other ... ..	67,245	53,243	53,939	78,553	55,892
<b>Total ... ..</b>	<b>9,568,790</b>	<b>5,306,085</b>	<b>5,899,861</b>	<b>5,206,773</b>	<b>7,074,031</b>
<b>Grand Total (State) ... ..</b>	<b>11,111,703</b>	<b>7,275,099</b>	<b>8,106,158</b>	<b>7,475,059</b>	<b>9,612,207</b>
<b>Commonwealth—</b>					
Old age and invalid pensions ... ..	4,276,522	5,684,903	6,315,550	6,414,899	6,627,718
Maternity allowances ... ..	149,870	145,495	154,613	167,710	161,259
<b>Total (Commonwealth) ... ..</b>	<b>4,426,392</b>	<b>5,830,458</b>	<b>6,470,163</b>	<b>6,582,609</b>	<b>6,788,977</b>
<b>Grand Total— (State and Commonwealth) ... ..</b>	<b>15,538,095</b>	<b>13,105,557</b>	<b>14,576,321</b>	<b>14,057,668</b>	<b>16,401,184</b>
<b>Expenditure per head of population—</b>	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
By State ... ..	4 5 7	2 14 3	2 19 10	2 14 8	3 9 6
By Commonwealth ... ..	1 14 6	2 3 6	2 7 9	2 8 2	2 9 1
<b>Total ... ..</b>	<b>6 0 1</b>	<b>4 17 9</b>	<b>5 7 7</b>	<b>5 2 10</b>	<b>5 18 7</b>

\* Includes interest on Treasury advances to Family Endowment Fund.

† Exclusive of capital debt charges on loans. ‡ Includes cost of collection of Social Services and Unemployment Relief Taxes.

State expenditure on hospitals and other health services and Commonwealth expenditure on pensions have increased in each of the last four years. State expenditure from revenue on social amelioration has fluctuated with changes of policy in regard to apportioning expenditure on unemployment relief works as between revenue and loans. State loan expenditure on unemployment relief works was nil in 1931-32; £3,252,458 in 1936-37; £3,373,386 in 1937-38; £4,026,900 in 1938-39 and £2,133,232 in 1939-40. Particulars of the aggregate expenditure on relief works—from revenue and loans—are shown in the chapter Employment of this volume.

The increase in the cost of pensions and maternity allowances paid by the Commonwealth was due mainly to increased rates of benefit.

#### 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 Government gradually took over the function of providing sustenance.

Social service bureaux in the metropolis, Newcastle and the northern and southern coalfields are operated in conjunction with the State employment exchanges, and welfare officers supervise social aid in the various districts with the assistance of departmental medical officers and welfare nurses. A service of medical attention and medicine (on a basis similar to that provided by friendly societies) is provided for families in receipt of social aid, 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 for persons certified as being in need of them, also special diets for indigent invalids or sick persons. Food orders are supplemented 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. 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. Clothing and boots are issued 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.

In the country districts the police administer food relief and exercise a measure of discretion to determine eligibility in the light of personal knowledge of the applicants.

Assistance by the Homes for Unemployed Trust is described later in this chapter, and unemployment relief works and the State Employment Exchanges are described in the chapter dealing with employment.

#### *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 Bureaux.

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) current in December, 1940, are shown below. The scale of relief was increased as from 1st August, 1939, viz., by 2s. a fortnight for single persons, 3s. for married couples without children or with one child, and 3s. 6d. for other family units.

TABLE 131.—Scales of Food Relief and Permissive Income.

Family Unit.	Limit of Income per Fort. night. (a)	Value of Food Relief per Fortnight.	Family Unit.	Limit of Income per Fort. night. (a)	Value of Food Relief per Fortnight.
	s.	s. d.		s.	s. d.
Single man or woman ...	25	17 0	Married couple, 3 children ...	65	49 0
Married couple ...	40	31 0	" " 4 children ...	70	55 0
" " 1 child ...	50	41 0	" " 5 children ...	75	61 0
" " 2 children ...	60	48 0	Each additional child ...	10	6 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, 1933 and each of the last five years and in December, 1940; also, for the purpose of comparison, the number of men engaged in part-time employment on relief work at these dates:—

TABLE 132.—Recipients of Food Relief and Relief Workers, 1933 to 1940.

Particulars.	June, 1933.	June, 1936.	June, 1937.	June, 1938.	June, 1939.	June, 1940.	Dec., 1940.
Food Relief—							
Recipients ...	83,151	24,988	30,135	33,694	37,795	37,302	25,841
Recipients and dependants ...	192,777	58,680	71,615	82,343	94,033	95,382	64,389
Relief Workers—							
Part-time... ...	34,229	55,770	24,976	19,198	20,229	11,302	9,310

The increase in the number of recipients of food relief during 1937-38 was due to some extent to the more liberal conditions of eligibility for social aid introduced in 1937. There was another increase during 1938-39, especially in country districts. This followed a slackening of expenditure on works which provide employment for large numbers of unskilled workers, and a diminution in returns from rural activities by reason of drought in 1938 and low prices for staple products. The increase persisted until October, 1939.

The number of recipients was declining slowly in 1940, when the industrial dispute in coalmining, lasting from 11th March to 17th May, caused a temporary increase. But the number of recipients of food relief in June, 1940, was less by 500, and the number of relief workers was less by 8,900 than twelve months ago. There was a marked decrease in both groups between June and December, 1940.

#### 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 133.—Medical Practitioners, Dentists, Pharmacists and Optometrists on Register, 1929 to 1939.

Year.	Number on Register 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	608
1938	3,479	1,472	2,228	602
1939	3,598	1,495	2,281	598

\* Not registered.

There were 349 persons (other than pharmacists) licensed to deal in poisons in 1939; and 7 persons licensed to manufacture opium and other dangerous drugs and 60 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, 1939, was as follows:—General nurses, 11,021, midwifery 6,421, mental 1,196, infants' 97. Information is not available as to the actual number of nurses, as many are registered under more than one classification.

Special free services are provided for maternity cases by the Department of Public Health, so that the advice of a specialist may be obtained for 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.

Aerial medical services, subsidised by the Commonwealth and State, are provided at a number of inland centres in Australia including Broken Hill, and two organisations, the Bush Nursing Association and the Country Women's Association, make provision for nurses in country localities and maintain cottage homes in a number of remote localities.

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. The number of cases transported during the year ended June, 1940, was 222,413, and the mileage was 1,981,600.

### HOSPITAL SERVICES.

#### *Private Hospitals.*

A private hospital may not be conducted except under licence in accordance with the Private Hospitals Act by which it is prescribed that every private hospital must be under the direct control of a person approved by the Board of Health. Licensees are required to comply with regulations as to structure, management, and inspection. The licenses are issued annually.

The classification of the private hospitals and their accommodation, according to the nature of the cases received, are shown in the following statement:—

TABLE 134.—Private Hospitals—Number and Accommodation, at 31st December, 1939.

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	40	82	203	1,714	846	379	2,939
Country ... ..	177	11	146	334	1,572	143	600	2,315
Total ... ..	258	51	228	537	3,286	989	979	5,254

In 390 hospitals the accommodation at the end of 1939 did not exceed 10 beds, in 102 there were from 11 to 20 beds, and in 45 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 162). 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.

By the Public Hospitals Act, 1929-1940, 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.

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 four directors appointed by the Government and five or six elected triennially by persons who contribute to the funds of the hospital as members of a contribution scheme or otherwise, except by way of payment for relief, or five Government nominees and six or seven elected directors.

Patients unless destitute are required to pay a reasonable sum for the cost of hospital services and such sum is recoverable in the courts of law. If authorised by the Commission, portion of a hospital may be set aside for paying patients, who may contract for private or intermediate accommodation.

The Hospitals Commission inspects the hospitals which receive or apply for subsidy, and determines which hospitals shall be subsidised, and the amount of subsidy to be paid to each institution.

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 135.—Public Hospitals—Accommodation and Patients, 1935 to 1939.

Year-ended June.	Hospitals.	Beds.		Patients treated in Hospital.	Out-Patients.	
		Number Available.	Number Occupied. Daily Average.		Number.	Attendances.
1935 ... ..	173	11,781	8,069	181,097	503,689	1,458,344
1936 ... ..	172	12,223	8,621	190,484	563,918	1,602,863
1937 ... ..	205	13,500	9,669	215,113	522,610	1,723,206
1938 ... ..	207	13,792	10,306	234,427	595,600	1,746,617
1939 ... ..	208	14,246	10,866	244,935	605,700	1,772,299

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. Therefore the actual increase in accommodation in that year was not so great as indicated by the figures in the table.

The patients treated in the hospitals in 1938-39 included 57,800, or 23.6 per cent. of the total, for whom no charge was made. Their stay in hospital amounted in the aggregate to 981,067 days.

In addition to the accommodation provided by public hospitals to which the foregoing particulars relate, there were 2,330 beds in the State hospitals at the asylums for the infirm (see page 162), the Waterfall Sanatorium and auxiliary hospital at Randwick, and the David Berry Hospital. In these institutions the average number of beds occupied per day was 2,173, and 7,565 patients were treated during the year 1939.

#### *Income and Expenditure of Public Hospitals.*

The income for maintenance of the public hospitals amounted to £2,216,197 in 1938-39 and the expenditure for maintenance to £2,282,754. These amounts are exclusive of loan receipts and loan expenditure. Income for capital purposes in 1938-39 included State grants for buildings £277,851 and for equipment £32,942; also legacies and bequests £93,103; and the hospitals obtained loans amounting to £394,070. The actual amount of capital expenditure is not recorded.

Particulars relating to the income and expenditure for maintenance during the five years ended 1938-39 are shown below. Income and expenditure of State institutions are not included:—

TABLE 136.—Public Hospitals—Income and Expenditure, 1935 to 1939.

Year ended June—	Income for Maintenance.					
	State Aid for Mainten- ance.	Subscrip- tions and Donations.	Systematic Contribu- tions.	Patients' Fees.	Other.	Total Income for Maintenance.
	£	£	£	£	£	£
1935 ... ..	622,740	164,991	198,167	368,401	55,520	1,409,819
1936 ... ..	664,090	173,346	233,640	414,979	60,677	1,546,732
1937 ... ..	856,077	152,276	302,823	432,598	70,976	1,814,750
1938 ... ..	991,279	164,745	332,214	528,413	73,791	2,090,442
1939 ... ..	1,029,774	163,869	363,788	578,343	80,423	2,216,197

Year ended June—	Maintenance Expenditure				
	Salaries and Wages.	Provislons, Drugs, Fuel, etc.	Expenses and Interest.	Renewals and Renova- tions.	Total.
	£	£	£	£	£
1935 ... ..	679,067	461,636	137,321	69,855	1,347,879
1936 ... ..	740,093	506,485	161,343	74,034	1,481,955
1937 ... ..	926,973	586,030	200,164	78,394	1,791,561
1938 ... ..	1,073,019	647,779	242,168	80,541	2,043,507
1939 ... ..	1,196,490	718,539	276,535	91,190	2,282,754

The increases in receipts and expenditure in 1936-37, as shown above, were due partly 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 for maintenance amounted to £1,029,774 in 1938-39, as compared with £856,077 in 1936-37 and there has been steady growth in patients' fees and systematic contributions. The expenditure on salaries and wages has been augmented by reason of a general increase in rates of pay in recent years.

#### 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. Contributors pay at the rate of 6d. per week (minors 3d.) for certain hospital benefits in respect of treatment in private as well as public hospitals. Members may contribute at higher rates for increased benefit. From its inception to 30th June, 1940, an

amount of £1,310,441 had been disbursed for hospital benefits, viz., £881,118 to metropolitan hospitals affiliated with the funds and £429,323 to other hospitals, public and private.

Details regarding the operations of the Fund are shown in the following statement:—

TABLE 137.—Metropolitan Hospitals Contribution Fund, 1933 to 1940.

Year ended 30th June.	Benefits Granted to Contributors.	Income.	Expenditure.	
			Payments to Hospitals.	Administration, etc.
	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
1939	50,561	288,211	252,579	28,133
1940	50,065	320,324	272,514	36,530†

\* Not available.

† Includes £6,000 transferred to reserves.

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 138.—Country Hospitals—Systematic Contributions Funds, 1935 to 1939.

Year ended 30th June.	Contributors.	Contributions Received.	Payments to Hospitals.	Cost of 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
1938	186,461	256,887	238,436	28,111
1939	197,416	278,046	255,951	30,840

#### 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 139.—Infectious Diseases—Cases Notified, 1921 to 1939.

Disease.	1921.	1931.	1938.	1939.				Total.
				Metro- politan District.	Hunter River District.	Broken Hill District.	Other Districts.	
Typhoid Fever ... ..	949	340	89	29	9	1	23	62
Scarlet Fever ... ..	4,060	4,447	2,609	1,995	411	20	779	3,205
Diphtheria... ..	6,854	4,432	3,946	2,027	337	147	1,602	4,113
Infantile Paralysis ...	184	103	654	17	1	...	12	30
Cerebro-Spinal Meningitis	30	30	22	12	4	...	5	21
Encephalitis Lethargica ...	†	20	11	2	...	...	3	5
Pulmonary Tuberculosis ...	1,240	1,588	1,797	1,299	98	10	280	1,687
Leprosy ... ..	2	2	...	...	...	...	...	...
Bubonic Plague ... ..	2	...	...	...	...	...	...	...
Puerperal Infection ...	*	319	258	197	3	1	44	245
Typhus Fever ... ..	...	1	7	1	...	...	...	1
Undulant fever ... ..	‡	‡	...	3	...	...	...	3

\*Notifiable since 16th August, 1929. †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 1939, and two inmates died. There were 9 inmates in the lazaret on 31st December, 1939, viz., 6 males and 3 females. Their birth-places were—New South Wales 5, Western Australia, Malta, Pacific Islands and Straits Settlements 1 each. The cost of the lazaret during 1939 was £4,011, or £374 17s. 2d. per inmate.

#### Tuberculosis.

Pulmonary tuberculosis has been notifiable throughout the State since 1st March, 1929. During the year 1939 the notifications numbered 1,687, viz., 1,299 in the metropolitan sanitary district, 98 in the Hunter River district, 10 in the district of Broken Hill, and 280 in the remainder of the State.



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 for patients in the intermediate stages of the disease contains 429 beds, and an auxiliary hospital with 151 beds for advanced patients is located at the Prince of Wales (Repatriation) Hospital. Both these are State Government institutions.

The Waterfall Hospital is the largest of the sanatoria. The number of patients under treatment during 1939 was 849, and there were 409 in the hospital at the end of the year. The cost of maintenance in 1939 was £39,321, equal to £96 12s. 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 1939 was 68, viz., 32 patients and 36 dependants.

With the object of checking the spread of tuberculosis, several dispensaries have been opened in Sydney and Newcastle for diagnosis and the examination of patients, and the supervision of those who are not under treatment in an institution.

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.

#### *Venereal 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, and there is a clinic at Newcastle Hospital. 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 1939 numbered 5,851, of which 5,161 cases were notified in the metropolitan area and 423 in the Newcastle district. About 73 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. Such prisoners may be detained even after the definite sentence is served, until certified by the medical officer as free from disease.

#### 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 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 maintains ten institutions for the reception and treatment of insane persons, and two private institutions are licensed for the purpose. 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.

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 mental patients under cognisance as being of unsound mind on 30th June, 1940, consisted of 5,698 males and 5,178 females in mental hospitals and licensed houses in New South Wales; 3 men and 4 women from this

State in South Australian hospitals; and 455 men and 504 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 140.—Mental Patients, 1901 to 1940.

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
1939	6,082	5,604	11,686	4·39	4·11	4·25
1940	6,156	5,686	11,842	4·39	4·11	4·26

\* 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 is shown below:—

TABLE 141.—Mental Hospitals—Admissions and Deaths, 1901 to 1940.

Year ended 30th June.	Admissions.			Re-admissions.			Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1901*	387	309	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
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
1939	729	672	1,401	138	138	276	363	337	700
1940	703	651	1,354	166	149	315	417	330	747

\* Calendar Year.

During 1939-40 the deaths numbered 747, or 6.9 per cent. of the average number resident, and the discharges included 506 persons, or 4.7 per cent., who had recovered, and 207, or 1.9 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 1939-40 the number of

resident patients under treatment at the clinic was 963, and there were 235 in the institution at 30th June, 1940. Outdoor treatment is provided also. Voluntary patients are treated at the other mental hospitals, and the total number under care during the year ended 30th June, 1940, was 1,563, of whom 775 were males and 788 were females. Of these 488 recovered, 323 were relieved, 39 died, and 247 were discharged without improvement, and the number resident at the end of the year, including those at the psychiatric clinic, was 466, viz., 228 males and 233 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.

A charitable organisation, the After Care Association, assists in the rehabilitation of patients discharged from the mental hospitals, and has established a small hostel for women.

The average weekly cost of maintaining mental patients in Government institutions during the year 1939-40 was 26s. 9d. per patient, of which the State paid 22s., and the balance was derived from private contributions. The following table shows the average weekly cost per patient during the years cited:—

TABLE 142.—Mental Patients—Cost of Maintenance, 1921 to 1940.

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
1936	638,308	19 7	3 11	23 6
1937	669,646	20 3	4 1	24 4
1938	736,413	22 1	4 1	26 2
1939	781,958	23 2	4 2	27 4
1940	775,346	22 0	4 9	26 9

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, 1940, salaries and fees amounted to £525,637, the cost of provisions, stores, etc., was £174,302, fuel, light and water, £26,735; and miscellaneous items, £45,672. In addition, farm products to the value of £15,326 were grown and consumed at the institutions, and a sum of £84,141 (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.

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, 1939, brought into operation on 1st December, 1939, is a consolidating measure by which provision is made 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 1901-1939.

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.

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. The Public Instruction Act requires children between the ages of 6 and 14½ years to attend school regularly. From 1917 to the end of 1939 the period of compulsory school attendance was 7 to 14 years, and in 1940 it was 6 to 14 years. It is being extended by four months a year to age 15. The employment of children in factories and in industrial apprenticeship is discussed in the chapters relating to Factories and 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. Since 1931 the amount of allowance has been varied from time to time and payment has been 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) during the twelve months preceding claim did not exceed a certain limit. 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. From this date also the amount of allowance has been related to the number of children in the family.

The current rate of allowance is £4 10s. where there is no other child under fourteen years, £7 10s. where there are three or more other children under fourteen years, and £5 in other cases. The income limit ranges from £247 to £338 according to the number of children in the family. Children of the claimant's husband by a former marriage are 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 143.—Maternity Allowances Paid in New South Wales, 1921 to 1940.

Year ended June.	Amount of Allowance.	Income Limit.	Confinements, excluding Still-births, (approximate).	Claims passed for Payment.	
				Number.	Amount.
1921 ... ..	£ 5	£ No limit.	No. 54,620	56,378	£ 281,890
1929 ... ..	5	„	53,310	54,275	271,375
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	47,190	31,086	145,495
1938 ... ..	{ 4½ to 5 4½ to 7½ }	{ 221 to 312 247 to 338 }	46,760	30,440	154,613
1939 ... ..	4½ to 7½	247 to 338	47,360	30,860	167,710
1940 ... ..	4½ to 7½	247 to 338	47,610	29,700	161,259

The maternity allowances paid in New South Wales up to 30th June, 1940, numbered 1,268,946 and the aggregate amount was £7,234,000 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, 1939, there were 211 centres, viz., 57 in the metropolitan area, 18 in the districts of Newcastle and Maitland, 4 in Broken Hill, and 132 in other country districts. During the year 1939 the attendances at the centres numbered 852,422, and the nurses made 72,597 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 the city for the use as baby health centres, day nurseries and free kindergartens, and conducts 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 and nursery schools have been established in the metropolis by the Sydney Day Nursery and Nursery Schools Association. Mothers who work outside their homes may leave their children at the nurseries during the daytime. Food, clothing and medical and dental care are provided. The charge is 6d. per day.

In the outlying country districts nurses engaged by the Bush Nursing Association at 46 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.

*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 21 medical officers, 18 dental officers, 12 nurses, 8 dental assistants, 2 psychologists and 2 social workers.

It is the aim of the School Medical Service that every child be examined at least twice during the period of compulsory school attendance. Metropolitan schools are inspected annually and country schools triennially. Oculists visit schools in outlying districts and carry out eye refractions, and prescribe glasses where necessary.

The following summary gives particulars of children medically examined during the years 1937 to 1939:—

TABLE 144.—School Children, Medical Inspections.

	1937.	1938.	1939.
Number examined .. .. .	48,973	45,669	81,493
Number reviewed .. .. .	20,845	23,497	24,249
Percentage of those examined notified for defects (medical and dental) .. .. .	40.0	37.4	39.2

School dental service is provided by 18 dental clinics. In addition to general examination, dental treatment is provided for young children and emergency work is done for children of all ages. The number of children treated during 1939 was 24,324, treatment being completed in 85 per cent. of the cases.

The expenditure on the school medical and dental services in 1939-40, exclusive of administration, was £36,973.

#### *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 Act, 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 10s. 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 Court during the year 1939:—

TABLE 145.—Wife and Child Desertion—Court Cases, 1939.

Cases.	Applications for Orders.			Non-compliance with Orders.		
	Order made.	Order refused.	Case with-drawn.	Order obeyed subse- quently.	Defend- ant im- prisoned.	Case with- drawn or dis- missed.
For maintenance—Wife ...	1,384	386	591	1,692	233	851
Child ...	598	64	105	758	109	352
For expenses incidental to birth of illegitimate child ...	129	15	16	30	3	10
Total ...	2,111	465	712	2,480	345	1,213

#### *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 was 1,112 during the year ended 30th June, 1939, and 952 in the following year.

*Children under State Supervision.*

The supervision of children under the care of the State in terms of the Child Welfare Act, 1939, is a function of the Department of Child Welfare, which is administered by the Minister for Education. A permanent officer of the Public Service of New South Wales is the Director of Child Welfare and the Governor may appoint an advisory council, with an officer of the department as secretary, to advise and report upon matters relevant to the work of the department.

Special provision is made under the Act (*a*) for State wards, viz., 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; (*b*) children in foster homes or other institutions; (*c*) children of necessitous parents; (*d*) truants and delinquent children; (*e*) children who are mentally defective. The Act contains provisions also for restricting the employment of children in street trading and in public entertainments.

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 146.—Children under State Supervision.

Classification.	1911.	1921.	1931.	1936.	1938 (June).	1939 (June).	1940. (June.)
State wards { Boarded out, ad- opted or appren- ticed ... .. In depots, homes or hostels ... .. Juvenile offenders in State in- stitutions or shelters ... .. Children boarded-out with own mothers ... .. In licensed foster homes ... .. In licensed institutions ... ..	4,677	5,439	5,054	4,057	3,876	3,643	3,475
			230	243	275	333	402
			1,069	607	597	679	589
	4,453	11,462	11,184	10,032	9,690	9,787	9,513
	559	290	382	295	295	195	167
	263	689	809	1,187	1,058	1,012	1,026
Total ... ..	9,952	17,880	18,668	16,421	15,791	15,649	15,172

These figures do not include the children on probation from the Children's Courts or institutions (who numbered 1,674 at 30th June, 1940), nor children licensed for employment in theatres or street trading under conditions which are described later.

The cost of the Child Welfare Department amounted to £455,592 during 1939-40. This figure does not include widow's pensions nor family allowances. The annual expenditure during the past five years is shown below:—

TABLE 147.—Child Welfare Department—Expenditure.

Year ended June.	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.
	£	£	£	£	£	£	£	£
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
1939 ...	87,143	244,915	40,323	90,586	15,504	478,471	20,838	457,633
1940 ...	76,848	244,822	43,629	97,371	14,533	477,203	21,611	455,592

\* Calendar year.

#### *State Wards.*

The Minister for Education is the guardian of State wards. His guardianship may be terminated when a ward attains the age of 18 years or may extend to age 21 years. Where practicable, State wards are boarded out with approved foster parents. 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 inspectors, and infants in the metropolitan area placed apart from their mothers, must be submitted to medical examination every fortnight during the first twelve months of life.

Payments by the State to foster parents for the maintenance of State wards do not usually extend beyond age 14 years when the wards are apprenticed or placed in employment. If necessary their weekly earnings are supplemented by the Department.

Child welfare homes are maintained for the accommodation of State wards pending boarding out or transfer, and for those who are ill or crippled. There is a training farm at Berry, where boys are trained for rural work, and a domestic training home for girls at Guildford.

#### *Relief of Children of Necessitous Parents.*

An important activity of the Child Welfare Department relates to the maintenance in their own homes of the children of necessitous parents. Allowances may be paid for the purpose to the mother or father who is widowed or deserted or whose spouse is incapacitated, in gaol or an old-age pensioner. Relief in this form is granted also for the children or adopted children of single women. As a general rule payment ceases when the child reaches the age of 14 years, but may be continued to 18 years if he is incapacitated or for other special reason.

The rate of contribution is 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, 1940, contributions were paid by the Department to 4,976 mothers for the support of 9,513 children.

#### *Children in Foster Homes.*

It is prescribed by the Child Welfare Act, 1939, that no person (other than a relation by blood) may receive a child under 7 years of age to be maintained apart from its mother or other parent in consideration of the payment of money otherwise than by way of periodical instalments. Moreover, no such instalment may be paid for more than four weeks in advance, nor exceed the sum of 50s. per week. This section of the Act does not apply to State wards boarded out by the Child Welfare Department, nor to institutions controlled or open to inspection by the State.

Places used for the reception of one or more children under 7 years of age apart from their parents must be licensed and the children must be registered with the Director of the Child Welfare Department. The number of foster homes licensed in 1939-40 was 100, and the number of children was 400. During the year 176 children were discharged to their parents, 8 were transferred to the control of the Child Welfare Department, 49 were removed from State supervision for other reasons, and 167 remained in the foster homes at the end of the year.

Since 1st December, 1939, it has been obligatory to obtain licenses for day nurseries and kindergartens.

#### *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.

In terms of the Child Welfare Act, 1939, the Minister is authorised to board out children to persons in charge of charitable homes or hostels, and to make payments in respect of such children at the rates paid to foster parents for the maintenance of State wards (see page 158). In the case of establishments in existence at 1st December, 1939, when the Act commenced, payment is limited to the number of inmates in excess of the average number during the period of two years immediately before this date.

At the end of the year 1938, there were 892 children in the State institutions under the control of the Child Welfare Department and 4,369 in institutions conducted by charitable organisations registered under the Charitable Collections Act, 1934. Particulars of the children in the various kinds of institutions are shown below:—

TABLE 148.—Children in Charitable Institutions, 1938.

Institutions.	Boys.	Girls.	Total.
State Institutions, Department of Child Welfare ... ..	696	196	892
Institutions of Registered Organisations—			
Infants' Homes ... ..	148	114	262
Orphans' Homes ... ..	644	909	1,553
Other Children's Homes ... ..	1,028	906	1,934
Homes for Deaf, Dumb and Blind ... ..	145	132	277
Benevolent Asylums and other Homes ... ..	283	60	343
Total Private Institutions ... ..	2,248	2,121	4,369
Total at 31st December, 1938 ... ..	2,944	2,317	5,261

#### *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. No child under the age of 8 years is held responsible for an offence, and the sentence of death may not be pronounced or recorded against a person under the age of 18 years.

The children brought before the courts are classified into groups, according to the special treatment they require, and a large number are released after admonition, or on probation, committal to an institution being a final resort.

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 supervises those released on probation by the Children's Courts.

The State institutions for delinquent boys are located at Mittagong, Gosford, Yanco and Broken Hill, 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 religious organisations. There is a hostel for the accommodation of former inmates of the girls' industrial schools when out of employment.

#### *Mentally-deficient Children.*

Homes have been established by the State for the care and training of mentally defective children whose cases call for segregation and special treatment. Children may be admitted upon certification by two medical practitioners, one being a medical officer of the Department of Education

and one a qualified psychiatrist. Inmates of the homes may be detained beyond the age of 18 years, or may be discharged by the Minister if further detention is not necessary, or they may be released upon license.

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 three public schools, and a residential school at Glenfield under the administration of the Department of Education. This school 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 and electricity supply systems.

#### *Employment of Children.*

In other chapters of this volume particulars are shown regarding the employment of children in factories and as apprentices. The employment of children in public theatrical performances, including broadcasting, and in street trading is regulated by the Child Welfare Act, 1939.

Theatre licenses may be issued in respect of children over 7 years, subject to such restrictions and conditions as the Minister may think fit. A license may not be granted authorising a child to be employed between the hours of 10 p.m. and 6 a.m., nor on Sundays.

Children under 16 years of age unless licensed may not be employed in street trading, *e.g.*, hawking, singing or performing for profit. Licenses may be issued to boys over the age of 15 years, and in special circumstances to boys between 14 and 15 years of age.

Particulars relating to the licenses issued during the last five years are shown below:—

TABLE 149.—Children's Licenses for Street Trading and Theatres.

Year ended June.	Theatre Licenses issued.	Street Trading Licenses Granted to Boys.		
		Under 14 years of age.	14 to 16 years of age.	Total.
1936*	710	1,103	551	1,654
1937*	650	1,432	461	1,893
1938	663	1,267	332	1,599
1939	510	1,610	524	2,134
1940	402	1,079	505	1,584

\* Calendar Year.

Licenses used to be issued to boys at ages 12 and 13 years but since 1st December, 1940, boys under 14 year have not been permitted to hold a license.

With few exceptions the street trading licenses were issued to newspaper vendors. These licenses were issued half-yearly, therefore the number issued each year was approximately double the number of boys licensed. The licenses current at 30th June, 1940, were 98 for theatres and 481 for street trading.

## CHARITABLE INSTITUTIONS AND SOCIETIES.

The State maintains four homes for the aged and infirm—three for men and one 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 infectious diseases is attached to the institution at Lidcombe.

The average number resident in the State asylums during the year 1939 was 3,138. The average cost per inmate was £54; receipts from various sources represented £10 18s. per inmate, so that the net cost to the State was £43 2s. In the hospitals attached to the three institutions 5,836 cases of illness were treated during 1939—males 4,604 and females 1,232—and at the end of the year 1,607 patients remained under treatment.

A number of societies are active in the matter of charitable relief; some conduct institutions such as homes for children and the aged; others supply 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.

Charitable societies as a general rule must be registered under the Charitable Collections Act, 1934, and it is not lawful for any person to make an appeal for support for any charity unless the charity is registered, or is exempted from registration, under the Act.

Registered charities must be administered by a responsible committee or other body consisting of not less than three persons; proper books of account must be kept and the accounts are subject to audit and inspection as prescribed. If the provisions of the Act are not observed the charity concerned may be removed from the register.

A summary of the receipts and expenditure of 542 registered charitable organisations for which returns were furnished in 1938-39 is shown below; particulars of State charities or charitable institutions or of hospitals registered under the Public Hospitals or Private Hospitals Act are not included.

TABLE 150.—Registered Charitable Organisations—Receipts and Expenditure, 1938-39.

Receipts.				Expenditure.			
				£			
State aid	...	...	36,315	Salaries and Wages	...	...	138,425
Public Subscriptions, etc.	...	...	276,814	Upkeep and Repair of Buildings	...	...	23,249
Fees	...	...	66,425	Other	...	...	303,182
Other	...	...	130,031				
Total Receipts	...	...	£509,585	Total Expenditure	...	...	£464,856

In 92 institutions conducted by registered charitable organisations there were 12,659 inmates under care in 1938, viz 1,140 men, 2,012 women and 9,507 children. Persons discharged during the year numbered 6,887 and there were 171 deaths. The number of inmates at the end of the year 1938 was 5,601 including 4,369 children, of whom particulars are shown in Table 148.

## PROTECTION OF ABORIGINALS.

The protection of the aboriginal natives of New South Wales is the function of the Aborigines Welfare Board which consists of the Under Secretary (*i.e.*, the permanent head) of the Chief Secretary's Department, as chairman, and nine other members including the Superintendent of Aborigines Welfare, an officer of the Department of Education and of the Department of Public Health, an expert in agriculture and an expert in sociology or anthropology.

The appointment of the Board in substitution for the Aborigines Protection Board was authorised by the Aborigines Protection (Amendment) Act, 1940.

The Board exercises general supervision over matters affecting the welfare of the aborigines, distributes the moneys appropriated by Parliament for their assistance, manages the reserves set apart in various localities for them, and provides for the custody and maintenance of aboriginal children under the age of eighteen years.

The Board may establish homes for children committed to their control, and may apprentice them or place them in other suitable employment. There is 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.

Family allowances and widows pensions are payable to aborigines and assistance in the form of food, clothing and medical treatment is supplied when necessary.

Particulars as to the number of aborigines in New South Wales are shown in the chapter "Population" of this Year Book.

The expenditure by the Aborigines Board during the year 1939-40 amounted to £81,758, including £62,586 for general maintenance, £4,676 for purchase of stores, £12,255 for educational purposes, and £2,241 for medical attention and other services.

## DISPOSAL OF THE DEAD BY CREMATION.

There are five crematoria in New South Wales—four in the metropolitan district and one in Newcastle; the first was opened in 1925.

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 1939 represented 15.4 per cent. of the total deaths in the State, as compared with 2.2 per cent. in 1929:—

TABLE 151.—Cremations, 1930 to 1939.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1930 ... ..	408	294	702	1935 ... ..	1,368	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
1934 ... ..	1,087	846	1,933	1939 ... ..	2,304	1,825	4,129

## 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. Since September, 1937, the limit has been £84 10s. per annum.

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 152.—Old Age and Invalid Pensions—Rates.

Date.	Maximum Rate of Pension Per annum.		Limit of Income (including pension) Per annum.
	£	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	39	0	71 10
	to		
	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 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 153.—Old Age and Invalid Pensions in New South Wales—1912 to 1940.

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
1931	12,814	38,093	57,029	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
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	11,004	36,891	47,861	84,662	20 0	19 3	4,242,290	31 2
1939	11,611	37,633	49,792	87,425	20 0	19 3	4,375,852	31 10
1940*	11,930	43,325	64,840	108,165*	20 0	19 3	5,417,022	38 11
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
1931	6,383	12,148	15,943	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
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
1939	7,087	17,630	24,257	41,887	20 0	19 5	2,110,238	15 5
1940*	7,352	11,731	14,875	26,606*	20 0	19 6	1,350,934	9 8

\* At 30th June, 1940, invalid pensioners qualified for old-age pensions were transferred to list of old-age pensioners.

At 30th June, 1940, the number of pensioners in public benevolent asylums in New South Wales was 1,282, and the annual liability for their pensions at the rate of 6s. or less per week was £19,999.

The old-age and the invalid pensioners in New South Wales as at 30th June, 1940, represented respectively 38.7 and 9.5 per 1,000 of population, as compared with 38.8 per 1,000 and 8.4 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, 1940, was £16,459,245, of which £16,250,064 were paid as pensions, including payments to pensioners in benevolent asylums and hospitals, and £209,181 to public benevolent asylums and hospitals for the maintenance of pensioners. In addition the cost of administration was approximately £130,000.

The amount of pensions, etc., paid in New South Wales during 1939-40 was £6,627,718, including £58,691 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 have been £1 per week for the widow and 10s. for each eligible child since the introduction of these pensions, except in the period dating from 1st February, 1933, to 6th October, 1937, when they were 17s. 6d. and 8s. 9d. respectively. Pension at maximum rates is paid if the widow's income does not exceed £39 per annum and it is reduced by £1 per annum for each £1 of income in excess of £39.

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. Sick pay or funeral benefit from any society, or insurance benefit on property damaged or destroyed is not assessed as income.

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 her children's pensions may be paid to their guardian.

\* School Leaving Age 14 years 4 months in 1941—see page 203.

The number of pensions granted and the amount of pensions paid during each of the last ten years are shown below:—

TABLE 154.—Widows' Pensions—1931 to 1940.

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
1938-39 ... ..	8,665	630,321	4 7
1939-40 ... ..	8,732	630,721	4 7

\* Estimated.

The number of original claims granted during 1939-40 was 1,342, the total number of pensions, including renewals, granted was 8,732, and the average amount authorised was £70 10s. 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.

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, 1940, was as follows:—

TABLE 155.—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 ... ..	25,671	2 1 4	76,462	1 19 11
Dependants of Deceased Soldiers ... ..	8,366	2 12 1	26,388	} 0 17 1
Dependants of Incapacitated Soldiers ... ..	43,310	0 11 1	134,027	
Total .. ..	77,347	1 5 8	236,877	1 4 6

At 30th June, 1940, there were 77,347 war pensions current in New South Wales, and the annual liability was estimated to be £2,570,015.

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, 1940, consisted of 4,287 to members of the forces at an average rate of £1 12s. 10d. per fortnight, and 1,620 to dependants or wives, average rate 18s. 7d. per fortnight. The annual liability was £152,690 approximately. The total number of service pensions in the Commonwealth was 14,000. A service pension is not granted where income or property exceeds a certain limit.

The amounts paid in New South Wales during 1939-40 were war pensions £2,618,564 and service pensions £148,599, the corresponding amounts paid in the Commonwealth being £7,682,246 and £472,263 respectively.

#### *Government Service Pensions.*

The 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.

The State Superannuation Fund for employees of the Government of New South Wales, other than the police and railway employees, was based originally 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, Sewerage and Drainage 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, 1940, were men £20 8s., and women for retirement at age 55 years £12 13s., or retirement at age 60 years £8 16s. 6d.

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 die before retirement.

The quinquennial valuation of the fund, as at 30th June, 1939, disclosed a surplus of 1½d. per £ of liability. In view of increased longevity, higher contributions were recommended for future units issued to existing contributors or new entrants.

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. Contribution is paid from the Road Transport and Traffic Fund in respect of the police engaged in traffic duties and the balance required to meet claims is appropriated annually from the Consolidated Revenue Fund.

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.

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.

Particulars of contributions, current pensions, receipts and expenditure of the State Superannuation Fund and the Police and Railways Superannuation Funds during the year ended 30th June, 1940, are summarized below:—

TABLE 156.—Government Service Pension Funds—1938-39.

Particulars.		State Superannuation Fund.	Police Superannuation and Reward Fund.	Government Railways Superannuation Fund.
Contributors, 30th June, 1940	No.	23,455	3,809	44,291
		Contribut'y.		
		Non-Contribut'y.		
Pensions current, 30th June, 1940—				
Officers—Men ... ..	„	2,374	265	884
„ Women ... ..	„	1,008	53	...
Widows ... ..	„	1,556	508	40
Children ... ..	„	332	1	2
Total ... ..	„	5,270	827	926
Amount per annum	£	525,496	*	637,935
Receipts—Year 1939-40—		£	£	£
Contributions—Employees ... ..	...	398,061	52,751	181,099
„ Employers ... ..	...	400,413	261,950	467,844
Interest on Investments ... ..	...	542,833	...	...
Other ... ..	...	383	24,033	6,957
Total Receipts ... ..	...	1,341,690	338,734	655,900
Expenditure—Year 1939-40—				
Pensions ... ..	...	460,522	325,436	609,022
Gratuities ... ..	...	.....	12,753	11,574
Refunds ... ..	...	47,924	...	32,669
Interest paid to Treasury... ..	...	84,825	...	...
Administration ... ..	...	16,679	...	...
Other ... ..	...	3,162	255	3,029
Total Expenditure... ..	...	613,112	338,444	656,294
Funds, 30th June, 1940	...	10,712,469	...	...

\*Not available.

† Payable from Consolidated Revenue or funds of corporate bodies.

Contributors to the State Superannuation Fund as at 30th June, 1940, numbered 23,455, consisting of 16,563 men and 4,214 women contributing for retirement at age 60 years and 2,678 women contributing for retirement at age 55 years. The contributory pensions in force numbered 5,270, including those in abeyance because the officers concerned had not yet retired though they had attained maturity age. Non-contributory pensions numbering 827 were payable also in respect of officers who were over the age of 60 years when the Superannuation Act was brought into operation. These pensions are paid from Consolidated Revenue or the funds of corporate bodies.

In addition to the pensions of which particulars are shown above, public service pensions were payable under the Civil Service Act, 1884, to 397 retired officers and to widows of 14 deceased officers at 30th June, 1940. The annual amount of these pensions was £117,844, including £4,458 payable by the Government of New South Wales and £18,134 by the Commonwealth

to 86 retired officers who had been transferred from State to Commonwealth Service. Special provision is made by the Government of New South Wales for pensions to judges and certain officers; the amount paid from Consolidated Revenue Fund in 1939-40 was £13,100.

Accumulated funds of the State Superannuation Fund amounted to £10,712,469 at 30th June, 1940, and the liability in respect of employers' contributions which are being repaid to the State Treasury was £2,290,860. Investments amounted to £12,576,535 including Commonwealth Government securities £4,403,788, securities guaranteed by the Government of New South Wales £1,104,563, money at fixed deposit in the State Treasury £600,000, and securities of local governing bodies £6,468,184.

Receipts of the Police Superannuation Fund in 1939-40 included £47,450 from the Road Transport and Traffic Fund and £214,500 transferred from Consolidated Revenue Fund. These amounts comprised the "contributions from employers" shown in the table.

Up to the 30th June, 1940, the total subsidy from the public revenues to the Railway Superannuation Fund was £4,049,611, of which £402,650 had been provided from Consolidated Revenue, £2,989,689 from the Government Railways Fund, and £657,272 from the Transport (Tramways) Fund. Since the inception of the Fund 12,035 superannuation allowances have been approved, 5,207 retired officers have died, 293 have been re-employed in the service, and 26 allowances have been written off the books.

In the Superannuation Fund for the Commonwealth Public Service as at 30th June, 1939, there were 40,249 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, 1940, in respect of 3,851 employees, including bonuses £289,669, was £2,530,769 or £657 per employee, and 644 employees were contributors to the Provident Fund, which amounted to £83,316 at 31st March, 1940.

#### 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 incomes in the twelve months preceding claim for endowment did not exceed the living wage, plus £13 for each dependent child (except one in each family).

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.

\* School Leaving Age 14 years 4 months in 1941—see page 203.

Illegitimate children are excluded except in special cases. 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. Changes in the living wages since the introduction of family allowances are shown in the chapter "Wages" of this Year Book.

The family income is defined as the combined income of the claimant, her spouse, and children under 14½ years. It includes 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 14½ 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.

As a general rule endowment is granted for a period of twelve months.

Particulars relating to claims for endowment granted and the amount of endowment paid during the last ten 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 157.—Family Endowment—Claims and Endowment Paid, 1931 to 1940.

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. 19 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
1938-39 ...	5,662	40,828	46,490	352	52,455	1,363,833	10 0
1939-40 ...	5,410	40,480	45,890	394	51,424	1,337,020	9 8

\* Quarterly periods in most cases.

† School Leaving Age 14 years 4 months in 1941—see page 203.



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 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, old age, industrial strife, etc., as 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 158.—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).†
		£ s.	£ s.	Weeks.
1931 ... ..	2.40	27 10	122 0	19.8
1932 ... ..	2.30	28 11	87 2	28.5
1933 ... ..	2.23	27 13	84 13	28.1
1934 ... ..	2.23	27 0	91 19	23.4
1935 ... ..	2.25	26 13	105 12	19.8
1936 ... ..	2.26	26 9	114 15	16.6
1937 ... ..	2.28	26 14	117 18	16.5
1938 ... ..	2.32	27 1	123 14	16.2
1939 ... ..	2.35	27 7	131 18	16.1
1940 ... ..	2.36	28 2	129 0	17.8

\*-Dependent children, except one, in each family. † Unemployment from all causes including illness, old age, etc.

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.

#### 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, 1939, there were 54 societies, including 21 miscellaneous; 16 possessed branches and 17 were classed as single societies.

The following summary shows the branches, membership, and funds of the societies as at 30th June, 1939. The miscellaneous societies had 72,760 members, but these are included in the membership of the friendly societies proper and they are not shown in the table.

TABLE 159.—Friendly Societies on Register, 1939.

Classification.	Societies.	Branches.	Members.	Funds.
Friendly Societies Proper—	No.	No.	No.	£
Affiliated ... ..	16	2,402	208,995	4,862,791
Single ... ..	17	.....	2,175	45,672
Miscellaneous Societies ... ..	33	2,402	211,170	4,908,463
	21	.....	*	113,822
Total ... ..	54	2,402	211,170	5,022,285

\* 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 in 1914, 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. During the next three years the membership increased slowly.

The membership at intervals since 1899 is shown in the following table:—

TABLE 160.—Friendly Societies, Membership, 1899 to 1939.

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*	89,634	6·5	1932	225,331	8·7
1911*	164,910	9·7	1937	208,979	7·8
1921	199,688	9·5	1938	212,136	7·8
1929	247,730	9·9	1939	211,170	7·6

\* At 31st December.

The number of members entitled to benefits was 199,329 in June, 1939. 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, 1939, consisted of 173,695 men, 16,964 women, and 20,511 juveniles, the total 211,170 being 6,544 above the number in June, 1935. As compared with the membership at 30th June, 1930, there were decreases of 31,368 men, 5,479 women, and 4,069 juveniles; the total decrease being 40,916.

Particulars of the membership in June of each year since 1930 are shown below.

TABLE 161.—Friendly Societies, Men, Women and Juvenile Members, 1930 to 1939.

At 30th June.	Membership.				Members eligible for Benefits.	
	Men.	Women.	Juveniles.	Total.	Number.	Proportion of Total.
1930 ... ..	205,063	22,443	24,580	252,086	226,133	per cent. 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
1938 ... ..	173,373	17,186	21,577	212,136	200,328	94·4
1939 ... ..	173,695	16,964	20,511	211,170	199,329	94·4

The number of members who received sick pay in 1938-39 was 52,342, viz., 47,923 men, 3,727 women and 692 juveniles; the aggregate period for which sick pay was allowed was 522,174 weeks.

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, 1939, twenty-one miscellaneous societies registered under the Friendly Societies Act. These organisations are medical institutions or dispensaries for the supply of medicine and in some cases, medical attendance, to those members of contributing branches of the ordinary friendly societies whose names have been placed on their lists.

The receipts of the miscellaneous societies during the twelve months ended 30th June, 1939, were £63,662, and the expenditure £57,706, so that there was an excess of receipts amounting to £5,956. The funds amounted to £113,822 at 30th June, 1939.

*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 amount of subvention which may be claimed in each year under existing arrangements 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 1938-39 amounted to £76,117. The total amount paid by the State in respect of claims to 30th June, 1939, was £1,433,327.

## NATIONAL INSURANCE.

Legislation was passed by the Commonwealth Parliament in 1938 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 indefinitely.

A description of the scheme was published in the chapter Social Condition of the 1937-38 edition of the Year Book.

## 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.

Private dwellings numbered 585,450 in 1933 and inmates 2,426,295. The dwellings contained on the average 4.94 rooms and 4.14 inmates or 0.84 per room.

Details regarding the size of dwellings, nature of occupancy, etc., are shown in the 1938-39 issue of the Year Book at page 184.

#### BUILDINGS.

Brick buildings predominate in Sydney 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, 1940, there were 722 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.

In December, 1937, the Housing Improvement Board was authorised to erect flats containing 56 dwellings in Erskineville. The dwellings were completed in December, 1938, and 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 162.—Buildings Completed in Sydney and Suburbs, 1910 to 1939.

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 ...	335	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	1939 ...	2,182	9,046	11,228

\* Not available. (a) Figures for 1929 and later years include municipalities added to metropolis in 1929 and 1933.

Building activity in Sydney in 1939 was maintained at the high level of the previous year, the value of the buildings completed being the highest since 1929.

*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. The following comparative statement shows the number of permits issued for new buildings and the estimated cost of these and of proposed additions and alterations; the figures relate to permits issued in calendar years. Particulars of Government buildings are not included as the councils do not issue permits in respect of them; particulars of Governmental contracts in 1939-40 are shown on page 180.

TABLE 163.—Building Permits, Calendar Years 1912 to 1939.

(Government buildings not included.)

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	5,704	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	2,061	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	11,086	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
1939	72	1,886	6,975	10,334	4,505	4,261	1,437	1,101	12,989	17,582

\* 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.

The suburban area was extended in 1929 and in 1933 to embrace additional municipalities, formerly grouped with country towns; in tables relating to building permits as shown in this chapter, 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.

Particulars regarding the estimated cost of building projects (as shown for calendar years in Table 163) are re-arranged below in twelve-monthly periods ended June, 1929 to 1940:—

TABLE 164.—Building Permits—Estimated Cost, years ended 30th June, 1929 to 1940.

(Government buildings not included.)

Year ended 30th June.	Sydney and Suburbs.			Country Towns.				Seven Shires adjacent to Metrop- olis.	Total of fore- going.
	City of Sydney.	Suburbs.	Total.	New- castle and Suburbs.	Wollon- gong- Port Kembla.	Other Towns.	Total.		
	£000	£000	£000	£000	£000	£000	£000	£000	£000
1929 ... ..	4,507	12,408	16,915	671	367	2,976	4,014	944	21,873
1930 ... ..	3,008	7,238	10,246	419	331	2,696	3,446	690	14,382
1931 ... ..	1,039	1,491	2,530	162	44	747	943	280	3,753
1932 ... ..	225	791	1,019	75	23	476	574	190	1,783
1933 ... ..	837	1,433	2,270	105	39	895	1,089	256	3,565
1934 ... ..	803	3,330	4,142	239	144	1,263	1,646	384	6,172
1935 ... ..	1,774	5,856	7,630	441	256	1,981	2,678	514	10,822
1936 ... ..	2,339	7,046	9,385	866	311	2,567	3,744	593	13,722
1937 ... ..	2,156	8,018	10,174	919	639	2,785	4,343	643	15,165
1938 ... ..	2,859	10,260	13,119	787	1,084	3,210	5,081	1,002	19,202
1939 ... ..	2,798	10,535	13,333	884	752	3,218	4,854	1,099	19,286
1940 ... ..	1,517	9,920	11,437	882	475	1,549	3,906	1,146	16,489

Government buildings are not included in the foregoing figures. The value of contracts accepted during the year 1939-40 for the erection of buildings on behalf of the State or Commonwealth Government or semi-Governmental bodies was £2,590,000, viz., Sydney and suburbs, £1,053,000 and country £1,537,000.

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 £2,413,656, or 21 per cent. of the total estimated cost of all buildings in 1939-40 and 28 per cent. of the estimates for dwellings related to flats. The corresponding figures for country towns were £92,885, or 2½ per cent. and 3 per cent. respectively.



The classes of buildings for which permits were issued in the metropolis and country towns during 1939-40 are shown below:—

TABLE 165.—Building Permits, 1939-40—Class of Buildings.  
(Government buildings not included.)

Class of Building.	Sydney and Suburbs.		Country Towns.		Seven Shires adjacent to Metropolis.		Total of foregoing.	
	Permits new buildings.	Estimated cost, new and additions.	Permits new buildings.	Estimated cost, new and additions.	Permits new buildings.	Estimated cost, new and additions.	Permits new buildings.	Estimated cost, new and additions.
	No.	£	No.	£	No.	£	No.	£
Houses—								
Brick, concrete and stone	4,002	4,491,849	624	728,485	371	432,765	5,087	5,653,090
Fibro-cement and weatherboard	1,670	966,355	2,866	1,735,268	1,061	566,511	5,597	3,258,134
Hotels, guest houses, etc.	23	531,968	13	319,200	...	24,455	36	875,623
Flats, new	600	2,318,402	26	68,782	16	36,061	642	2,423,245
Conversions	...	95,254	...	24,103	...	250	...	119,607
Shops with dwellings	128	212,801	60	157,395	20	19,751	208	389,947
Total, dwellings	6,513	8,616,629	3,589	3,033,233	1,468	1,069,793	11,570	12,719,655
Shops only	100	257,572	95	153,243	14	10,230	209	421,045
Factories	109	1,040,733	42	141,904	2	5,580	153	1,188,217
Garages—Public	13	43,768	25	22,296	2	1,600	40	67,664
Private	...	90,386	...	47,693	...	13,881	...	151,960
Other buildings	168	1,388,070	272	507,386	17	45,429	457	1,940,885
Total, other buildings	390	2,820,529	434	872,522	35	76,720	859	3,769,771
Total, all permits	6,903	11,437,158	4,023	3,905,755	1,503	1,146,513	12,429	16,489,426

*New Dwellings—Sydney and Suburbs.*

The number of dwellings, including those added by the conversion of existing dwellings into flats, for which permits were issued in Sydney and suburbs in each year since 1929 is shown below:—

TABLE 166—Permits for New Dwellings, Sydney and Suburbs, 1929 to 1939.

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 therein.					
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	4,873	1,685	661	5,184	419	218	12,179	326	11,853
1939	4,211	1,661	632	3,751	338	176	10,137	315	9,822

Permits were issued in Sydney and suburbs during 1939 for 10,137 new dwellings, including 5,872 or 58 per cent. individual houses, 4,089 or 40 per cent. dwellings in flats and 176 attached to shops—the net increase after making allowance for dwellings demolished or converted into flats was 9,822.

The following statement indicates the estimated cost of new dwellings for which permits were issued in the metropolis in the years 1929 to 1939—as shown in the preceding table—also the cost of proposed alterations and additions to dwellings:—

TABLE 167.—Building Permits, Sydney and Suburbs, 1929 to 1939—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.				
1929	£000	£000	£000	£000	£000	£000	£000	£000
	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	5,198	858	3,257	118	236	9,667	681	10,348
1939	4,542	862	2,657	93	186	8,340	593	8,933

\* 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 168.—Building Permits, Sydney and Groups of Suburbs, 1935 to 1939.

(Government buildings not included.)

Year.	New Buildings.							Total, Metropolis.	Alterations and Additions.	Total, All Permits.
	City of Sydney.	Suburbs.								
		Inner Industrial.	Wawarra-Bankstown.	Inner Western.	Outer Western.	Northern.	Eastern.			
	£000	£000	£000	£000	£000	£000	£000	£000	£000	
	<i>Dwellings—Estimated Cost.</i>									
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
1939	401	326	1,821	699	371	2,539	2,090	8,247	686	8,933
	<i>Other Buildings—Estimated Cost.</i>									
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
1939	852	553	70	68	164	171	63	1,941	1,346	3,287
	<i>All Buildings—Estimated Cost.</i>									
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
1939	1,253	879	1,891	767	535	2,710	2,153	10,188	2,032	12,220

\* Not available.

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 in the eastern suburbs, viz., Woollahra, 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 £557,000 in 1939 and £1,788,000 in the four years 1936 to 1939.

*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 eleven years is shown below:—  
TABLE 169.—Permits for New Buildings—Country Towns, 1929 to 1939.

Year.	Individual Houses (inc., Hotels, etc.)		Blocks of Flats (new.)		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
1939	683	3,265	30	154	105	75	4,282	217	4,065

The number of new dwellings in country towns in each of the last five 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 170.—Building Permits, Country Towns—Cost of Dwellings, 1929 to 1939.

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.				
	£000.	£000.	£000.	£000.	£000.	£000.	£000.	£000.
1929	874	1,461	18	5	118	2,476	*	*
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	3,294	492	3,786
1939	872	1,756	123	22	117	2,890	501	3,391

\* 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 £830,000 in 1938 and £854,000 in 1939. In the area comprised by Wollongong, North and Central Illawarra the estimated cost was £1,116,000 in 1938 and £531,000 in 1939.

The estimated cost of the buildings for which permits were issued in various towns during the years 1929 to 1939 is shown below. This list is small, but the Statistical Register issued annually contains details for every town for which the returns are collected:—

TABLE 171.—Building Permits—Various Towns—1929 to 1939.  
(Government buildings not included.)

Year.	Newcastle and Suburbs.		Wollongong, and North and Central Illawarra.		Broken Hill.	Albury.	Goul- burn.	Lis- more.	Orange.	Tam- worth.	Wagga Wagga.
	New Dwell- ings.	Other.	New Dwell- ings.	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 ...	140	93	80	59	121	54	26	121	43	67	38
1931 ...	46	45	7	10	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 ...	532	248	648	468	305	192	77	148	82	110	148
1939 ...	634	220	453	78	159	86	52	138	73	63	212

The estimated cost of proposed buildings in Broken Hill in 1938 included £145,000 for a public hospital. The estimates for buildings in the Municipality of Holroyd (including the wards within the metropolitan district) amounted to £158,500 in 1939. Other towns in which the estimated cost exceeded £60,000 in 1939 were Grafton £82,000 (and South Grafton £19,000), Casino £73,000, Fairfield £72,000, Bathurst £62,000, and Yass £62,000.

*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 172.—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, " ...	486	187	673	1937, June ...	441	196	637
1926, " ...	486	208	694	1938, " ...	459	214	673
1927, " ...	479	215	694				

In recent years there have been substantial changes in qualities and types of internal fittings, contract labour has been introduced for certain sections of building construction and, since the outbreak of war, local materials have been substituted for imported. Therefore the estimates cannot be continued on the original basis, but endeavour is being made to obtain a new measure which will reflect building costs of current usage.

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.

*Advances for Homes—Rural Bank.*

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 Bank's valuation of 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 did 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 then being made by the Advances for Homes Department, up to 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 Scheme Agency, and at 30th June, 1940, there were 2,967 loans outstanding for a total sum of £157,439. The issue of the 10 per cent. supplementary advances was discontinued in 1937.

On 1st March, 1940, a plan was put into operation for assisting persons in the lower wage group to erect dwellings at moderate cost or to buy dwellings to be erected by the Bank on land purchased by it. Funds of the Bank were made available for loans up to 90 per cent. of the Bank's valuation of the land and dwelling, and a further 5 per cent. was provided from Government moneys through the Home Building Scheme Agency. Available funds being limited, advances were restricted to a maximum of £700. Applications were received for 749 advances amounting in the aggregate to £494,785, but none were admitted after 20th April, 1940.

Particulars of loans made by the Advances for Homes Department of the Rural Bank during the last ten years are shown below.

TABLE 173.—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.
1931	216	220,928	1936	1,665	1,131,889
1932	8	8,495	1937	1,100	854,214
1933	2	5,104	1938	928	818,579
1934	235	97,495	1939	682	513,554
1935	1,636	993,510	1940	696	456,266

The number of these loans outstanding at 30th June, 1940, was 24,083 for an aggregate of £11,589,140.

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 advances made to 30th June, 1940, numbered 13,561 for a total amount of £1,261,383. At that date 3,744 loans, amounting to £297,762, 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 724 at 30th June, 1940, and the amount outstanding was £369,583.

#### *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, 1939, was nearly 2,200. Of these, 619 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; and building materials were supplied for 1,568 homes to be erected by individual applicants, assisted by friends or local organisations. In addition, 1,377 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 5s. to 7s. per week, including interest at the rate of 2 per cent.

The expenditure to 31st December, 1939, amounted to £274,168, total commitments to £307,444 and repayments to £60,456.

*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, 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 secures 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. The rates of subscriptions depend on the term of the society. 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 1934-1940 on the recommendation of the advisory committee.

The Government also affords assistance to the societies to enable them to advance to members under certain conditions as much as 90 per cent. of the valuation of the security offered. 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.

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 30th September, 1940, there were in active operation with funds available for advances 177 societies with 19,284 members, and 252,335 shares had been allotted, viz., 120 metropolitan societies, 13,632 members, and 187,816 shares; and 57 country societies, 5,652 members and 64,519 shares. Particulars of the loans approved and advances made are as follows:—

TABLE 174.—Terminating Building Societies—Advances, 30th September, 1940.

Purpose of Loan.	Metropolitan Societies.				Country Societies.				Total.			
	Loans Approved.		Advances Made.		Loans Approved.		Advances Made.		Loans Approved.		Advances Made.	
	No.	Am'tnt.	No.	Am'tnt.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
Erection ...	5,705	£000	4,578	£000	2,925	£000	2,784	£000	8,630	£000	8,207	£000
Purchase ...	4,426	3,506	4,334	3,425	1,175	1,804	1,139	647	5,601	4,177	5,473	4,072
Discharge of mortgage ...	915	637	905	628	414	231	409	229	1,329	868	1,314	857
Alterations and Additions ...	108	28	102	27	174	36	168	35	282	64	270	62
Other ...	5	2	4	1	26	22	25	21	31	24	29	22
Total ...	11,159	8,751	10,768	8,345	4,714	2,854	4,525	2,701	15,873	11,605	15,293	11,046
Loans discharged	286	259	286	259	71	48	71	48	357	307	357	307
Net Total...	10,873	8,492	10,482	8,085	4,643	2,806	4,454	2,653	15,516	11,298	14,936	10,739



The average amount of loan for the erection or purchase of a home is about £800 in the metropolitan societies and £750 in all societies.

The details of advances contained in the foregoing table are exclusive of eleven country societies which conduct operations without Government guarantee.

#### *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, 1939, was £151,277. The income of the year 1938-39 was £19,028, including rents £18,264. Interest, administration and maintenance amounted to £14,014.

The Municipal Council of the City of Sydney controls four blocks of workmen's dwellings. They contain 160 dwellings, 5 shops with dwellings attached and 4 lockup shops. The total cost, including the land, was £138,728.

#### *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 14,521 applications had been approved up to 30th June, 1940, and 12,317 homes had been provided, viz., 6,630 houses by construction or assistance in construction, 4,267 by purchase and 1,420 by discharge of mortgages, etc. Loans in respect of 3,048 houses have been repaid.

The sums paid as instalments of principal and interest to 30th June, 1940, amounted to £7,880,691, and arrears of instalments at that date amounted to £293,858, or 3.59 per cent. of the total amount due.

#### COMMUNITY ADVANCEMENT AND SETTLEMENT SOCIETIES.

The Co-operation Act, 1923-1938, 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, 1940, thirty-two 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 two on the register at 30th June, 1940.

## 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 626 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 12,600 acres of public parks and reserves in metropolitan municipalities. This figure, representing more than 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 34,392 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 306,800 acres at 30th June, 1940; the area of permanent commons was about 37,000 acres, and 266,600 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, 1908-1939. 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, 1940, numbered 2,766, and the amount of fees received was £5,165.

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 Halls 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, the proportions being fixed for each year upon recommendation of the Theatres and Films Advisory Committee, in terms of the Cinematograph Films Act, 1935-1938. 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. An exhibitor's quota—12 per cent.—for British films has been fixed for the years ended June, 1940 and 1941.

By the amending law of 1938 exhibitors have been given the authority to reject 25 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, 1939, the licensed racecourses numbered 227, and the licenses issued in respect thereof numbered 252.

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 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 three of these racecourses, and 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.

A license for a racecourse may not 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, 1939, forty-seven grounds were licensed for greyhound racing—two 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. 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, 1940, the number of betting tickets issued to bookmakers was 19,366,000 and approximately 690,000 credit bets were recorded. The investments on totalisators during 1939-40 amounted to £1,908,066, and the tax was £102,508.

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.; it was increased to  $\frac{1}{2}$  per cent. as from 4th November, 1939. The amount collected during the year ended 30th June, 1940, was £80,441.

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. The tax amounted to £13,106 in the year 1939-40.

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, 1940, are shown below:—

TABLE 175.—State Lotteries, 1932 to 1940.

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
1939 ... ..	91	2,388,750	1,483,310	905,440	55,674
1940 ... ..	87	2,283,750	1,413,100	865,650	55,647

Up to 30th June, 1940, the number of lotteries filled was 697. Subscriptions to these amounted to £18,637,497, the prizes to £11,593,849 and the excess of subscriptions over prizes was £7,043,648. Administrative expenses and preliminary charges, such as salaries, office equipment and alterations to buildings amounted to £506,432. Minor receipts were £237 and the net amount credited to Consolidated Revenue Fund was £6,537,453.

#### 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 (except admissions to certain race meetings noted below):—  
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.

The entertainments tax did not apply to admissions to race meetings already subject to the racecourses admission tax (as described in the chapter Public Finance). At the end of the year 1937 the latter tax on admissions to horse racing in Sydney and Newcastle was repealed, and they became subject to the entertainments tax. The rate of tax on admissions to horse racing on metropolitan courses, the Newcastle racecourse, and admissions to other courses for which the charge is 9s. 4d. or over, is 2d. for every shilling, or part of a shilling, in excess of 1s.; and charges which do not exceed 1s. are exempt.

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.

A classification of admissions taxable under the Entertainments Tax Act during the years 1930 to 1939 is shown below. The figures for the years 1938 and 1939 are not comparable with those of earlier years by reason of the inclusion of admissions formerly taxable under the Racecourse Admission Tax Act.

TABLE 176.—Entertainments Tax—Admissions and Collections, 1930 to 1939.

Year.	Racing (except Greyhound 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
1938* ... ..	1,225,684	1,146,145	13,432,611	1,327,138	1,728,842	18,860,420
1939* ... ..	1,439,335	1,102,001	13,757,586	1,124,407	1,711,615	19,134,944
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
1938* ... ..	42,187	14,006	62,623	9,624	11,259	139,699
1939* ... ..	47,845	13,527	63,754	8,058	10,949	144,133

\* Inclusive of horse racing in Sydney and Newcastle.

The entertainments tax on racing (except greyhound racing) amounted to £47,845 in 1939, and entertainments tax amounting to £2,285 was paid on 414,397 admissions to country greyhound meetings. In addition, approximately £13,600 was paid as racecourse admission tax on admissions to greyhound meetings in the Metropolitan and Newcastle districts, so that the total tax on admissions to racing was about £63,700.

An analysis of the collections in each year, according to the charges for admission, as shown on page 195, indicates that taxable admissions are most numerous where the charge is less than 2s. The application of the entertainments tax to metropolitan and Newcastle race meetings in 1938 caused

a marked increase in taxable admissions at the higher charges. The majority of taxable admissions charged at 5s. or more are admissions to race meetings.

TABLE 177.—Entertainments Tax—Admissions According to Charges, 1930 to 1939.

Year.	Charges for Taxable Admissions (Entertainments Tax).						
	Over 1s. 6d. and under 2s.	2s.	Over 2s. to 2s. 6d.	Over 2s. 6d. to 3s.	Over 3s. to 5s.	Over 5s.	Total.
	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	269,721	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	16,406,701
1938* ...	7,865,363	2,045,818	4,085,435	1,672,822	2,212,884	978,098	18,860,420
1939* ...	8,110,399	1,822,135	4,170,975	1,793,443	2,282,517	955,475	19,134,944

\* Inclusive of horse racing in Sydney and Newcastle.

#### 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, 1939, are summarised below:—

TABLE 178.—Liquor Licenses—Operations of Reduction Board.

Licenses.	Publicans.	Australian Wine.
Number at 1st January, 1920 ... ..	2,539	441*
Terminated by order of Board ... ..	291	65
surrender to Board ... ..	199	15
expiration of licenses, etc. . . . .	72	16
	562	96
New licenses granted ... ..	60	3
Number at 31st December, 1939 ... ..	2,037	348

\* At 1st January, 1923.

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, 1940, amounted to £1,612,783, including interest earnings (to 31st December, 1927) £115,606. The payments were £1,304,412, including £882,160 as compensation, £172,252 for administration and £250,000 transferred to the Consolidated Revenue Fund of the State. The credit balance at 30th June, 1940, was £308,371.

Up to the end of the year 1939 compensation had been awarded in respect of 490 publicans' licenses terminated by order of the Board or by surrender thereto. The amount, £818,380, was distributed as follows:—Licensees, £280,976; owners of premises, £524,479; 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 179.—Liquor Licenses Issued, 1901 to 1939.

Licenses.	1901.	1911.	1921.	1931.	1936.	1938.	1939.
Publicans' ... ..	3,151	2,775	2,488	2,134	2,050	2,039	2,038
Additional Bar ... ..	...	118	153	263	257	287	304
Permits to Supply Liquor with Meals—(6 p.m. to 9 p.m.) ... ..	...	...	...	118	208	229	249
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	2,211	2,255
Packet ... ..	20	24	13	6	4	4	4
Australian Wine ... ..	675	522	450	300	351	348	348
Spirit Merchants' ... ..	225	198	244	241	229	230	228
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. For permits to supply liquor with meals between 6 p.m. to 9 p.m., publicans pay on a sliding scale according to the amount of their license fee.

The following statement shows the amount expended by licensees in the purchase of liquor in each year from 1923:—

TABLE 180.—Purchases of Liquor by Licensees, 1923 to 1939.

Year.	Purchases by Licensees.	Year.	Purchases by Licensees.	Year.	Purchases by Licensees.	Year.	Purchases by Licensees.
	£		£		£		£
1923	8,372,124	1928	10,260,317	1933	6,123,185	1938	9,359,378
1924	8,782,060	1929	10,410,456	1934	6,701,668	1939	9,793,965
1925	9,217,493	1930	7,717,587	1935	7,311,350		
1926	9,736,678	1931	6,169,172	1936	7,802,495		
1927	10,111,795	1932	6,064,659	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 181.—Liquor Licenses—Fees, 1935 to 1939.

License:	1935.	1936.	1937.	1938.	1939.
	£	£	£	£	£
<b>Fees assessed on purchases—</b>					
Publicans' ...	268,635	297,947	326,213	347,491	381,710
Club ...	3,132	3,274	3,609	3,776	3,716
Rlwy.Refreshment	1,186	1,386	1,446	1,394	1,539
Packet ...	21	25	21	18	21
Australian Wine ...	4,656	4,765	4,894	4,929	4,968
Spirit Merchants'	7,749	8,390	8,722	9,640	10,200
<b>Other fees—</b>					
Brewers' ...	293	225	254	250	250
Booth or Stand ...	4,611	5,225	5,326	5,400	5,318
Permits to supply liquor with meals.	573	724	827	980	1,059

### 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 bars of the 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 182.—Intoxicants—Consumption and Expenditure by Public, 1928 to 1939.

Year.	Quantity Purchased by Licensees.			Estimated Expenditure by the Public on Intoxicants.	
	Beer.	Wine.	Spirits.	Total.	Per Head 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 ...	28,881,000	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
1939 ...	35,379,000	1,640,351	883,618	16,620,000	6 0 11

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.

The following statement shows particulars of the cases of drunkenness and convictions in 1929, 1932 and the last five years:—

TABLE 183.—Drunkenness—Cases and Convictions, 1929 to 1939.

Particulars.	1929.	1932.	1935.	1936.	1937.	1938.	1939.
Persons charged—							
Males... ..	31,321	19,682	26,499	29,161	27,573	27,473	30,128
Females ... ..	2,498	2,133	1,951	2,222	2,099	2,137	2,344
Total ... ..	33,819	21,815	28,450	31,383	29,672	29,610	32,472
Discharged, Charge Withdrawn, etc.	683	305	627	1,086	2,021	2,429	67
Convicted—							
After Trial ...	21,099	15,721	16,632	16,982	17,418	16,965	17,293
Bail Forfeited ...	12,037	5,789	11,191	13,315	10,233	10,216	15,112
Total Convicted Males	30,689	19,415	25,959	28,186	25,768	25,400	30,066
,, ,, Females	2,447	2,095	1,864	2,111	1,883	1,781	2,339
Total ... ..	33,136	21,510	27,823	30,297	27,651	27,181	32,405
Per 1,000 of Popula- tion—Charged ...	13.51	8.46	10.75	11.76	11.01	10.88	11.81
Convicted	13.24	8.34	10.52	11.36	10.26	9.99	11.79

During the year 1939 the cases of drunkenness numbered 32,472, viz., 30,128 males and 2,344 females. Only 67 cases were withdrawn or discharged, and the number of convictions, 32,405, represented 11.8 per 1,000 of population—the highest ratio since 1929. It is a rule that cases of forfeiture of bail be counted as convictions but this has not been strictly observed in some years, notably in 1937 and 1938, when more than 2,000 cases were classified as withdrawn and the number of convictions, as shown in the table, is understated.

In addition to charges of drunkenness, to which the foregoing table relates, 812 persons, including 6 females, were charged with driving a motor vehicle while under the influence of intoxicating liquor or drug, and 696 males and 6 females were convicted.

#### *Treatment of Inebriates.*

An inebriate convicted of an offence of 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.

For the care and treatment of inebriates other than those convicted of an offence, State institutions may be established 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.

Inebriates are detained in some of the State Mental Hospitals, and the number under the supervision of the Inspector-General of Mental Hospitals at 30th June, 1940, was 79, viz., 53 men and 26 women. The number admitted for the first time during the year was 98, including 25 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 1939 was 23,139. 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 184.—Consumption of Tobacco, 1901 to 1940.

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
1931-32	5,214	96	1,641	6,951	2·03	·04	·64	2·71
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
1938-39	6,451	102	2,684	9,237	2·36	·04	·98	3·38
1939-40	6,398	93	2,592	9,083	2·31	·03	·94	3·28

\* Factory made.

The quantity of tobacco (including cigars and cigarettes) consumed in 1939-40 was 9,083,000 lb., and the average 3.3 lb. per head. The annual consumption per head declined by 27 per cent. during the four years ended 30th June, 1933, but it regained pre-depression level in 1937-38. It was somewhat greater in the following year and slightly lower in 1939-40.

The tobacco consumed in 1939-40 consisted of 8,986,000 lb. manufactured in Australia, principally from imported leaf, and 97,000 lb. manufactured

overseas. Almost all the ordinary tobacco, 97 per cent. of the cigars and 98 per cent. of the cigarettes, were made in Australia, 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.

#### 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 1935 to 1939:—

TABLE 185.—Licenses for Various Occupations.

Occupation.	1935.	1936.	1937.	1938.	1939.
Auctioneers—General ... ..	225	240	251	225	211
District ... ..	1,433	1,404	1,489	1,430	1,350
Billiard ... ..	405	375	352	261	247
Tobacco ... ..	21,458	21,466	22,255	22,563	23,139
Pawnbrokers ... ..	88	88	86	78	81
Hawkers and Pedlars ... ..	2,520	2,247	2,132	2,126	2,029
Collectors ... ..	2,342	2,255	2,130	2,250	2,422
Second-hand Dealers ... ..	1,386	1,338	1,299	1,295	1,299
Sunday Trading ... ..	11,875	11,750	12,347	12,319	12,730
Fishermen ... ..	3,172	3,171	2,541	2,762	2,635
Fishing Boats ... ..	1,803	1,943	1,641	1,807	1,777
Oyster Vendors ... ..	332	456	408	347	482
Pistol Licenses (ordinary) ... ..	14,566	14,531	12,475	11,704	12,163
„ (special), etc. ... ..	282	270	433	443	472
Pistol Dealers ... ..	67	57	57	50	49

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 142.

## 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 of employees are women, though there are few unions composed entirely of women. The employment of women in factories and shops is regulated 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. In matters relating to the guardianship of children, the mother has similar powers to those possessed by the father.

## RELIGION.

In New South Wales there is no established church, and freedom of worship is accorded to all religious denominations. The number of adherents of the principal religions, as recorded at the census of 1933, is shown in the 1938-39 issue of the Year Book.

## 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 6 and 14 years. The statutory period was 7 to 14 years between 1917 and 1939 and it was extended in December, 1939, to include children at age 6 years. It is being extended further by 4 months in each year 1941 to 1943, and the period will be 6 to 15 years in 1943.

Private schools are not endowed by the State, but with few exceptions are subject to State inspection. (See page 218.) 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.

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 trade 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 degree course in 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, agricultural 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. The State is divided into school districts and an inspector supervises the schools and teachers in each district.

#### *The Advisory Council on Education.*

The Advisory Council on Education with statutory authority in terms of the Public Instruction and University (Amendment) Act, 1936, reports on such matters connected with public education as may be referred to it by the Minister for Education and advises 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 represent trade unions of employees and one Roman Catholic schools.

#### *Board of Secondary School Studies.*

The Board of Secondary School Studies advises the Minister for Education on matters concerning secondary education, such as the courses of study and the conduct of examinations 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 head-mistress 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 authority over the staff or the management of the school.

District councils, composed of two representatives of each parents and citizens' association within the district, may be formed in proclaimed areas. They advise the Minister on certain school matters and assist in raising funds for the establishment of scholarships in State schools, and in the founding of central libraries, etc.

#### *Other Advisory Bodies in New South Wales.*

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.

#### *The Australian Education Council.*

The Australian Education Council is composed of the Ministers of Education of the various Australian States and has the power to co-opt the services of other Ministers if necessary, particularly the Ministers associated with the Department of Labour and Industry.

The Council is concerned with such matters as the development of education in Australia in co-ordination with employment and social welfare and the organisation of technical education with due regard to the requirements and absorptive capacity of industry.

There is associated with the Council a Standing Committee on Education composed of the Permanent Heads of the State Departments of Education and the Superintendents of Technical Education. The functions of the Committee are to report upon matters referred to it by the Council, to act as advisory body to the Commonwealth and State Governments and to co-operate with the Council for Scientific and Industrial Research and other bodies in research into the requirements of industry.

## 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 186.—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	*	*	*
Total ... ..	293,053	285,955	418,607	244,111	229,662	473,773
Proportion per cent. of Population receiving Instruction ...	21·6	17·4	19·8	18·5	17·9	18·2

\* 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 187.—Schools and Teaching Staffs, 1901 to 1939.

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
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
1938	3,283	746	4,029	5,734	5,934	11,668	790	2,955	3,745	15,413
1939	3,251	735	3,986	5,922	5,738	11,660	827	3,095	3,922	15,582

\* Including subsidised schools.

The number of teachers in public schools, as shown above, is exclusive of students in training, viz., 1,387 in 1939, of whom 597 were men. In the case of private schools, visiting or part-time teachers, viz., 331 men and 1,043 women in 1939, 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 1939 the number of men teachers was greater by 184 than the number of women. If teachers in subsidised schools (90 men and 484 women) be excluded the numbers in 1939 were 5,832 men and 5,254 women, the men outnumbering the women by 578.

In the private schools the proportion of men teachers has always been small, and in 1939 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 1939 were—evening continuation, about 3,500; schools for deaf mutes, etc., 275; private charitable, 1,459; free kindergarten, 1,129; technical colleges and trade schools, 37,264; and business colleges and shorthand schools with an average enrolment of 7,100.

TABLE 188.—Pupils at Public and Private Schools, 1901 to 1939.

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	163,699	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
1936	196,591	181,124	377,715	47,309	51,764	99,073	243,900	232,888	476,788
1937	193,080	177,142	370,222	47,741	51,724	99,465	240,821	228,866	469,687
1938	191,390	175,662	367,052	48,640	52,080	100,720	240,030	227,742	467,772
1939	189,627	173,507	363,134	48,078	51,568	99,646	237,705	225,075	462,780

† 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 469,000 during the period 1932 to 1937, and declined to 462,780 in 1939.

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, 4,500, and 8,000, so that the

number in 1939 was 331,700. For some years from 1939 the annual reduction in the number of children in this age group will be large unless the decline in births is offset by immigration, for which no allowance has been made in the foregoing figures. By an amending law which commenced in December, 1939, children aged 6 years are required to attend school; enrolment in past years has included a large proportion of children in this group.

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 approximately 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 and it was 78.5 per cent. in 1938 and 1939. Considering only the children for whom education was compulsory the proportion enrolled in State schools was 82.1 per cent. in 1921 and 80.4 per cent. in 1939.

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 191):—

TABLE 189.—Public and Private Schools—Proportionate Enrolment, 1921 to 1939.

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
1931 ... ..	80.8	19.2	82.5	17.5
1936 ... ..	79.2	20.8	81.2	18.8
1937 ... ..	78.8	21.2	80.8	19.2
1938 ... ..	78.5	21.5	80.4	19.6
1939 ... ..	78.5	21.5	80.4	19.6

#### CHILDREN RECEIVING EDUCATION.

It is probable that a considerable number of children between the ages of 7 and 14 years, when education was compulsory, were not enrolled in schools for the whole of those years, although they may have attended 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 190.—Public and Private Schools—Attendances of Scholars, 1911 to 1939.

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.
1911	203,385	160,776	79.0	*	52,122	per cent. *
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
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
1938	344,243	300,768	87.4	95,464	84,726	88.7
1939	341,605	294,628	86.2	96,405	83,843	87.0

\* 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 1939 was 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 207.

TABLE 191.—Age Distribution of Pupils, 1921 to 1939.

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	52,943	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
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
1938	50,855	278,080	38,117	367,052	16,376	67,687	16,657	100,720
1939	50,805	271,519	40,810	363,134	15,945	66,353	17,348	99,646

In 1939 there were enrolled 66,750 children below statutory school age, viz., 33,725 boys and 33,025 girls; and 58,158 were 14 years of age or over, of whom 31,943 were boys and 26,215 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. There were increases of 1,322 in 1938, and 2,693 in 1939, when the enrolment was 40,810.

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 17,348 in 1939, the highest yet recorded. The increase in the number of pupils at the older ages is in part a result of an increase in the number of births in 1920 and following years as compared with the number in the years 1915 to 1919.

The number of children under 7 years of age enrolled in public schools during the last ten years was lowest in 1932. Then it increased to 54,437 in 1935. During the following years there was a decline, and the enrolment in 1938 and 1939 was only 1,200 greater than in 1932. The number in private schools remained fairly steady at about 16,500 from 1932 to 1938, then declined below 16,000 in 1939.

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.

#### 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.

TABLE 192.—Religious Instruction in Public Schools, 1935 to 1939.

Denomination.	Number of Lessons.				
	1935.	1936.	1937.	1938.	1939.
Church of England ... ..	54,977	62,731	62,103	64,961	65,199
Roman Catholic ... ..	8,617	17,544	17,949	20,450	22,655
Presbyterian ... ..	19,308	22,524	22,825	24,346	25,481
Methodist ... ..	24,120	28,551	27,494	29,581	30,009
Other Denominations ... ..	15,904	18,855	17,495	19,828	19,955
Total ... ..	122,926	150,205	147,866	159,166	163,299

#### 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 188) 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 193.—Religions of Scholars, 1901 to 1939.

Year.	Public Schools— Denomination of Children Enrolled.					Children in Private Schools— Denomination of Schools.			
	Church of England.	Roman Catholic.	Presby- terian.	Methodist.	Other.	Church of England.	Roman Catholic.	Undenom- inational.	Other.
1901	109,876	31,054	23,511	24,971	21,176	3,966	41,486	13,546	1,899
1911	118,794	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	83,060	8,131	2,004
1929	210,286	39,614	47,232	49,447	24,751	6,097	73,848	7,521	3,124
1931	218,333	42,590	49,200	51,244	26,514	5,335	78,267	6,104	2,579
1936	213,216	41,202	47,043	49,295	26,959	5,159	84,095	6,303	3,516
1937	209,237	40,367	46,178	48,619	25,821	5,532	83,929	6,209	3,795
1938	207,805	40,372	45,223	47,901	25,651	5,507	84,856	6,347	4,010
1939	205,633	40,288	44,872	46,895	25,446	5,337	84,317	6,019	3,973

*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	5·4	1·3	16·0	1·6	0·7
1931	45·5	8·9	10·2	10·7	5·5	1·1	16·3	1·2	0·5
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
1938	44·4	8·6	9·7	10·2	5·5	1·2	18·1	1·4	0·9
1939	44·5	8·7	9·7	10·1	5·5	1·1	18·2	1·3	0·9

Of the total enrolment in State schools, children of the Church of England constituted 56.1 per cent. in 1921, and 56.6 per cent. in 1939. Children of the Roman Catholic faith attending State schools represented 11.3 per cent. in 1921 and 11.1 per cent. in 1939. 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 84.6 per cent. in 1939.

#### SCHOOL SAVINGS BANKS.

A system of school savings banks in connection with State schools was commenced in the year 1887 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, 1939, there were 2,847 school savings banks with 193,274 depositors, and in June, 1940, there were 2,856 banks and 179,377 depositors.

Deposits during 1939-40 amounted to £166,984 and withdrawals to £195,922; £4,233 was added as interest, and the balance to credit of accounts at 30th June was £314,717 in 1939 and £290,012 in 1940.

## 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 194.—Classification of State Schools.

Type of School.	Schools at end of year.					
	1881.	1901.	1921.	1931.	1938.	1939.
Primary Schools—						
Public (a) ... ..	1,009.	1,878	2,023.	2,032	1,958	1,949
Provisional ... ..	227	398	477	599	642	664
Half-time ... ..	83*	414	90	38	22	14
House-to-house and Travel- ling ... ..	...	17	3	1	1	1
Correspondence ... ..	...	...	4	1	1	1
Subsidised ... ..	...	...	546	486	614	574
Evening ... ..	33	34	...	...	...	...
Total—Primary ...	1,352	2,741	3,143	3,157	3,238	3,203
Secondary Schools—						
High ... ..	...	4	27	38	‡45	‡48
Intermediate High ... ..	...	...	25	51	48	44
District ... ..	...	...	13	6	5	5
Continuation Schools—						
Commercial ... ..	...	...	15	16	16	15
Junior Technical ... ..	...	...	26	32	25	25
Domestic ... ..	...	...	46	53	36	36
Evening ... ..	...	...	46	45	34	34
Rural Schools ... ..	...	...	...	14	15	15
Composite ... ..	58	113	57	461	444	472
Total—Secondary and Continuation Schools	58	117	255	719	668	694

\* Includes Third-time Schools.

† Excludes one annex in 1938 and 1939.

(a) Includes Schools of Reformatory and Industrial Institutions.

The number of individual schools at the end of 1939 was 3,285, 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.

Subsidies are paid under certain conditions as an aid towards boarding children with relations or friends in a township for the purpose of attending a central school. The amount expended for conveyance and boarding allowances during 1939 was £24,869.



*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 1939 there were 664 such schools in operation, with an enrolment of 11,686.

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 14 half-time schools at the end of 1939, and the number of pupils enrolled was 143. 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, 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 remuneration 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 rate is £33 and the maximum £120 per annum.

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 1939 was 574 with an enrolment of 4,240 and average attendance 3,791.

*Correspondence School.*

The Correspondence School with 157 teachers is located in Sydney for teaching children residing in various parts of the State who are unable to attend school.

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 six years. The enrolment in 1939 was 7,318 primary and 714 secondary pupils. In addition to teaching these children, leaflets were issued for primary education to subsidised schools and for post-primary education to small country schools.

Educational talks are broadcast each week from the Correspondence School.

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 later years is shown in the following statement. Particulars relating to evening continuation schools are not included, but are shown later.

TABLE 195.—State Schools—Pupils receiving Secondary Education, 1921 to 1939.

Year.	Secondary Schools.			Super-Primary Courses at Primary Schools.		
	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
1936 ... ..	189	60,866	52,476	562	4,723	4,252
1937 ... ..	190	63,141	54,561	487	3,879	3,212
1938 ... ..	191	64,790	55,487	444	3,864	3,240
1939 ... ..	188	66,973	60,333	472	5,184	4,270

The secondary schools consist of high, junior 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.

In the junior high schools the course extends over three years to the intermediate certificate examination only.

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 1939 there were 14 high schools in the metropolitan area (including a technical high school) and 34 in the country districts providing a full course of instruction. There were 44 intermediate high schools, of which 14 were in the metropolis.

The following particulars relate to high schools and intermediate high schools maintained by the State.

TABLE 196.—High Schools—Pupils and Teachers, 1901 to 1939.

Year.	High Schools.	Inter-mediate High Schools.	Teachers.			Pupils.		
						Enrolment.		Average Daily Attendance.
			M.	F.	Total.	Net.	Average Weekly.	
1901	4	...	16	11	27	676	526	489
1911	8	...	59	38	97	2,293	1,864	1,786
1921	27	25	349	299	648	14,247	12,199	11,253
1931	39	54	707	613	1,320	33,229	30,710	28,524
1936	43	50	850	567	1,417	35,187	31,997	29,443
1937	43	50	868	592	1,460	36,986	33,708	30,893
1938	46	48	913	573	1,486	38,352	35,131	31,986
1939	48	44	958	615	1,573	38,568	36,190	32,728

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. There was a decline during the two following years, but enrolment took an upward trend in 1935 and reached 38,568 in 1939, when it was 3,234 or 9 per cent. in excess of 1932.

There were five district schools in 1939. All were located in country towns. The teachers numbered 20; the net enrolment was 525 and the average attendance 392.

*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 provides 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, and the pupils may sit for the leaving certificate examination on completion of the course.

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 197.—Continuation Schools—Gross Enrolment, 1921 to 1939.

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	30	9,956	57	13,543	15	1,762
1931	16	3,395	32	11,313	53	14,963	14	1,864
1936	16	3,040	26	9,104	36	13,438	14	1,663
1937	16	2,788	26	9,419	36	13,887	14	1,676
1938	16	2,630	25	9,671	36	13,847	15	1,764
1939	15	2,332	25	10,271	36	13,955	15	1,847

The average attendance during 1939 was as follows:—Commercial 2,062, junior technical 9,096, domestic 12,248, rural 1,630.

#### *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 completed the primary course 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 1939 there were 34 evening continuation schools, viz., 13 junior technical and 13 commercial for boys and 8 domestic science for girls.

The following is the record of enrolment and attendance at evening continuation schools:—

TABLE 198.—Evening Continuation Schools, 1921 to 1939.

Year.	Commercial (Boys).		Junior Technical (Boys).		Domestic Science (Girls).		Total.	
	Average Weekly Enrolment	Average Attendance.	Average Weekly Enrolment	Average Attendance.	Average Weekly Enrolment	Average Attendance.	Average Weekly Enrolment	Average Attendance.
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
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
1938 ...	1,409	1,117	1,163	895	731	529	3,303	2,541
1939 ...	1,486	1,152	1,278	980	720	541	3,484	2,673

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 611 candidates who sat during 1939 for the Evening Continuation school examinations 431 or 70.5 per cent. were successful.

#### *Agricultural Education.*

There are three State agricultural high schools, viz., the McCaughey Memorial (750 acres) at Yanco in the Murrumbidgee Irrigation Area; the Hurlstone (395 acres) at Glenfield, 23 miles from Sydney and the Farrer Memorial, opened in 1939, at Nemingha, 7 miles from Tamworth. The schools at Yanco and Nemingha are mainly for resident pupils, and the Glenfield school is for day and resident pupils.

The course at these schools 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 science, agriculture or veterinary science at the University or may compete for scholarships at the Sydney Teachers' College. In December, 1939, there were 176 pupils at Yanco, 374 at Hurlstone and 70 at Nemingha.

Courses in agriculture are also given in 11 high schools and in 20 other State 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 1939 there were 352 clubs with 8,810 members, of whom 63 per cent. 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. There were eighteen such classes in operation at five centres in 1939, and 649 children were enrolled.

An Activity or Handicraft school was opened in 1936 for boys of average intelligence who have failed to make normal progress in their education through illness or interrupted schooling, and those whose interests are not in the direction of academic attainment. 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 161. Classes for children who are mentally backward are conducted also at three public schools.

#### *School Libraries.*

Libraries have been instituted throughout New South Wales, by Parents and Citizens' Associations for the use of school pupils. The library is usually established at a central post-primary school, and books may be borrowed by schools in the surrounding districts. The librarians are teachers who have been specially trained by the Public Library. These libraries are subsidised by the Department of Education and at the close of 1939 there were 41 district units in operation under the charge of 20 teacher librarians.

#### PRIVATE SCHOOLS.

The position of private schools in the education system of the State has been discussed at the beginning of this chapter.

Children of statutory school age 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 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 1939 was 898. Of these, 559 were certified for education of children of statutory school age, and 152 were certified for the instruction of children up to a specified age only. Under the Bursary Endowment Act 114 secondary schools were registered as efficient to provide the full secondary course; and 73 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 152) 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 schools 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 223; 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 234.

#### *Private Schools and Scholars.*

The following table shows particulars of the private schools of each denomination in 1938 and 1939, excluding charitable schools described on page 221.

TABLE 199.—Private Schools—Teachers and Scholars, 1938 and 1939.

Classification.	1938.				1939.			
	Schools.	Teachers.	Enrolment December Term.	Average Daily At- tendance.	Schools.	Teachers.	Enrolment December Term.	Average Daily At- tendance.
Udenominational ...	119	389	6,347	5,358	102	406	6,019	5,020
Roman Catholic ...	551	2,748	84,856	70,707	558	2,893	84,317	70,366
Church of England ...	46	362	5,507	4,980	47	369	5,337	4,845
Presbyterian ...	11	123	2,082	1,947	10	129	2,104	1,926
Methodist ...	5	68	1,049	975	5	69	1,050	970
Lutheran ...	3	3	86	78	3	2	63	52
Seventh Day Adventist ...	9	38	670	565	8	40	655	570
Theosophical ...	1	6	42	40	1	6	34	32
Christian Science ...	1	8	81	76	1	8	67	61
Total ...	746	3,745	100,720	84,726	735	3,922	99,646	83,842

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 1939 there were 90,630 day scholars and 9,016 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 200.—Private Schools—Secondary Pupils, 1922 to 1939.

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
1935	364	9,002	8,392	17,394
1936	374	9,153	9,543	18,696
1937	378	10,197	9,618	19,815
1938	378	10,659	10,223	20,882
1939	372	11,224	11,219	22,443

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 1939—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 1939 was 1,665.

The Kindergarten Union maintains in the city and suburbs 16 free kindergarten schools and playgrounds for children under statutory school age. In 1939 the enrolment was 1,589 and the average daily attendance was 829. 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 1939 there were 192 children in the institution.

Deaf mutes are trained also at two Roman Catholic institutions, one at Waratah for girls, with 34 inmates at the end of 1939, and the other established at Castle Hill, where 45 boys were enrolled; and there were 4 children at a Roman Catholic school for blind children at Homebush.

The total number of private charitable schools in 1939 was 35, and there were 148 teachers. The gross enrolment during the year was 3,552, and the average daily attendance 2,433. In December term there were 2,872 scholars on the roll, of whom 1,303 were under 7 years of age, 1,372 between 7 and 14 years, and 197 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 201.—Private Schools—Enrolment during December Term, 1911 to 1939.

Year.	Scholars on Roll during December Term.								
	Un-denominational.	Roman Catholic.	Church of England.	Presbyterian.	Methodist.	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
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
1938 ...	6,588†	86,238	5,622	2,082	1,049	670	86	81	102,416
1939 ...	6,245	85,761	5,444	2,104	1,050	655	63	67	101,389

\*Includes schools at private charitable institutions.

† Includes scholars at Theosophical school.

In undenominational schools there was a marked decline between 1911 and 1921 and during the following decade, but the number increased slightly between 1935 and 1938. The enrolment in Roman Catholic schools, which constitute the great majority of the private establishments, increased by 35.8 per cent. between 1921 and 1938. There was a decline in respect of nearly all groups of private schools in 1939.

#### 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. Until 1937 admission to secondary schools and super-primary courses was determined throughout the State upon the results of the primary final examination which was held at the end of the primary course. In 1938 this examination was replaced in country districts by a system of intelligence tests supplemented by assessment of the pupils' work in the sixth class. In the metropolitan and Newcastle districts a similar method of selection for admission to super-primary schools was adopted, but admission to high schools and other secondary schools is by competitive (high school entrance) examination.

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 1939:—

TABLE 202.—School Examinations, 1930 to 1939.

Year.	High School Entrance and Bursaries (at Primary Final).		Intermediate Certificate.		Leaving Certificate.	
	Candidates.	Passes.	Candidates.	Passes.	Candidates.	Passes.
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
1938 ... ..	† 8,070	† 5,886	15,723	12,802	3,284	2,443
1939 ... ..	† 9,273	† 6,178	16,728	13,593	3,744	2,902

† Sydney and Newcastle districts only.

The proportion of passes in 1939 was 81.3 per cent. of the candidates at the intermediate certificate examination and 77.5 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, 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 Sydney Technical College is situated at Ultimo and there are seven branch colleges and a tanning and leather dressing school in the suburbs. There are fully organised colleges at Newcastle, Wollongong and Broken Hill. Smaller colleges have been established in 15 country towns and there are branches of the Newcastle Technical College at Cessnock and West Maitland. Three mobile workshops provide instruction in engineering trades at 10 country centres and elementary instruction is provided in special subjects at various metropolitan and country localities, and by correspondence. The Technical College at Canberra (A.C.T.) is administered by the Superintendent of Technical Education of New South Wales.

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 and the higher trade courses an additional two years. Over forty different trade courses are provided and there are sheep and wool, and dressmaking, and other

special classes. Diploma courses in science and various branches of engineering may be taken at Sydney, Newcastle, Wollongong and Broken Hill, and other diploma courses at Sydney.

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 and the Institution of Engineers (Australia) as conferring professional status.

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 for one lesson per week.

Particulars of gross and net expenditure on technical education since 1931 are given below:—

TABLE 203.—Technical Education—Expenditure, 1931 to 1939.

Year.	Gross Expenditure.				Receipts.	Net Expenditure.
	On buildings and Sites, etc.		Other.	Total.		
	Revenue.	Loan.*				
	£	£	£	£	£	£
1931 ... ..	2,983	459	175,598	179,040	34,229	144,811
1932 ... ..	2,128	1,260	155,166	158,554	28,912	129,642
1933 ... ..	4,302	25,957	160,066	190,325	33,907	156,418
1934 ... ..	4,331	32,529	167,666	204,526	32,470	172,056
1935 ... ..	4,702	16,240	171,928	192,870	34,964	157,906
1936 ... ..	6,551	43,807	188,585	238,943	50,131	188,812
1937 ... ..	14,375	185,884	250,117	450,376	56,851	393,525
1938 ... ..	17,352	146,166	313,298	476,816	68,697	408,119
1939 ... ..	21,075	205,852	380,590	607,517	84,057	523,460

\* Includes amounts from the Unemployment Relief Fund.

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 the last three years included the cost of additional buildings in Newcastle and Sydney, and of a number of sites acquired for new technical schools.

Particulars of the classes, teachers and students at the technical colleges in each year from 1931 to 1939 are shown below:—

TABLE 204.—Technical Education—Teachers and Students, 1931 to 1939.

Year.	Number of Classes.	Lecturers and Teachers.	Total Enrolments.*	Individual Students.		
				Males.	Females.	Total.
1931 ... ..	747	576	33,345	10,060	5,092	15,152
1932 ... ..	766	518	34,197	9,928	5,621	15,549
1933 ... ..	775	554	36,174	11,235	5,867	17,102
1934 ... ..	778	580	39,014	12,415	6,149	18,564
1935 ... ..	789	633	43,129	13,306	6,653	19,959
1936 ... ..	802	672	46,759	14,695	6,669	21,364
1937 ... ..	840	848	57,173	18,416	7,772	26,188
1938 ... ..	866	1,062	73,254	22,739	8,126	30,865
1939 ... ..	1,060	1,195	90,339	27,403	9,861	37,264

\* Students being counted in each class.

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 1938 and 1939 there were successive increases of 4,677 and 6,399.

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 205.—Technical Colleges and Trade Schools—Ages of Students, 1929 to 1939.

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	1,398	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
1938 ... ..	632	1,749	3,059	3,241	2,366	2,087	1,598	8,007	22,739
1939 ... ..	741	1,701	3,260	3,606	3,456	2,582	2,117	9,940	27,403
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
1938 ... ..	650	1,155	1,112	992	658	532	410	2,617	8,126
1939 ... ..	893	1,404	1,488	1,329	1,014	608	450	2,675	9,861

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. Extra facilities to meet the growing demand for technical training were provided in 1936 and later years, and enrolments of boys aged 16 to 18 years increased from 5,719 in 1936 to 7,528 in 1937 and 10,322 in 1939. The increase in enrolments at older ages was stimulated also by the system of trainee apprenticeship, introduced in 1933 (see chapter Industrial Arbitration), and by the payment of subsidies to apprentices at ages 19 to 25 years—commenced at the end of 1937. Enrolments at ages 19 years and over numbered 5,338 in 1932, 8,731 in 1937 and 14,639 in 1939. The majority of the female students are under 19 years of age; the enrolments in this group numbered 3,428 in 1932, 3,708 in 1936 and 6,128 in 1939. Enrolments at ages 19 years and over were 2,193 in 1932, 2,961 in 1936 and 3,733 in 1939.

Individual students enrolled during 1939 numbered 37,264, and were distributed among various courses as follows:—Diploma, 1,491; diploma preparatory, 2,149; trades, 15,768; art, 1,424; women's handicrafts, 5,672; domestic arts, 1,298; correspondence, 2,049; sheep and wool, 1,440; commercial, 2,856; and other 3,117.

Particulars of the courses of study for which students were enrolled in 1929 and the last four years are as follows:—

TABLE 206.—Technical Colleges and Trade Schools—Enrolments and Courses of Study, 1929 to 1939.

Courses of Study.	Students Enrolled.*				
	1929.	1936.	1937.	1938.	1939.
Agriculture ... ..	22	32	31	59	139
Architecture ... ..	3,059	2,273	2,548	5,526	6,792
Chemistry, Biology and Geology ... ..	1,845	2,725	3,328	3,655	4,070
Domestic Science ... ..	1,183	612	680	1,000	2,337
Electrical Engineering ... ..	3,253	3,641	4,929	7,452	10,496
Mathematics and Languages ... ..	3,692	6,749	8,921	9,508	9,559
Optometry ... ..	...	...	...	...	139
Mechanical Engineering ... ..	4,400	5,705	8,580	14,994	21,867
Printing ... ..	652	593	736	834	670
Public Health, Engineering and Hygiene (formerly Sanitation)... ..	2,143	1,872	2,184	3,410	4,096
Sheep and Wool ... ..	917	1,551	2,387	2,584	2,304
Women's Handicrafts ... ..	6,222	10,416	11,737	12,450	13,524
Bootmaking... ..	101	111	162	184	236
Leather-dressing ... ..	44	85	63	78	84
Tailors' Cutting ... ..	55	63	72	79	110
Textile Technology... ..	...	...	...	70	48
Elocution ... ..	27	...	...	...	...
Art ... ..	3,839	6,392	6,291	5,759	6,386
Commercial ... ..	987	2,400	2,938	3,108	4,284
Bakery ... ..	124	147	159	169	252
Correspondence Courses ... ..	715	1,292	1,427	2,335	2,946
Total Enrolment* ... ..	33,280	46,759	57,173	73,254	90,339
Individual Students ... ..	15,253	21,364	26,188	30,865	37,264

\* Students counted in each class.

Enrolment is expanding in nearly all departments and the expansion since 1936 has been marked in the engineering, architecture, chemistry, mathematics, commercial, public health and domestic science departments.

*Technical Education Examinations.*

The following are particulars of examinations conducted under the technical education system during the last five years:—

TABLE 207.—Technical Education, Examinations.

Particulars.	1935.	1936.	1937.	1938.	1939.
Number Examined ... ..	27,237	31,613	45,128	58,173	62,137
Number of Passes ... ..	22,087	26,782	38,816	48,999	50,574
Percentage of Passes ... ..	81·1	84·7	86·0	84·2	81·4

The number of students examined and the number of successful students have increased in each year, but the proportion of passes declined in the last two years.

*Railways and Tramways Institutes.*

Classes for the technical, commercial and general education of railway employees are conducted by the Railways 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, 24,308 in 1939-40 embraces more than half the railway employees. Instruction is given in elementary railway principles and various subjects to the University matriculation standard. Correspondence courses are provided. The number of students was 8,041 in 1939-40. The institute possesses a library of 129,684 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 at 30th June, 1940, was 6,134, and 275 students were enrolled. There are 33,060 books in the library of the institute.

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, Social Studies, 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.

Residential colleges established within the University grounds 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.

An Act was passed in 1937, giving the Senate power to establish University Colleges outside the metropolitan area. The first college, the New England University College, was established at Armidale in 1938. Courses are available for the B.A. and B.Sc. degrees and for the first year in medicine, veterinary science, and agriculture.

#### 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 £381,332; the G. H. Bosch Fund, £239,329; the P. N. Russell Fund, £100,641; and the Fisher Estate, £42,498. 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 £1,169,571 on the 31st December, 1939.

The following statement shows the amounts derived from the principal sources of revenue, and the total expenditure during each year since 1935. Under the items are included sums received for capital expenditure on buildings, etc., and amounts from benefactors to establish new benefactions:—

TABLE 208.—University—Receipts and Expenditure, 1935 to 1939.

Year	Receipts.					Expenditure.	Private Endowment Funds—Credit Balance at end of Year. *
	Government Aid.	Fees.	Private Foundations.	Other Sources.	Total.		
	£	£	£	£	£	£	£
1935	57,050	74,640	68,920	5,300	205,910	201,342	1,295,764
1936	67,945	79,955	79,272	2,563	229,740	219,934	1,162,053
1937	69,738	84,915	68,618	3,028	226,299	375,375	1,160,799
1938	103,350	89,465	83,855	13,702	290,372	353,555	1,178,170
1939	110,350	94,792	81,007	22,301	290,550	274,771	1,169,571

\* Includes Retiring Allowances Fund.

Governmental aid represented nearly 38 per cent. of the total receipts in 1939, fees 33 per cent., and receipts from private foundations 28 per cent.

Salaries comprise the principal item of disbursements in each year. The total expenditure, inclusive of capital expenditure, in each year since 1935 was distributed as follows:—

TABLE 209.—University—Classification of Expenditure, 1935 to 1939.

Classification.	Expenditure.				
	1935.	1936.	1937.	1938.	1939.
	£	£	£	£	£
Salaries ... ..	158,764	172,548	178,534	200,787	209,530
Maintenance, Apparatus, etc.	32,238	32,886	37,600	45,913	44,062
Buildings and Grounds ...	3,341	6,799	151,039	87,519	11,871
Scholarships and Bursaries ...	7,000	7,053	7,625	8,349	8,685
Other ... ..	...	648	586	10,987	623
Total ... ..	201,342	219,934	375,375	353,555	274,771



The expenditure includes amounts expended on new buildings and on remodelling existing buildings, which amounted to £146,072 in 1937, £78,038 in 1938 and £2,397 in 1939.

The receipts and expenditure of the New England University College are not included in the foregoing tables. Expenditure amounted to £15,455, including salaries £5,959, in 1939; and receipts consisted of lecture fees, etc., £4,528, and Government aid £10,929.

#### *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; Divinity, 1 year, £11; Economics, 4 years, £102; Law, 4 years, £103; Medicine, 6 years, £269; 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, £167; Mining and Metallurgy, £181; Technology, £167; Aeronautical, £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; Social Studies, 2 years, £56; 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 1939, fees were remitted in respect of 1,111 students, including exhibitors, State and University bursars, teachers and students in training as teachers. A general service fee ranging from £1 5s. to £2 2s. 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 1939 was 16,921, made up as follows:—

TABLE 210.—University—Degrees Conferred.

Degree.	Number Conferred.		Degree.	Number Conferred.		Degree.	Number Conferred.	
	During 1939.	To end of 1939.		During 1939.	To end of 1939.		During 1939.	To end of 1939.
M.A. ...	17	750	M.D.S. ...	2	10	B.V.Sc. ...	27	198
B.A. ...	139	5,364	B.D.S. ...	27	379	B.Sc. Dom. ...	...	1
LL.D. ...	...	40	L.D.S. ...	...	30	D.Sc. Eng. ...	...	3
LL.B. ...	40	1,124	D.Sc. ...	3	50	M.E. ...	1	24
M.D. ...	2	99	M.Sc. ...	10	84	B.E. ...	35	950
M.B. ...	210	2,925	B.Sc. ...	62	1,499	M.Ec. ...	1	12
Ch. M. ...	2	1,679	D.Sc. Agr. ...	1	6	B.Ec. ...	63	574
M.S. ...	7	14	M.Sc. Agr. ...	...	5	B. Arch. ...	4	119
B.S. ...	185	802	B.Sc. Agr. ...	15	165			
D.D.Sc. ...	...	11	D.V.Sc., ...	...	4	Total ...	853	16,921

In 1939 the teaching staff of the University included 54 professors and 242 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 211.—University—Students in Attendance, 1921 to 1939.

Course.	1921.	1926.	1929.	1932.	1936.	1938*	1939.		
							Men.	Women.	Total.
Faculty—									
Arts ...	868	813	927	925	736	810	407	414	821
Law ...	328	288	260	279	310	287	276	15	291
Medicine ...	985	403	385	545	742	906	731	136	867
Science ...	220	217	237	366	314	312	195	157	352
Engineering ...	224	124	131	171	150	187	216	...	216
Dentistry ...	82	59	65	78	106	140	150	7	157
Veterinary Science ...	16	10	33	49	144	134	137	16	153
Agriculture ...	28	25	35	56	50	70	67	9	76
Architecture ...	55	41	50	35	25	33	27	13	40
Economics ...	286	213	266	419	451	513	500	69	569
Pharmacy Students ...	204	243	130	149	170	158	105	27	132
Massage Students ...	21	11	27	38	23	30	...	42	42
	3,317	2,447	2,546	3,110	3,221	3,580	2,811	905	3,716
Less Students enrolled twice ...	42	25	26	19	15	30	8	3	11
Total, Individual Students ...	3,275	2,422	2,520	3,091	3,206	3,550	2,803	902	3,705

\* Revised since last issue.

In 1939 there were 2,506 men and 767 women studying for degrees, and the diploma students consisted of 133 men and 9 women; and there were 172 men and 129 women attending special courses and lectures in single subjects. There were also 134 post-graduate students, viz., 112 in the Faculty of Arts, 16 in Science, 5 in Medicine, 1 in Agriculture.

The number of students increased by 23 per cent. between 1929 and 1932, and by 20 per cent. between 1932 and 1939. In recent years there has been an increase in students studying dentistry, veterinary science and economics.

Students admitted to matriculation during 1939 numbered 804, as compared with 575 in 1921 and 573 in 1929.

#### *University Clinics.*

Three metropolitan hospitals, viz., Royal Prince Alfred, St. Vincent's and Sydney, 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. Lectures delivered in Sydney and 24 country towns during 1939 numbered 461.

#### *Tutorial Classes.*

The Senate has established regular evening tutorial classes, which are open to unmatriculated as well as to matriculated students. 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, and discussion groups have been estab-

lished in country centres under the direction of a full-time organising tutor. Reference is made to the Workers' Educational Association on page 239. A sum of £5,440 was expended upon the maintenance of tutorial classes during 1939.

#### 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.

At the Intermediate Certificate Examinations, 1939, which included pupils from Junior Technical, Commercial, and Domestic Science Schools, 93 scholarships were awarded. Twenty-two boys were given scholarships for lower trade courses at the Technical College, fourteen boys were awarded agricultural scholarships, one boy and fifteen girls were awarded commercial scholarships, and scholarships for art, domestic arts and women's handicrafts were awarded to 41 girls. At the Leaving Certificate Examination scholarships were awarded to 41 boys and 15 girls for courses at Technical Colleges; in addition, 200 exhibitions were provided exempting the holders from the payment of fees to the University, viz., 145 pupils of State schools, and 55 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 approved 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 and accepted in 1939 (to commence in the following year) were as follows:—296, tenable for five years—190 at State high schools and 106 at private schools; 8 for two years in pre-apprenticeship (technical) classes; 56 to boys and 39 to girls, upon results of the Intermediate Certificate examination, tenable for two years; 5 for diploma courses in technical colleges; and 24 to boys and 10 to girls tenable at the University of Sydney.

The bursaries tenable at the University are awarded at the Leaving Certificate examinations to candidates under 19 years of age, whose parents' means are inadequate for the expense of a University education.

The number of pupils holding bursaries at 30th June, 1940, was 1,418, viz., 1,277 attending courses of secondary education, 24 at technical colleges and 117 at the University. These numbers are exclusive of 168 war bursaries.

The annual monetary allowances payable to bursars in terms of the Bursary Endowment Act in 1939 and 1940 were as follows:—

TABLE 212.—Bursary Endowment Act—Bursars.

Rate of Annual Allowance.	Number of Bursars.		Rate of Annual Allowance.	Number of Bursars.	
	1939.	1940.		1939.	1940.
Under £10	...	1	£45 and under £55. £75	78	100
£10 and under £15	591	619		39	41
£15 „ £25	3	4	Total ... ..	1,247	1,418
£25 „ £35	250	333			
£35 „ £45	286	320			

Bursars attending courses of secondary instruction and those following University courses are allotted grants for text-books. The maximum amounts are:—Secondary bursars in the first, second and third years 30s. per annum and in the fourth and fifth years 50s. per annum; and University bursars £5 per annum.

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, 1940, was 168, each bursar receiving £10 per annum. The total number awarded since they were initiated in 1916 was 2,929.

The war bursaries are awarded usually to children between 11 and 13 years of age. On reaching the latter age, the children of deceased or totally and permanently incapacitated soldiers whose death or incapacity has been due to war service may be assisted by the Repatriation Commission under the Soldiers' Children Education scheme. In New South Wales 7,816 applications for assistance had been approved to 30th June, 1940, and £784,617 had been expended. The expenditure has been met from the funds of the Commonwealth Government.

For the education of the children of deceased 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, 1940, the number of such bursaries awarded was 85.

#### 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.

Women students, living away from home, are required to reside in a hostel unless given special exemption. In 1939 the teaching staff included the principal, vice-principal, warden of women students, 43 lecturers and 4 visiting lecturers. There were 1,122 students enrolled during the year, of whom 69 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 1939 included the principal, vice-principal, warden of women students, 18 lecturers, and 8 visiting lecturers. There were 402 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.

Particulars of students enrolled at the Teachers' Colleges during 1939 are shown in the following statement:—

TABLE 213.—Teachers' Colleges, Sydney and Armidale—Students, 1939.

Students.	Men.	Women.	Total.
First year ... ..	228	294	522
Second year ... ..	388	432	820
Third year ... ..	36	57	93
Fourth year ... ..	32	45	77
Private ... ..	..	12	12
Total ... ..	684	840	1,524

During the year 242 students of the Teachers' Colleges, including 136 women, attended University courses, viz., Arts 147, Science 78, Economics 9, and Agriculture 8. In these were included 37 students of the Armidale Teachers' College, viz., 31 in Arts and 6 in Science at the New England University College.

The libraries at the Teachers' Colleges contained 59,020 volumes in 1939.

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 1929 and 1939 is shown below; those in the Technical Education Branch are not included.

TABLE 214.—State Schools—Classification of Teachers, 1929 and 1939.

Teachers.	1929.			1939.		
	Men.	Women.	Total.	Men.	Women.	Total.
High School Teachers ...	596	525	1,121	958	615	1,573
Principals and Assistants—						
First Class ...	483	147	630	551	143	694
Second Class ...	1,385	1,246	2,631	2,202	1,863	4,070
Third Class ...	1,219	1,723	2,947	1,139	1,186	2,325
Unclassified ...	182	445	627	72	180	252
Awaiting Classification ...	453	747	1,200	422	433	857
Cookery Teachers ...	...	156	156	...	195	195
Sewing Mistresses ...	...	222	222	...	189	189
Manual Training Teachers ...	204	...	204	294	...	294
Visiting Teachers ...	3	52	55	51	88	139
Temporary Teachers ...	40	671	711	40	259	299
Teachers on Leave and Exchange ...	17	28	45	103	96	199
Total ...	4,582	5,967	10,549	5,832	5,254	11,086
Subsidised School Teachers ...	42	401	443	90	434	574
Students in Training ...	614	924	1,538	597	790	1,387
Grand Total ...	5,238	7,292	12,530	6,519	6,528	13,047

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 1939 there were 1,967 University graduates in the teaching service, viz., 1,156 men and 811 women, whereas there were only 1,234 in 1929.

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 less than 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, 1939, the services of 989 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 215.—Expenditure on State Schools, 1901 to 1939.

Year.	Average Weekly Enrolment.*	Expenditure.			Per Pupil—Average Weekly Enrolment.		
		Maintenance and Administration.	School Premises.	Total.	Maintenance and Administration.	School Premises.	Total Expenditure.
1901 ...	212,725†	£ 703,974	£ 57,663	£ 761,637	£ s. d. 3 6 2	£ s. d. 0 5 5	£ s. d. 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 ...	371,842	3,823,684	415,379	4,239,063	10 5 8	1 2 4	11 8 0
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	377,403	4,019,724	10 3 5	1 1 1	11 4 6
1937 ...	353,834	3,994,646	467,920	4,462,566	11 5 10	1 6 5	12 12 3
1938 ...	347,546	4,525,546	479,703	5,005,249	13 0 5	1 7 7	14 8 0
1939 ...	345,089	4,570,530	416,149	4,986,679	13 4 11	1 4 1	14 9 0

\* Inclusive of Evening Continuation Schools.

† Average quarterly enrolment.

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 1939 amounted to £4,986,679, or £14 9s. per pupil. Between 1935 and 1939 the expenditure on maintenance increased by £1,050,000.



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 216.—Dissection of Expenditure on State Schools, 1921 to 1939.

Particulars.	1921.	1931.	1936.	1938.	1939.
Sites, Buildings Additions*—	£	£	£	£	£
Primary Schools‡	173,781	145,012	62,163	116,818	81,820
High Schools ...	26,703	13,505	72,132	67,551	85,907
Teachers' Colleges ...	3,816	26,427	...	2,715	2,279
Rates (municipal and shire)†	36,376	69,625	42,428	31,272	27,836
Rent, Furniture and Repairs ...	89,120	160,810	200,680	261,347	218,307
Salaries and Allowances—					
Primary Schools‡	2,446,638	2,736,554	2,651,470	3,211,064	3,150,839
High Schools ...	200,028	465,767	523,807	678,472	718,580
Evening Continuation Schools..	12,190	16,826	11,034	11,499	11,348
Other Maintenance Expenditure—					
Primary Schools‡	188,975	202,755	180,057	226,227	242,882
High Schools ...	27,314	37,470	41,727	55,287	58,243
Evening Continuation Schools...	1,541	1,219	624	634	617
Bursaries and Scholarships ...	58,285	39,237	18,710	22,402	34,172
Boarding and Conveyance Allowances	36,149	53,332	20,530	22,286	24,869
Training of Teachers ...	98,537	135,503	64,994	133,761	133,581
School Medical Inspection ...	22,197	21,593	20,516	31,200	35,751
School Inspection ...	47,971	113,428	108,852	132,714	159,648
Administration and other Expenses	89,216				
Total... ..	£ 3,558,837	4,239,063	4,019,724	5,005,249	4,986,679

\* 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 £50,343 in 1939. 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, 1940, was £2,645,687, the expenditure in each year being as follows:—

TABLE 217.—Capital Expenditure on State Schools, 1931 to 1940.

Year ended 30th June.	Amount.	Year ended 30th June.	Amount.
	£		£
1931	335,647	1936	229,704
1932	91,438	1937	220,985
1933	135,824	1938	374,720
1934	238,041	1939	422,287
1935	216,294	1940	380,747

This expenditure was met from loan funds with the exception of £180,275 in 1931 and £48,314 in 1932 and £1,408 in 1939-40 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 218.—Public Expenditure on Education, 1911 to 1940.

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
1936	243,252	4,227,154	4,470,406	1 13 8
1937	221,508	4,444,926	4,666,434	1 14 10
1938	375,061	5,086,794	5,461,855	2 0 4
1939	426,177	5,328,966	5,755,143	2 2 1
1940	415,388	5,338,106	5,753,494	2 1 7

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 on loan moneys expended on 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, discussion groups, study circles, summer and holiday schools and public lectures. In 1939, the membership of the association consisted of 585 individual members and 45 organisations other than tutorial classes affiliated with it.

In 1939 seventy-two tutorial classes were held, viz., 15 at the University, 28 in the city and suburbs, 16 in the Newcastle district and 13 in other country districts. The number of students enrolled was 2,657, and the effective enrolment was 1,993. Sixty discussion groups were organised in various centres during the year.

The income of the association in 1939 was £2,356, including an endowment of £750 from the State, a grant of £150 from the University, and subscriptions and fees amounting to £722.

## 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 holder 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 opera and stage training for talented young singers.

The number of students enrolled in the various courses of study at the Conservatorium was 1,167 in 1939, as compared with 1,410 in 1929 and 937 in 1932. Nine students gained the diploma in 1939. Receipts in 1939 consisted of fees, proceeds from concerts, etc., amounting to £25,044 and the expenditure was £33,468.

## 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, 1940, amounted to £499,522, 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 29,957 volumes at 31st December, 1939, is attached to the institution. Lectures and gallery demonstrations are given in the Museum and are open to the public. During the

year 1939 visitors to the Museum numbered 219,400; as compared with 209,400 in 1938. The expenditure was £21,457 in 1938 and £19,294 in 1939.

A Technological Museum has been established as an adjunct to the Sydney 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, Broken Hill 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 Dixson Gallery. In June, 1940, the General Reference Library contained 284,587 volumes, exclusive of pamphlets, and visitors numbered 193,800 on week days and 12,900 on Sundays during the year 1939-40. This library includes a Research Department, which made 589 researches during the year and added 16,546 references to its indexes. The Country Circulation Department contains 92,460 volumes. During the year 4,140 boxes and parcels were sent to rural schools, 541 boxes to agricultural bureaux, teachers' associations, mechanics' institutes and similar institutions, and 59,720 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, 1940, there were 138,308 volumes in the Mitchell Library, and visitors during 1939-40 numbered 40,000.

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, 1940, was £220,847, including £192,080 expended on the new building (incomplete) which contains the Mitchell Library, the Dixon Gallery and the Country Circulating Department. The expenditure on maintenance during 1939-40 was £27,427, including £2,601 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 54,100 volumes in 1939.

Maintenance costs during 1939 amounted to £13,804, including £1,672 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 29,957 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 28,543 text-books. In the libraries of the Teachers' Colleges there are 59,020 volumes; in libraries attached to State Schools, 559,150 volumes; and in the Fisher Library at the University 258,300 volumes.

The Parliamentary Library contains 87,115 books, and large numbers of volumes are in the libraries of the law courts and Government offices.

#### *Reorganisation of the Public Library Service.*

Following an investigation into the library services, the Libraries Act, 1939, was passed to make provision for 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. The Act, except clauses relating to Government subsidy, was proclaimed as from 1st June, 1940, but the reorganisation has been delayed on account of the war.

#### *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 £204,000 and the cost of the building to 30th June, 1940, was £95,896.

The number of paintings, etc., in the Gallery at the end of 1939 was 3,681, viz., 749 oil paintings, 506 water-colours, 1,261 black-and-white works, 207 statuary casts and bronzes, and 958 other works of art, and the total amount expended during the year in purchasing works of art was £913. Thirty-five works of art were acquired by purchase during the year and 60 works of art and a collection of jade and a collection of old English pewter by gift.

The total expenditure during 1939 amounted to £7,381, including salaries and wages £4,266. In 1938 expenditure amounted to £8,397, of which £4,294 was paid in salaries and wages.

The attendance at the National Art Gallery during 1939 was 143,220 on week-days and 83,940 on Sundays. Attendances in 1938 were 250,350 and 101,205 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, 180 pictures being so distributed during 1939; also 283 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 £400.

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, 1903-1939, 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. As a general rule 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 219.—Common Law Jurisdiction—Writs and Causes, 1935 to 1939.

Particulars.	1935.	1936.	1937.	1938.	1939.
Writs Issued ... ..	4,228	4,389	4,532	4,170	4,562
Judgments Signed ... ..	2,162	2,184	2,132	2,039	2,316
<b>Causes Tried—</b>					
Verdict for Plaintiff ... ..	202	198	210	250	143
"  Defendant ... ..	77	85	70	77	56
Jury Disagreed ... ..	1	1	4	4	...
Nonsuits ... ..	23	12	16	8	17
<b>Total ... ..</b>	<b>303</b>	<b>296</b>	<b>300</b>	<b>339</b>	<b>216</b>
<b>Causes—</b>					
Not proceeded with ... ..	237	241	333	209	290
Referred to Arbitration... ..	...	...	1	2	...
<b>Total Causes dealt with ... ..</b>	<b>540</b>	<b>537</b>	<b>634</b>	<b>550</b>	<b>506</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, 1940, included the following:—Decrees 70, orders on motions and petitions 1,351, orders by Judge in Chambers 239 and 2 orders by the Master in Equity. In 1938-39 89 decrees were made, 1,524 orders on motions and petitions, and 255 orders by Judge in Chambers.

#### *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 £1,241,868 at 30th June, 1940. The funds comprised mortgages £80,111 Commonwealth Government securities £866,805, fixed deposits £282,907 and cash £12,045. 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 £4,869 in 1939-40, and fees collected to £322.

*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 220.—Probate Jurisdiction—Number and Value of Estates, 1935 to 1939.

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.
		£		£		£
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
1939	6,815	27,092,409	2,949	2,606,813	9,764	29,699,222

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 221.—Divorces, Petitions and Decrees—1908 to 1939.

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
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
1939	1,973	1,454	1,510	8	7	5	397	301

\* Average per year.

The number of petitions for divorce, judicial separation or nullity of marriage, 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 1,595. After a decline to 1,303 in 1931, the upward trend was resumed and the number of petitions in 1939 was the highest yet recorded.

The number of petitions lodged with a suspension of fees or *in forma pauperis* during 1939 was 779; of which 702 were for divorce, 3 for nullity of marriage, 4 for judicial separation, and 70 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 222.—Divorces—Sex of Petitioners, 1930 to 1939.

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.
1930	396	555	951	1935	466	682	1,148
1931	440	647	1,087	1936	505	667	1,172
1932	362	508	870	1937	530	753	1,283
1933	429	607	1,036	1938	611	829	1,440
1934	451	654	1,105	1939	667	886	1,553

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 223.—Divorces—Grounds of Suit, 1935 to 1939.

Ground of Suit.	1935.	1936.	1937.	1938.	1939.
Adultery ... ..	256	267	284	309	348
Bigamy ... ..	11	9	6	9	3
Cruelty and Repeated Assaults ... ..	3	6	2	5	11
„ „ Habitual Drunkenness ... ..	11	8	11	10	16
Desertion ... ..	688	686	772	827	899
Habitual Drunkenness and Neglect to Support, or Neglect of Domestic Duties ... ..	16	15	12	16	17
Non-compliance with Order for Restitution of Conjugal Rights ... ..	141	160	172	252	242
Other ... ..	7	9	13	3	9
Total ... ..	1,133	1,160	1,272	1,431	1,545

In the 1,540 cases in which decrees for divorce were made absolute during 1939 the mean duration of marriage was as follows: Under 5 years, 89; 5-9 years, 420; 10-14 years, 457; 15-19 years, 264; 20-29 years, 259; 30-39 years, 49; and 40-49 years, 2. In the cases of 476 marriages there were no children; one child in 523 cases; two children, 296; three children, 137; four children, 57; and five or more children in 51 cases.

#### *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 1940, 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 224.—Higher Courts—Persons Charged and Convictions, 1911 to 1940.

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
1936	1,084	318	179	523	19	45	766	2·83
1937	977	354	126	443	18	36	623	2·32
1938	1,087	392	121	528	15	31	695	2·55
1939	1,173	369	188	577	29	10	804	2·94
1940	1,394	412	175	764	23	20	982	3·55

\* 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, 1940, males numbered 945 and females 37; and the proportion per 100,000 of each sex was males 67.8, females 2.7.

The following table shows the number of persons convicted for specific offences included in the foregoing statement:—

TABLE 225.—Higher Courts—Convictions for Certain Specific Offences, 1911 to 1940.

Offences.	Number of Offenders Convicted.				
	1911.	1921.	1930-31.	1938-39.	1939-40.
Murder ... ..	3	8	8	6	7
Attempted Murder and Shooting at with Intent	3	3	4	4	2
Manslaughter ... ..	4	13	1	4	5
Rape and other Offences against Females ...	29	21	44	50	48
Unnatural Offences ... ..	2	23	13	26	33
Abortion and Attempts to Procure ... ..	3	2	4	7	...
Bigamy and offences relating to Marriage ...	16	22	17	19	18
Assault ... ..	80	63	56	28	32
Burglary and Housebreaking ... ..	62	244	383	374	475
Robbery and Stealing from the Person ... ..	14	35	52	37	68
Stealing Horses, Cattle, Sheep ... ..	26	48	2	4	2
Embezzlement and Stealing by Servants ...	26	42	24	10	15
Larceny and Receiving ... ..	131	376	326	90	132
Fraud and False Pretences ... ..	38	80	72	30	38
Arson ... ..	...	1	7	6	3
Forgery, Uttering Forged Documents ... ..	41	44	29	19	16
Conspiracy ... ..	10	16	12	7	4
Perjury and Subornation .. ..	10	17	5	1	2

#### 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 ten District Court Judges and arrangements were made for sittings in sixty-three districts in 1939. 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 226.—District Courts—Transactions, 1935 to 1939.

Year.	Causes Tried:		Causes Discontinued or Settled without hearing.	Judgment for Plaintiff by Default, Confession, or Agreement.	Causes referred to Arbitration.	Total Suits disposed of.	Total Suits arising during Year.	Causes Pending and in Arrear.
	Verdict for Plaintiff.	Verdict for Defendant (including Nonsuit, etc.).						
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	10,085	4,145
1939	840	246	4,058	6,890	1	12,035	12,431	4,591

Of the causes tried during 1939, 153 were tried by jury and 933 without a jury. The amount of judgment for plaintiffs during the year was £393,156.

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, who is also 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 of New South Wales to determine questions arising under the Workers' Compensation Act. The Commission is a body corporate and consists of a chairman and two other members appointed from barristers of more than five years' standing. All have the same status,



salary, pension rights and tenure of office as District Court judges. Each judge 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, and under certain conditions, an acting judge.

The Commission may appoint qualified medical practitioners to be medical referees and may obtain medical reports from a referee or a medical board, consisting of two or more referees. A medical referee may be summoned to sit as medical assessor with the Commission.

For the purpose of conducting its proceedings the Commission has certain 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. The Commission is required to furnish workers and employers with information as to their rights and liabilities under the Workers' Compensation Act, and to endeavour to bring parties to agreement and to avoid litigation. No charge is made for these services. In practice 98 per cent. of claims for compensation are settled by agreement and not more than 2 per cent. are contested before the Commission.

The cost of the Commission's administration is borne by a fund for which contributions are levied, under statutory authority, on insurers who undertake the liability to pay compensation.

Further particulars relating to compensation are given 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 consolidated in the Industrial Arbitration Act, 1940.

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. By a further amendment in 1939 the Commission is authorised to fix the maximum prices for certain commodities where, by reason of the existence of monopolies or of certain contracts, agreements, understandings, or arrangements the prices of those commodities are regulated or controlled and are excessive.

There is a Conciliation Commissioner, appointed for a term of seven years, who is chairman of the Conciliation Committees which have been established for various industries on the recommendation of the Industrial Commission. The Conciliation Commissioner may sit with or without the members of the committee, and, if the members of the committee agree, or when sitting without the members of the committee, if the parties before him agree, he may make awards governing working conditions and fixing rates of pay in the industry for which the committee was established. 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.

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 227.—Small Debts Courts Transactions, 1935 to 1939.

Year.	Plaints entered.	Verdicts for Plaintiff.		Executions issued.	Garnishee Orders issued.
		Number.	Amount.		
1935	59,377	34,451	£ 346,268	8,257	7,031
1936	62,239	36,901	399,391	8,874	8,855
1937	64,741	35,658	345,241	9,292	10,301
1938	68,940	39,093	368,106	9,179	11,460
1939	78,970	45,300	426,429	10,664	13,544

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 11,460 in 1938, and 13,544 in 1939.

##### *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 Land 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 chairmen 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 Chairmen 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.

#### *Courts of Petty Sessions (Fair Rents Courts).*

The Fair Rents Act, 1939, which commenced on 1st December, 1939, provides that a lessor or lessee of a dwelling house, let at a weekly rental not exceeding £3 10s. or of a shop let at a weekly rental not exceeding £6 may apply to the nearest Court of Petty Sessions, held before a stipendiary or police magistrate, for a determination of a fair rent of the premises. The Act prescribes the manner in which such determination is to be made and jurisdiction is conferred on all Courts of Petty Sessions in the State except the court at the Water Police Office, Sydney. No costs are allowed in proceedings of this nature and the determination of the Court is final.

### 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, Ryde, Hornsby 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 260.

#### *Children's Courts.*

Children's Courts were established in 1905 to exercise jurisdiction under Acts subsequently consolidated by the Child Welfare Act, 1923. This Act was replaced by a new Act which was brought into operation on 1st December, 1939. 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 children and juveniles under 18 years of age and of offences committed by or against them to the exclusion of ordinary courts of law. Where practicable Children's courts are not held in ordinary court-rooms and at any hearing or trial persons not directly interested are excluded from the place of hearing. 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 228.—Courts of Petty Sessions and Children's Courts—Charges and Convictions, 1911 to 1939.

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.
					per cent.	per cent.	per cent.
1911	8,878	65,058	1,178	75,114	11·8	86·6	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
1935	23,017	110,135	1,748	134,900	17·1	81·6	1·3
1936	25,597	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
1939	16,207	126,353	2,288	144,848	11·2	87·2	1·6

Towards 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. Details shown in Table 183 indicate however that this rule has not always been strictly observed and that the total convictions and convictions for drunkenness, shown below, were understated in the years 1937 and 1938.

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 229.—Courts of Petty Sessions and Children's Courts—Convictions, 1911 to 1939.

Year.	Number of Convictions for Minor Offences.					
	Against the Person.	Against Property.	Against Good Order.		Other Offences.	Total Summary Convictions.
			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
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
1939	1,667	10,968	32,405	14,288	67,025	126,353
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
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
1939	0·61	3·99	11·85	5·20	24·30	45·95

There has been a marked increase 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 and transport regulations represent a very large proportion of the offences classified in this group, the number in 1939 being 42,181, as compared with 4,192 in 1921. During the same period, however, the number of registered motor vehicles has increased from 44,443 to 327,360. Excluding offences of this class, the number of convictions per 1,000 of population in 1939 was approximately the same as in 1921.

#### *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. An inquest is 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 1939, 24 persons were committed for trial by coroners on charges of murder, 29 for manslaughter and 12 for arson.

The coroners held inquiries into the origin of 85 fires in 1939, and found that 17 fires were accidental, 32 were caused wilfully, one was due to carelessness and in 35 cases the evidence was insufficient to indicate the origin.

#### 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 254 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. Both accused persons and the Crown 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. A judge, including the Chief Justice, is granted on retirement a pension according to his salary and length of service. The judge of the Land and Valuation Court is a puisne judge of the Supreme Court and each member of the Industrial Commission of New South Wales has the same status and rights as such judge.

*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. District Court judges 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 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. A judge may not engage in the practice of the legal profession.

*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, Ryde, Hornsby, 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, 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, 1939, there were approximately 37,500 Justices of the Peace in New South Wales, of whom 1,980 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.

TABLE 230.—Barristers and Solicitors, 1911 to 1939.

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
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
1939	285	1,118	647	1,765

The number of barristers at the end of 1939 included 28 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 37 certificated conveyancers.

Barristers are organised under the New South Wales Bar Association, 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, 1913-1939. 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 £100, 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 231.—Public Trust Office—Transactions, 1936 to 1940.

Particulars.	Year ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
Estates received for Administration ... ..	2,208	2,063	2,073	2,208	2,092
	£	£	£	£	£
Amount Received* ... ..	1,281,821	1,504,787	1,571,901	1,836,765	1,842,641
Amount Paid* ... ..	1,287,701	1,483,962	1,477,608	1,818,712	1,818,958
Commission and Fees† ... ..	49,710	57,272	68,079	73,251	70,534
Office Administration ... ..	44,961	56,494	62,656	66,298	69,677
Unclaimed Money—					
Paid into Treasury ... ..	19,399	7,246	9,757	4,867	3,891
Subsequently Claimed... ..	1,267	2,909	902	1,317	425
Values of Estates in active Administration ... ..	6,612,093	6,768,070	6,749,730	6,803,350	6,829,526

\* Trust Moneys.

† Office Revenue.

The cost of the administration of the Public Trust Office amounted to £69,677 in 1939-40.

\*59151—E

## 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 1939 was £205,011, of which £140,029 was collected by the Land Titles Branch, and £56,011 by the Deeds Branch.

## COURTS OF FEDERAL JURISDICTION.

By the Commonwealth Judiciary Act, 1903-1939, 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 by the Official Receiver or creditors. Stipendiary and police magistrates are appointed deputy registrars in country districts.

All sequestrated estates are vested in the Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties have relation to the conduct of a debtor, and the realisation and administration of his estate. He acts under the general authority of the Attorney-General and is controlled by the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement or composition etc., (Parts XI and XII of the Bankruptcy Act) is removed from or vacates his office, the Official Receiver assumes the position and completes the administration of the estate.

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, 1939, there were 128 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 516 police stations. The strength of the police force, including police women, cadets, trackers, etc., was 3,923 at 31st December, 1939. A classification is shown below.

TABLE 232.—Police, Classification at 31st December, 1939.

Classification.	Commissioner and Superintendents.	In-spectors.	Ser-geants.	Con-stables.	Other.	Total.
General ... ..	16	62	737	2,221	...	3,036
Criminal Investigation						
Branch ... ..	...	6	34	81	...	121
Others on detective work ...	...	...	54	170	...	224
Traffic ... ..	1	2	27	331	...	361
Water ... ..	...	...	5	18	...	23
<b>Total of Foregoing ...</b>	<b>17</b>	<b>70</b>	<b>857</b>	<b>2,821</b>	<b>...</b>	<b>3,765</b>
Cadets ... ..	...	...	...	...	128	128
Special Constables ... ..	...	...	...	6	...	6
Police Women ... ..	...	...	1	7	...	8
Matrons ... ..	...	...	...	...	4	4
Trackers ... ..	...	...	...	...	12	12
<b>Total ... ..</b>	<b>17</b>	<b>70</b>	<b>858</b>	<b>2,834</b>	<b>144</b>	<b>3,923</b>

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 233.—Police Force in relation to Population, 1901 to 1939.

Year.	Number of Police.*	Inhabitants to each Policeman.	Year.	Number of Police.*	Inhabitants to each Policeman.
1901	2,172	634	1936	3,614	742
1911	2,487	684	1937	3,713	730
1921	2,734	779	1938	3,692	741
1931	3,646	704	1939	3,765	736
1935	3,510	757			

\* Exclusive of Cadets, Special Constables, Police Women, Matrons and Trackers.

The strength of the police force has been increased by 1,031 men since 1921 and there is on the average about one police officer in New South Wales to every 736 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 361 traffic police and 345 in the criminal investigation branch and on detective work in 1939.

A comparative statement of the annual expenditure of the Police Department is shown below:—

TABLE 234.—Police Department—Annual Expenditure, 1911 to 1940.

Year ended 30th June—	Expenditure.*				Contribution from Consolidated Revenue 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
1939 ... ..	1,096,683	309,681	1,406,364	10 3	202,100
1940 ... ..	1,127,973	325,504	1,453,477	10 6	214,500

\* Exclusive of cost of Police Traffic Services in 1931-32 and later years; also certain items (amounting to £31,192 in 1939-40) which are charged to other departments.

The cost of police supervision and control of road transport and traffic in 1931-32 and later years is not included in the foregoing table. Expenditure for this purpose is paid out of proceeds of traffic license fees, etc., through funds administered by the Department of Road Transport. Thus an amount for police services, £289,115, and contribution to Police Superannuation, £44,100, were paid from the Road Transport and Traffic Fund in the year ended 30th June, 1939, and £307,625 and £47,450, respectively, in 1939-40.

## 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.

At 30th June, 1940, there were 19 gaols in New South Wales. Six were classed as principal gaols, 6 as minor, 4 as special establishments, and 3 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 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 235.—Prisons—Numbers of Prisoners, 1901 to 1940.

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
1931	12,731	8,863	1,264	10,127	4.0	1,628	63	1,691	6.6
1936	11,736	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
1939	10,636	7,642	753	8,395	3.1	1,314	50	1,364	4.9
1940	11,130	7,798	887	8,685	3.0	1,206	61	1,357	4.9

\* 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 1939-40 counted once each time received was 8,685, viz., males 7,798 and females 887, showing increases of 156 males and 134 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 1939-40 as compared with 8.6 in 1901, 4.5 in 1911, and 3.1 in 1921.

The number of distinct persons received into gaol under sentence in 1939-40 was 6,267 of whom 630 were women. The number was less by 879 than in the preceding year when 7,146 persons, including 638 females, were received.

Particulars of the sentences imposed on prisoners received into gaol during each of the last two years are as follows:—

TABLE 236.—Prisoners—Sentences, 1938-39 and 1939-40.

Sentences.	1938-39.	1939-40.
Not exceeding one week ... ..	4,178	4,218
Over one week and not exceeding one month ... ..	1,696	1,831
Over one month and not exceeding six months ... ..	1,462	1,493
Over six months and not exceeding one year ... ..	296	306
Over one year and not exceeding two years ... ..	214	240
Over two years and not exceeding five years ... ..	90	99
Over five years and not exceeding ten years ... ..	10	5
Over ten years ... ..	2	1
Governor's pleasure ... ..	1	1
Life ... ..	3	6
Death ... ..	4	4
Term not specified ... ..	439	481
Total ... ..	8,395	8,685

The sentences imposed on 68 per cent. of the male prisoners, and on 88 per cent. of the females received during 1939-40, did not exceed one month. Of the total number committed to gaol, 8,006, or 92 per cent., were received from police courts and 679, or 8 per cent., from higher courts. The number of persons committed to prison in default of payment of fines imposed was 5,479.

The daily average number of prisoners under sentence during the year ended 30th June, 1940, was 1,499, of whom 58 were females.

The prisoners remaining in gaol under sentence on 30th June, 1940, numbered 1,357, including 78 serving life sentences, and 106 who had been declared habitual criminals to be detained for an indefinite period. There are 8 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 seven executions—two in 1924, one in 1932-33, two in 1935-36, and one each in 1937-38 and 1939-40.

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.

Eighteen men were declared habitual criminals during the year ended 30th June, 1940. At 30th June, 1940, there were under detention 21 men who had not yet completed the definite period of their sentence, and 85 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 1939-40, the number of maintenance confinees received into gaol was 391, as compared with 364 during the year 1938-39. Gaol earnings to the amount of £1,635 were paid to dependants of confinees. One hundred and seventy-four confinees paid the amount of their order from gaol earnings and 70 partly from gaol earnings. The number in gaol on 30th June, 1940, was 46.

#### *Conduct of Prisoners.*

The conduct of prisoners during 1939-40 was satisfactory; 180 were punished, representing approximately 1 per cent. of the total. The number of offences, was 419, including 15 assaults on officers and 13 assaults on prisoners; in 143 cases no punishment was inflicted.

#### *Sickness and Mortality in Gaols.*

The medical statistics of prisons show that, with an average daily number of 1,499 inmates during 1939-40, the total number of cases of sickness treated in hospital was 820. Three prisoners died, and 24 were released on medical grounds. The death rate was 2 per 1,000 of the average number of inmates.

Cases of venereal diseases amongst prisoners are treated in lock hospitals as 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.

#### BIRTHPLACES, RELIGIONS, AND EDUCATION OF PRISONERS.

Of the prisoners under sentence on 30th June, 1940, 65 per cent. were natives of New South Wales, 18 per cent. were from other States of the Commonwealth, 8 per cent. came from the British Isles and the remainder were chiefly Europeans.

The distribution of prisoners serving sentences at 30th June, 1940, according to birthplace and religion, was as follows:—

TABLE 237.—Prisoners—Birthplaces and Religions, 1939-40.

Birthplace.	Males.			Females.			Total.		
	Males.	Females.	Total.	Religion.	Males.	Females.	Total.		
New South Wales ...	830	42	881	Church of England	483	22	505		
Other Australian States	236	11	247	Roman Catholic .	455	32	487		
New Zealand ...	28	2	30	Methodist... ..	43	1	44		
England and Wales ...	73	1	74	Presbyterian ..	55	6	61		
Scotland ... ..	23	2	30	Other Christian ..	64	...	64		
Ireland ... ..	9	...	9	Non-Christian ..	48	...	48		
Other British ...	43	1	44	No religion ...	148	...	148		
Foreign Countries ...	40	2	42	Total ... ..	1,296	61	1,357		
Total .. ..	1,296	61	1,357						

Forty-four prisoners were illiterate, and five 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 238.—First Offenders released on Probation, 1901 to 1939.

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	1936	1	342	343
1911	220	61	281	1937	...	423	423
1921	246	395	641	1938	1	571	572
1931*	1	703	704	1939	6	764	770

\* 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 recommitment to gaol for the balance of the sentence. Licenses under the Crimes Act were granted to 99 men and 6 women during the year ended 30th June, 1940.

## 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 239.—Cost of Administration of Justice, 1921 to 1940.

Expenditure and Revenue.	1920-21.	1930-31.	1937-38.	1938-39.	1939 40.
<b>Expenditure—</b>	£	£	£	£	£
<b>Law Administration—</b>					
Salaries, Pensions, etc., of Judges	59,106	63,903	80,319	81,324	85,607
Other ... ..	288,742	380,919	420,255	447,259	455,784
	347,848	444,822	500,574	528,583	541,391
<b>Police—</b>					
Administration, etc. ... ..	1,062,201	1,593,826	1,385,751	1,406,364	1,453,477
Payments to Pension Fund ... ..	80,000	190,800	219,800	202,100	214,500
	1,142,201	1,784,626	1,605,551	1,608,464	1,667,977
<b>Prisons .. .. .</b>	126,122*	215,809	193,069	200,573	205,777
<b>Total Expenditure ... ..</b>	1,616,171	2,445,257	2,299,194	2,337,520	2,415,145
<b>Revenue—</b>					
Fees ... ..	100,188	210,418	222,999	248,070	246,081
Fines and Forfeitures ... ..	45,303	62,503	68,907	73,601	80,851
Receipts by Prisons Department	212	15,029	8,465	7,215	13,274
<b>Total Revenue ... ..</b>	145,703	287,950	300,371	328,886	340,206
<b>Net Cost ... .. .</b>	1,470,468	2,157,307	1,998,823	2,008,734	2,074,939
<b>Expenditure per Head of Mean Population—</b>	s. d.	s. d.	s. d.	s. d.	s. d.
Law Administration ... ..	3 4	3 7	3 8	3 10	3 11
Police ... ..	10 11	14 3	11 10	11 9	12 1
Prisons ... ..	1 2	1 9	1 5	1 6	1 6
<b>Total Expenditure ... ..</b>	15 5	19 7	16 11	17 1	17 6
<b>Revenue ... ..</b>	1 5	2 4	2 2	2 5	2 6
<b>Net Cost ... .. .</b>	14 0	17 3	14 9	14 8	15 0

\* 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 cost of traffic services performed by the police is not included in the last three years.

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.

## COMMERCE.

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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 Commonwealth 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 Board 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 it 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 supervises 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. A number of specially trained officers examine the goods during the course of preparation or prior to exportation.

The distribution abroad of Australian butter and cheese, dried vine fruits, canned fruits, wine, meat, apples and pears is regulated by marketing organisations vested with statutory powers by the Federal Parliament.

The existence of these organisations at the outbreak of war ensured expeditious co-operation between the United Kingdom and the Commonwealth in matters relating to prices, finance, and other terms of sale for large quantities of Australian products. Additional bodies were set up later for wool, wheat, rabbitskins, hides and leather, poultry and eggs. Control of exports by the boards is exercised by means of licenses issued to exporters; particulars of their operations are published elsewhere in this volume.

For some primary products assistance has been given in the form of bounties on exports.

Trade representation abroad is conducted by Trade Commissioners who have been appointed for service in India and Ceylon, Egypt, China, Japan, the Netherlands East Indies, Canada, New Zealand and the United States of America. In London the work is undertaken by the High Commissioner for Australia, and there is an official representative of the Government of New South Wales.

#### CONTROL OF OVERSEA TRADE—WARTIME REGULATIONS.

Since the outbreak of war in September, 1939, various regulations have been promulgated under the Customs Act for the control of oversea trade. Most important of these are the Customs (Overseas Exchange) Regulations and the Customs (Import Licensing) Regulations.

The Customs (Overseas Exchange) Regulations, which are complementary to the National Security (Monetary Control) Regulations, provide that before the export of goods is permitted, traders must guarantee that the overseas exchange arising from sales abroad will be placed at the disposal

of the Commonwealth Bank. When this guarantee has been fulfilled the bank pays to the exporter an amount in Australian currency equivalent to the proceeds of the sale.

In order to avoid unnecessary inconvenience, regular exporters who make satisfactory arrangements with the Commonwealth Bank may obtain a special license for shipment of a particular commodity or group of commodities during a specified period. Exporters who send only occasional shipments abroad are required to obtain an ordinary license for each consignment.

The Customs (Import Licensing) Regulations are designed to ensure that the available supplies of overseas exchange are used to the best advantage in the national interest.

The restrictions imposed have been confined almost wholly to goods imported from non-sterling countries, and the following countries in which sterling can be used as a means of payment are in general exempted from licensing requirements, viz., (a) British Empire (including mandated territories), except Canada, Newfoundland and Hong Kong, and (b) Iraq, Egypt, and the Sudan.

Following the recent conclusion of a general monetary arrangement between the United Kingdom and the Netherlands, an arrangement has been made with the Government of the Netherlands East Indies whereby products of this country are admitted into Australia on the same basis as goods from the sterling area. In order to qualify for this concession, goods which are not typical national products of the Netherlands East Indies must be accompanied by a prescribed certificate of origin.

The importation of six classes of goods (including jute products, metal working machine tools, petroleum products, and tetraethyl lead) from all countries is prohibited except under license, and licenses are issued only to applicants approved by the Department of Supply and Development.

The import licensing system was introduced on 1st December, 1939, and the restrictions applicable to non-sterling countries have been progressively tightened since that date. Some classes of goods are subject to total prohibition; others are rationed as a proportion of the quantity or value of imports during the pre-war year 1938-39.

#### *Trading with the Enemy.*

As soon as a state of war is declared, trading with the enemy becomes an offence under common law, and on 6th September, 1939, a warning notice to that effect was published in the Commonwealth Gazette. The prohibition on trading with the enemy has since been given statutory force and machinery has been set up within the Department of Trade and Customs to ensure that all trade which might directly or indirectly benefit the enemy is cut off. This ban applies to all enemy countries and countries under their control, including Bohemia, Moravia, Slovakia, Danzig, Poland (excluding the region under Soviet control), Denmark (excluding Greenland and the Faroe Islands), Norway, Netherlands (excluding the Netherlands dependencies), Luxemburg, Belgium (excluding the Belgian Congo and Ruanda-Urundi), French territory in Europe (including Corsica), Algeria, and the French Zone of Morocco and Tunisia.

In order to check illegal traffic with the enemy through neutral countries, lists of persons, firms and companies in neutral countries which are deemed to be "enemies" are published under the Trading with the Enemy Act and all commercial transactions with them are prohibited.

The affairs of suspected enemy firms operating in Australia have been investigated and, in appropriate cases, controllers have been appointed to take over the businesses concerned.

#### STATISTICS OF IMPORTS AND EXPORTS.

Statistics relating to the overseas trade of the various States of Australia are recorded by the Commonwealth Statistician. 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 overseas 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 in Tables 260 and 261, 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 overseas, are based on the values recorded by the Department of Trade and Customs.

##### *Valuation of Imports.*

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.

##### *Valuation of Exports.*

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.

*Oversea Imports and Exports—Value.*

The total value in Australian currency of oversea imports and exports of New South Wales 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 240.—Oversea Imports and Exports (N.S.W.), 1901 to 1939.

(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
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
1936	45,378,652	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
1939	58,050,811	41,527,687	4,375,393	45,903,080	103,953,891

## 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
1929	25 11 3	18 19 9	0 17 1	19 16 10	45 8 1
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
1936	17 1 8	16 16 1	1 1 9	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 9 8
1939	21 4 8	15 3 10	1 12 0	16 15 10	38 0 6

\* 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 overseas trade of the State, similar to those in Table 240, but with values expressed in British currency. Exports in the form of ships' stores are excluded, except in 1901.

TABLE 241—Overseas Imports and Exports (N.S.W.), 1901 to 1939.

(Values expressed in British Currency.)

Year ended 30th June.	Overseas Imports.	Overseas 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
1929	63,491,123	47,170,407	2,118,483	49,288,890	112,780,013
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
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
1939	46,347,953	33,164,077	3,498,109	36,662,186	83,010,139

## [ 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
1929	25 11 3	18 19 9	0 17 1	19 16 10	45 8 1
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
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
1939	16 19 1	12 2 7	1 5 7	13 8 2	30 7 3

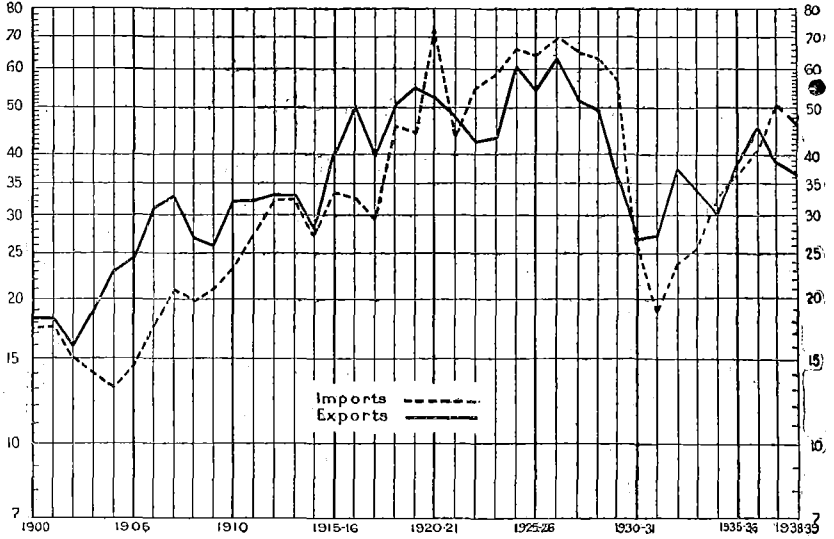
\* Year ended 31st December.

† 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.

OVERSEA TRADE, 1900 TO 1938-39.

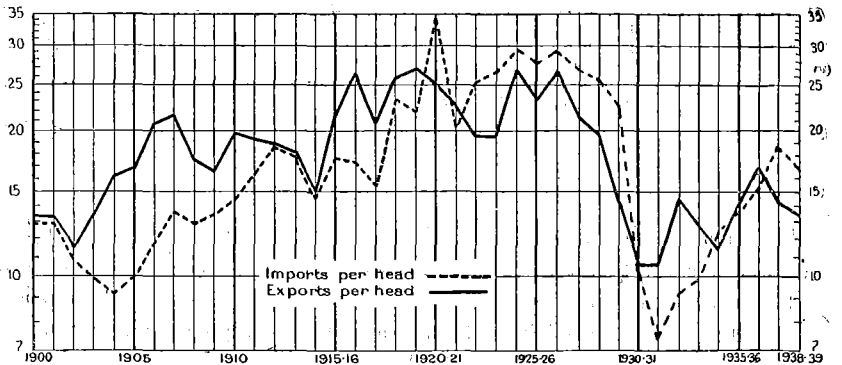
Ratio Graph.



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

OVERSEA TRADE PER HEAD OF POPULATION, 1900 TO 1938-39.

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.

There was serious shrinkage in the value of imports between 1928-29 and 1931-32, then a steady rise until 1937-38 when the value (in British currency) exceeded £51,000,000. There was a decline to £46,300,000 in 1938-39.

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 drought and war caused a diminution in production, but the value of exports continued to rise under the influence of higher prices. A rapid decline followed upon a steep fall in prices after 1928-29 and the value of exports in 1930-31 was the lowest since 1914-15. Then a rising volume of trade began to offset the fall in prices and the annual value trended upwards. Changes in the prices of wool have been an important factor causing fluctuations in recent years.

Particulars of the quantity and value of the principal commodities exported are shown in Table 252 of this chapter and decennial tables as to the quantity and value of exports are published in the Statistical Register of New South Wales.

An index of the volume of exports, 1920-21 to 1938-39, is shown in Table 256.

The monthly movement of imports and exports—bullion and specie excluded—from July, 1934, to June, 1939, is illustrated in the following table:—

TABLE 242.—Imports and Exports of Merchandise, Monthly (N.S.W.).

Month.	Imports.					Exports.				
	1934	1935	1936	1937	1938	1934	1935	1936	1937	1938
	1935.	1936.	1937.	1938.	1939.	1935.	1936.	1937.	1938.	1939..
<i>Australian Currency Values.</i>										
July ...	£ 000. 2,856	£ 000. 3,497	£ 000. 4,331	£ 000. 4,026	£ 000. 4,743	£ 000. 1,298	£ 000. 1,995	£ 000. 1,738	£ 000. 2,520	£ 000. 2,086
August ...	3,731	3,794	4,023	5,011	5,113	1,700	2,090	1,873	2,331	1,910
September ...	3,361	3,517	3,801	5,248	4,580	2,193	3,171	3,502	3,961	2,837
October ...	3,394	3,817	4,113	5,206	4,556	3,780	4,366	4,650	4,344	3,839
November ...	3,217	3,533	4,134	5,545	4,666	3,713	5,243	5,501	4,602	4,781
December ...	2,912	3,461	3,808	5,107	4,031	3,316	4,794	6,331	4,700	3,961
January ...	3,534	4,153	4,293	5,021	4,465	3,107	3,838	3,982	2,509	2,762
February ...	2,762	3,253	3,347	4,861	4,380	3,933	5,170	6,408	3,642	3,355
March ...	3,963	3,799	4,286	5,289	5,117	2,706	5,253	5,459	4,332	3,585
April ...	2,780	3,394	4,346	4,791	3,774	3,754	2,123	5,158	4,137	2,364
May ...	3,325	3,816	3,727	5,456	4,782	2,351	2,373	4,282	3,005	3,401
June ...	3,195	3,474	4,964	5,215	4,834	2,975	2,127	2,889	2,510	2,806
Total ...	39,030	43,508	49,173	61,676	55,041	34,826	42,543	51,782	42,593	37,687
<i>British Currency Values.</i>										
July ...	2,280	2,792	3,458	3,933	3,787	1,036	1,593	1,388	2,012	1,665
August ...	2,979	3,029	3,212	4,001	4,082	1,358	1,669	1,495	1,861	1,525
September ...	2,684	2,808	3,035	4,190	3,657	1,751	2,532	2,796	3,163	2,266
October ...	2,710	3,047	3,284	4,156	3,638	3,018	3,485	3,720	3,468	3,065
November ...	2,568	2,820	3,301	4,428	3,725	2,964	4,186	4,392	3,674	3,817
December ...	2,325	2,764	3,040	4,077	3,218	2,648	3,827	5,055	3,753	3,162
January ...	2,821	3,316	3,427	4,009	3,565	2,480	3,064	3,179	2,003	2,205
February ...	2,205	2,598	2,672	3,881	3,497	3,140	4,128	5,116	2,908	2,679
March ...	3,164	3,033	3,422	4,223	4,086	2,160	4,194	4,359	3,458	2,862
April ...	2,220	2,710	3,470	3,825	3,013	2,998	1,695	4,118	3,303	1,887
May ...	2,655	3,047	2,976	4,356	3,818	1,877	1,895	3,419	2,399	2,716
June ...	2,551	2,773	3,963	4,164	3,859	2,375	1,698	2,306	2,004	2,240
Total ...	31,162	34,737	39,260	49,243	43,945	27,805	33,966	41,343	34,006	30,089

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 in Tables 240 and 241 include consignments of bullion and specie (mainly gold). 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 of New South Wales, imports and exports of bullion and specie are distinguished from those of other commodities:—

TABLE 243.—Imports and Exports of Merchandise and Bullion and Specie, (N.S.W.), 1911 to 1939.

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	26,657	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	52,602
1929 ...	63,231	210	63,491	46,994	2,089	49,083	1,177	20	2,06	49,289
1931 ...	29,538	279	29,817	28,885	1,289	30,174	1,462	229	1,691	31,865
1932 ...	23,442	506	23,948	23,948	29,734	1,078	30,812	3,414	472	34,698
1936 ...	43,508	1,870	45,378	41,495	1,047	42,542	3,145	1,845	4,990	47,532
1937 ...	49,173	2,124	51,297	50,481	1,298	51,782	3,436	2,085	5,521	57,303
1938 ...	61,677	2,279	63,956	41,209	1,384	42,593	3,810	2,009	5,819	48,412
1939 ...	55,041	3,010	58,051	36,320	1,367	37,687	5,208	3,008	8,216	45,903
<i>British Currency Values.</i>										
1931 ...	26,071	240	26,311	24,003	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	27,282
1936 ...	34,737	1,493	36,230	33,130	836	33,966	2,516	1,476	3,992	37,958
1937 ...	39,260	1,696	40,956	40,307	1,036	41,343	2,748	1,668	4,416	46,759
1938 ...	49,242	1,820	51,062	32,901	1,105	34,006	3,048	1,607	4,655	38,661
1939 ...	43,945	2,403	46,348	28,998	1,091	30,089	4,166	2,407	6,573	36,662

\* Year ended 31st December.

Imports of bullion and specie consist mainly of gold from New Guinea, Papua and New Zealand. The value during 1938-39 amounted to £2,403,258 (sterling) including gold £2,347,001, the countries of origin being Fiji £698,186, New Guinea £1,373,815, New Zealand £201,861, Papua £71,772, and other countries £1,367.

Exports of bullion and specie in 1938-39 were valued at £8,216,089 (Australian currency), including gold £8,153,729, of which £8,030,727 was sent to the United State of America.

#### 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 three years 1936-37 to 1938-39.

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 244.—Direction of Oversea Trade of N.S.W., 1937 to 1939.

Country.	Oversea Imports (Country of Origin).			Oversea Exports.		
	1936-37.	1937-38.	1938-39.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ A	£ A	£ A
United Kingdom ... ..	15,709,978	20,064,109	17,735,746	18,584,309	17,459,593	13,224,920
Canada ... ..	2,753,414	3,806,223	3,402,942	830,138	734,105	607,853
Union of South Africa ... ..	143,673	173,937	128,973	134,483	177,394	158,739
India and the East ... ..	2,415,117	2,646,815	2,604,024	1,020,442	1,326,522	1,447,578
New Zealand ... ..	653,071	730,816	1,005,657	3,652,155	4,028,209	4,275,981
Pacific Islands* ... ..	2,222,754	2,217,283	2,667,143	1,568,618	1,814,317	1,646,417
Other British Possessions... ..	211,480	341,614	360,037	888,736	272,674	257,560
<b>Total, British</b> ... ..	<b>24,109,487</b>	<b>29,980,797</b>	<b>27,904,528</b>	<b>26,687,831</b>	<b>25,812,814</b>	<b>21,619,048</b>
Belgium ... ..	332,700	563,626	466,295	3,736,337	2,297,274	2,306,136
France ... ..	437,978	458,617	517,936	3,434,265	5,275,390	4,212,401
Germany ... ..	1,587,567	1,924,329	1,888,696	2,015,443	1,967,018	1,019,328
Italy ... ..	147,432	344,034	340,839	2,388,776	959,843	568,885
Netherlands ... ..	401,947	374,868	404,614	680,144	296,232	431,535
Norway ... ..	190,025	214,630	171,654	53,091	46,532	3,705
Sweden ... ..	402,501	526,990	316,757	93,220	96,435	174,334
Switzerland... ..	256,365	384,437	402,936	115,263	72,908	119,782
Other European ... ..	628,866	803,940	673,106	1,652,615	1,802,338	658,279
United States and Hawaii... ..	6,339,152	8,209,456	7,030,826	10,460,607	6,028,946	9,540,762
Japan ... ..	1,752,259	2,389,841	1,778,829	4,194,480	1,968,084	2,005,194
Netherlands East Indies ... ..	2,382,312	2,908,012	2,597,981	446,583	449,000	505,970
China and other Eastern Countries ... ..	677,193	628,072	635,291	726,391	690,266	2,180,240
Pacific Islands ... ..	65,408	33,546	31,909	431,361	439,856	375,540
Other Foreign Countries ... ..	220,898	249,442	207,169	186,055	208,565	181,941
<b>Total, Foreign</b> ... ..	<b>15,982,603</b>	<b>20,013,840</b>	<b>17,464,833</b>	<b>30,614,631</b>	<b>22,598,687</b>	<b>24,234,032</b>
Outside Packages and Containers ... ..	863,771	1,067,727	978,587	...	...	...
<b>Total, All Countries</b> ... ..	<b>40,955,861</b>	<b>51,062,364</b>	<b>46,347,953</b>	<b>57,302,512</b>	<b>48,411,501</b>	<b>45,903,080</b>

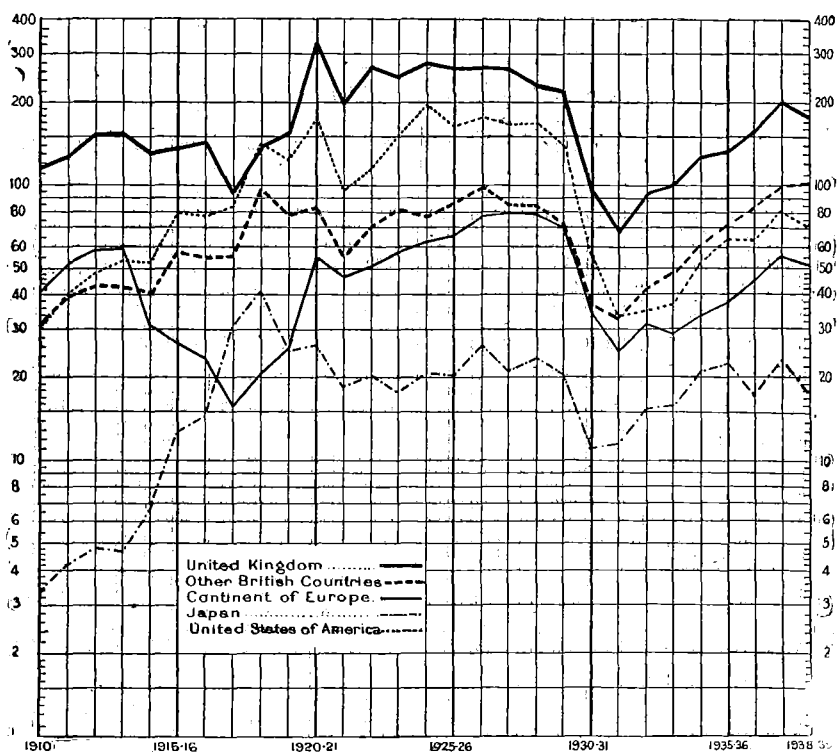
\* Includes New Guinea and Papua.

In the oversea trade of New South Wales the value of the goods to and from the United Kingdom exceeds the trade with any other country. In 1938-39 imports valued at £17,735,746 (sterling) or 38.3 per cent. of the total imports were the products of the United Kingdom. Exports shipped to that country were valued at £A13,224,920, representing 28.8 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 1938-39 consisted of imports valued at £5,182,833 (sterling) or 11.2 per cent., and exports valued at £A9,494,385 or 20.6 per cent. The value of imports from the Continent of Europe in 1928-29 was £7,760,176, and the value of exports thereto was £17,732,133, the relative proportions being 12 per cent. of imports and 36 per cent. of exports.

## OVERSEA IMPORTS, COUNTRY OF ORIGIN, 1910 TO 1938-39.

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.6,000,000 in 1937-38 and £stg.7,200,000 in 1938-39.

Trade with France, Germany, Belgium, Italy and Japan, resulted in an excess of exports and there was an excess of imports from the Netherlands East Indies. In 1936-37 and 1938-39 there were large shipments of gold to the United States and the value of exports exceeded the value of imports.

The following statement shows the value in British currency of British and foreign oversea imports in the three years 1936-37 to 1938-39, as compared with the annual average values in the five quinquennial periods between 1911 and 1936.

TABLE 245.—Origin of Oversea Imports of N.S.W., 1911 to 1939.

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†
1931-32 to 1935-36	51,796	25,488	77,284	15,687	22,177	8,609	10,306	56,779	137,271†
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†
1938-39 ...	17,736	10,169	27,905	5,183	7,023	1,779	3,480	17,465	46,348†

PROPORTION OF TOTAL OVERSEA IMPORTS.

	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
1931-32 to 1935-36	38.6	13.0	57.6	11.7	16.6	6.4	7.7	42.1	100
1936-37 ...	39.2	20.9	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
1938-39 ...	39.1	22.4	61.5	11.4	15.5	3.9	7.7	38.5	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); the value was £973,587 in 1938-39.

The imports of British origin represent more than 61 per cent. of the total and 63 per cent. of the British goods are imported from the United Kingdom. The proportion of imports from the continent of Europe has been fairly steady at 11 per cent. in recent years. Importations from the United States increased very rapidly during the 1914-18 war period and represented 26.6 per cent of the total in the quinquennium ended 1920-21. There has since been a decline, 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 has fallen below 4 per cent. The bulk of the goods classed as "other foreign" are imported from the Netherlands East Indies, the proportion in 1938-39 being 7.7 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 246.—Destination of Oversea Exports of N.S.W., 1911 to 1939.

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	
	£000	£000	£000	£000	£000	£000	£000	£000	£000
1911 to 1915-16* ...	13,212	5,069	18,281	8,117	4,002	1,335	1,673	15,127	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
1931-32 to 1935-36	16,954	5,027	21,981	9,068	3,018	5,472	2,224	19,782	41,763
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
1938-39 ...	13,225	8,394	21,619	9,494	9,436	2,005	3,349	24,284	45,903

## 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	5.0	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
1931-32 to 1935-36	40.6	12.0	52.6	21.8	7.2	13.1	5.3	47.4	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
1938-39 ...	28.8	18.3	47.1	20.7	20.5	4.4	7.3	52.9	100

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

The proportion of exports to British countries in recent years has been much greater than in the pre-depression period. The proportionate value of exports to the Continent of Europe has been influenced largely by variations in the price of wool, which was the principal item of the trade.

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 was included.

In the trade with Eastern Countries the value of imports exceeded £7,616,000 (sterling) in 1938-39 and the value of exports was £A6,139,000. Imports have increased and exports have decreased since 1935-36, when the value of imports was £6,800,000 (sterling) and exports £A9,525,000.

Excluding the export of bullion and specie the distribution of the merchandise exported during 1938-39 was as follows:—British Countries, 57 per cent., including 35 per cent. to the United Kingdom; and foreign countries, 43 per cent., including 25 per cent. to Europe, 5 per cent. to Japan and 4 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 three years 1936-37 to 1938-39 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 247.—Classification of Oversea Imports into N.S.W.

Classification.	1928-29.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ stg.
Foodstuffs of Animal Origin... ..	1,126,533	747,957	834,704	808,679
Foodstuffs of Vegetable Origin, Bever- ages (non-alcoholic), etc. ... ..	3,445,517	2,231,632	2,272,744	2,099,192
Spirituous and Alcoholic Liquors ... ..	1,040,186	415,738	500,870	480,759
Tobacco and Preparations thereof ... ..	1,905,452	1,246,087	1,447,296	1,280,435
Live Animals ... ..	118,334	130,505	114,683	112,868
Animal Substances not Foodstuffs	665,708	420,624	639,239	648,605
Vegetable Substances and Unmanu- factured Fibres ... ..	1,776,112	1,607,619	1,654,872	1,509,529
Apparel ... ..	2,512,082	615,687	808,488	731,440
Textiles ... ..	10,031,607	5,588,497	6,602,275	5,546,355
Yarns and Manufactured Fibres ... ..	2,280,143	1,053,353	1,177,440	1,169,714
Oils, Fats, and Waxes... ..	4,393,111	2,624,898	3,329,992	3,040,467
Paints and Varnishes ... ..	397,543	360,394	350,122	366,972
Stones and Minerals (including Ores and Concentrates) ... ..	402,354	235,243	393,253	337,147
Machines and Machinery ... ..	7,206,591	5,271,006	6,962,920	6,729,653
Metals and Metal Manufactures other than Machinery ... ..	10,996,937	6,010,014	8,609,902	6,684,827
Rubber and Rubber Manufactures ... ..	1,219,534	768,661	843,887	725,552
Leather and Leather Manufactures ... ..	168,033	69,194	53,983	56,435
Wood and Wicker ... ..	2,555,612	857,808	1,138,053	970,413
Earthenware, China, Glass, etc. ... ..	1,159,811	768,967	941,215	850,157
Paper ... ..	2,346,801	1,846,784	2,252,715	1,855,685
Stationery and Paper Manufactures	1,282,106	812,925	912,704	832,782
Jewellery, Timepieces, and Fancy Goods ... ..	1,342,620	594,266	780,166	710,466
Optical, Surgical, and Scientific In- struments ... ..	891,186	842,048	1,006,845	1,044,601
Drugs, Chemicals, and Fertilisers ... ..	1,828,559	1,654,709	2,003,326	2,048,953
Miscellaneous ... ..	2,188,098	1,621,260	2,543,149	2,524,422
Outside Packages and Containers ... ..	"	863,771	1,067,727	978,587
Bullion and Specie ... ..	210,523	1,696,214	1,819,744	2,403,258
Total Imports ... ..	63,491,123	40,955,861	51,062,364	46,347,953

\* Not recorded.

During 1938-39 imports of machinery, metals and metal manufactures were valued at £13,414,480 or 28.9 per cent. of the total. Next in order was the group, apparel, textiles and yarns with £7,447,509 or 16.1 per cent.; then foodstuffs, spirituuous liquors and tobacco, £4,669,065 or 10.1 per cent.; oils, fats and waxes, £3,040,467 or 6.6 per cent.; and paper and stationery, £2,688,467 or 5.8 per cent.

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

TABLE 248.—Imports of Machinery and Metal Manufactures.

(Values in British Currency.)

Item.	1928-29.	1936-37.	1937-38.	1938-39.
Electrical Machinery and Appliances	£ 3,442,023	2,060,189	2,648,733	2,703,039
Other Machinery ... ..	£ 3,764,568	3,210,817	4,314,187	4,026,614
<b>Total, Machinery ...</b>	<b>£ 7,206,591</b>	<b>5,271,006</b>	<b>6,962,920</b>	<b>6,729,653</b>
Motor Car—Bodies ... ..	No. 6,719	335	242	196
	£ 690,461	35,773	24,649	20,089
Chassis—Unassembled ... ..	No. 33,559	23,100	30,916	25,949
	£ 2,973,573	1,841,800	2,585,868	2,261,503
Assembled ... ..	No. 2,641	500	573	349
	£ 417,523	98,839	110,691	61,036
Other Vehicles and Parts* ...	£ 1,292,538	794,789	976,437	783,441
<b>Total, Vehicles and Parts</b>	<b>£ 5,374,095</b>	<b>2,771,201</b>	<b>3,697,645</b>	<b>3,126,069</b>
Iron and Steel—Plate and Sheet... ..	cwt. 1,478,360	705,867	1,173,157	714,791
	£ 1,250,034	807,697	1,566,809	918,093
Other ... ..	cwt. 567,186	381,685	678,450	361,178
	£ 556,256	95,993	147,031	84,729
Pipes and Tubes ... ..	cwt. 671,207	156,132	281,040	234,047
Other Metals and Metal Manufactures	£ 3,134,377	1,893,299	2,385,958	2,045,440
<b>Grand Total ... ..</b>	<b>£18,203,490</b>	<b>11,281,020</b>	<b>15,572,822</b>	<b>13,414,480</b>

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

The imports of vehicles and parts declined in 1938-39 but the value was greater than in any year between 1928-29 and 1936-37. Imports of machinery increased in each year from 1931-32 to 1937-38 and almost regained the pre-depression level. In 1938-39 the value fell to £6,729,653, a decrease of 3.4 per cent. as compared with 1937-38. The total of the whole group was £4,789,010 less than in 1928-29, and £2,158,342 less than in 1937-38.

Since 1928-29 the value of the imports of apparel, textiles, yarns, and manufactured fibres has fallen from £14,823,832 to £7,447,509, or almost 50 per cent. During 1937-38 there was a marked increase in the importation of piece goods, which constitute the principal item in this group; in

the following year the value fell back to the same level as in 1936-37. A comparative statement of the principal items comprising the group is shown below:—

TABLE 249.—Imports of Apparel, Textiles, Yarns and Manufactured Fibres.  
(Values in British Currency.)

Item.	1928-29.	1936-37.	1937-38.	1938-39.
	£ stg.	£ stg.	£ stg.	£ stg.
Socks and Stockings ... ..	793,114	14,576	23,183	21,180
Piece Goods ... ..	7,874,705	4,241,560	5,133,540	4,224,835
Floor Coverings ... ..	1,066,508	652,575	705,667	629,478
Bags and Sacks ... ..	1,239,308	522,369	516,649	644,720
Yarns ... ..	952,427	458,767	554,069	458,123
Other Apparel, Textiles, etc. ... ..	2,897,770	1,367,690	1,655,095	1,469,173
Total ... ..	£14,823,832	7,257,537	8,588,203	7,447,509

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

TABLE 250.—Imports of Foods, Beverages and Tobacco.  
(Values in British Currency.)

Item.	1928-29.	1936-37.	1937-38.	1938-39.
Fish, in tins ... ..	lb. 12,257,172	13,778,784	14,402,616	12,692,306
	£ 568,319	368,195	459,719	451,444
Tea ... ..	lb. 28,732,712	29,873,656	27,729,801	25,646,233
	£ 2,114,514	1,560,530	1,503,601	1,312,075
Whisky ... ..	gal. 650,133	310,048	393,950	374,660
	£ 744,358	334,997	416,270	390,774
Other Foods and Beverages ... ..	£ 2,185,045	1,131,605	1,228,728	1,234,337
Tobacco, Cigars, etc. ... ..	lb. 17,803,558	15,314,733	16,407,087	15,098,111
	£ 1,905,482	1,246,087	1,447,296	1,280,435
Total, Foods, Beverages and Tobacco. £	7,517,718	4,641,414	5,055,614	4,669,065

The quantity of tinned fish imported in 1938-39 was somewhat 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.

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

TABLE 251.—Imports, Miscellaneous Items.

(Values in British Currency.)

Item.		1928-29.	1936-37.	1937-38.	1938-39.
Copra ... ..	cwt.	576,414	418,226	378,247	476,241
	£	651,683	338,331	210,935	172,561
Oils—Petroleum Spirit, etc.	gal.	72,200,636	83,944,632	108,494,775	116,956,753
	£	2,697,151	1,367,719	1,804,400	1,777,102
„ Crude ... ..	gal.	26,980,605	31,668,456	31,644,583	21,779,163
	£	378,348	331,354	313,023	183,222
Lubricating (Mineral)	gal.	6,576,245	5,582,135	7,086,956	5,961,865
	£	526,596	279,113	367,719	299,649
Rubber—Crude and Waste	cwt.	125,659	148,525	182,146	159,310
	£	626,443	642,297	685,915	564,103
Tyres, Pneumatic	lb.	1,282,042	137,202	138,813	138,012
	£	174,853	10,760	12,474	11,861
Timber, Undressed ...	000 sup. ft.	179,595	187,923	209,513	199,123
	£	1,821,245	674,016	922,366	780,944
Printing Paper ... ..	tons	75,486	102,292	85,042	86,879
	£	1,440,864	1,141,862	1,181,487	1,151,786
Books (Printed) ... ..	£	533,999	428,810	454,647	443,599
Glass and Glassware ... ..	£	529,253	316,808	386,459	345,032
Jewellery and Precious Stones	£	493,445	180,437	221,667	178,772
Cinematograph Films... ..	£	229,072	422,213	473,947	460,178

The quantity of crude and refined petrol imported in 1938-39 exceeded the imports in 1928-29 by nearly 40,000,000 gallons or 40 per cent., but the value was less by £1,115,000 or 36 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.

#### 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 three years 1936-37 to 1938-39 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 252.—Oversea Exports of Australian Produce from New South Wales.

Item.	Quantity.				Value (Australian Currency).			
	Annual Average 1924-25 to 1928-29.	1936-37.	1937-38.	1938-39.	Annual Average 1924-25 to 1928-29.	1936-37.	1937-38.	1938-39.
	Thousands omitted.							
Wool—Greasy ... .. lb.	302,525	337,510	296,233	317,755	£A 24,902	£A 24,601	£A 16,972	£A 15,003
Scoured ... .. lb.	21,395	21,848	18,551	22,000	2,495	2,501	1,668	1,633
Tops, etc. ... .. lb.	2,513	4,029	3,853	5,733	568	530	477	585
Total Wool (as in Grease) lb.	354,000	399,800	344,400	379,000	27,965	27,632	19,117	17,221
Hides and Skins—								
Cattle and Calf ... No.	564	1,136	906	1,251	615	637	645	621
Rabbit and Hare ... lb.	10,251	4,196	2,753	1,662	2,123	1,008	648	198
Sheep, with Wool ... No.	2,681	3,516	3,606	2,979	1,190	1,072	961	583
Other Hides and Skins ...	...	...	...	...	456	208	203	182
Total Hides and Skins ...	...	...	...	...	4,384	2,925	2,457	1,584
Meat—								
Frozen Mutton ... lb.	14,550	24,538	22,851	10,880	287	398	383	173
Lamb ... .. lb.	12,165	41,653	39,233	34,104	364	1,154	1,088	932
Rabbits and Hares pra.	2,904	330	224	324	271	30	19	28
Other Meat ... ..	...	...	...	...	621	593	765	561
Total, Meat ... ..	...	...	...	...	1,543	2,175	2,255	1,694
Leather ... ..	...	...	...	...	370	484	392	330
Tallow ... .. cwt.	320	252	160	169	592	331	196	161
Butter ... .. lb.	24,926	20,366	31,373	23,066	1,725	1,136	1,895	1,420
Eggs in Shell ... doz.	915	5,430	4,382	3,425	71	322	268	206
Wheat ... .. bushels	15,443	20,252	16,316	15,031	4,743	5,400	3,608	2,041
Flour ... .. centals	2,936	3,736	4,032	5,863	1,895	1,909	1,969	1,853
Copper (ingots) ... cwt.	51	35	1	1	175	97	2	4
Lead (pig) ... .. cwt.	1,411	963	1,343	1,288	2,072	1,433	1,515	1,305
Tin (ingots) ... .. cwt.	29	13	15	29	375	193	187	368
Iron and Steel ... cwt.	81	1,617	1,712	4,571	25	761	940	2,017
Coal ... .. tons	686	340	392	382	797	300	354	347
Timber (undressed) ...sup.ft.	21,873	27,351	28,103	27,251	366	396	416	382
Other Merchandise ...	...	...	...	...	3,085	4,990	5,638	5,387
Total Merchandise ...	...	...	...	...	50,183	50,484	41,209	36,320
Bullion and Specie ...	...	...	...	...	3,187	3,436	3,809	5,208
Total Exports ... ..	...	...	...	...	53,370	53,920	45,018	41,528

The aggregate value of the exports of the staple products, wool, hides and skins, meat, butter, wheat and flour in the years 1936-37 to 1938-39, respectively, was £41,177,000, £31,301,000 and £25,750,000, as compared with £42,300,000 in 1928-29.

The value of exports of iron and steel increased in 1938-39 by £1,077,000 and tin ingots by £181,000, as compared with exports in the previous year. But there were decreases in wool £1,896,000, hides and skins £873,000, meat £561,000, butter £538,000, wheat £1,567,000, and pig lead £210,000.

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 1938-39 the quantity was greater, but the price was low and the proportion of the total value of exports was 47.4 per cent.

The value of exports of wheat which usually represents nearly 10 per cent. of the total was only 5.6 per cent. in 1938-39 when the price was very low.

The relative importance of the various staple products in the oversea trade of the State in recent 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 253.—Principal Exports from New South Wales, Relative Importance.

Item.	Annual Average 1924-25 to 1928-29.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Wool ... ..	55.7	49.2	53.5	54.7	46.4	47.4
Hides and Skins... ..	8.7	4.2	6.0	5.8	5.9	4.4
Frozen Lamb and Mutton ... ..	1.3	4.4	3.0	3.1	3.6	3.1
Other Meat ... ..	1.8	2.1	1.3	1.2	1.9	1.6
Leather ... ..	.7	.8	.8	.9	.9	.9
Tallow ... ..	1.2	1.1	.6	.7	.5	.4
Butter ... ..	3.4	6.3	4.0	2.3	4.6	3.9
Eggs in Shell ... ..	.1	1.0	.6	.6	.6	.6
Wheat ... ..	9.5	7.1	10.3	10.7	8.8	5.6
Flour ... ..	3.8	5.4	4.2	3.8	4.8	5.1
Lead (pig) ... ..	4.1	2.1	2.7	2.8	3.7	3.6
Tin (ingots) ... ..	.8	.9	.5	.4	.4	1.0
Coal ... ..	1.6	.8	.7	.6	.9	1.0
Timber (undressed) ... ..	.7	.9	.5	.8	1.0	1.0
Other ... ..	6.6	13.7	11.3	11.6	16.0	20.4
Total, Merchandise ...	100	100	100	100	100	100

The following statement shows the average annual export values per unit of the principal commodities in various years since 1928-29.

TABLE 254.—Annual Export Values per unit of Principal Commodities.

Item.	Unit of Quantity.	1928-29.	1930-31.	1935-36.	1936-37.	1937-38.	1938-39.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wool, Greasy ... ..	lb.	1 5.8	0 9.2	1 2.9	1 5.5	1 1.8	0 11.3
Cattle Hides ... ..	each	32 4.0	16 2.8	16 0.2	18 1.4	20 3.6	15 6.5
Rabbit and Hare Skins ... ..	lb.	4 8.9	1 7.2	3 9.0	4 9.7	4 8.4	2 4.6
Sheep Skins with Wool ... ..	each	8 5.5	3 8.9	4 9.7	6 1.2	5 3.9	3 10.9
Frozen Mutton ... ..	lb.	0 5.0	0 3.2	0 3.9	0 3.9	0 4.0	0 3.8
„ Lamb ... ..	lb.	0 7.2	0 5.5	0 6.6	0 6.6	0 6.7	0 6.6
„ Beef ... ..	lb.	0 4.8	0 3.4	0 3.5	0 3.5	0 3.9	0 4.2
Tallow ... ..	cwt.	36 0.4	24 5.0	31 0.7	26 3.9	24 5.0	18 11.5
Butter ... ..	lb.	1 6.0	1 0.7	1 0.1	1 1.3	1 2.5	1 1.6
Wheat ... ..	bushel	4 10.4	2 5.7	3 7.8	5 4.0	4 5.1	2 8.6
Flour (Wheaten) ... ..	cental	10 10.5	6 8.4	7 5.6	10 2.6	9 9.2	6 3.8
Lead, Pig ... ..	cwt.	.22 9.0	17 4.3	20 9.9	29 9.1	22 6.8	20 3.2
Zinc—Bars, etc. ... ..	cwt.	24 11.3	15 11.0	18 3.5	21 2.9	21 2.9	19 6.5
Coal ... ..	ton	24 11.9	21 3.1	17 11.7	17 7.8	18 0.7	18 2.0

In 1935-36 the average export values per unit of the staple commodities were much lower than in 1928-29. Wool was cheaper by 3d. per lb., wheat by 1s. 2½d. per bushel, and butter by 6d. per lb. In the following year wool almost regained pre-depression level and there was a marked rise in the price of wheat. The improvement in values was not sustained and prices fell in 1937-38, and there was further decline in 1938-39.

Particulars as to the destination of the principal items of Australian produce exported overseas from New South Wales during 1938-39 are shown below, the values being stated in Australian currency:—

TABLE 255.—Destination of Principal Exports of New South Wales, 1938-39.  
(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.	cwt.	lb.	bushel.	cental.	
United Kingdom ...	109,569	10,405	845	41,497	25	19,941	4,527	662	
Belgium ...	50,459	2,502	32	...	2	...	...	...	
France ...	77,649	5,908	...	...	1	...	...	...	
Germany ...	15,722	687	...	...	7	...	...	...	
Italy ...	9,614	19	...	...	1	...	...	...	
Other European ...	17,630	1,217	16	384	13	214	1,725	24	
United States ...	9,522	99	146	...	4	...	...	...	
China and Hong Kong ...	...	104	1,539	475	21	788	6,487	2,258	
Japan ...	26,280	688	410	...	6	...	221	...	
Other Eastern ...	323	18	183	1,462	49	1,787	375	2,050	
Other Countries ...	987	953	2,568	1,166	40	1,236	1,695	869	
Total ...	317,755	22,600	5,738	44,984	169	23,966	15,080	5,863	
Value (Thousands omitted).									
	£ A	£ A	£ A	£ A	£ A	£ A	£ A	£ A	£ A
United Kingdom ...	5,393	745	61	314	1,024	24	1,177	653	196
Belgium ...	2,045	178	2	7	...	1	...	...	...
France ...	3,297	433	...	456	...	1	...	...	...
Germany ...	805	65	...	103	...	6	...	...	...
Italy ...	548	2	...	2	...	2	...	...	...
Other European ...	838	90	1	96	7	12	18	222	8
United States ...	576	9	11	403	...	4	...	...	...
China and Hong Kong ...	...	7	103	3	10	18	47	860	680
Japan ...	1,381	41	27	115	...	6	...	31	...
Other Eastern ...	73	1	20	20	39	48	110	51	675
Other Countries ...	47	72	300	58	25	39	78	224	285
Total ...	15,003	1,633	585	1,577	1,105	161	1,420	2,041	1,853

The bulk of the wool was exported to Great Britain, France, Belgium, Germany, Japan and Italy. In recent years substantial quantities were 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 sheepskins were sent for the most part to France, the quantity in 1938-39 being 2,979,009 skins valued at £582,533. The United Kingdom and France were 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 Eastern trade, particularly to Japan, is important. The Eastern countries took commodities valued at £5,954,000, in 1938-39, including wool £1,713,000, wheat and flour £2,306,000, hides and skins £138,000, butter £157,000, tallow £72,000, and frozen lamb and mutton £49,000.

## 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 averages 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 256.—Volume of Oversea Exports from New South Wales.

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	1927-28	102	1934-35	134
1921-22	125	1928-29	111	1935-36	124
1922-23	97	1929-30	91	1936-37	125
1923-24	80	1930-31	122	1937-38	120
1924-25	101	1931-32	131	1938-39	133
1925-26	109	1932-33	143		
1926-27	116	1933-34	116		

Wool and wheat are the principal items to be considered in relation to the volume of exports. Production of these and other staple commodities was abundant during the period 1930-31 to 1936-37, consequently the volume of trade was heavy.

In 1937-38 the quantity of wool exported was 14 per cent. less than in the previous year, and the smallest since 1924-25. But exports of wheat, flour, meat and butter were substantial and the general volume of trade declined by only 4 per cent. In 1938-39 exports of wool regained a high level and there was a remarkable increase in the exports of iron and steel which have become an important factor in the overseas trade.

## RE-EXPORTS.

The value of re-exports overseas from New South Wales in 1938-39 was £4,375,393, viz., merchandise, £1,366,956, and bullion and specie, £3,008,437. The re-exports to New Zealand were valued at £417,879 and to the South Sea Islands (including New Guinea and Papua) at £439,418.



The principal items of merchandise re-exported in the five years ended June, 1939, are shown below, values being expressed in Australian currency:—

TABLE 257.—Re-exports Oversea from New South Wales.

Commodity.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	£ A	£ A	£ A	£ A	£ A
Machinery ... ..	116,050	142,611	144,943	183,045	194,005
Metals and Metal Manufactures	135,125	162,520	169,795	177,435	143,985
Tea ... ..	40,868	37,489	44,251	37,730	36,510
Tobacco, etc. ... ..	54,217	72,030	69,618	73,617	94,062
Whisky ... ..	12,701	16,006	25,045	23,310	27,202
Piece Goods ... ..	42,303	55,145	92,613	39,346	53,852
Films for Cinematographs, etc.	65,709	67,150	111,599	125,085	110,748

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.

TABLE 258.—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
1931	787,881	95,942	883,823
1936	870,079	100,349	970,423
1937	887,261	121,406	1,008,667
1938	944,252	161,899	1,106,151
1939	895,899	166,898	1,062,797

\* 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 of which the 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 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 are extended to certain 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 introduced again on 28th November, 1935, and applied to certain items in order to facilitate the implementation of trade agreements. The benefits of the Intermediate Tariff may be extended in whole or in part to any country by proclamation.

Trade agreements were completed in 1936 with Belgium, Czechoslovakia, France and the Union of South Africa, and the benefits of the Intermediate Tariff were extended as from 1st January, 1937, to certain specified importations from these countries. The benefits of the Intermediate Tariff were also extended as from 30th December, 1938, to certain commodities imported from Switzerland under an agreement made with that country in 1938. Certain commodities imported from countries entitled to most favoured nation treatment have been brought within the scope of the Intermediate Tariff.

The General Tariff applies to all goods other than those to which the benefits of the British Preferential Tariff or Intermediate Tariff have been extended and those which are entitled to special import duties under the preferential tariffs or various Acts of Parliament.

The present schedule of Customs duties is the Customs Tariff, 1933-1939 (which embodies previous schedules and amendments thereto), as amended by proposals introduced into Parliament on 2nd and 22nd May, 1940, 20th August, 1940, and 21st November, 1940.

#### *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.

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 and on proclaimed commodities from British self-governed colonies and protectorates. By 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.

*Special War Duty.*

By a tariff proposal of 2nd May, 1940, an additional (war time) customs duty, representing 10 per cent. of the total customs and primage duties, was imposed on all goods (except petrol and similar petroleum and shale products) imported for home consumption after 3rd May, 1940.

*Exchange Adjustment.*

As a result of the world economic depression in 1929 and later years, 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 $\frac{1}{9}$  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 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.

*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 pre-

ference. 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 continues in force, as neither party has denounced it. The terms of the agreement and subsequent negotiations for its review are described in the 1938-39 issue of the Year Book.

#### *Reciprocal Agreements.*

The first trade treaty between Canada and Australia was effected in September, 1925. This treaty was superseded by an agreement in 1931, when 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 in operation are contained in the Customs Tariff (Canadian Preference) Act, 1931, as supplemented by the Customs Tariff (Canadian Preference) Act, 1934-1938, and proposals dated 22nd May, 1940.

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. A number of proclamations has been issued under this clause imposing special rates on certain goods the produce of manufacture of New Zealand. 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. The schedule to this agreement was amended by proposals dated 22nd May, 1940.

The agreement was 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 con-

sent 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.

Towards the close of 1938-39 the New Zealand Government adopted a policy of trade control by the application of a licensing system to imports. The main objectives of the policy were the conservation of oversea sterling funds, the promotion of home industries, and the diversion of trade to the United Kingdom from foreign and other Empire countries.

The implementation of the policy will probably result in the diminution of imports from Australia to New Zealand, but the relative trade position of Australia with New Zealand, as compared with other countries except the United Kingdom, will not be affected greatly.

In terms of the Customs Tariff (Papua and New Guinea Preference) Act, 1936, certain products of New Guinea and Papua if imported direct from these territories are admitted to Australia free of duty. 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 agreements with France, Belgium and Czechoslovakia have become inoperative in consequence of enemy occupation of these countries. Particulars of the treaties are contained in the Official Year Book, 1938-39.

A trade arrangement between Australia and Japan which operated from 1st January, 1937, to 30th June, 1938, was replaced by an arrangement for twelve months from 1st July, 1938. No later arrangement has been made with Japan, but the Japanese Government has given a voluntary undertaking with effect from 1st July, 1939, that in granting permits for

the importation of sheep's wool into Japan it will allot to Australia two-thirds of the total quantity of sheep's wool imported into Japan from all foreign countries. This is the proportion granted to Australia under the last trade arrangement.

In addition the Japanese Government has given an assurance that in order to maintain the orderly marketing of Japanese piece goods in Australia, it will continue to exercise the same control over the exports of textile piece goods as has been in operation since 1st January, 1937. This assurance requires that exports to Australia be limited to a quantity not exceeding 51,250,000 square yards in the case of cotton piece goods and the same quantity in the case of rayon (including staple fibre) piece goods.

These voluntary decisions of the Japanese Government do not require any reciprocal undertakings on the part of Australia.

A trade agreement between Australia and Switzerland came into operation on 30th December, 1938, to remain in force until six months after denunciation by either party.

Switzerland has accorded the following concessions to Australia:—(1) reduced duties on wood and sandalwood oil; (2) consolidation of the duties on apples and pears, raisins and currants, canned fruits, lead, eucalyptus oil and starch; and (3) minimum annual quotas for apples and pears, timber and barley.

Concessions accorded by Australia to Switzerland are:—(1) the grant of an intermediate tariff rate and primage duty reductions in respect of a limited number of commodities included in which are Swiss cheese, certain classes of textiles (mainly Swiss specialities), watches and chronometers and trade catalogues, price lists and other printed advertising matter addressed to hospitals, medical practitioners or dentists in single copies.

In addition the agreement provides for reciprocal most-favoured-nation treatment; mutual undertakings that quantitative restrictions on imports shall not be discriminatory; mutual rights to withdraw concessions if other countries obtain the major benefits; liberty on the part of either party to take any action it thinks proper to re-establish the equilibrium of the agreement should either party adopt any measures considered to nullify or impair the advantages of the agreement.

A trade agreement between Australia and Brazil became effective as from 1st July, 1939. It makes no provision for specific trade concessions, but provides that goods imported by either party from the other will receive no less favourable treatment than is granted to goods of other foreign countries.

A trade agreement with Greece, similar to that with Brazil, became effective as from 17th June, 1940.

By a trade agreement which became operative as from 1st July, 1939, Newfoundland extends tariff preference of 1 cent per lb. to butter and 10 per cent. ad valorem to canned fruits imported from Australia, while Australia will permit the admission of Newfoundland newsprint under the British preferential tariff.

*Industries Preservation Act.*

The Customs Tariff (Industries Preservation) Act, 1921-1936, provides that the Minister, after inquiry by the Tariff Board, may impose a dumping duty on goods of a class or kind produced or manufactured in Australia which are sold at a price less than the fair market value in the country of export at the time of shipment or at a less than reasonable price. The dumping duty 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 shipped on consignment are dealt with somewhat similarly.

A dumping freight duty may be imposed, after inquiry by the Tariff Board, on goods carried to Australia either free of freight or at reduced rates of freight. The amount of dumping duty in such cases is equal to the freight concession granted.

An exchange special duty may be imposed, after inquiry by the Tariff Board, 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. No goods have yet been subjected to this duty. When dumping duties (except exchange special 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 exchange rate to be declared by the Minister in cases of doubt.

*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; 5 per cent. from 22nd September, 1938, 6 per cent. from 9th September, 1939,  $8\frac{1}{3}$  per cent. from 3rd May, 1940, and 10 per cent. from 22nd November, 1940. On the last mentioned date exemption was removed from a large number of goods, certain items became subject to a tax of 5 per cent. and 15 per cent. was imposed on others of a luxury nature.

Certain goods imported to Australia from Fiji, are exempt from sales tax. These goods are also exempt from primage duty.

*Excise Tariffs.*

Excise duties are levied on beer, spirits, amylic alcohol, fusel oil, saccharin, tobacco, cigars, cigarettes and snuff, petroleum and shale products, playing cards, concentrated grape must, cigarette tubes and papers, matches, and valves for wireless telegraphy and telephony.

Duties on beer, spirits, tobacco, cigarettes, cigarette papers and matches were increased in November, 1940, and a duty was imposed on Carbonic acid gas used for aerating beverages other than beer.

## 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 259.—Customs and Excise Revenue Collected in New South Wales.

Tariff Division.	1910-11.	1920-21.	1930-31.	1937-38.	1938-39.
Customs—	£	£	£	£	£
Stimulants, Ale, Beer, etc. ...	1,109,212	832,473	556,739	686,379	694,264
Narcotics (Tobacco) ...	506,426	1,013,607	2,104,793	2,284,511	2,233,312
Sugar ...	67,438	1,206	381	3,310	5,449
Agricultural Products and Groceries ...	354,855	339,997	492,401	681,613	667,704
Apparel and Textiles ...	822,576	2,626,190	874,654	1,398,969	1,219,018
Metals and Machinery ...	477,766	2,050,953	692,670	1,305,425	1,118,322
Oils, Paints, and Varnishes ...	92,800	231,733	1,391,318	3,271,815	3,453,278
Earthenware, etc. ...	128,593	276,091	157,686	263,139	252,547
Drugs and Chemicals ...	42,350	214,132	178,889	169,800	167,554
Wood, Wicker, etc. ...	156,632	214,043	149,236	335,009	335,723
Jewellery and Fancy Goods ...	120,335	395,041	339,502	319,819	292,714
Leather and Rubber ...	110,351	284,894	152,823	242,983	230,767
Paper and Stationery ...	83,521	490,762	360,863	248,019	216,256
Vehicles ...	66,317	361,343	120,710	944,855	753,187
Musical Instruments ...	50,707	112,997	6,680	15,414	18,118
Miscellaneous ...	104,395	323,468	318,290	511,601	477,001
Primage Duty ...	...	...	777,952	2,015,249	1,788,802
Other Receipts ...	12,678	29,043	70,570	120,854	141,433
Total, Customs ...	£ 4,306,952	9,797,982	8,746,162	14,827,773	14,065,509
Excise—					
Beer ...	210,728	2,019,397	1,903,032	2,657,523	2,850,644
Spirits ...	119,169	677,537	485,093	688,369	709,799
Tobacco ...	188,763	586,760	752,745	1,897,580	1,646,079
Cigars ...	958	18,072	1,766	1,526,928	1,246,318
Cigarettes ...	250,093	1,721,252	1,381,984	...	...
Cigarette Papers ...	...	...	...	101,639	113,740
Other Excise ...	262,265	...	226,917	537,942	409,109
Licenses ...	2,259	4,479	3,714	3,794	3,687
Total, Excise ...	£ 1,034,235	5,027,497	4,765,251	7,413,775	6,979,376
Total, Customs and Excise ...	£ 5,341,187	14,825,479	13,501,413	22,241,548	21,044,885
Per head of population ...	£ s. d. 3 5 2	£ s. d. 7 1 10	£ s. d. 5 0 1	£ s. d. 8 4 2	£ s. d. 7 13 11

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, and £9,380,416 or £3 8s. 7d. per head in 1938-39.

## 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 260.—Interstate Trade of New South Wales.

Commodity.	Interstate Imports.			Interstate Exports.		
	1936-37.	1937-38.	1938-39.	1936-37.	1937-38.	1938-39.
Wheat ... .. bushels.	34,008	155,784	36,718	5,207,115	3,555,317	3,397,626
Flour ... .. centals.	136,880	136,726	123,305	499,241	500,566	249,329
Oats† ... .. bushels.	73,698	943,421	178,798	*	*	*
Maize ... .. "	185,152	1,034,465	347,298	*	*	*
Barley ... .. "	400,242	582,881	662,148	*	*	*
Potatoes ... .. cwt.	1,669,840	1,014,831	1,630,236	105,516	137,299	54,265
Onions ... .. "	296,273	346,119	228,168	2,231	1,947	1,349
Butter (a) ... .. lb.	5,808,488	9,753,548	6,674,492	1,836,744	3,584,716	2,852,324
Cheese ... .. "	3,941,426	3,963,400	3,858,416	*	*	*
Bacon and Ham ... .. "	8,936,788	8,063,076	8,381,652	*	*	*
Eggs—In shell§ ... .. doz.	968,390	1,409,010	1,196,940	*	*	*
Egg Pulp§§ ... .. cub. tons	877	852	960	*	*	*
Wool ... .. lb.	20,286,600	16,392,384	19,858,848	79,653,500	75,851,254	69,810,820
Sheep ... .. No.	1,209,780	1,026,839	2,323,808	2,608,933	3,302,517	1,534,845
Horses ... .. "	16,970	13,303	16,750	7,394	6,981	7,347
Cattle ... .. "	189,946	146,238	227,644	120,780	102,150	100,735
Coal—Cargo ... .. tons	*	*	*	1,900,023	2,091,142	1,860,639
Bunker ... .. "	*	*	*	404,996	431,383	411,098
Tobacco** ... .. lb.	592,420	762,409	799,195	2,695,250	2,907,209	1,154,822
Cigars** ... .. "	51,798	59,643	65,682	15,590	14,613	14,341
Cigarettes** ... .. "	430,930	510,149	594,375	2,463,495	2,519,471	1,521,496

\* Not available. † Excluding arrivals at Newcastle.  
 § Imports into Sydney only. \*\* Excluding movements in bond.  
 (a) Imports are exclusive of imports by road; exports include butter sent to Brisbane for  
 oversea export.

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 261.—Interstate Trade of New South Wales with South Australia, Western Australia and Tasmania.

Principal Items of Interstate Trade.	1936-37.		1937-38.		1938-39.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	<i>South Australia.</i>						
<b>Imports from New South Wales—*</b>		£ A		£ A		£ A	
Ores from Broken Hill—							
Granular and Slime Concentrates ... ..	tons	245,795	5,152,335	267,782	3,426,535	274,101	3,553,004
Zinc Concentrates ... ..	tons	56,063	84,047	75,778	113,667	62,354	93,531
Coal ... ..	tons	552,047	607,252	600,272	727,830	586,266	779,243
Butter ... ..	lb.	...	...	...	...	252,000	18,234
Sheep ... ..	No.	123,484	†	349,583	†	34,162	†
Wool ... ..	lb.	14,973,337	925,661	16,374,543	870,727	13,511,046	562,059
<b>Exports to New South Wales—*</b>							
Lead ... ..	tons	65,290	1,843,282	82,531	1,535,323	79,437	1,342,390
Iron ore ... ..	...	1,648,461	1,895,730	1,866,914	2,146,951	2,321,157	2,669,330
Motor bodies ... ..	No.	13,694	1,236,665	13,363	1,273,908	11,313	1,084,134
Coal (to Broken Hill) ... ..	tons	11,497	12,647	12,899	15,640	10,725	14,255
Brandy ... ..	pf. gal.	80,427	60,320	72,643	54,482	89,821	67,366
Wine ... ..	gal.	790,660	185,699	772,811	167,910	790,812	179,059
	<i>Western Australia.</i>						
<b>Imports from New South Wales—</b>		£ A		£ A		£ A	
Butter ... ..	lb.	891,533	61,488	514,486	36,834	359,780	27,805
Confectionery ... ..	...	2,211,167	156,581	2,150,215	156,526	2,313,968	168,567
Sugar ... ..	tons	1,390	39,946	661	1,060	823	29,920
Tobacco, manufactured ... ..	lb.	557,060	234,014	640,067	272,185	634,836	276,219
Cigarettes ... ..	...	294,637	284,059	315,004	300,072	305,807	231,046
Apparel and textiles ... ..	...	...	510,181	...	524,252	...	549,908
Coal ... ..	tons	82,781	98,079	21,468	32,065	66,081	90,669
Machinery ... ..	...	...	598,175	...	732,325	...	662,600
Metal manufactures ... ..	...	...	1,225,271	...	925,550	...	993,442
Rubber manufactures ... ..	...	...	146,790	...	145,555	...	136,192
Drugs, chemicals, and fertilisers ... ..	...	...	270,765	...	290,123	...	318,399
Other items ... ..	...	...	1,000,461	...	1,157,250	...	1,059,948
<b>Total Imports from New Sth. Wales</b>	...	4,625,808	...	4,573,797	...	4,544,715	...
<b>Total Exports to New South Wales</b>	...	430,619	...	1,709,169	...	3,761,013	...
	<i>Tasmania.</i>						
<b>Imports from New South Wales—</b>		£ A		£ A		£ A	
Sugar ... ..	tons	13,468	430,929	12,464	398,608	13,355	427,365
Tobacco, cigars, and cigarettes ... ..	...	...	120,528	...	141,413	...	161,002
Machinery and metal manufactures ... ..	...	...	755,985	...	765,706	...	701,535
Other items ... ..	...	...	1,286,947	...	1,333,305	...	1,295,313
<b>Total Imports from New Sth. Wales</b>	...	2,594,339	...	2,639,032	...	2,585,215	...
<b>Exports to New South Wales—</b>							
Fruits—Fresh ... ..	bush.	1,014,527	269,692	1,423,290	338,656	1,374,292	409,136
„ Preserved, pulped ... ..	lb.	7,155,668	77,224	6,962,304	74,810	8,693,648	108,344
Jams and jellies ... ..	...	4,215,640	90,605	4,347,655	99,519	4,601,580	102,997
Potatoes ... ..	tons.	67,633	386,763	77,785	484,775	66,350	825,943
Copper (blister) ... ..	...	13,324	648,790	12,345	503,594	12,563	566,209
Zinc ... ..	...	24,105	513,355	58,888	830,632	23,980	437,963
Other metals and ores ... ..	...	28,772	337,717	9,612	370,838	22,784	407,556
Woollen manufactures ... ..	...	...	276,750	...	322,640	...	371,067
Other items ... ..	...	...	791,072	...	953,180	...	975,594
<b>Total Exports to New South Wales</b>	...	3,391,948	...	3,978,918	...	4,264,809	...

\* 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 Convention for Safety of Life at Sea and the International Load Line Convention.

The provisions of the Navigation Act apply to ships registered in Australia (excepting those engaged solely in the domestic trade of any one State) and other British ships whose first port of clearance and whose port of destination are within the Commonwealth. 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 and to authorise unlicensed ships of any nationality to carry out specified services without being deemed to engage in the coasting trade.

The Governor-General has suspended by proclamation under 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. Moreover 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 Commonwealth 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 319. There is also an Advisory Committee to advise the Board in respect of Newcastle.

Matters relating to seaboard quarantine are administered by the Commonwealth in terms of the Quarantine Act, 1908-1924, and the State Government aids in carrying out the law relating to animal and plant quarantine. 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, plants 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 262.—Shipping Entered and Cleared (N.S.W.), 1901 to 1939.

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
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
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
1939	3,319	11,241,842	3,334	11,232,236	3,378

\* Year ended 31st December.

Approximately 10 per cent. of the shipping arrives in ballast and 6 per cent. of the vessels are cleared in ballast.

The number of vessels entered with cargo in 1938-39 was 2,975 and the tonnage 10,527,376 tons. The vessels cleared with cargo numbered 3,063 and the aggregate tonnage was 10,474,853.

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 3,378 tons per vessel.

Few sailing vessels are engaged in the trade of New South Wales. The entries in 1938-39 numbered 7 with an aggregate tonnage of 731 and the clearances, 8 with a tonnage of 797.

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, 1939, excluding the coastal trade:—

TABLE 263.—Australian States, Shipping Entered and Cleared, 1938-39.

State.	Interstate and Oversea.			
	Entries.		Clearances.	
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.
New South Wales ... ..	3,319	11,241,842	3,334	11,232,236
Victoria ... ..	2,979	8,537,085	2,989	8,479,995
Queensland ... ..	1,218	4,483,698	1,227	4,463,567
South Australia ... ..	1,502	5,761,318	1,556	5,876,567
Western Australia ... ..	916	4,251,368	930	4,326,529
Tasmania ... ..	1,384	2,230,587	1,399	2,276,766
Northern Territory ... ..	161	181,961	172	179,422

## 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. They are exclusive of the trade with intermediate ports, and some of these are visited regularly by many vessels on both inward and outward 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 264.—Shipping Entered from and Cleared for Principal Countries, 1921 to 1939.

Country.	1920-21.		1930-31.		1937-38.		1938-39.	
	Ves-sels.	Net Tonnage.	Ves-sels.	Net Tonnage.	Ves-sels.	Net Tonnage.	Ves-sels.	Net Tonnage.
Australian States ... ..	3,206	6,382,297	3,164	8,076,145	4,488	12,535,717	4,405	12,507,307
New Zealand ... ..	769	1,478,057	346	901,695	424	1,689,502	453	1,705,528
U. Kingdom and Europe ...	582	2,798,459	594	3,499,602	623	3,713,307	640	3,920,993
Africa ... ..	81	225,856	16	50,294	26	87,021	20	82,047
Asia and Pacific Islands ...	1,009	2,179,040	691	2,129,777	806	2,674,574	847	2,885,505
North and Central America ...	299	1,003,137	297	1,269,104	326	1,641,929	280	1,345,570
South America ... ..	96	183,694	7	20,374	4	11,985	8	27,128
Total ... ..	6,042	14,245,540	5,115	15,946,991	6,697	22,354,035	6,653	22,474,073

Shipping to and from the other Australian States in 1938-39 was greater by 6,125,010 tons than in 1920-21, and it has risen by 4,431,162 tons since 1930-31. Shipping engaged in the New Zealand trade during 1938-39 showed increases of 232,471 and 803,833 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 increased by over 63 per cent between 1920-21 and 1937-38; in the following year there was a marked decline. The South American trade, which was mainly for export of coal, has lost its former importance. The shipping to and from Asia and the Pacific Islands has been increasing steadily and in 1938-39 it was 32 per cent. greater than in 1930-31.

## INTERSTATE AND OVERSEA CARGOES.

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

TABLE 265.—Cargoes Discharged and Shipped, 1929 to 1939.

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 ...	1,260	618	970	1,315	4,163	1,978	541	1,307	294	4,120
1930 ...	993	517	1,046	1,129	3,685	1,316	439	808	266	2,679
1931 ...	846	348	662	539	2,395	1,661	370	1,655	253	3,939
1932 ...	775	327	603	458	2,163	1,575	394	1,670	243	3,832
1933 ...	1,171	365	760	567	2,863	1,878	419	1,685	271	4,253
1934 ...	1,400	467	772	713	3,352	1,970	492	1,114	270	3,846
1935 ...	2,030	523	859	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	4,332
1937 ...	2,459	629	1,069	1,061	5,213	2,733	674	1,520	339	5,266
1938 ...	2,823	687	1,336	1,160	6,006	2,963	711	1,500	343	5,622
1939 ...	3,167	676	1,179	1,112	6,134	2,730	672	1,679	359	5,446

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 as inward and outward. In 1928-29 interstate cargoes represented 53 per cent. of the total and oversea 47 per cent. The corresponding proportions in 1938-39 were 63 per cent. and 37 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 1938-39 the volume of trade had risen to 3,843,000 tons or more than double the weight in 1928-29. The main item was iron ore, etc., for the iron and steel works at Newcastle and Port Kembla. Sugar from Queensland, potatoes and timber represented 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 volume of trade in the following year was about the same as in 1928-29.

The aggregate weight of the interstate cargoes shipped in New South Wales increased steadily between 1932-33 and 1937-38. The trade in coal, which represented 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 four years ended June, 1938, the aggregate weight of these cargoes was steady at a high level and there was an increase of about 10 per cent. in 1938-39.

#### 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 266.—Nationality of Shipping, 1901 to 1939.

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	4,739,555	6,739,914	2,766,071	14,245,540	33.3	47.3	19.4
1931	4,639,497	7,930,626	3,376,868	15,946,991	29.1	49.7	21.2
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
1939	7,997,764	10,508,326	3,967,988	22,474,078	35.6	46.8	17.6

\* Year ended 31st December.

There was no sustained increase in the Australian tonnage between 1911 and 1931, and relatively to the total tonnage the proportion of Australian shipping—about 4,600,000 tons (net)—declined from 34 per cent. to 29 per cent. In recent years the proportion has risen to 35.6 per cent. Other British tonnage increased also in recent years though the proportion has remained somewhat lower than in 1931. 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, 1937-38 and 1938-39 are shown in greater detail in the following statement:—

TABLE 267.—Nationality of Shipping (N.S.W.), 1928-29 to 1938-39.

Nationality of Shipping.	Entries and Clearances.						Net Tonnage—Proportion of Total.		
	1928-29.		1937-38.		1938-39.		1928-29	1937-38	1938-39
	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.	Vessels.	Net Tonnage.			
British—							per cent.	per cent.	per cent.
Australia ...	2,651	4,656,402	3,524	7,824,618	3,571	7,997,764	27.3	35.0	35.6
New Zealand ...	421	867,578	429	1,047,357	391	1,076,949	5.1	4.7	4.8
United Kingdom ...	1,573	7,799,698	1,599	8,796,412	1,576	8,865,507	45.8	39.3	39.4
Other British ...	202	579,812	183	626,034	170	565,870	3.4	2.8	2.5
Total ...	4,847	13,903,490	5,735	18,294,421	5,708	18,506,090	81.6	81.8	82.3
Foreign—									
Denmark ...	13	36,140	11	46,409	19	71,615	.2	.3	.3
France ...	110	235,785	133	215,479	125	195,449	1.4	.9	.9
Germany ...	104	443,792	122	522,394	116	504,219	2.6	2.3	2.2
Italy ...	38	101,890	39	219,405	41	231,435	1.0	1.0	1.0
Netherlands ...	99	506,766	112	542,723	144	671,867	3.0	2.4	3.0
Norway ...	97	344,942	168	719,935	135	543,761	2.0	3.2	2.4
Sweden ...	56	175,349	55	194,074	60	190,974	1.0	.9	.9
Japan ...	200	698,983	167	719,650	151	619,942	4.1	3.2	2.8
United States of America ...	140	517,414	97	727,500	97	711,024	3.0	3.3	3.2
Other Foreign ...	8	23,882	58	152,045	57	227,702	.1	.7	1.0
Total ...	865	3,144,946	962	4,059,614	945	3,967,988	18.4	18.2	17.7
Grand Total ...	5,712	17,048,436	6,697	22,354,035	6,653	22,474,078	100.0	100.0	100.0

The tonnage owned in the United Kingdom represented 39.4 per cent. of the total in 1938-39, and the Australian tonnage 35.6 per cent. Foreign tonnage owned chiefly in the United States, Japan, or the Netherlands, was 17.7 per cent. of the total in 1938-39, as compared with 18.4 per cent. in 1928-29 and 18.2 per cent. in 1937-38.

During 1938-39 entries and clearances of Australian tonnage in interstate trade amounted to 7,383,171 tons, and voyages in overseas trade to 614,593 tons. Tonnage to and from New Zealand was 1,076,949. Of the other British tonnage, including ships owned in the United Kingdom, 3,690,943 tons were entered from and cleared for interstate ports and 2,896,900 tons plied between Australia and Great Britain. The tonnage belonging to other nations was employed chiefly in the foreign trade.

During the year 1938-39 the interstate cargoes discharged at ports in New South Wales amounted to 3,842,422 tons, and the oversea cargoes to 2,291,495 tons, and the shipments to interstate ports represented 3,408,381



tons, and to oversea countries 2,037,615 tons. The interstate trade is carried for the most part in Australian ships. The nationality of the vessels which carried the oversea trade is shown below:—

TABLE 268.—Oversea Cargoes according to Nationality of Shipping (N.S.W.)

Nationality of Shipping.	1936-37.		1937-38.		1938-39.	
	Discharged.	Shipped.	Discharged.	Shipped.	Discharged.	Shipped.
	tons.	tons.	tons.	tons.	tons.	tons.
Australia ... ..	97,342	100,891	111,333	163,053	91,839	108,222
New Zealand ... ..	32,407	252,764	27,179	290,507	41,187	320,762
United Kingdom ...	1,188,089	917,286	1,518,212	879,967	1,466,462	932,768
Other British ... ..	167,044	42,546	146,980	54,740	108,874	139,832
<b>Total British</b> ...	<b>1,484,882</b>	<b>1,373,487</b>	<b>1,804,204</b>	<b>1,388,273</b>	<b>1,708,362</b>	<b>1,501,634</b>
Denmark ... ..	21,826	85,753	11,230	22,209	23,759	33,858
France ... ..	8,365	103,830	13,158	116,185	7,654	135,427
Germany ... ..	48,749	34,325	76,684	34,515	67,656	28,394
Italy ... ..	5,368	8,852	16,074	11,909	16,748	7,259
Japan ... ..	86,690	65,781	59,424	47,354	44,710	63,346
Netherlands ... ..	68,769	69,317	64,766	69,040	119,200	91,384
Norway ... ..	281,055	82,598	301,396	39,389	157,372	78,765
Sweden ... ..	49,350	15,520	68,172	16,299	41,110	23,866
United States of America	58,637	55,492	75,752	37,755	38,126	27,895
Other Foreign ... ..	21,318	14,508	4,834	59,813	60,798	45,430
<b>Total, Foreign</b> ...	<b>645,127</b>	<b>485,974</b>	<b>691,490</b>	<b>454,528</b>	<b>583,133</b>	<b>535,981</b>
<b>Total, Oversea</b> ...	<b>2,130,009</b>	<b>1,859,461</b>	<b>2,495,694</b>	<b>1,842,801</b>	<b>2,291,495</b>	<b>2,037,615</b>

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

In 1938-39 British vessels carried 74.6 per cent. of the oversea cargo discharged at ports in New South Wales and 73.7 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 269.—Principal Ports (N.S.W.), Inward Trade, 1901 to 1939.

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	34,085
1911*	2,181	5,246,351	701	1,357,132	64	102,866	121	115,786
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
1931	1,800	6,430,904	601	1,262,149	114	232,228	32	12,833
1932	1,719	6,334,450	546	1,222,757	129	264,122	24	17,620
1936	1,983	7,636,852	770	1,775,939	183	387,592	29	26,382
1937	2,040	8,107,367	888	1,941,852	225	484,723	25	35,702
1938	2,121	8,446,581	957	2,153,553	232	528,043	34	38,502
1939	2,140	8,560,135	886	2,071,733	260	583,197	33	26,777

\* 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 270.—Principal Ports, Cargoes Shipped and Discharged, 1929 to 1939.

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
1931 ...	342,287	348,104	571,001	536,894	416,037*	67,821*	86,003*	25,145
1932 ...	378,123	327,441	545,094	457,827	345,321	42,484*	52,851*	15,214
1936 ...	478,974	598,895	840,659	972,307	1,266,415*	128,458*	319,736	42,494
1937 ...	515,416	612,456	852,932	1,028,270	1,494,937*	159,532*	465,497	59,275
1938 ...	617,908	672,338	1,082,347	1,135,029	1,669,272*	194,976*	550,871	83,342
1939 ...	514,815	654,585	937,513	1,083,432	1,744,625*	205,770*	928,397	64,780
Cargoes Shipped.								
1929 ...	138,737	530,490	981,003	284,842	1,647,563	251,581*	134,741*	73,605
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
1936 ...	190,649	594,713	1,165,737	234,031	1,990,837*	285,981*	171,879	83,523
1937 ...	200,887	654,531	1,082,234	314,207	2,301,941*	347,972*	234,167	93,779
1938 ...	214,354	695,255	953,573	313,231	2,500,635*	445,305*	254,572	108,301
1939 ...	212,389	658,008	1,022,668	322,941	2,255,620*	482,113*	209,258	180,775

\* Includes a small number of tons measurement.

The aggregate tonnage of the interstate cargoes handled in Sydney Harbour in 1938-39 was 2,039,797 tons as compared with 1,632,006 tons in 1928-29. The volume of inward oversea cargoes has been large in recent years though in 1938-39 the tonnage was 4 per cent. less than in 1928-29.

The quantity of wheat exported is an important factor in the weight of cargoes shipped overseas from Sydney. This was somewhat below the average in 1938-39.

The interstate trade of Newcastle and Port Kembla has grown remarkably in consequence of expansion in the iron and steel works.

#### 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. A harbour has been constructed at Port Kembla to accommodate the shipping concerned with the trade of the iron and steel works and other industries established in the district. Artificial harbours, useful for small vessels, have been constructed at Coff's Harbour, Wollongong, Shellharbour, Kiama, and Ulladulla.

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. The total area of the harbour is 14,284 acres or about 22 square miles, of which approximately half carries a depth 30 feet or more at low water ordinary spring tide. The mean range of tide is about 3 feet 6 inches. The foreshores, 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 78,031 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 271.—Port of Sydney, Wharves and Jetties, 1939.

Particulars.	Maritime Services Board of New South Wales.		Private Wharfage.		Total.	
	No. of Berths.	Length.	No. of Berths.	Length.	No. of Berths.	Length.
Ship berths—		feet.		feet.		feet.
Oversea ... ..	67	34,772	14	3,819	81	38,591
Interstate ... ..	24	9,355	3	516	27	9,871
Intrastate ... ..	39	11,223	8	1,202	47	12,425
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
Total ... ..	213	68,103	56	9,928	269	78,031

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. Silos with a capacity of 7,500,000 bushels are available for the storage of wheat in bulk and the grain may be delivered into the holds of the vessels at the rate of 1,400 tons per hour. Plant is available also for the mechanical loading and the storage of bagged wheat.

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 1938-39 certificates were issued to 48 vessels in Port Jackson, certificated to carry 38,638 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.

A comparative statement of the number and tonnage of vessels which entered Sydney Harbour, as recorded by the Maritime Services Board, is shown below. The figures differ from those in Table 269 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 272.—Port of Sydney, Shipping Entered, 1929 to 1939.

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	7,062	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	5,932	8,468,282
1932	3,716	1,218,489	2,133	7,009,467	5,849	8,227,956
1933	3,978	1,285,650	2,337	8,075,066	6,315	9,360,116
1934	4,165	1,333,234	2,333	8,099,493	6,498	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	9,393,687	7,295	10,993,395
1938	4,974	1,699,763	2,781	9,953,364	7,755	11,653,127
1939	4,568	1,533,856	2,816	10,113,461	7,384	11,650,317

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 11,650,000 tons in 1937-38 and 1938-39.

An increasing number of motor ships is engaged in the trade of New South Wales; 1,323, with an aggregate tonnage of 3,617,188 tons, entered the port of Sydney during 1938-39, as compared with 302 with a tonnage of 771,028 in 1928-29. Steamers entered in 1938-39 numbered 6,057, with an aggregate tonnage of 8,033,082 tons. Of these 399 were oil burners, with a tonnage of 2,817,513 tons. Only four sailing ships, 47 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 273.—Principal Ports of Australasia and Great Britain, Shipping Entered, 1938-39.

Port.	Arrivals incl. Coastwise— Net Tonnage.	Port.	Arrivals incl. Coastwise— Net Tonnage.
<i>Australia (1938-39)—</i>		<i>England (1938)—</i>	
Sydney ... ..	11,650,317	London ... ..	30,777,000
Melbourne ... ..	8,646,893	Liverpool (including	
Port Adelaide ... ..	5,524,403	Birkenhead) ... ..	17,628,000
Newcastle ... ..	5,099,481	Southampton ... ..	13,469,000
Brisbane ... ..	4,916,463	Newcastle and Shields	9,130,000
Fremantle ... ..	4,012,219	Cardiff ... ..	7,319,000
Townsville ... ..	1,473,008	Hull ... ..	6,280,000
Port Kembla ... ..	1,225,258	Plymouth ... ..	6,013,000
Hobart ... ..	1,153,143		
Albany ... ..	510,807	<i>Scotland (1938)—</i>	
		Glasgow ... ..	6,574,000
<i>New Zealand (1939)—</i>		Greenock ... ..	3,435,000
Wellington ... ..	3,877,915		
Auckland ... ..	3,079,942	<i>North Ireland (1938)—</i>	
Lyttelton ... ..	2,120,472	Belfast ... ..	7,561,000
Otago ... ..	1,045,079		

As from 1st July, 1928, 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 Maritime Services 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 274.—Port of Sydney, Revenue and Expenditure, 1931 to 1940.

Year ended 30th June.	Capital Debt.	Income.	Expenditure.				Surplus.
			Administration and Maintenance Expenses.	Interest and Sinking Fund.	Exchange, etc.	Total Ex- penditure.	
	£	£	£	£	£	£	£
1931	11,622,200	840,077	269,831	635,571	25,805	931,207	(-)91,130
1932	11,611,905	832,186	244,581	595,698	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
1939	11,276,399	1,155,627	377,843	481,551	57,507	916,901	238,726
1940	11,275,655	1,203,227	356,999	485,264	59,766	902,029	301,198

(-) Denotes deficiency.

The total income during 1939-40 was £1,203,227. After the deduction of administration and maintenance expenses £356,999, interest and sinking fund charges £485,264, and exchange and loan management expenses £59,776, there was a surplus on the year's transactions of £301,198. The ratio of administration and maintenance charges to income was 30 per cent.

The principal sources of revenue were wharfage and transshipment rates, which amounted to £785,109, and rents from properties £273,112. The corresponding amounts for 1938-39 were £773,501 and £280,378.

#### *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 Moschetto 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 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 500 feet of wharfage has been provided for wheat loading purposes.

In 1939 wharfage accommodation was 21,597 feet including 9,198 feet for the shipment of coal, 5,553 feet for general cargo, 2,683 feet for Government purposes, 540 feet for the wheat terminal, 420 feet for bunker wharf extension, and 3,203 feet under lease. The general cargo wharves are connected with the main railway system, and the railway extends along the coal wharves. There are seven sets of mooring dolphins and jetties for vessels awaiting cargo.

The shipping entered during 1938-39 included coastal 2,440 vessels, 1,054,150 tons; interstate, 1,293 vessels, 2,085,994 tons; and overseas, 540 vessels, 1,959,337 tons; total, 4,273 vessels, 5,099,481 tons. In 1937-38 the total was 5,332,450 tons.

Newcastle Harbour is administered by the Maritime Services Board and an advisory committee consisting of five members appointed by the Governor. The chairman of the committee is nominated by the Board and the other members are representative of interests concerned with the administration of the port.

#### 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.

Under an agreement between the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, a comprehensive scheme of control works was designed to provide for navigation by vessels drawing 5 feet of water except in unusual drought.

At 30th June, 1940, the works completed on the Murray River, were the Hume Reservoir (capacity 1½ million acre feet), Yarrowonga Weir, Lake Victoria Storage, thirteen locks and weirs, and barrages across the five channels at the mouth of the Murray in South Australia. These works permit permanent navigation from the mouth to 40 miles above Mildura, a distance of approximately 600 miles. On the Murrumbidgee River, weirs have been constructed at Redbank and Maude, and the scheme has been completed to the stage authorised by existing legislation.

The expenditure for the construction of reservoirs, locks and other works at 30th June, 1940, amounted to £11,760,373, of which New South Wales contributed £4,009,408.

## 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 by the Maritime Services Board. At 30th June, 1940, 54 boats licensed to carry 36,967 passengers were in service, and 857 persons were employed. Approximately 28,260,000 passengers were carried during the year 1939-40, one passenger and 90 employees were injured in accidents, but there was no fatality. The total revenue amounted to £441,840, and the expenditure to £384,424.

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.

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 275.—Rates of Freight, Sydney to London, 1911 to 1940.

Article.	1911.	1920-21.	1930-31.	1938-39.	1939-40.
Butter ... box 56 lb	2s. to 2s. 6d.	6s.	4s.	4s.	4s.    to 5s.
Copra ... ton	40s.	225s. to 120s.	61s. 3d.	61s. 3d.	61s. 3d. to 92s.
Hides ... lb	40s. to 52s. 6d. †	1½d. to 1d.	¾d.	¾d.	¾d. to ¾d.
Leather ... ton	60s.	270s. to 244s.	137s. 9d.	137s. 9d.	137s. 9d. to 206s. 9d.
Mutton—Frozen ... lb	¾d. to 1½d.	1½d.	1d.	1d.*	1d.* to 1 ⅓d.
Tallow ... ton	40s. to 42s. 6d.	180s. to 170s.	70s. 9d.	70s. 9d.	70s. 9d. to 106s. 3d.
Wheat ... ton	17s. 6d. to 30s.	120s. to 46s. 8d.	32s. 6d. to 20s.	31s. 3d. to 33s. 9d.	31s. 3d. to 62s. 6d.
Wool—Greasy ... lb.	¾d. to 1½d.	1½d. †	1 ⅓d. †	1d. †	1d. † to 1½d.
Measured Goods—40 cub. ft.	25s. to 45s.	120s. to 105s.	63s.	63s.	63s. to 94s. 6d.
Timber 100 sup. ft.	6s.	35s. to 22s.	11s.	12s. 6d. to 13s. 9d.	13s. 9d. to 20s. 9d.

† Per ton. † Plus 5% primeage, less 10% rebate, and an additional rebate of 1s. 9d. per bale in 1937-38 and 1938-39. \* Less 7½%. || Less 11%.



Prior to the war wool was carried direct to continental ports in Europe at the same rates as to London, but the rates were higher if it was taken to London and transhipped to the Continent. The rate for greasy and scoured wool from Sydney to Japan was 3d. per lb. in the years 1937-38 to 1939-40.

## 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 276.—Port Charges (N.S.W.), 1911 to 1940.

Charges.	Year ended 30th June.				
	1911.	1921.	1931.	1939.	1940.
	£	£	£	£	£
Pilotage ... ..	43,856	74,733	58,221	74,606	63,876
Harbour Removal Fees ... ..	7,306	10,647	3,786	3,678	3,818
Harbour and Light Rates ... ..	41,331	49,551	46,015	50,381	51,681
*Navigation Department Fees, etc.	9,256	10,839	1,170	6,146	5,871
Harbour and Tonnage Rates (Out-ports) ... ..	6,792	72,865	116,690	237,378	233,460
*Sydney Harbour Trust—					
Wharfage and Tonnage Rates ...	228,379	475,230	499,736	811,681	841,823
Rents of Wharves and Jetties ...	77,930	188,473	192,649	166,215	165,174
Rents of other premises ... ..	46,178	71,666	102,851	114,165	107,938
Miscellaneous ... ..	22,273	61,629	44,841	63,566	88,292
<b>Total ... ..</b>	<b>483,301</b>	<b>1,015,633</b>	<b>1,065,959</b>	<b>1,527,816</b>	<b>1,561,933</b>

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

The light dues collected in Australia by the Commonwealth Government during the year ended 30th June, 1940, amounted to £131,350, and receipts under the Federal Navigation Act to £12,579.

*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).

Sea-going vessels must be surveyed at least once in every twelve months.

The fees for a twelve-months' certificate in respect of steamers and motor ships, 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. 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. 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 ships 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 2½d. per ton (net) 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. Half rates are charged on ships in ballast or resorting to port for docking, repairs, stress of weather, etc., or for pleasure.

The harbour and light rate imposed by the State Government is payable half-yearly at the rate of 4d. per ton (net).

The rate for harbour 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 ranges from 1s. to 10s. 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.

An annual license fee of £5 is charged for moorings owned and used by shipping companies in Sydney Harbour; 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.

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, 1s. per ton; 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 at unleased wharves in Sydney Harbour 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.

*Harbour and Wharfage Rates.*

In addition to the foregoing charges levied on 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 and other ports are published annually in the Statistical Register of New South Wales.

In Sydney Harbour, the inward rate is 4s. per ton assessed by weight or by measurement (40 cubic feet)—at the option of the Board; the outward rate is 1s 6d. and the transhipment rate is 6d. But there are numbers of special rates for important commodities and there is a deduction of 20 per cent. in the charges on goods shipped for conveyance beyond the Commonwealth.

The outward rate for coal is 6d. per ton; wheat and flour 9d. per ton and wool 9d. per bale.

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 is 2s. per ton or 40 cubic feet for coastwise and interstate goods arriving at these ports and 4s. for oversea goods, and the outward rate on coastwise, interstate, and oversea goods is 1s. per ton or 40 cubic feet, unless otherwise specified. The charges on goods shipped to a destination beyond the Commonwealth are subject to a reduction of 20 per cent.

*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. These charges apply to the Port of Sydney only and are payable by the owner of the goods.

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. At Newcastle the charge on wool is 1d. per ton per day; timber 1d. per ton per day for the first four days (after the free period), and thereafter 2d. per day; the charge on wheat is 3d. per ton per week.

## 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 and for ships owned 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, 1939:—

TABLE 277.—Shipping on Register (N.S.W.), 1938-39.

Tonnage Class.	Steam.		Motor.		Sailing.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Under 50 tons ... ..	185	3,805	296	3,568	184	2,045	665	9,418
50 and under 500...	137	22,202	9	1,365	61	9,176	207	32,743
500 ,, ,, 1,000...	17	12,160	3	1,674	3	2,537	23	16,371
1,000 ,, ,, 2,000...	8	12,050	2	2,996	3	3,727	13	18,773
2,000 and over ... ..	5	12,780	2	6,068	...	...	7	18,848
<b>Total ... ..</b>	<b>352</b>	<b>62,997</b>	<b>312</b>	<b>15,671</b>	<b>251</b>	<b>17,485</b>	<b>915</b>	<b>96,153</b>

Twenty-three vessels with an aggregate tonnage of 1,542 tons (net), were sold during 1938-39. Of these 22 with a net tonnage of 1,497 tons were sold to British subjects, and the transactions did not necessarily involve removal from the registers.

## 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 five years ended June, 1939. No licenses to ships were issued at Port Kembla.

TABLE 278.—Transactions at Mercantile Marine Offices, 1935 to 1939.

Year ended 30th June.	Engagements Registered.			Discharges Registered.			Licenses to Ship.	
	Sydney.	New-castle.	Port Kembla.	Sydney.	New-castle.	Port Kembla.	Sydney.	New-castle.
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	9
1937	18,939	3,365	126	19,184	3,298	157	352	5
1938	20,468	3,831	217	20,429	3,827	203	444	9
1939	20,856	3,723	285	21,231	3,609	280	450	6

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 November, 1940, were as follows. Victualling and accommodation are provided in addition to wages:—

TABLE 279.—Wages of Seamen, Coastal and Interstate Vessels, November, 1940.

Occupation.	Rates of Wages per Month.*			
	£ s. d.		£ s. d.	
Masters...	30	2	8	to 99 18 7
Officers—Chief ...	24	5	1	„ 41 8 7
Second ...	22	3	1	„ 36 18 7
Third ...	23	4	1	„ 31 17 4
Junior ...	22	3	1	and 23 14 9
Engineers—Chief ...	25	16	7	to 75 3 7
Second ...	24	5	1	„ 47 10 1
Third ...	22	3	1	„ 38 1 1
Fourth ...	22	13	7	„ 32 16 5
Fifth ...	22	3	1	and 23 14 9
Firemen ...	20	15	3	„ 21 4 1
Trimmers ...	18	2	9	„ 19 0 1
Able Seamen ...	18	2	9	„ 19 0 1
Ordinary Seamen ...	10	11	7	to 12 3 8
Cooks ...	15	7	8	„ 26 11 4
Stewards ...	15	18	2	„ 22 3 4
Stewardesses ...	10	15	9	„ 12 10 10

\* Includes War Risk Bonus.

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 with an independent chairman.

Compensation to seamen is provided by a federal law, the Seamen's Compensation Act, 1911-1938, which applies 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.

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.

Provision has been made in terms of a Commonwealth Act passed in August, 1940, for the payment of war pensions in respect of Australian seamen, who in the course of their employment, sustain war injury, which results in death or incapacity, also for allowances in respect of those who are captured or detained by the enemy. Benefits are provided for dependants, and compensation may be granted to seamen whose effects are lost or damaged by enemy action.

## 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.

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 trade between ports in Australasia and the South Sea Islands or engaged in whaling. The pilotage rates are shown on page 326.

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 following statement shows the wrecks reported in each year from 1931 to 1939. No wrecks were reported in 1935-36. The figures relate to vessels with crews who were domiciled in New South Wales:—

TABLE 280.—Shipwrecks, 1931 to 1939.

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	5	...	8	218	112	23
1939	1	...	...	1	97	11	...

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 1939-40 amounted to £830.

## 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 aero clubs for the encouragement of civil aviation. Air communication is maintained by regular services carrying passengers, mails and freight between towns in Australia and between Australia and other countries. Most of these services receive subsidy from the Commonwealth.

The postage rate for letters by air mail within the Commonwealth and from Australia to New Zealand is 5d. per half ounce; from Australia to Great Britain, 1s. 6d. per half ounce, and from Great Britain to Australia, 1s. 3d. per half ounce.

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 281.—Aviation in New South Wales, 1936 to 1940.

Particulars.	Year ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
Companies or persons owning aircraft (a)	54	44	53	53	50
Aircraft (a)— ... ..	81	68	96	101	100
Licensed Pilots (a)—					
Private ... ..	217	236	303	342	c
Commercial ... ..	71	79	101	116	c
Flights—Number ... ..	23,239	25,596	44,993	45,693	63,648
Hours ... ..	20,141	24,619	31,113	35,077	44,151
Mileage (approximate) ... ..	1,935,346	2,650,630	3,358,269	3,746,444	4,585,270
Passengers carried ... ..	22,691	24,699	41,172	41,411	41,310
Accidents—Persons killed ... ..	8	10	1	5	6
Persons injured ... ..	4	2	2	3	.....
Goods—Weight carried ... ..	lb. 137,103	234,879	268,228	319,247	399,748
Mails—Weight carried ... ..	lb. (b)12,624	(b)22,712	(b)33,479	(b)45,566	(b)49,893

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

(b) Exclusive of particulars of mails carried on interstate services but  
(c) Not available.

## 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.

The Department keeps pace with the advance of science and invention in the provision of facilities for communication throughout Australia and with other parts of the world. Research laboratories are maintained for the investigation of the many technical difficulties which have arisen with the extension of the telephone system, the introduction of wireless telegraphy and the aerial transportation of mails and other problems relating to its activities. Publicity is undertaken to make widely known to the public the services available for communication with other parts of Australia and with oversea countries.

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. The scope and nature of the service provided depends upon the local conditions. Including receiving offices, there were 2,521 post offices in the State at 30th June, 1939. Of these 418 were official, 15 semi-official, and 2,088 non-official. The transport of mails in outlying districts has been expedited considerably in recent years by an extended use of motor vehicles and aerial services. The number of inland mail services in operation in New South Wales in 1938-39 was 2,125. The cost of road services amounted to £233,622, and of railway services to £160,198.

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.



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 1934-35. Particulars of postal matter received from other Australian States are not available.

TABLE 282.—Letters, etc., Posted and Received in New South Wales.\*  
1935 to 1939.

Particulars.	Year ended 30th June.				
	1935.	1936.	1937.	1938.	1939.
	Thousands omitted.				
Letters, Post Cards, Letter Cards and Packets—					
Posted for delivery within the Commonwealth ... ..	295,175	305,912	321,900	334,010	333,132
Despatched to and received from places beyond the Commonwealth	22,318	20,827	22,526	24,349	27,159
Total ... ..	317,493	326,739	344,426	358,359	360,291
Registered Articles (except Parcels)—					
Posted for delivery within the Commonwealth ... ..	2,485	2,567	2,736	2,895	2,795
Despatched to and received from places beyond the Commonwealth	321	342	388	582	452
Total ... ..	2,806	2,909	3,124	3,477	3,247
Newspapers—					
Posted for delivery within the Commonwealth ... ..	60,303	62,564	65,833	68,310	68,130
Despatched to and received from places beyond the Commonwealth	10,315	9,114	9,937	10,721	12,195
Total ... ..	70,618	71,678	75,770	79,031	80,325
Parcels (including those Registered)—					
Posted for delivery within the Commonwealth ... ..	3,433	3,601	3,765	3,848	3,810
Despatched to and received from places beyond the Commonwealth	212	226	234	256	270
Total ... ..	3,645	3,827	3,999	4,104	4,080

\* Includes Australian Capital Territory.

The Dead Letter Office in New South Wales handled 661,277 letters and postcards and 255,923 packets and circulars during 1938-39. Of these 741,824 were returned direct to the writers or delivered, 120,976 were destroyed, and 54,400 were returned as unclaimed to other countries. Money and valuables amounting to £32,761 were contained in postal articles sent to the Dead Letter Office.

A system of cash on delivery post—chiefly for the convenience of people who reside at a distance from trading centres—is in operation in the Commonwealth, Norfolk and Lord Howe Islands, Papua, Territory of New Guinea, Nauru and Fiji. On delivery of an article, the Post Office collects from the addressee a sum of money specified by the sender and transmits it to him. During the year ended 30th June, 1939, the number of such articles posted in New South Wales was 332,419. The value collected was £405,844, and the revenue, that is, postage and commission, £45,097.

The postage rate for letters to places within the British Empire is 2d. per oz. Rates by air mail are shown on page 331.

#### 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.

In June, 1940, uniform rates were introduced for the transmission of telegrams within the Commonwealth irrespective of State boundaries. The charge for the transmission of an ordinary telegram of fourteen words is 9d. between offices 15 miles apart and 1s. between offices more than 15 miles apart. An additional charge of 1d. is made for each word in excess of fourteen. Double rates are charged for urgent telegrams.

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.

Cables have been laid also between the Australian mainland and Tasmania.

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 lan-

guage 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. A new service was introduced in May, 1939 for the transmission of social messages within the Empire at the rate of 5s. for 12 words and 5d. for each additional word. Press telegrams are handled by telegraph or cable at cheap rates under special conditions. Cables to or from members of the Australian Military Forces serving abroad are charged at the rate of 5d. per word, with a minimum charge of 2s. 6d.

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 telegrams 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. Telegrams in transit through the State are not included.

TABLE 283.—New South Wales, Telegrams, 1901 to 1939.

Year ended 30th June.	Telegraph Stations.	Telegrams despatched for delivery in Australia.	International Telegrams.		Revenue Received.
			Despatched.	Received.	
*1901	978	2,669,724	59,360	72,735	£ 186,135
*1911	1,406	4,314,252	129,809	123,910	253,398
1921	2,252	5,906,243	249,705	263,482	489,805
1929	3,069	5,972,606	415,813	388,093	526,508
1931	3,055	4,609,851	326,857	282,253	384,452
1932	3,072	4,362,975	301,117	287,696	354,296
1935	3,025	5,088,853	332,859	324,575	409,137
1936	3,042	5,473,040	343,896	335,051	433,810
1937	3,059	5,843,656	370,741	371,467	462,742
1938	3,056	6,260,793	373,575	380,210	481,922
1939	3,061	6,242,494	375,198	391,250	471,710

\*Calendar Year.

The revenue from the telegraph business reached its peak in 1928-29 and then declined steadily until 1932-33. In 1937-38 it was greater than in any year since 1928-29.

#### WIRELESS TELEGRAPHY.

A chain of Stations for wireless telegraphy has been erected around Australia. The commercial stations are managed under an agreement with the Federal Government by the Amalgamated Wireless (Australasia), Limited, in which the Commonwealth has a controlling interest. Services under the beam system were opened between Australia and Great Britain on 8th April, 1927, and between Australia and Canada on 16th June, 1928.

The rates for messages exchanged with any part of the Empire are 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 1938-39 numbered 148,538, equivalent to 3,216,674 words; and 139,432, equivalent to 4,430,537 words, were received. There is a preponderance of press messages in the inward traffic.

Coastal radio traffic during 1939-40 was 57,828 paid messages, 1,403,336 words; 10,006 service messages, 181,880 words; and 10,930 weather messages, 192,235 words.

The Overseas Radio Telephone Service was established between Australia and Great Britain in April, 1930, 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 have been installed at some aerodromes.

#### *Wireless Licenses and Broadcasting.*

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.

At 30th June, 1940, there were 6 national broadcasting stations in New South Wales, viz., two in the metropolitan area and one each at Corowa, Newcastle, Grafton and Orange. Licensed broadcasting stations at this date numbered 35, of which 6 were in the metropolitan area. There are also a national and a licensed station in the Australian Capital Territory.

Particulars of wireless licenses in force and the number of national broadcasting stations in New South Wales (excluding the Australian Capital Territory) are shown below:—

TABLE 284.—Wireless Licenses, 1929 to 1940.

Licenses.	In force at 30th June—					
	1929.	1934.	1937.	1938.	1939.	1940.
Station—						
Coast ... ..	1	2	2	2	2	1
Ship ... ..	11	16	92	89	93	82
Land ... ..	6	8	8	8	14	19
Broadcasting ... ..	9	16	25	32	35	35
National * ... ..	...	4	6	6	6	6
Broadcast listeners ... ..	100,798	225,897	356,859	402,315	431,159	456,012
Experimental ... ..	214	454	676	724	774	101
Portable ... ..	6	9	13	15	11	13
Aircraft ... ..	1	.....	5	10	14	9
Special ... ..	20	26	34	39	74	72

\* National broadcasting stations are not licensed.

The number of broadcast listeners' licenses increased from 100,798 in 1929 to 456,012 in 1940. The issue of experimental licenses has been discontinued since the outbreak of war in 1939.

The licenses in the Australian Capital Territory at 30th June, 1940, included one land, one broadcasting, 2,143 broadcast listeners' and 2 portable licenses.

The revenue collected in New South Wales in respect of broadcast listeners' licenses in 1939-40 amounted to £480,078, of which £205,649 accrued to the Post Office. The collections during 1938-39 were £453,766, of which the Postmaster-General's Department received £194,380.

#### TELEPHONES.

The telephone system was established in Sydney in 1880, and the system has been installed throughout country districts. 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 1923. 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 used 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 285.—Telephones, 1901 to 1939.

Year ended 30th June.	Exchanges.	Number of Lines Connected.	Public Telephones.	Telephone Instruments connected.
*1901	†48	9,364	72	13,778
*1911	†268	34,551	722	43,032
1921	†921	74,490	1,693	96,710
1929	1,890	146,492	2,779	193,718
1931	1,946	141,445	2,944	188,345
1932	1,942	135,179	2,986	181,326
1935	1,951	150,257	3,459	202,363
1936	1,967	160,323	3,561	215,803
1937	1,985	170,724	3,758	229,727
1938	2,004	181,458	3,941	244,590
1939	2,010	189,915	4,223	257,246

\* Calendar year. † Offices with only one line connected are not included.

At 30th June, 1939, there were in New South Wales 2,010 telephone exchanges with which 189,915 lines were connected. The instruments in use numbered 257,246, including 250,511 subscribers' instruments, 4,223 public telephones, and 2,512 connected with other exchange services. The revenue derived from the telephone services during the year amounted to £3,370,515.

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.

## 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, 1939, are as follows:—

TABLE 286.—Postmaster-General's Department, Revenue and Expenditure in New South Wales, 1938-39.

Branch.	Earnings.	Working Expenses.	Surplus.	Interest on Capital and Exchange Charges.	Net Profit.
	£	£	£	£	£
Postal ... ..	3,052,646	2,115,439	937,207	58,170	879,037
Telegraph ... ..	542,904	495,905	46,999	43,302	3,697
Telephone ... ..	3,370,515	2,118,939	1,251,576	566,399	685,177
Wireless ... ..	202,344	141,627	60,717	6,694	54,023
<b>Total, All Branches ... ..</b>	<b>7,168,409</b>	<b>4,871,910</b>	<b>2,296,499</b>	<b>674,565</b>	<b>1,621,934</b>

The total surplus for the year amounted to £1,621,934, a decrease of £12,758 upon that for 1937-38. The postal branch showed the greatest net profit at £879,037.

A comparative statement of finances for the five years ended 1938-39 is shown below:—

TABLE 287.—Postmaster-General's Department Revenue and Expenditure in New South Wales, 1935 to 1939.

Year ended 30th June.	Earnings.	Working Expenses.	Surplus.	Interest on Capital and Exchange Charges.	Net Profit.
	£	£	£	£	£
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
1938	6,905,419	4,573,147	2,332,272	697,580	1,634,692
1939	7,168,409	4,871,910	2,296,499	674,565	1,621,934

The net profit in 1928-29 was £92,670, and it exceeded £1,600,000 in 1937-38 and 1938-39.

## POSTAL DEPARTMENT EMPLOYEES.

At 30th June, 1939, there were 18,932 persons employed by the Postal Department in New South Wales. Of these, 9,709 were permanent employees, 2,103 non-official postmasters, 579 telephone office keepers, 2,651 mail contractors (including drivers), and 3,890 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. The Great Northern Railway traverses the mountains by way of a 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. 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 Australian States and oversea countries form an integral part of the 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 were made between 1930 and 1932 in 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.

The new arrangements, which are described in the 1938-39 issue of the Year Book at page 360 were designed for the improvement and co-ordination of the services and the elimination of wasteful duplication. A Commissioner for Road Transport was appointed in 1930, transport trusts were constituted to supervise the services in the metropolitan and Newcastle districts, and the tramways were removed from the control of the Railway Commissioners and vested in the transport trusts.

In 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 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 at 126,058 miles in 1939. The nature of the roads and their distribution in municipalities and shires are shown in the following table:—

TABLE 288.—Length of Roads, 1939.

Nature of Road, Street or Lane.	Municipalities.			Shires.	Western Division.	Total N.S.W.
	Metropolitan.	Newcastle.	Other.			
	miles.	miles.	miles.	miles.	miles.	miles.
Cement Concrete ...	205	19	23	85	...	332
Asphaltic Concrete ...	210	14	4	20	...	248
Wood-paved ...	32	...	...	...	...	32
Tar or Bituminous Macadam ...	1,398	77	735	1,069	3	3,282
Surfaced Waterbound Macadam ...	248	15	467	1,856	5	2,591
Waterbound Macadam	320	34	360	2,963	7	3,684
Gravel or Crushed Rock	417	113	1,852	24,121	534	27,037
Formed only ...	241	26	1,151	21,864	1,809	25,091
Cleared only ...	56	22	1,035	24,665	1,558	27,336
Natural Surface ...	210	5	746	31,614	3,850	36,425
Total ...	3,337	325	6,373	108,257	7,766	126,058

The density of roads varies greatly in the different divisions. Within the populous Sydney and Newcastle districts there are, on the average, approximately 13 miles of road to every square mile. 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 0.29 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.

Particulars of the principal roads are published in the 1938-39 issue of the Year Book at page 362.

## 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, and the Minister was empowered to withhold payment from a council if his requirements in respect of main roads were not satisfied.

Later the amount of general endowment was reduced and a separate vote was paid 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 340).

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



The proceeds of the motor tax with the exception of a small proportion paid into the Public Vehicles Fund (see page 389) are distributed amongst the Roads funds. The Developmental Roads Fund receives, as from 1st December, 1939, one-ninth of the total proceeds (that is, the additional yield obtained by an increase of  $12\frac{1}{2}$  per cent. in the rates on the date mentioned) and is required to pay annually £5,000 to the Cumberland Main Roads Fund, and £52,000 to the Country Main Roads Fund. Of the balance (less the amount paid to the Public Vehicles Fund) the tax on vehicles owned by residents of the metropolitan district is apportioned in equal shares between the two Main Roads funds, and the Country Main Roads Fund receives the tax on motor vehicles registered in the country, as well as payments also from funds controlled by the Commissioner for Road Transport, as shown on page 393.

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  $\frac{1}{2}$ d. in the £ of the unimproved capital value of ratable property. The maximum rate was fixed at  $\frac{1}{2}$ 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 as from 1st January, 1938.

Contributions by country councils to the Country Main Roads Fund 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 councils' share of the cost of works.

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. Since 1st July, 1928, the Department has paid the whole cost of works on State highways in the country, 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 them 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.

Until 1st July, 1933, the Developmental Roads fund was debited with such loan charges as were collected from Councils; from this date to the end of 1935 it was liable for all charges on loan debt incurred up to 30th June, 1931. Then it was freed from liability on loans until 1st December, 1939. Since this date it has been debited with charges on all loans expended on developmental roads and works.

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 was authorised 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 certain classes of roads, at least one-fourth of the moneys to be expended 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 ½d. 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 2½ 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 were 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.

*Main Roads Funds—Income and Expenditure.*

Details of the income and expenditure of the funds of the Main Roads Departments for the financial years ended 30th June, 1937 to 1940, are shown below, also the total amounts from 12th March, 1925, to 30th June, 1940:—

TABLE 290.—Main Roads Department, Aggregate Income and Expenditure.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.	Total to 30th June, 1940.
<i>Income.</i>					
Motor taxes, fees, etc. ...	£ 1,882,071	£ 1,891,228	£ 2,018,556	£ 2,119,268	£ 22,470,051
Contributions by Councils ...	244,116	224,929	250,679	232,491	4,494,604
Loans raised by Councils ...	...	...	...	...	693,613
State Appropriations—					
From Revenue ...	...	...	...	...	745,938
From Loans ...	455,860	215,547	302,643	1,003,133	7,935,194
Defence Works ...	...	...	...	13,000	13,000
Federal Appropriations—					
Petrol Tax ...	811,476	1,143,144	1,176,039	1,229,230	10,556,548
Defence Works ...	...	...	...	295,200	295,200
Miscellaneous ...	72,614	52,032	68,331	70,688	889,439
Total ...	£ 3,466,137	3,526,880	3,816,248	4,963,005	48,093,587.
<i>Expenditure.</i>					
Construction ...	1,348,539	1,696,157	1,736,898	2,727,159	24,376,797
Maintenance ...	1,569,719	1,483,619	1,519,929	1,577,013	16,968,300
Loans—					
Repayment and Sinking Fund ...	206,095	212,380	200,591	174,316	2,427,874
Interest ...	155,947	147,961	135,678	184,771	2,039,181
Exchange and Management ...	18,999	17,757	16,791	24,752	200,753
Administrative Expenses ...	86,816	100,826	100,583	108,124	1,153,258
Miscellaneous ...	575	1,296	914	341	73,452
Total ...	£ 3,386,690	3,659,996	3,711,384	4,796,476	47,239,615

In 1939-40 all items of income were higher than in the previous year, except councils' contributions, which declined by £18,188. The net increase was £1,146,757, including increases in motor taxes, etc., £100,712, Federal petrol tax, £53,191, State loans (chiefly for unemployment relief works) £700,490, and a sum of £308,200 was appropriated for defence works.

Expenditure increased by £1,085,092 in 1939-40. There was an increase of £990,261 in construction, £57,084 in maintenance, and £30,779 in loan charges.

The most important item of income is motor taxes, fees, etc., which yielded 42.7 per cent. of the total income in 1939-40. Federal petrol tax grants represented 24.8 per cent., State loan appropriations 20.2 per cent. councils' contributions 4.7 per cent., and appropriations for defence works 6.2 per cent. The proportionate distribution of the aggregate income up to 30th June, 1940, according to its sources was: motor taxes, fees, etc., 46.7 per cent.; Federal petrol tax grants, 21.9 per cent.; loans, 17.9 per cent.; councils' contributions, 9.4 per cent.; State revenue grants, 1.6 per cent.; other 2.5 per cent.

The maintenance of roads and bridges absorbed 32.9 per cent. of the total expenditure during 1939-40; construction, 56.9 per cent.; loan redemption, 3.6 per cent.; interest, exchange, etc., 4.3 per cent.; and administration 2.3 per cent.

The annual expenditure on the construction of roads and bridges has exceeded the amount spent on maintenance except in the years 1931-32 to 1936-37.

Of the aggregate expenditure to 30th June, 1940, the sum of £2,427,874 was utilised 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, 1940, on road works and annual charges other than debt redemption, was £44,811,741, of which 54.4 per cent. was disbursed on construction, 37.9 per cent. on maintenance, 5.0 per cent. on interest, exchange, etc., 2.6 per cent. on administration, and 0.1 per cent. on miscellaneous items.

Details of the expenditure and income of each of the funds during the year 1939-40 are shown in the following statement:—

TABLE 291.—Main Roads Department—Income and Expenditure, 1939-40.

Particulars.	Cumberland Main Roads.	Country Main Roads.	Develop- mental Roads.	Total. All Funds.
<i>Income.</i>				
Motor Taxes, Fees, etc. ...	£ 478,312	£ 1,530,697	£ 110,259	£ 2,119,268
Contributions by Councils ...	215,961	16,530	...	232,491
State Appropriations—				
Loans ... ..	264,839	618,994	119,300	1,003,133
Defence Works ... ..	...	13,000	...	13,000
Federal Grants—				
Petrol Tax ... ..	288,869	940,361	...	1,229,230
Defence Works ... ..	60,747	234,453	...	295,200
Miscellaneous ... ..	32,555	38,101	27	70,683
<b>Total ... ..</b>	<b>£ 1,341,283</b>	<b>3,302,136</b>	<b>229,586</b>	<b>4,963,005</b>
<i>Expenditure.</i>				
Construction ... ..	831,305	1,745,953	149,901	2,727,159
Maintenance ... ..	290,153	1,286,860	...	1,577,013
Loans—				
Repayment and Sinking Fund ... ..	119,769	49,623	4,924	174,316
Interest ... ..	48,126	105,176	31,469	184,771
Exchange and Manage- ment ... ..	5,639	14,654	4,459	24,752
Administrative Expenses ...	28,562	75,871	3,691	108,124
Miscellaneous ... ..	341	...	...	341
<b>Total ... ..</b>	<b>£ 1,323,895</b>	<b>3,278,137</b>	<b>194,444</b>	<b>4,796,476</b>

The Cumberland Main Roads Fund received 22.6 per cent. of the Motor Tax, fees, etc., paid to the roads funds in 1939-40, the Country Main Roads Fund 72.2 per cent., and Developmental Roads Fund 5.2 per cent. The Cumberland Fund received 23.5 per cent. of the Federal petrol tax and the Country Fund, 76.5 per cent.



The income and expenditure of the Main Roads Department in each of the last ten years and the total since its establishment are shown in the following table. The Federal Aid Roads moneys amounting to £3,537,075 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., County of Cumberland roads, £620,884; country main roads, £2,924,434; and developmental roads, £291,757.

TABLE 292.—Main Roads Department—Income and Expenditure of Various Funds to 30th June, 1940.

Year.	Cumberland Main Roads.	Country Main Roads.	Developmental Roads.	Total all Roads.
<i>Income.</i>				
To 30th June, 1930* ...	£ 5,851,232	£ 10,158,846	£ 1,301,404	£ 17,311,482
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
1938-39 ... ..	1,056,681	2,649,270	110,297	3,816,248
1939-40 ... ..	1,341,283	3,392,136	229,586	4,963,005
Total to 30-6-40 ...	14,508,673	30,879,267	2,705,647	48,093,587
<i>Expenditure.</i>				
To 30th June, 1930* ...	5,482,223	9,310,230	1,189,035	15,981,488
1930-31 ... ..	863,657	1,769,865	216,816	2,850,338
1931-32 ... ..	608,914	1,055,337	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	198,321	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
1938-39 ... ..	1,023,388	2,582,218	105,778	3,711,384
1939-40 ... ..	1,323,895	3,278,137	194,444	4,796,476
Total to 30-6-40 ...	14,170,693	30,386,406	2,682,516	47,239,615

\* From 12th March, 1925, to 30th June, 1930.

The funds of the Main Roads Department, as represented by income, expanded steadily between 1932-33 and 1938-39 and there was further marked increase in 1939-40. In this year motor tax was higher in comparison with 1932-33 by £890,548, petrol tax by £716,180, and loan receipts by £916,934.

The actual expenditure from the funds to 30th June, 1940, was £44,811,741 excluding £2,427,874 in respect of repayment of loans, as shown on page 348.

#### 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, and the bridge was transferred to the Government in 1930. A bridge across the George's 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. Tolls collected in 1939 on the George's River Bridge amounted to £40,353, and on the Parramatta River Bridge to £16,948; collections on the Sydney Harbour Bridge are shown in Table 293.

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. With the exception of Peats Ferry and Stockton Ferry these services are operated free of charge to the public, but the Government makes a small grant annually (£6,193 in 1939-40) to compensate municipal and shire councils for revenue lost by the abolition of tolls in 1908. Services are operated by the Main Roads Department on the Pacific Highway across the Hawkesbury River at Peat's Ferry, and across the Hunter River between Newcastle and Stockton. The tolls collected in 1939-40 amounted to £33,618 and £2,731 respectively.

#### *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 350 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, 1940, was £9,871,600, but the final cost will probably approximate £9,500,000 upon realisation of surplus resumed lands. The expenditure to 30th June, 1940, included £4,802,634 paid to the contractors in respect of the main bridge and steel approaches, £2,336,244 expended by the Public Works Department on the

bridge and approaches, £1,144,673 on resumptions, £93,061 on Lavender Bay railway station and minor works, and £1,494,988 interest and exchange capitalised.

Tolls are charged for traffic other than pedestrian, and the railway, tramway and omnibus authorities pay a prescribed amount in respect of each paying passenger carried across the bridge. Part of the cost of the bridge was met by a special levy on land in adjacent local areas; the levy was abolished at the end of 1937.

The charges payable in respect of vehicular traffic across the bridge (other than railway and 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	3
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 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 for the last five years and the total from 19th March, 1932, to 30th June, 1940, are shown below:—

TABLE 293.—Sydney Harbour Bridge, Income and Expenditure.

Particulars.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	Total to 30th June, 1940.
	£	£	£	£	£	£
<b>Income—</b>						
Road Tolls ... ..	215,873	234,283	261,428	278,297	283,762	1,834,779
Railway Contributions ... ..	107,320	113,838	115,880	103,697	80,538	765,407
Tramway ... ..	53,971	54,607	54,716	33,991	14,042	368,447
Omnibus ... ..	...	...	5,042	4,746	3,967	13,755
Councils' ... ..	81,320	65,712	33,516	154	38	733,961
Other ... ..	7,035	9,165	8,522	8,213	8,842	56,566
<b>Total Income ... ..</b>	<b>£ 465,519</b>	<b>477,605</b>	<b>479,104</b>	<b>429,098</b>	<b>391,189</b>	<b>3,772,915</b>
<b>Expenditure—</b>						
Maintenance ... ..	44,385	33,235	46,421	36,739	37,367	258,039
Collection of Road Tolls ... ..	8,365	8,505	10,111	10,520	10,494	73,051
<b>Loan Charges—</b>						
Interest ... ..	324,777	286,504	296,066	294,748	292,535	2,654,805
Exchange ... ..	46,384	37,652	38,339	38,454	39,892	388,579
Management ... ..	5,761	2,916	3,021	1,596	1,540	26,958
Sinking Fund ... ..	34,027	35,492	38,884	40,563	43,868	294,062
Other ... ..	3,461	1,308	1,909	1,674	1,340	19,208
<b>Total Expenditure ... ..</b>	<b>£ 467,160</b>	<b>405,612</b>	<b>434,751</b>	<b>424,294</b>	<b>427,036</b>	<b>3,714,702</b>

There was a surplus of income over expenditure in each of the three years 1936-37 to 1938-39, but a deficiency of £35,847 was incurred in 1939-40, when reductions in tolls introduced in January, 1938 became fully effective. The accumulated surplus to 30th June, 1940, amounted to £58,213.

#### EXPENDITURE ON ROADS, BRIDGES, ETC.

Moneys expended on roads in New South Wales are disbursed for the most part by the Department of Main Roads and the councils of municipalities and shires, and some road works have been constructed by other Governmental departments and bodies—usually for the relief of unemployment.

As described in this chapter, the various authorities frequently undertake road works in association with or as agent for others and expend moneys contributed as grants or loans by other authorities. Moreover, large sums have been expended on unemployment relief works during the past ten years and complete information is not available in some cases as to the expenditure on roads as distinct from other relief works. Consequently, it is difficult to ascertain from the accounts of all these authorities, without duplication or omission, the aggregate amount actually expended on roads streets and bridges in New South Wales. Therefore, the particulars in the following table are to be regarded as approximate—especially the amounts classified as “other” expenditure by the State Government. The expenditure on construction, maintenance and direct administration from revenue and loans is included, but not debt charges (interest or repayment) on loans. Where the State Government or Departments have paid for works constructed by councils the expenditure is classified under the heading “State Government”, and the expenditure classified as “Local Government” represents the approximate expenditure from revenue and loans raised by the councils.

TABLE 294.—Total Expenditure on Roads, Streets and Bridges in New South Wales, 1922 to 1940.

Year.	State Government.		Local Government (Municipalities and Shires.)*	Total.
	Main Roads Department,	Other.		
	£	£	£	£
1921-22	.....	861,963	2,374,849	3,236,812
1926-27	2,554,075	563,580	3,633,985	6,751,640
1931-32	1,400,366	301,715	2,585,669	4,287,750
1932-33	2,026,227	584,618	1,964,733	4,575,578
1933-34	2,215,741	1,562,618	1,837,102	5,615,461
1934-35	2,752,653	2,115,765	1,879,644	6,754,062
1935-36	2,552,580	2,082,645	2,071,576	6,706,801
1936-37	3,005,649	1,401,421	2,359,104	6,766,174
1937-38	3,281,898	1,457,751	3,397,590	8,137,239
1938-39	3,358,924	2,019,138	3,516,637	8,894,099
1939-40	4,412,637	1,352,047	†	†

\* Calendar ended six months earlier.

† Not available.

Expenditure on the Sydney Harbour Bridge is not included in the table. Construction was started in 1923-24 and the bridge was opened in March, 1932. Capital expenditure amounted to £910,077 in 1926-27 and £1,629,178 in 1931-32.

## RAILWAYS.

The total length of railways open for traffic in New South Wales at 30th June, 1940, was 6,472 miles, including 6,141 miles of line vested in the Railway Commissioner of New South Wales; a line  $2\frac{1}{2}$  miles long from Liverpool to Holdsworthy owned by the Federal Government; 241 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 length of State railways laid with one or more tracks is shown in Table 296.

### 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 340.

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. From 1st July, 1928, 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 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.

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 and the order of construction and rate of progress 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 30th March, 1857.

The total length of the lines open at 30th June, 1940, was 6,141 miles, distributed as follows:—Southern system, 2,189 miles; Western, 2,206 miles; and Northern, 1,746 miles. In addition there were 1,275 miles of sidings and crossovers.

The growth of the State railway system is illustrated in the following table:—

TABLE 295.—Railways, Lines Open and Capital Cost, 1855 to 1940.

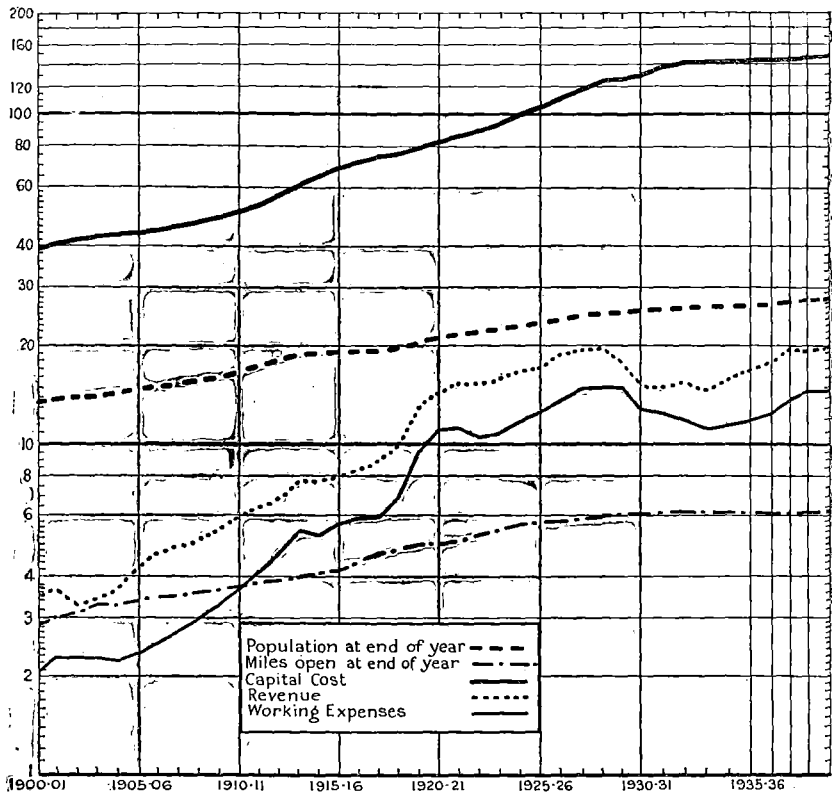
Period.*	Lines opened for traffic during the period.	Lines open for traffic at end of period.			Capital expenditure on lines open for traffic—	
		Total length.	Population per mile.	Area per mile.	During the period.	Total at end of period.
	Miles.	Miles.	No.	Sq. miles.	£	£
1855-64 ...	143	143	2,789	2,170	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 ...	780	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
1939 ...	...	6,114	449	50	809,457	147,617,530
1940 ...	27	6,141	453	50	1,586,378	149,203,908

\* 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.

A line from Sutherland to Cronulla (6 miles) was opened on 16th December, 1939, and a branch from Bungendore to Captain's Flat (21 miles) on 17th June, 1940. Work is proceeding on the uncompleted portion of the City Railway between Wynyard and St. James stations and on a line from Mary Vale to Sandy Hollow (150 miles). This 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.

**RAILWAYS, 1890-91 TO 1939-40.**  
(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 lines laid with one or more tracks at intervals since 30th June, 1901:—

TABLE 296.—Railways, Length and Classification of Tracks, 1901 to 1940.

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*	5,043
1931	5,381	612	8	35	8†	6,044
1936	5,455	617	8	36	8†	6,124
1940	5,472	617	7	37	8†	6,141

\*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  $1\frac{1}{2}$  miles—in February, 1932. Suburban services along the main western, southern and northern Sydney lines were connected with the North Sydney line by the opening of the Sydney Harbour Bridge in March, 1932.

The suburban railways are for the most part operated by electricity; the total length of the lines under the electric system at 30th June, 1940, was 110 miles 32 chains, as shown below:—

TABLE 297.—Electric Railways, Length, 30th June, 1940.

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 East Hills ...	10	38	Regents Park to Bankstown	2	53
Sutherland to Cronulla ...	6	25	Sefton Park East to North		
Western—			Junction ... ..	0	31
Sydney to Parramatta ...	14	60	North Shore Line ... ..	14	38
Clyde-Rosehill Racecourse	1	16			
Northern—					
Strathfield to Hornsby ...	14	13			
			Total ... ..	110	32

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, 1940, amounted to £149,203,908, excluding the cost of the line,  $2\frac{1}{2}$  miles in length, from Wynyard across the Sydney Harbour Bridge to Waverton. The cost of construction was £102,346,952, and the expenditure on rolling stock and other equipment £46,856,956, viz.: Rolling stock, £27,975,428; electric power stations, substations and plant, £9,005,388; machinery £2,442,701; workshops, £2,806,618; reconditioning of track, £2,689,100; tourist resorts, £52,685; 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, 1940, was £24,305 for construction, rolling stock and other equipment, including £16,672 for construction. The cost of construction varies greatly according to the class of traffic for which the lines are constructed, the number of tracks laid, and 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 £149,203,908 expended to 30th June, 1940, an amount of £666,864 was provided from consolidated revenue, and £2,689,100 represented the outstanding balance of an advance of £3,300,000 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.

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 1939-40 was 3.67829 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 298.—Railways, Capital Charges and Net Earnings, 1901 to 1940.

Year ended June.	Capital Expended on Lines open.	Capital Charges.			Net Earnings.	Annual Contribution from Consolidated Revenue.	Deficit.
		Interest.	Exchange, Loan Management.	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*
1921	82,304	3,812	...	3,812	3,235	...	577
1929	124,329	6,150	...	6,150	4,638	800	712
1931	132,565	6,790	795	7,585	2,363	800	4,422
1936	143,843	5,700	904	6,604	5,106	800	698
1937	145,257	5,444	789	6,233	5,461	800	28*
1938	146,808	5,340	1,135†	6,475†	5,726	800	51*
1939	147,618	5,360	1,215†	6,575†	4,603	800	1,172
1940	149,204	5,350	1,202†	6,552†	5,308	800	444

\* Surplus. † Includes Sinking Fund. (See context page 359.)

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.

With the onset of depression there was serious deterioration in the financial results of railway operations and rapid recovery between 1932-33 and 1937-38. In the following year, seasonal conditions were unfavourable and working costs increased and there was a large deficit. Fares and freights

were raised in March, 1939, and with a bountiful season, an improvement was effected, notwithstanding loss incurred by reason of a prolonged industrial dispute in coal mining.

The railways were first charged with contributions to the National Debt Sinking Fund as from 1st October, 1937. In the accounts of the railways part of the charge is included in working expenses for the retirement or writing down of assets, and the balance is appropriated from net earnings. The contributions during the last three years and the manner in which they were charged in the accounts are shown below:—

TABLE 299.—Contributions from Railways to National Debt Sinking Fund.

Year Ended 30th June.	Charged to Working Expenses.	Appropriated from Net Earnings.	Total.
	£	£	£
1938 ... ..	159,653	370,347	530,000
1939 ... ..	250,815	496,185	747,000
1940 ... ..	316,333	483,667	800,000

Capital charges, comprising interest, exchange and debt management—less the Treasury contribution of £800,000 towards the loss on non-paying lines—absorbed 26.4 per cent. of earnings in 1939-40, and the contribution for sinking fund purposes, including the portion charged as working expenses, absorbed 4 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 300.—Railways, Gross Earnings and Working Expenses, 1901 to 1940.

Year Ended 30th June.	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
1921	14,267,205	11,032,677	77.3	3,234,528	4.01
1929	19,615,616	14,978,050	76.4	4,637,566	3.82
1931	15,205,741	12,842,333	84.5	2,363,408	1.80
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
1939	19,146,441	14,542,980	76.0	4,603,461	3.13
1940	19,954,851	14,646,934	73.4	5,307,917	3.58

The ratio of working expenses to gross earnings 84.5 per cent. in 1930-31 was the highest yet recorded, and the ratio 69.4 per cent. in 1936-37 was the lowest since 1918-19. It rose sharply to 76.0 per cent in 1938-39, following substantial increases in rates of wages and prices of materials, and declined to 73.4 per cent. in 1939-40, when there was a marked increase in gross earnings due in part to higher fares and freight rates.

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 301.—Railways, Operating Results per Mile, 1901 to 1940.

Year Ended 30th June.	Per Train Mile.			Per Average Mile Open.		
	Gross Earnings.	Working Expenses.	Net Earnings.	Gross Earnings.	Working Expenses.	Net Earnings.
	d.	d.	d	£	£	£
1901	79·68	47·23	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
1929	171·93	131·28	40·65	3,323	2,537	786
1931	143·15	120·90	22·25	2,529	2,136	393
1936	146·88	102·65	44·23	2,768	1,934	834
1937	149·79	103·87	45·92	2,909	2,017	892
1938	154·84	109·34	45·50	3,187	2,251	936
1939	152·63	115·93	36·70	3,132	2,379	753
1940	162·51	119·28	45·23	3,262	2,394	868

## NON-PAYING LINES.

Many railways in 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 calendar year 1939, together with aggregate figures for the preceding year:—

TABLE 302.—Railways, Non-paying Lines, 1939.

Lines.	Length.	Capital Cost.	Interest and Exchange.	Working Expenses.	Earnings.	Loss after providing for Working Expenses, Interest, etc.
Northern—						
Main Line—Tamworth to Wallangarra .. .. .	miles	£	£	£	£	£
Branch lines .. .. .	540	3,140,606	143,213	230,876	207,131	166,958
Total Northern .. .. .	759	3,250,233	148,212	245,421	222,221	171,412
Total Northern .. .. .	759	6,390,839	291,425	476,297	429,352	358,370
North Coast and Branches .. .. .	564	13,035,278	594,415	1,081,004	1,126,070	499,349
Southern—Branch lines .. .. .	1,444	11,882,364	537,342	711,492	703,268	545,566
South Coast—Klarna to Nowra .. .. .	23	441,726	20,143	32,836	24,758	28,221
Western—						
Main Line—Nyngan to Bourke .. .. .	126	800,965	36,524	65,921	56,449	45,996
Branch lines .. .. .	1,259	9,157,343	417,601	768,747	680,091	506,257
Total Western .. .. .	1,385	9,958,308	454,125	834,668	736,540	552,253
Suburban .. .. .	34	1,322,478	60,305	146,663	86,146	120,822
Total Specified Lines, 1939 .. .. .	4,209	43,081,493	1,957,755	3,232,960	3,106,134	2,034,581
" " " 1938 .. .. .	4,209	43,010,936	1,983,103	3,238,923	3,146,094	2,075,932

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 303.—Railways, Classification of Earnings and Expenses.

Particulars.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
<i>Earnings.</i>					
	£	£	£	£	£
Passengers ... ..	7,238,329	4,943,790	5,994,542	6,024,096	6,347,204
Mails, parcels, horses, etc. ...	886,387	662,640	849,441	853,050	827,351
Total Coaching	£ 8,124,716	5,606,430	6,843,983	6,877,146	7,174,555
Goods—					
Merchandise ... ..	6,196,543	4,533,059	6,534,062	6,393,309	6,603,981
Wool ... ..	804,064	849,641	710,687	672,573	843,062
Livestock ... ..	1,315,552	1,250,462	1,323,969	1,121,956	1,420,916
Minerals ... ..	2,063,033	1,220,153	2,103,122	2,009,564	1,800,763
Miscellaneous ... ..	...	...	158,999	158,646	182,671
Total Goods	£ 10,379,192	7,853,315	10,830,839	10,356,048	10,851,393
Refreshment-rooms ...	£ 745,070	502,484	656,378	649,419	653,542
Rents ... ..	221,088	168,937	185,375	195,833	195,691
Sale of electrical energy	} 145,550	{ 737,929	873,273	955,629	1,024,821
Miscellaneous ... ..					
Total Earnings	£ 19,615,616	15,001,022	19,486,116	19,146,441	19,954,851
<i>Working Expenses.</i>					
Maintenance of way and works	2,538,981	2,346,791	2,614,489	2,971,814	2,834,631
Rolling Stock—					
Maintenance ... ..	3,448,215	2,848,143	3,022,837	3,001,134	3,047,026
Motive power—					
Coal, etc. ... ..	1,151,235	689,610	675,148	721,289	796,161
Other ... ..	2,203,501	1,563,938	1,678,972	1,705,414	1,713,617
Other rolling stock ... ..	200,513	178,939	185,466	194,113	186,798
Transportation and traffic	3,848,525	3,059,815	3,323,903	3,501,654	3,484,182
Electrical ... ..	292,176	694,418	775,714	934,398	1,007,475
General charges and stores ...	506,093	433,489	534,185	559,374	575,803
Refreshment-rooms ... ..	728,811	523,886	642,274	646,290	645,241
Contribution to Superannua- tion Fund ... ..	60,000	171,000	307,000	307,500	356,000
Total Working Ex- penses ... ..	£ 14,978,050	12,510,029	13,759,988	14,542,980	14,646,934
Net Earnings ... ..	£ 4,637,566	2,490,993	5,726,128	4,603,461	5,307,917

Between 1928-29 and 1931-32 earnings declined from £19,615,616 to £15,001,022 or by £4,614,594, notwithstanding the inclusion of a new item, sales of electricity, £737,929 in the latter year. Earnings again exceeded £19,000,000 in the last three years, and the amount in 1939-40 was the highest yet recorded. Earnings from coaching traffic in this year were less by £950,161 than in 1928-29, but this was offset by receipts from the sale of electricity, £1,024,821.

During 1939-40 the earnings derived from the carriage of passengers represented 31.8 per cent. of the total; mails, parcels, etc., 4.2 per cent.; goods, 54.4 per cent.; refreshment rooms, 3.3 per cent.; sales of electricity to tramways, etc., 5.1 per cent.; rent and miscellaneous items, 1.2 per cent. The expenditure on locomotive power represented 17.1 per cent. of the working expenses; transportation and traffic, 23.8 per cent.; maintenance of rolling stock, 22.1 per cent.; maintenance of ways and works, 19.4 per cent., and electrical, 6.9 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 304.—Railways, Passenger Traffic, 1901 to 1940.

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	164,638	*	*	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	799,586	*	*	5,736,256
1929 ...	16,738	140,158	10,958	151,116	1,045,854	774,847	1,820,701	7,238,329
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
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
1939 ...	19,173	174,611	12,109	186,720	1,361,839	787,315	2,149,154	6,024,096
1940 ...	18,388	167,597	11,469	179,066	1,412,793	786,771	2,199,564	6,347,204

\* Not available on comparable basis.

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 proceeded steadily until 1937-38. The number of journeys was highest in 1937-38 and the mileage in 1939-40.

The decline in passenger journeys after 1928-29 was relatively greater in first-class than in second-class. First-class suburban journeys numbered 14,300,000 and the distance was 113,777,000 miles in 1928-29 representing 10 per cent. of journeys and 11 per cent. of mileage. In 1937-38 the number of journeys was only 6,106,000 or 3.5 per cent., and the miles 56,610,000 or 4.2 per cent. This was the last full year in which first-class accommodation was provided in suburban districts. One class accommodation at second-class fares was introduced in the Newcastle suburban area on the 1st February, 1939, and in the Sydney suburban area on 1st January, 1940.

On country lines the decline in first-class traffic since 1928-29 has been substantial though not so steep as in suburban journeys, viz., from 2,597,000 journeys or 23.7 per cent. and 267,785,000 miles or 34.6 per cent. in 1928-29 to 1,633,000 journeys, 12.9 per cent. and 183,854,000 miles 23.4

per cent. in 1937-38. After a slight increase in the percentages in 1938-39, the number of first-class journeys in 1939-40 was 1,476,000 or 12.9 per cent. and the mileage 175,567,000 representing 22.3 per cent. of the country travel.

Particulars of first and second class passenger traffic on country lines during the years ended June, 1929, and 1940 are shown below:—

TABLE 305.—Railways, Passenger Traffic, 1st and 2nd Class.

Particulars.	Year ended June, 1929.			Year ended June, 1940.		
	First Class.	Second Class.	Total.	First Class.	Second Class.	Total.
Passengers ... .. 000	2,597	8,361	10,958	1,476	9,993	11,469
Miles travelled ... .. 000	267,785	507,092	774,847	175,567	611,204	786,771
Average Mileage per Passenger ...	108·10	60·05	70·71	118·92	61·16	68·60
Amount Received from Passengers ... .. £	1,868,149	2,844,161	4,212,310	1,053,970	2,141,233	3,195,203
Average Receipts per Passenger per mile ... .. d.	1·67	1·11	1·30	1·44	0·84	0·97

On country lines the average journey by first-class passengers was 119 miles, and by second-class 61 miles, the rate per mile being 1.44d. and 0.84d., respectively. The journeys of second-class passengers represented 78 per cent. of the mileage in 1939-40 and 67 per cent. of the receipts.

Information relating to the density of passenger traffic on suburban and country lines in 1928-29 and later years is contained in the following table:—

TABLE 306.—Railways, Density of Passenger Traffic, 1929 to 1940.

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	0·69	5·18	3,805,872
1932 ... ..	93	7·12	0·69	4·93	3,003,947
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
1939 ... ..	145	7·80	0·53	4·13	4,752,370
1940 ... ..	152	8·43	0·54	4·51	4,872,877
<i>Country Lines.*</i>					
1929 ... ..	84	70·71	1·30	92·26	133,385
1932 ... ..	64	67·50	1·17	78·83	85,008
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
1939 ... ..	81	65·02	0·92	59·88	130,874
1940 ... ..	87	68·60	0·97	66·86	130,766

\* 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 27 per cent. The increase after 1931-32 followed upon reductions in fares, and was greater in second-class traffic than in first-class, so that the average receipts per passenger mile declined until 1936-37. There was little change in subsequent years when increases in fares were almost offset by the abolition of first-class travel.

The density of country traffic declined by 36 per cent. between 1928-29 and 1931-32, but since 1937-38 it has been only 2 per cent. below its former level. The receipts per passenger mile which had been falling slowly since 1928-29 rose slightly in 1939-40.

#### 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 307.—Railways Goods Traffic, 1901 to 1940.

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
1929	10,644,549	14,516,643	1,690,560	10,379,192
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
1936	10,252,956	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	10,830,839
1939	10,932,726	15,417,297	1,760,534	10,356,048
1940	11,082,400	14,619,716	1,827,662	10,851,393

\*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 largest tonnage on record was 17,225,000 tons in 1926-27. A decline in coal trade and the onset of depression caused a rapid fall and in 1931-32, the total tonnage was the smallest since 1909-10. There was an increase in each year between 1932-33 and 1937-38 and in the latter year the aggregate was only 745,000 tons less than in 1926-27. In 1938-39 and 1939-40, goods traffic was affected adversely by industrial disputes in coalmining, the mines being idle for seven weeks in 1938-39 and ten weeks in 1939-40. There was an aggregate decrease of 1,860,000 tons in these two years; coal decreased by 1,135,000 tons and other minerals by 512,000 tons.



The following statement shows the tonnage of the several classes of goods carried on the railways in various years since 1901:—

TABLE 308.—Railways, Classification of Goods Tonnage, 1901 to 1940.

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
1929	1,767,585	3,631,914	179,960	729,581	5,801,880	2,405,723	14,516,643
1931	2,128,431	2,067,786	162,031	639,043	4,564,964	1,180,854	10,743,109
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	1,885,082	3,633,902	185,009	890,633	8,022,537	1,863,216	16,480,379
1939	2,072,176	3,344,060	165,156	738,386	7,633,188	1,464,331	15,417,297
1940	2,026,527	3,339,874	207,207	807,554	6,887,534	1,351,020	14,619,716

The gross earnings in respect of the various classes of goods carried during 1939-40 were as follows:—Coal, coke, and shale, £1,458,095, other minerals, £342,668; live stock, £1,420,916; grain and flour, £1,351,979; wool, £843,062; general merchandise £5,252,002; miscellaneous earnings for demurrage, etc., £182,671.

The following table contains information relating to the density of goods traffic.

TABLE 309.—Railways Density of Goods Traffic, 1911 to 1940.

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
1929 ... ..	183.17	118.16	1.45	286,376
1931 ... ..	183.62	134.25	1.30	237,260
1932 ... ..	186.00	139.99	1.33	233,030
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
1939 ... ..	183.41	115.95	1.39	288,442
1940 ... ..	185.12	126.11	1.40	299,236

\* 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. Return tickets for travel outside Sydney or Newcastle suburban area are issued at single fare plus one-third, and cheap fares are available for journeys to tourist districts and holiday resorts. Since November, 1933, concession fares are charged for suburban travel during the week-end period.

The following table indicates the changes since June, 1921, in the ordinary fares for single journeys from Sydney or Newcastle:—

TABLE 310.—Railway Fares for Single Tickets.

Date.	5 mls.		10 mls.		20 mls.		34 mls.		50 mls.		100 mls.		200 mls.		300 mls.	
	d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
First Class.																
1921 June	8	1 3	2 5	4 1	7 7	18 7	40 7	62 2								
1924 June	8	1 2	2 0	3 2	6 8	17 7	37 7	56 5								
1927 Dec.	8½	1 3	2 1	3 4	6 10	17 9	37 9	56 7								
1933 Nov.	7	1 0	1 11	3 0	6 0	15 5	33 1	49 2								
1939 Mar. *	8	1 1	2 1	3 4	6 9	17 4	36 5	54 7								
Second Class.																
1921 June	6	0 10½	1 6	2 7½	5 0	12 2	25 7	38 3								
1924 June	6	0 10½	1 6	2 4½	4 9	12 1	25 4	37 11								
1927 Dec.	6½	0 11	1 7	2 6½	4 11	12 2	25 6	38 1								
1933 Nov.	5	0 9	1 5	2 3	4 4	10 10	22 11	34 2								
1939 Mar. *	6	0 10	1 7	2 6	4 10	12 2	25 4	37 10								

\* Current in January, 1941, except first-class fares in suburban areas.

During 1923-24 first-class fares were reduced to an appreciable extent and second-class fares were lowered slightly. In December, 1927, fares were raised again, but did not reach the former level except for short journeys. In November, 1933, a reduction of approximately 10 per cent. was made in second-class fares and a slightly greater reduction in first class fares. The next change was an increase of 10 per cent. from 1st March, 1939. In the suburban services first-class accommodation has not been provided in the Newcastle district since 1st February, 1939, nor in the metropolitan district since 1st January, 1940.

Particulars of changes in the cost of monthly periodical tickets are shown in the following table:—

TABLE 311.—Railway Fares—Monthly Periodical Tickets.

Date.	5 miles.	10 miles.	20 miles.	34 miles.	50 miles.	100 miles.	200 miles.	300 miles.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	First Class.							
1921, June ...	30 9	44 0	58 0	69 8	79 9	112 6	156 3	181 9
1922, June ...	30 9	43 3	59 3	68 9	77 0	100 3	138 9	168 0
1924, June ...	27 4	38 3	52 3	59 9	77 0	100 3	138 9	168 0
1928, Jan. ...	29 4	41 0	55 11	64 0	81 6	106 6	147 0	178 0
1933, Nov. ...	25 9	38 9	50 3	57 6	69 9	92 6	128 6	155 9
1939, Mar.*	28 6	40 3	53 9	62 3	76 6	103 9	142 0	171 0
	Second Class.							
1921, June ...	20 6	29 0	39 3	46 0	51 0	66 9	92 6	112 6
1922, June ...	20 6	28 9	39 6	45 9	51 3	66 9	92 6	112 6
1924, June ...	20 6	28 8	39 2	44 10	51 3	66 9	92 6	112 0
1928, Jan. ...	22 0	30 9	42 0	48 0	54 3	70 9	98 0	118 9
1933, Nov. ...	19 6	27 6	37 9	43 3	48 3	63 9	88 9	107 6
1939, Mar.*	21 6	30 3	40 3	46 9	52 9	71 6	98 0	118 0

\* Current in January 1941 (except first class tickets in suburban areas).

The fares quoted represent the maximum charges, but liberal concessions are made to women, students and youths in business. Charges for first-class tickets for the longer distances were reduced substantially in 1922, and charges for distances up to 34 miles in 1924. At the beginning of January, 1928, fares were raised by about 6 or 7 per cent., 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.

Weekly tickets known as "Workmen's Weekly Tickets" are issued at special rates for the Metropolitan and Newcastle suburban lines, and the Helensburgh-Port Kembla section of the Illawarra line. 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 charged for these tickets in June, 1921, were not altered until December, 1927, when they were increased by about 30 per cent. They were reduced by 15 per cent. in October, 1932. With the view to encourage settlement in the outer suburbs substantial

reductions were made as from 1st January, 1939, in the charges for workmen's weekly tickets for distances exceeding 10 miles and a fixed charge of 5s. was introduced for distances exceeding 16 miles. The fares were raised by 10 per cent. as from 1st March, 1939.

TABLE 312.—Railways, Fares for Workmen's Weekly Tickets.

Distance.	Workmen's Weekly Tickets—Second Class.				
	June, 1921.	Dec., 1927.	Oct., 1932.	Jan., 1939.	March 1939.
Miles.	s. d.	s. d.	s. d.	s. d.	s. d.
1	1 3	1 8	1 5	1 5	1 6
5	2 11	3 11	3 4	3 4	3 8
10	4 1	5 6	4 8	4 8	5 2
20	5 5	7 4	6 4	} 5 0	5 6
30	6 11	9 0	7 10		
34	7 5	9 8	8 2		

#### 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 highest class freight includes expensive, bulky, or fragile articles, such as boots, drapery, drugs, groceries, furniture, liquors, glassware, cutlery, ironmongery, confectionery, and carpets; the lowest class applies to manures.

Some 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.

The trend of rates for various classes of freight carried for 100 miles and 500 miles is shown below. The rates quoted for livestock are per four-wheeled truck, other rates are per ton.

TABLE 313.—Railway Freight Charges.

Date	Ordinary Goods.		Agricultural Produce.	Butter.	Frozen Beef and Mutton.	Wool Greasy.	Live Stock.	Crude ores (value not over £20 per ton).
	Highest Class Freight.	Lowest Class Freight.						
100 miles.								
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1921 June ...	75 0	6 6	11 5	31 7	14 7	37 11	110 5	6 5
1922 June ...	76 8	6 9	11 6	35 5	18 11	41 8	109 9	6 5
1925 June ...	76 8	6 9	11 5	24 10	18 11	41 8	109 9	6 5
1926 December ...	76 8	6 9	12 0	27 4	18 11	41 8	120 9	6 5
1932 December ...	76 8	6 9	12 0	27 4	18 11	37 6	108 8	6 5
1933 July ...	76 8	6 9	12 0	27 4	18 11	33 9	97 10	6 5
1937 October ...	76 8	6 9	12 0	27 4	18 11	37 6	108 8	7 1
1939 March ...	84 4	7 5	12 0	50 1	20 10	37 6	120 9	7 1
500 miles.								
1921 June ...	193 3	15 0	18 2	94 0	72 11	104 4	303 4	22 6*
1922 June ...	197 6	12 4	19 0	82 4	43 11	109 5	299 9	22 6*
1925 June ...	197 6	12 4	19 0	57 7	43 11	109 5	299 9	22 6*
1926 December ...	197 6	12 4	19 11	63 4	43 11	109 5	329 8	22 6*
1932 December ...	197 6	12 4	19 11	63 4	43 11	98 5	296 8	22 6*
1933 July ...	197 6	12 4	19 11	63 4	43 11	88 8	267 0	22 6*
1937 October ...	197 6	12 4	19 11	63 4	43 11	98 6	296 8	19 9
1939 March ...	217 3	13 7	19 11	69 8	48 4	98 6	329 8	19 9

\* Rate 17s. 10½d., if value of ore was £10 or less per ton.

## GRADIENTS.

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.

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 and 3,424 feet at Mt. Victoria on the Blue Mountains, and 3,623 feet at Oberon. On the northern line Ben Lomond is 4,473 feet above sea level.

The following statement shows the miles on different gradients in June, 1940:—

TABLE 314.—Railway Gradients, June, 1940.

Gradients.	Southern System.	Western System.	Northern System.	Total.
	miles.	miles.	miles.	miles.
1 in 18 to 30	16½	4½	3½	24½
31 „ 40	75¾	61	55½	192¼
41 „ 50	75	53½	88	216½
51 „ 60	72	78½	66¾	217¼
61 „ 70	66¾	69	42¾	178½
71 „ 80	189½	142½	181½	513½
81 „ 90	49¾	58	52½	160
91 „ 100	120½	178¼	98	396¾
101 „ 150	261	286½	177½	725
151 „ 200	141½	123½	98½	363½
201 „ 250	72½	77¾	50¾	201
251 „ 300	102½	111	72½	286
301 „ level	946½	961¾	758½	2,666¾
Total ...	2,189¾	2,205¼	1,745¾	6,141¼

## 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 1930 and 1940 are shown below:—

	1930.		1940.	
	Mls.	Chs.	Mls.	Chs.
Single Track.				
By automatic or track block system ... ..	82	28	10	44
electric train tablet ... ..	177	55	166	65
electric train staff ... ..	2,814	11	3,047	76
train staff and ticket ... ..	2,228	58	2,302	69
train staff and one engine only ... ..	2	72	17	13
	5,305	64	5,545	27
Double Track.				
By automatic or track block system ... ..	388	16	432	45
absolute manual block system ... ..	321	36	284	59
permissive manual block system ... ..	4	60	3	41
	714	32	720	65

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 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 315.—Railways, Rolling Stock.

Classification.	June, 1922.		June, 1932.		June, 1940.	
	No.	Capacity.	No.	Capacity.	No.	Capacity.
Locomotive—Steam ... ..	1,321	Tractive power. 000 lb. 32,349	1,432	Tractive power. 000 lb. 37,791	1,249	Tractive power. 000 lb. 34,870
Diesel Power Vans ... ..	...	...	...	...	5	50
Coaching—		Pas'gers.		Pas'gers.		Pas'gers.
Passenger ... ..	1,674	97,324	2,185	137,631	2,288	141,446
Motor Passenger ... ..	1	33	37	1,924	56	2,799
Sleeping and Special ... ..	97	2,338	122	2,699	127	2,629
Horse Boxes, Brake Vans, etc. ... ..	422	158	369	631	365	551
Total ... ..	2,194	99,853	2,713	142,885	2,836	147,425
Goods—		tons.		tons.		tons.
Open Waggons ... ..	16,498	262,693	17,329	284,662	17,602	285,260
Livestock Waggons ... ..	2,957	18,370	3,004	19,066	3,011	19,088
Louvred Vans ... ..	967	9,932	1,026	16,416	1,173	18,634
Refrigerator Vans ... ..	161	2,382	233	3,368	300	4,692
Brake Vans... ..	639	...	705	...	676	...
Other ... ..	251	3,250	65	775	69	937
Total ... ..	21,473	296,627	22,362	324,287	22,831	328,611
Service Stock ... ..	1,846	...	1,490	...	1,334	...

The average tractive power of the railway locomotives, as at 30th June, 1940, was 27,918 lb., and the average capacity of the passenger vehicles was 62 passengers, and of the goods stock 15 tons.

Rail motors have been provided in a number of country districts where the population is not sufficient to warrant the provision of ordinary services. In June, 1940, rolling stock consisted of 56 motor passenger vehicles, including 17 trailer cars, with seating capacity for 2,799 passengers, the average per car being 50. There is one rail bus with a capacity of 17 passengers.

Diesel train services are operated between Parkes and Broken Hill, a distance of 422 miles, and between Sydney and Canberra, 202 miles. The former service was commenced on 27th September, 1937, and the latter on 22nd October, 1939. The rolling stock, which is air conditioned, comprises 5 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.

Three of the lines authorised under the agreement have been opened for traffic, viz., from Barnes, on the Moama line, to Balranald, from Murrabit (Gonn Crossing) to Poonboon (Stony Crossing), and from Yarrowonga to Oaklands; also part of the line from Euston to Lette. The fifth line has not yet been commenced; it will cross the Murray at or near Gol Gol and extend into New South Wales for a distance not exceeding 20 miles.

The capital cost of these lines at 29th February, 1940, was £1,222,998. During the year ended February, 1940, the revenue amounted to £57,814, working expenses to £60,963, and interest to £55,302. The train mileage was 117,608, the number of passengers 16,454, and the goods traffic 126,678 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 was laid down from Silverton and Broken Hill to the South Australian border; the length is 37 miles. 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.

The following table shows the operations of the private railway lines open to the public for general traffic during the year ended June, 1940:—

TABLE 316.—Private Railways, 1939-40.

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	£ 549,452	No. 91,455	No. 30,725	tons. 691,058	No. 86,984
Warwick Farm ... ..	1	0 4 8½	18,824	*63	*27,600	...	...
Seaham-West Wallsend	5	10 4 8½	16,000	1,080	...	86,780	...
South Maitland— East Greta, Stanford Merthyr, and Cess- nock ... ..	19	35 4 8½	664,299	344,981	734,691	35,302	...
Hexham-Minmi and Richmond Vale ... ..	16	0 4 8½	125,000	75,198	...	711,605	...
New Red Head ... ..	9	38 4 8½	180,286	*65,263	*143,122	*984,373	...

\* Included in figures relating to Government Railways.



The Silverton Company has 16 locomotives and 647 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 20 locomotives, 1 passenger carriage, and 27 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, 1939, 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 317.—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	6,167	241	6,445
Victoria ...	...	122	11	...	...	4,410	4,543
Queensland ...	133	...	...	6,548	69	...	6,750
South Australia and Northern Territory ...	...	...	...	2,216	654	1,480	4,350
Western Australia ...	...	...	...	4,655	454	...	5,109
Tasmania ...	18	...	...	772	...	...	790
Australian Capital ...	...	...	...	...	5	...	5
Total ...	151	122	11	14,228	7,349	6,131	27,992

The distances by rail between Sydney and the other capital cities are as follows:—Brisbane *via* North Coast line 613 miles, Brisbane *via* Wallangarra 715 miles, Melbourne 590 miles, Adelaide *via* Melbourne 1,073 miles, and Perth *via* Melbourne 2,695 miles. The journey from Sydney to Broken Hill *via* Melbourne and Adelaide is 1,409 miles, but a line across New South Wales opened for traffic in November, 1927, affords direct communication over a distance of 699 miles.

Railway works undertaken for the purpose of facilitating interstate communication have been described in previous issues of the Year Book.

#### STATE TRAMWAY AND OMNIBUS SERVICES.

The State Government conducts tramway and omnibus services in the Metropolitan district and in Newcastle. All the tramways, with the exception of one short line, are the property of the Government, but there are a number of privately owned omnibus services in these districts and in other parts of the State. The first Government omnibus service in Newcastle was commenced on 22nd September, 1932, and in the metropolis on 25th December, 1932.

The Government tramway and omnibus services are administered by the Commissioner for Road Transport and Tramways, and he exercises special powers for the regulation of the private omnibus services, as described on page 386. The tramways were administered by the Railway Commissioners until August, 1930; and after a number of changes had been made in the administration of the State transport services, they were vested in the Commissioner for Road Transport in December, 1932.

*Length of State Tramways.*

The length of the State tramways is  $171\frac{1}{2}$  miles, viz., 151 miles (including  $8\frac{1}{2}$  miles of trolley bus routes) in the Metropolitan district and  $20\frac{1}{2}$  miles in Newcastle. In 1926, there were  $228\frac{1}{2}$  miles of tramways, consisting of 180 miles in the metropolis, 35 miles in Newcastle, 4 miles in Maitland and 10 miles in Broken Hill. The tramways in Maitland and Broken Hill were closed in 1927 and some services in other districts have been replaced by railway or omnibus. The tram services were extended across Sydney Harbour Bridge in March, 1932, and the omnibus services in August, 1937.

The gauge of the tramways is 4 feet  $8\frac{1}{2}$  inches, and all the services are operated by electric power.

The route and track mileage of the tramways at 30th June, 1940, is shown below, the figures being exclusive of 50 miles 30 chains of sidings, loops and crossovers.

TABLE 318.—Tramways, Length of Lines, June, 1940.

Line.	Route Mileage.*		Track Mileage.	
	ms.	ch.	ms.	ch.
Metropolitan—				
City and Suburban ... ..	(a)	112 28	212	58
North Sydney ... ..		22 18	42	70
Ashfield to Mortlake and Cabarita ...		8 38	15	9
Rockdale to Brighton-le-Sands ...		1 50	1	50
Kogarah-Rockdale-Sans Souci ...	(b)	6 32	11	10
Total, Metropolitan ... ..	(c)	151 6	283	37
Newcastle City and Suburban ... ..		20 31	36	61
Total, Tramways June, 1940 ...	(c)	171 37	320	18

\* Includes Trolley Bus Routes (a) 2 mls. 10 chns.; (b) 6 mls. 32 chns.; (c) 8 mls. 42 chns.

FINANCES OF THE STATE TRAMWAYS AND OMNIBUS SERVICES.

Prior to the year 1938-39 the State tramways and motor omnibus services were administered as separate undertakings and separate financial accounts were published. As the omnibus services were extended into areas previously served by trams, the two undertakings were merged into a joint enterprise and the manner of presenting the annual accounts was altered in 1938-39 so that separate details regarding the financial results are no longer available.

*State Tramways—Financial Results, 1911 to 1931-32.*

The financial results of tramway operations, which had usually yielded an annual surplus after paying interest on capital, became unfavourable in 1923-24 owing to the growth of private motor omnibus services in un-

restricted competition with the tramways. The following summary shows details regarding the tramways in various years from 1911 to 1931-32—the year before the introduction of Government motor omnibuses.

TABLE 319.—Tramways, Capital Cost and Operating Results, 1911 to 1932.

Year ended 30th June.	Lines Open.	Capital Cost.	Gross Earnings.	Expenditure.		Deficit.
				Working Expenses.	Capital Charges.	
	miles.	£000	£	£	£	£
1911 ... ..	189 $\frac{1}{2}$	5,122	1,365,631	1,143,949	174,055	(+) 47,627
1921 ... ..	227 $\frac{1}{2}$	9,061	3,471,738	2,943,252	421,814	(+) 106,672
1926 ... ..	228 $\frac{1}{2}$	11,435	3,619,496	3,319,996	577,900	278,400
1929 ... ..	210 $\frac{1}{2}$	11,743	4,457,890	3,835,644	631,589	9,343
1930 ... ..	210 $\frac{1}{2}$	11,765	3,903,470	3,625,564	663,150	385,244
1931 ... ..	200	8,437	3,058,471	3,106,225	490,741	538,495
1932 ... ..	192 $\frac{3}{4}$	8,336	3,305,222	3,046,532	548,830	290,140

(+) Surplus.

The deficit incurred by the tramways was at a maximum in 1930-31, when there was a heavy decrease in earnings from tramways operations and a loss of revenue from the sale of electrical energy, following the transfer of the electric power stations to the railways in August, 1930. The capital debt of the tramways and the charges thereon were reduced as a result of the transfer, and traffic earnings began to increase as restrictions on competitive motor services became effective and the North Sydney tramways were extended in March, 1932, across the Harbour Bridge into the city.

The capital charges consisted of interest prior to 1928-29, of interest and sinking fund payments in 1928-29 and 1929-30, and to these items exchange on overseas interest was added in later years.

*State Tramways and Omnibuses—Capital Funds, 1940.*

The capital of the State tramways and omnibuses has been obtained mainly from the General Loan Account of the State and is interest bearing. Small amounts are represented by a non-interest bearing advance from the Consolidated Revenue Fund, and capital reserves consisting of profits

derived from the sale of assets and receipts from the Public Vehicles Fund representing half the service license fees on motor omnibus services in the Metropolitan and Newcastle Transport Districts.

At 30th June, 1940, the capital debt of the tramways as represented by repayable advances, amounted to £8,527,043, consisting of £8,486,522 owing to the General Loan Account and £40,521 to the Consolidated Revenue Fund; capital reserves amounted to £105,346, viz., profits from the sale of assets £47,311 and receipts from the Public Vehicles Fund, £58,035. The capital debt of the motor omnibus services amounting to £444,017 is owing to the General Loan Account.

*State Tramways and Omnibuses—Capital Cost of Assets.*

The capital cost of the tramway and omnibus assets at 30th June in the last eight years is shown in the following table. The total capital cost of the services exceeds the amount of capital funds stated above by reason of the purchase of new assets and the repayment of capital indebtedness from revenue reserved for depreciation.

TABLE 320.—State Tramways and Omnibuses, Capital Cost, 1933 to 1940.

At 30th June.	Metropolitan.		Newcastle.		Total.		Tramways and Omnibuses.
	Tramways.	Omnibuses.	Tramways.	Omnibuses.	Tramways.	Omnibuses.	
	£	£	£	£	£	£	£
1933 ...	7,438,171	66,326	919,411	*	8,357,582	66,326	8,423,908
1934 ...	7,660,989	86,981	904,989	*	8,565,978	86,981	8,652,959
1935 ...	8,212,939	151,441	880,354	*	9,093,293	151,441	9,244,734
1936 ...	8,142,822	221,957	862,967	*	9,005,789	221,957	9,227,746
1937 ...	8,201,326	421,275	845,314	24,206	9,046,640	445,481	9,492,121
1938 ...	8,308,605	688,100	830,300	17,037	9,138,905	705,137	9,844,042
1939 ...	8,306,480	799,998	832,880	89,134	9,139,360	889,132	10,028,492
1940 ...	8,283,992	948,162	832,849	96,933	9,116,841	1,045,095	10,161,936

\* Small amount included in Tramways.

The capital cost of the tramways at 30th June, 1940, included £5,187,029 expended on construction, £2,855,402 on rolling stock, £924,410 on machinery, workshops and substations, and £150,000 on stores. The capital cost of the omnibuses included land and buildings £48,366, omnibuses £984,608, and plant and machinery, £12,063.

*State Tramways and Omnibuses—Revenue and Expenditure.*

The following table contains particulars of the annual revenue of the State tramways and omnibuses and the working expenses of both services combined. Current depreciation was not charged to working expenses of the tramways until 1934-35, and the amounts stated for 1932-33 and 1933-34 relate to omnibuses only:—

TABLE 321.—State Tramways and Omnibuses, Gross Earnings and Working Expenses, 1933 to 1940.

Year-ended 30th June.	Gross Earnings.			Working Expenses.			Net Earnings.
	Tramways.	Omnibuses.	Total.	Administra- tion and Operation.	Current Deprecia- tion.	Total.	
	£	£	£	£	£	£	£
1933 ...	3,266,847	*50,865	3,317,712	2,824,495	4,985	2,829,480	488,232
1934 ...	3,237,942	227,113	3,465,055	2,718,568	31,928	2,750,496	714,559
1935 ...	3,321,774	295,924	3,617,698	2,850,791	146,395	2,997,186	620,512
1936 ...	3,388,580	369,166	3,757,746	2,976,971	177,588	3,154,559	603,187
1937 ...	3,423,205	504,498	3,927,703	3,089,604	214,995	3,304,599	623,104
1938 ...	3,529,368	765,356	4,294,724	3,559,056	258,139	3,817,195	477,529
1939 ...	3,448,792	925,542	4,374,334	3,707,139	242,523	3,949,662	424,672
1940 ...	3,330,593	1,137,316	4,467,909	3,767,833	265,103	4,032,936	434,973

\* From 25th December, 1932.

There was a moderate increase in tramways earnings in the years 1934-35 to 1937-38, and a small decrease in the next two years. Omnibus earnings, on the other hand, increased rapidly, as the services were extended and improved, and in 1939-40 represented 25.4 per cent. of the total as compared with 6.5 per cent. in 1933-34, the first full year of their operations.

With net earnings at a high level, notwithstanding substantial provision for depreciation, the financial results since 1932-33 are in marked contrast to the experience of the tramways in earlier years as shown in Table 319. The improvement was due largely to a reduction in administrative and operating expenses. Net earnings declined after 1936-37 following advances in rates of wages.

Provision for current depreciation of the tramways amounted to £114,575 in 1938-39 and £113,183 in 1939-40.

The net financial results of the tramways and omnibuses after the payment of capital debt charges are shown below:—

TABLE 322.—State Tramways and Omnibuses, Capital Charges and Net Results, 1933 to 1940.

Year ended 30th June.	Net Earnings.	Capital Charges.				Surplus.
		Interest.	Exchange on Interest. *	Sinking Fund.	Total Capital Charges.	
	£	£	£	£	£	£
1933 ... ..	488,232	387,799	69,000	28,000	484,799	3,433
1934 ... ..	714,559	365,276	62,060	33,500	460,836	253,723
1935 ... ..	620,512	363,101	50,853	33,896	447,850	172,662
1936 ... ..	603,187	355,100	49,740	26,649	431,489	171,698
1937 ... ..	623,104	328,950	44,200	37,332	410,482	212,622
1938 ... ..	477,529	336,872	42,573	38,349	417,794	59,735
1939 ... ..	424,672	320,154	(a) 42,271	41,537	403,962	20,710
1940 ... ..	434,973	316,949	(b) 44,542	44,592	406,083	28,890

\* Includes Loan Management Expenses (a) £1,744. (b) £1,659.

The surplus was highest at £253,723 in 1933-34, but in this year no charge was made for current depreciation of the tramways, so that the results were actually more favourable in the next three years. Capital charges have declined owing to reductions in rates of interest.

In recent years substantial sums have been set aside from revenue with the object of preserving the capital of the tramways and omnibuses. The amount in 1939-40 was £327,080 or 7.3 per cent. of revenue and comprised provision for current depreciation charged to working expenses £265,103, contribution to sinking fund £44,592, and an appropriation from surplus revenue for arrears of depreciation on the tramways £17,385. Since 1st July, 1932, a sum of £1,341,656 has been provided for current depreciation, £283,855 for sinking fund and £558,543 for arrears of depreciation; the total amount, £2,184,054, represents 7 per cent. of revenue.

Details of the financial results of the State tramways and omnibuses in the Metropolitan district are shown below:—

TABLE 323.—State Tramways and Omnibuses, Metropolitan Services, 1933 to 1940.

Year ended 30th June.	Revenue.		Expenditure.				Surplus
	Tramways.	Omnibuses.	Administra- tion . Operating Expenses.	Current Deprecia- tion.	Capital Debt Charges.	Total Expendi- ture.	
	£	£	£	£	£	£	£
1933 ... ..	3,058,696	50,865	2,659,777	4,985	432,099	3,096,861	12,700
1934 ... ..	3,026,962	227,113	2,558,804	31,928	411,250	3,001,982	252,093
1935 ... ..	3,107,760	295,924	2,685,262	139,520	402,160	3,226,942	176,742
1936 ... ..	3,165,730	369,166	2,801,004	170,228	388,835	3,360,067	174,829
1937 ... ..	3,208,871	482,331	2,895,248	203,355	368,799	3,467,402	223,800
1938 ... ..	3,304,526	708,898	3,324,023	239,742	372,505	3,936,270	77,154
1939 ... ..	3,244,278	838,007	3,459,958	224,466	356,518	4,040,942	41,343
1940 ... ..	3,145,741	1,021,895	3,516,210	243,949	363,132	4,123,291	44,345

The general experience of the Newcastle services, as illustrated in the following table, has not been favourable. Revenue exceeded operating expenses and capital charges between 1933-34 and 1937-38 and in 1939-40, but the excess was not sufficient to meet the additional charge for current depreciation which was made for the first time in 1934-35. In 1932-33 and 1938-39 operating expenses and capital charges exceeded revenue.

TABLE 324.—State Tramways and Omnibuses, Newcastle Services, 1933 to 1940.

Year ended 30th June.	Revenue.		Expenditure.				Deficit.
	Tramways.	Omnibuses.	Administration, Operating Expenses.	Current Depreciation.	Capital Debt Charges.	Total Expenditure.	
	£	£	£	£	£	£	£
1933 ...	208,151	*	164,718	...	52,700	217,418	9,267
1934 ...	210,980	*	159,764	...	49,586	209,350	†1,630
1935 ...	214,014	*	165,529	6,875	45,690	218,094	4,080
1936 ...	222,850	*	175,967	7,360	42,654	225,981	3,131
1937 ...	214,334	22,167	194,356	11,640	41,683	247,679	11,178
1938 ...	224,842	56,458	235,033	18,397	45,289	298,719	17,419
1939 ...	204,514	87,535	247,181	18,057	47,444	312,682	20,633
1940 ...	184,852	115,421	251,623	21,154	42,951	315,728	15,455.

\* Included in Tramways. † Surplus.

#### STATE TRAMWAY AND OMNIBUS TRAFFIC.

The following statement contains a comparison of the vehicle mileage and passenger traffic since 1901:—

TABLE 325.—State Tramways and Omnibuses, Passengers and Mileage, 1901 to 1940.

Year ended 30th June.	Tramways.			Omnibuses.	
	Car Mileage.	Passengers.		Bus Mileage.	Passengers.
		Tramway Sections.	Sydney Harbour Bridge Section.*		
	000	000	000	000	000
1901 ...	6,836	93,704	...	...	...
1911 ...	22,541	230,276	...	...	...
1931 ...	32,193	266,347	...	...	...
1932 ...	35,914	284,709	2,143	...	...
1936 ...	35,378	303,697	10,254	5,111	23,783
1937 ...	35,200	306,833	10,375	7,190	33,536
1938 ...	35,795	318,071	10,396	10,950	52,653
1939 ...	34,941	310,784	11,453	12,668	64,415
1940 ...	31,497	298,716	12,823	14,828	79,625

\*Those Sydney Harbour Bridge passengers whose journey extended beyond the bridge section are included also in the preceding column.

Statistics of passenger traffic are obtained from records of tickets issued and, as a general rule, each ticket represents a passenger journey. For the Sydney Harbour Bridge section, however, a special tram ticket is issued to each passenger and a second ticket if the journey extends over any other section. The number of passengers carried by trams across the bridge is stated separately in Tables 325 and 326, but information is not available as to the number of such passengers who are included also under the heading "tramway sections."

Particulars of the passengers carried and car mileage on the Metropolitan and Newcastle tramways are shown below:—

TABLE 326.—Tramways, Metropolitan and Newcastle Traffic, 1929 to 1940.

Year ended June.	Metropolitan.			Newcastle.	
	Passengers.		Car Mileage.	Passengers.	Car Mileage.
	Tramway Sections.	Harbour Bridge Section.*			
	000.	000.	000.	000.	000.
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
1939 ... ..	292,118	11,453	32,668	18,666	2,273
1940 ... ..	281,717	12,823	29,524	16,999	1,973

\* Those Sydney Harbour Bridge passengers whose journey extended beyond the bridge section are included also in preceding column.

Tramway earnings per car mile in the Metropolitan lines amounted to 22.7d. in 1931-32 and fell to 21.4d. in 1932-33 following reductions in fares in October, 1932. With increased traffic the rate of earnings per car mile rose to 23.8d. in 1938-39 and 25.6d. in 1939-40. In Newcastle earnings per car mile increased from 15.5d. in 1931-32 to 19.5d. in 1932-33, 21.6d. in 1938-39 and 22.5d. in 1939-40.



A comparative statement of the State motor omnibus traffic is contained in the following table:—

TABLE 327.—State Omnibuses, Metropolitan and Newcastle Traffic, 1933 to 1940.

Year ended 30th June.	Metropolitan.		Newcastle.	
	Passengers.	Bus Mileage.	Passengers.	Bus Mileage.
	000.	000.	000.	000.
1933 ... ..	2,625	835	...	...
1934 ... ..	14,707	3,353	...	...
1935 ... ..	19,629	4,224	...	...
1936 ... ..	23,783	5,111	...	...
1937 ... ..	32,221	6,755	1,315	435
1938 ... ..	50,196	9,967	2,557	983
1939 ... ..	59,146	11,344	5,269	1,324
1940 ... ..	71,942	13,203	7,683	1,625

Earnings per omnibus mile were 16.3d. in 1933-34, 17.7d. in 1938-39 and 18.6d. in 1939-40, in the Metropolitan district, and 13.8d. in 1937-38, 15.9d. in 1938-39, and 17.0d. in 1939-40 in Newcastle.

#### TRAM AND OMNIBUS FARES.

The tramways are divided into sections of an average length of nearly 2 miles in the metropolitan district and  $1\frac{1}{2}$  miles in Newcastle.

The fares charged on trams since 1st November, 1920, and subsequent dates, when alterations were made, are shown below:—

TABLE 328.—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.

The fares by Government motor omnibus services are at the rate of approximately 1d. per mile and fares for children are generally one third of the rates for adults.

#### 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. 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, 1928, 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 329.—Electricity Generated and Used for Railways and Tramways.

Particulars.	1936-37.	1937-38.	1938-39.	1939-40.
Generating Stations—	kilowatt hours.	kilowatt hours	kilowatt hours.	kilowatt hours.
White Bay ... ..	258,760,580	285,452,560	290,321,160	305,518,460
Ultimo ... ..	176,384,274	175,650,481	183,938,017	184,536,626
Newcastle ... ..	114,158,538	120,416,522	132,127,484	144,868,284
Lithgow ... ..	16,247,630	20,853,635	24,775,990	25,969,960
<b>Total ... ..</b>	<b>565,551,022</b>	<b>602,373,198</b>	<b>631,162,651</b>	<b>660,893,330</b>
Purpose of Supply—				
Suburban Railways...	186,832,133	197,867,163	203,714,725	208,306,047
Tramways ... ..	146,660,770	149,859,809	148,599,793	142,620,808
Outside Bodies ...	168,262,418	187,647,560	208,486,179	236,104,657
Balance—Departmental Uses ..	63,795,701	66,998,666	70,361,954	73,861,818
<b>Total ... ..</b>	<b>565,551,022</b>	<b>602,373,198</b>	<b>631,162,651</b>	<b>660,893,330</b>

## 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 recent years was as follows:—

TABLE 330.—Railways and Tramways, Coal Used, 1929 to 1940.

Year ended 30th June.	Coal used in Connection with Railways and Tramways.				
	Locomotive Purposes.	Electric Power Stations.	Gas Making.	Other Purposes.	Total.
	tons.	tons.	tons.	tons.	tons.
1929	1,212,272	391,904	7,038	45,719	1,656,933
1932	896,147	332,497	5,744	23,657	1,263,045
1936	972,890	390,368	5,140	25,852	1,394,250
1937	985,580	402,742	5,260	22,958	1,416,540
1938	1,041,106	434,266	5,565	23,304	1,504,241
1939	994,371	453,300	5,663	24,449	1,477,783
1940	962,197	479,677	5,586	20,843	1,468,303

## EMPLOYMENT AND WAGES IN STATE LAND TRANSPORT SERVICES.

Particulars regarding the number of persons employed in the land transport services of the Government of New South Wales and the amount of salaries and wages paid to them are shown in the following statement. The figures are exclusive of employment on the construction of railways and roads and on the maintenance of roads. The information under the heading Road Transport Department for 1931-32 and earlier years relates to the tramways only.

TABLE 331.—State Land and Transport Services, Employees and Wages, 1921 to 1940.

Year ended 30th June.	Number of Employees.			Salaries and Wages Paid.		
	Railways. *	Road Transport Dept.†	Total.	Railways.	Road Transport Dept.	Total.
				£	£	£
1921 ..	37,558	9,018	46,576	9,153,089	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
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
1936 ...	41,779	9,357	51,136	9,775,667	2,066,464	11,842,131
1937 ...	40,331	9,983	50,314	9,626,478	2,185,822	11,812,300
1938 ...	41,128	10,530	51,658	10,668,200	2,608,887	13,277,087
1939 ...	41,474	10,503	51,977	11,099,966	2,736,755	13,836,721
1940‡ ...	40,705	10,634	51,339	10,919,175	2,769,108	13,688,283

\* Average number during the year. † At 30th June. ‡ Includes employees serving with defence forces.

## ACCIDENTS IN STATE TRANSPORT SERVICES.

All accidents are recorded which occur in the working of the State railways, tramways or omnibuses, or on service premises to persons other than the 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.

Particulars of accidents during the last five years are shown in the following table:—

TABLE 332.—State Railways, Tramways and Omnibuses, Accidents, 1936 to 1940.

Year ended 30th June.	Passengers.		Employees.		Others.		Total.		
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
<i>Railway Accidents.</i>									
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	
1939 ...	8	264	17	5,568	45	362	70	6,194	
1940 ...	12	305	18	4,810	40	341	70	5,456	
<i>Tramway Accidents.</i>									
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	
1939 ...	13	442	2	1,331	18	246	33	2,019	
1940 ...	13	486	2	1,405	17	228	32	2,119	
<i>Motor Omnibus Accidents.</i>									
1936 ...	...	65	...	49	5	13	5	127	
1937 ...	...	86	...	64	3	18	3	168	
1938 ...	3	201	...	134	1	56	4	391	
1939 ...	1	244	...	276	2	39	3	559	
1940 ...	4	265	...	350	1	50	5	665	

Most of the deaths are caused by the movement of vehicles, the number in 1939-40 being railways 56, tramways 31, and omnibuses 5. Persons injured by the movement of vehicles numbered 501 in the railways, 1,597 in the tramways, and 508 in the omnibus services. The injuries arising from other causes numbered 4,955, 522 and 157 respectively.

The number of passengers carried on the railways during the year ended June, 1940, was 179,066,000, on the tramways about 305,000,000 and on the omnibuses about 80,000,000. The accident rates per million passengers were as follows:—Railways: killed 0.07; injured 1.70; Tramways: killed, 0.04; injured, 1.59; Omnibuses: killed, 0.05; injured, 3.31.

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 333.—State Railways, Tramways and Omnibuses, Compensation for Accidents, 1936 to 1940.

Accidents.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
<b>Railway—</b>	£	£	£	£	£
Passengers, etc. ...	7,275	4,536	8,451	8,972	3,058
Goods ...	15,177	18,258	20,759	20,882	18,586
<b>Tramway... ..</b>	14,845	23,247	27,649	27,940	18,912
<b>Omnibuses ...</b>	2,895	1,624	3,016	4,130	3,135
<b>Total ...</b>	40,192	47,665	59,875	61,924	43,691

## 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. Before registration or renewal of registration motor vehicles are inspected to ensure that they comply with the requisite standard of fitness. Certificates for the purpose may be issued by privately-owned garages and similar businesses licensed to make inspections. 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. 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 for each service 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 maximum rate is £4 for each passenger each omnibus is authorised to carry. The fee for experimental, developmental or unprofitable services may be fixed at a nominal sum.

For 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 a license under the State Transport (Co-ordination) Act may be required in addition to any other license or registration, including the omnibus service license described above. 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. 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) The number of registered vehicles was reduced in October, 1931, by 3,261, viz., 1,938 cars, 565 lorries and 758 cycles, to correct overstatement arising in the assessment of monthly figures.
- (b) The number of omnibuses as at the end of 1931 includes a number of vehicles registered for services which had been discontinued at the end of October, 1931.
- (c) Government motor vehicles numbering approximately 1,700 in July, 1933, were included in the records for the first time at that date.

TABLE 334.—Motor Vehicles on Register, 1911 to 1940.

End of year or month.	Registrations in force.								Per 100 of population.	
	Car.	Van, Lorry, Trailer or Tractor.	Cycle.	Metropolitan Public Vehicles*.		Trader's Plate.	All Motor Vehicles.	Cars only.	All Motor Vehicles.	
				Taxi-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	
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	
1936 ...	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	204,588	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	
1939—June	216,060	84,175	24,151	1,311	777	1,164	327,628	7.87	11.93	
Dec.	216,443	85,742	23,009	1,341	825	1,194	328,554	7.83	11.88	
1940—June	209,510	83,928	21,552	1,355	823	1,066	318,234	7.53	11.43	
Dec.	207,446	84,408	21,275	1,357	870	1,007	316,363	7.40	11.28	

\* Includes Newcastle Transport District in 1930 and later years.

The number of vehicles on the register was 251,329 at the end of March, 1930, and there was a decrease to 207,178 between this date and 30th June, 1932. Then the number commenced to rise again and reached the peak 329,075 in September, 1939. During the following twelve months the number declined to 312,125.

The proportion of vehicles registered for quarterly periods was 14 per cent. in 1933, 29 per cent. in 1939 and 30 per cent. in 1940. The proportion of quarterly registrations is higher in the case of cars than commercial vehicles.

The number of tractors on the register was 1,222 at 31st December, 1940. Tractors used solely on farms are not required to be registered; particulars of farm tractors numbering 13,957 in March, 1940, are shown in the chapter Agriculture of this volume.

The number of motor vehicles registered during each year since 1929 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 335.—Motor Registrations, New and Old Vehicles, 1929 to 1940.

Year.	Registrations of Motor Vehicles (excluding renewals).										Cycle (new and old).
	Car.		Lorry and Van.		Metropolitan Public Vehicles*				Total (excluding Cycles).		
	New.	Old.	New.	Old.	Cab.		Omnibus.		New.	Old.	
1929	26,825	13,888	8,477	5,131	213	209	86	59	35,601	19,287	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	1,260	7,104	7	99	16	51	4,556	23,814	7,681
1932	3,645	20,531	937	9,478	...	35	1	36	4,533	30,030	7,664
1933	5,709	21,440	2,400	11,787	15	132	13	209	8,137	33,568	8,490
1934	10,776	19,265	4,527	12,437	308	182	43	77	15,654	31,961	8,481
1935	15,061	18,247	6,630	12,200	573	123	53	69	22,317	30,639	8,180
1936	18,836	18,358	8,447	12,797	502	126	101	61	27,886	31,342	7,796
1937	23,979	19,448	10,434	13,096	597	106	150	60	35,160	32,710	7,878
1938	21,976	19,327	9,718	12,883	546	109	144	75	32,384	32,394	7,253
1939	19,066	18,097	7,783	12,240	558	145	134	59	27,546	30,541	6,358
1940	9,518	22,152	4,812	12,091	296	218	72	63	14,698	34,524	6,604

\* Registrations in Newcastle District included as from 13th October, 1930.



The registration of new vehicles began to increase in 1933 after a steep decline, but the number did not rise to pre-depression level in any year. The registration of second-hand vehicles after change of ownership increased in the years when registrations of new cars were at a minimum. The number 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 various years since 1911:—

TABLE 336.—Motor Drivers' Licenses, 1911 to 1940.

Year ended 30th June.	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
1921†	627	441	200	53,061	16,115
1930	2,124	2,084	1,022	306,405	35,802
1931	1,744	1,977	913	294,009	31,946
1932	1,686	1,450	505	275,806	29,145
1933	1,812	1,419	357	278,026	28,447
1934	1,913	1,444	243	288,963	28,481
1935	2,358	1,604	211	308,371	28,565
1936	2,991	1,764	264	334,037	28,918
1937	3,499	2,176	633	360,612	29,236
1938	3,976	2,182	784	393,474	30,477
1939	4,570	2,488	767	422,390	30,923
1940	4,835	2,544	855	434,726	30,490

\* Newcastle district included in 1930 and later years. † Calendar year.

## MOTOR TAXES, FEES, CHARGES, ETC.

Proceeds of taxes and fees relating to road transport are distributed amongst 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 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 at rates in force up to 30th November, 1939, 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 funds of the Main Roads Department* 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 1939-40 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. When registration is effected quarterly the tax is charged at 27½ per cent. of the annual tax.

The rates of tax, as increased by 12½ per cent. from 1st December, 1939, are as follows:—

TABLE 337.—Motor Taxes—Rates.

Vehicle.	Tax per ½ cwt.		Vehicle (Foreign Manufacture).	Rate of Tax.*
	Foreign.	British.		
	s. d.	s. d.		s. d.
Car—Pneumatic ... ..	3 1½	2 6¾	Motor Cycle—each ...	25 4
Lorry—Pneumatic ... ..	3 1½	2 6¾	„ „ with side	
„ Solid Tyre ... ..	3 11¼	3 4½	car—each ... ..	45 0
Omnibus—Pneumatic ... ..	4 9¾	4 2½	Tractors†, trailers, etc., per ½ cwt. ... ..	3 11

\* The rates stated are reduced by 6¼d. 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.

Since May, 1940, an allowance has been made in respect of vehicles propelled by producer gas, to compensate for the weight of the producer gas equipment.

A reduction of 6¼d. 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 since 1st December, 1939, for a British-made car or light lorry of a type in common use, weighing 25 cwt., is £7 6s. 7d., or if the vehicle is of foreign manufacture, £8 14s. 8d. If the registration is effected quarterly the tax for four successive quarters amounts to £1 14s. 10d. or £2 2s. 6d. 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 1939-40 amounted to £2,165,147, of which £62,822 was credited to the Public Vehicles Fund and £2,102,325 to the funds of the Main Roads Department.

*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 traders' plates is £2 for motor cycles and £8 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 vehicles plying for hire within the Metropolitan and Newcastle Transport Districts is £1.

Registration fees amounting to £336,066 were collected during 1939-40, and paid to the Road Transport and Traffic Fund.

In local governing areas outside the Metropolitan and Newcastle 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 is 10s. for a license to drive a motor vehicle, and 5s. for a license to ride a motor cycle. 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 1939-40 and paid to the Road Transport and Traffic Fund amounted to £243,508.

*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 £20,841 in 1939-40, 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 387. Collections amounting to £13,163 in 1939-40 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 387. The license fees vary from 2s. 6d. to 5s. 0d. in respect of vehicles, and agents of persons operating road transport services are charged an annual license fee of £1. The fees collected in 1939-40 amounted to £25,228.

Charges imposed in respect of passengers and goods, for which the maximum rates are stated on page 387, amounted to £54,930 in 1939-40, viz., £11,964 for passengers and £42,966 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 licences £1,773, and penalties, etc., £785.

All collections under this Act are paid to the State Transport (Coordination) Fund.

The total receipts from taxes, fees and charges during the past ten years are summarised in the following table:—

TABLE 338.—Motor Taxes, Fees, etc.—Receipts, 1931 to 1940.

Year ended 30th June.	Tax.	Fees for Registration of Vehicles and Licensing of Drivers.	Additional fees, etc., in respect of Commercial Motor Vehicles.			Miscellan- eous Col- lections— Exchange, Search Fees, etc.	Total Collections.
			License Fees.	Charges for Pas- sengers and Goods.	Other.		
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
1939	2,063,160	607,281	37,904	52,789	1,555	4,436	2,767,115
1940	2,165,147	600,415	38,391	54,930	1,860	6,567	2,867,310

#### DISBURSEMENT OF MOTOR TAXES, FEES, ETC.

Since the commencement of the Transport Act, 1930, motor revenue has been allocated to special funds as described on page 389. To meet costs of traffic administration incurred by the police 5 per cent. of motor taxes (other than taxes payable to the Public Vehicles Fund) was paid to the Consolidated Revenue Fund until the end of 1935, when the charge was abolished.

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 344.

The following summary shows the purposes on which revenue derived from road transport vehicles has been expended during the past nine years:—

TABLE 339.—Expenditure from Motor Taxes, Fees, etc., 1932 to 1940.

Year ended 30th June.	Paid to Road Making Authorities.	Provision of Traffic Facilities.	Administra- tion of Traffic and Road Transport (including Regulation by Police).	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
1939 ... ..	2,048,833	19,982	621,259	106,105	...	2,796,179
1940 ... ..	2,156,116	18,720	602,106	66,785	...	2,843,727

At 30th June, 1940, a credit balance of £261,654 was held in the Public Vehicles Fund and £862 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 387.

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. Statistics of the privately owned services are shown in Table 340, and information relating to the Government services which are operated in conjunction with the tramways in Tables 320 to 327. Particulars of omnibus traffic in country areas are not collected.

*Private Motor Omnibus Services.*

Motor omnibus services were the province of private operators until the inauguration of the first Government service in 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 private omnibus traffic was considerably curtailed by the elimination of overlapping services.

Particulars of the private motor omnibus services in the Metropolitan and Newcastle districts in 1930-31 and in each of the last five years are shown in the following table:—

TABLE 340.—Private Motor Omnibus Services, Metropolitan and Newcastle.

Year ended 30th June.	Services.	Omnibuses in Service.	Bus Miles Run.	Passengers Carried.	Book value of Plant.	Revenue.	Expenditure.
<b>Metropolitan Transport District.</b>							
	No.	No.	Thousand.		£	£	£
1931	219	483	19,548	92,125	486,797	1,357,505	1,352,649
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	260	7,115	25,609	150,956	335,469	311,497
1939	135	275	7,463	27,754	167,396	363,776	338,314
1940	132	272	7,525	28,845	169,633	371,795	356,243
<b>Newcastle Transport District.</b>							
	No.	No.	Thousand.		£	£	£
1931	64	83	3,113	8,248	76,448	140,110	139,914
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
1939	21	42	964	1,940	26,637	42,018	35,862
1940	21	40	1,048	1,971	29,770	46,212	44,711

\* As at 30th June.

## 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, as published in the 1938-39 issue of the Year Book, 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.

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 seven years, and the casualties resulting therefrom, are shown below:—

TABLE 341.—Traffic Accidents, 1934 to 1940.

Year ended 30th June.	Accidents reported.	Casualties.							
		County of Cumberland.		Newcastle Trans- port District.		Balance of State.		Total, N.S.W.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1934 ...	7,281	205	4,356	22	263	92	889	319	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	324	6,080	29	382	259	2,153	612	8,615
1939 ...	11,906	275	5,759	35	439	242	2,190	552	8,388
1940 ...	11,200	297	5,624	21	407	227	2,367	545	8,398

In each year from 1933-34 to 1937-38 there was an increase in the number of accidents and deaths, and, except in 1935-36, in the number of persons injured. Since 1937-38 the number of deaths reported has declined by 11 per cent. and the number of persons injured by 2.5 per cent. There was a decrease of deaths in all districts, but an increase in persons injured in districts outside the County of Cumberland.

Casualties increased at a faster rate than the number of vehicles up to 1937-38, when there were 2 deaths and 29 persons injured per 1,000 vehicles. The ratio of both fatal and non-fatal cases was appreciably lower in 1939-40.

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 342.—Traffic Casualties, Ratio to Vehicles Registered and to Population.

Year ended 30th June.	Per 1,000 Vehicles Registered.			Per 10,000 Population.		
	Killed.	Injured.	Total Killed and Injured.	Killed.	Injured.	Total Killed and Injured.
1934 ...	1.40	24.40	25.80	1.22	23.49	24.71
1935 ...	1.68	26.90	28.58	1.53	24.60	26.13
1936 ...	2.07	25.04	27.11	1.98	24.27	26.25
1937 ...	2.00	28.16	30.16	2.02	28.64	30.66
1938 ...	2.08	29.29	31.37	2.21	31.80	34.01
1939 ...	1.74	26.50	28.24	2.02	30.70	32.72
1940 ...	1.66	25.62	27.28	1.97	30.31	32.28

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 and the number of pedal cyclists is relatively high, though pedestrians represent nearly one-third of the fatal cases. The number of persons affected, classified into these three groups, are shown below:—

TABLE 343.—Traffic Accidents, Classification of Persons Killed and Injured.

Year ended 30th June.	Drivers and Passengers.		Pedal Cyclists.		Pedestrians.		Proportion of Pedes- trians to Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1934 ...	154	2,949	44	578	121	1,981	Per cent.	Per cent.
1935 ...	211	3,559	36	673	161	2,254	37.9	35.9
1936 ...	291	3,568	69	964	165	1,908	39.5	34.7
1937 ...	299	4,300	71	1,176	177	2,208	31.4	29.6
1938 ...	339	4,998	76	1,292	197	2,325	32.4	28.7
1939 ...	308	5,046	80	1,297	164	2,045	31.8	26.9
1940 ...	311	5,166	67	1,305	167	1,927	29.4	24.4
							30.6	22.9



The proportion of deaths in each of these classes to total deaths in the traffic accidents during the past seven years was as follows:—Drivers and passengers 54.5 per cent.; pedestrians 32.9 per cent.; pedal cyclists, 12.6 per cent. Of the persons injured the proportions in these groups were 57.4 per cent.; 28.4 per cent.; and 14.2 per cent., respectively.

A distribution of the accidents according to the class of vehicles or persons responsible for them indicates that pedestrians were responsible for 15 per cent. of the accidents during the last five years, and the casualties which ensued represented 23 per cent. of the total number of persons killed and 21 per cent. 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 1939-40:—

TABLE 344.—Traffic Accidents, Vehicles, Persons and Animals Involved, etc., 1939-40.

Class of Vehicle, etc.	Accidents in which involved.	Accidents for which responsible.		Casualties for which responsible.			
		Number.	Pro-portion.	Persons Killed.		Persons Injured.	
				No.	Pro-portion.	No.	Pro-portion.
			Per cent.		Per cent.		Per cent.
Car ... ..	10,410	4,335	38.7	178	32.6	3,029	36.1
Lorry and Van ... ..		1,572	14.0	73	13.4	922	11.0
Motor-cycle, solo ... ..		502	4.5	26	4.8	443	5.3
"  "  pillion ... ..		252	2.2	27	5.0	390	4.6
"  "  side-car ... ..		158	1.4	13	2.4	159	1.9
Taxi ... ..		735	6.6	2	0.4	191	2.3
Omnibus... ..		144	1.3	2	0.4	104	1.2
Pedal Cycle ... ..	1,560	1,039	9.3	51	9.3	990	11.8
Tram, Trolley Bus ... ..	837	251	2.2	2	0.4	106	1.3
Horse Vehicle ... ..	268	114	1.0	7	1.3	76	0.9
Horse ... ..	39	28	0.3	3	0.5	25	0.3
Pedestrian ... ..	1,948	1,598	14.3	122	22.4	1,556	18.5
Billycart, Scooter, etc. ... ..	37	33	0.3	5	0.9	34	0.4
Tram Passenger ... ..	216	216	1.9	11	2.0	210	2.5
Motor " ... ..	101	101	0.9	18	3.3	85	1.0
Other " ... ..	4	4	0.0	...	...	5	0.1
Animals, other than							
Horses... ..	119	111	1.0	4	0.7	72	0.8
Other ... ..	19	7	0.1	1	0.2	1	0.0
Total ... ..	...	11,200	100.0	545	100.0	8,398	100.0

In proportion to the number of motor vehicles on the register, motor cycles are responsible for more casualties than either cars or lorries. The ratios for taxi-cabs and omnibuses also are high, but this may be attributed partly to relatively greater mileage traversed by these vehicles 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 1939-40 was as follows:—

TABLE 345.—Traffic Casualties, Ratio According to Kind of Motor Vehicle Responsible, 1939-40.

Motor Vehicles responsible for Accidents.	Per 1,000 Vehicles Registered.	
	Killed.	Injured.
Cars ... ..	0·8	14·0
Lorries ... ..	0·9	10·8
Motor cycle—Solo and pillion ... ..	3·2	49·7
Motor cycle—Side car ... ..	1·9	23·5
Taxi-cabs ... ..	1·5	143·3
Omnibus ... ..	2·5	129·8

## 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, representation abroad, 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 456 hereof.

Municipalities, county councils, shires, and boards administering water supply services in the Metropolitan and Hunter districts and in Broken Hill, have power to raise loans under certain conditions. Such loans are subject to the approval of the Governor and (if in excess of £100,000) of the Australian Loan Council. They are subject also to wartime regulations under which loans issued by a local body in excess of £25,000 in any period of twelve months after 13th October, 1939, must be approved by the Commonwealth authorities.

## 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, 1940.

TABLE 346.—State and Local Taxation in New South Wales.

Head of Taxation, or Charge.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
<b>STATE.</b>					
Income Tax ... ..	4,088,164	5,186,972	6,307,046	6,339,215	7,031,961
Unemployment Relief and Social Services Taxes§ ...	6,190,292	6,801,889	6,049,284	6,363,935	8,252,321
Family Endowment Tax ...	71,132	24,523	13,671	5,584	955
Land Tax ... ..	2,034	2,221	2,237	2,154	2,169
Stamp and Probate Duties—					
Stamps ... ..	1,141,232	1,264,646	1,368,919	1,286,124	1,422,851
Betting Tickets ... ..	46,880	52,183	52,474	58,996	55,142
Probate ... ..	1,673,805	2,081,548	2,233,144	2,364,124	2,201,268
Betting Taxes ... ..	214,833	230,031	196,392	168,915	191,719
Totalisator Tax ... ..	115,611	114,720	97,082	94,155	102,508
Greyhound Racing Clubs Tax ... ..	...	...	5,816	14,272	13,106
Racecourses Admission Tax ...	87,787	88,000	48,933	14,371	13,104
Entertainments Tax ... ..	82,986	91,265	120,881	146,412	141,076
Fees for Registration of Dogs...	24,457	26,455	25,780	25,579	24,558
Other Licenses ... ..	386,441	407,368	436,112	616,405	368,047
<b>Total Governmental Taxation £</b>	<b>14,125,654</b>	<b>16,371,821</b>	<b>17,917,771</b>	<b>17,500,241</b>	<b>19,820,785</b>
<b>Motor Tax, Licenses, etc.*—</b>					
Motor Tax ... ..	1,596,227	1,750,886	1,925,774	2,063,150	2,165,147
Fees for Registration, Drivers' Licenses, etc. ...	484,513	525,815	572,988	607,281	600,415
Additional Fees, etc., on Commercial Motor Vehicles—					
License Fees ... ..	30,350	33,377	36,071	37,903	38,390
Charges for Passengers and Goods ... ..	52,952	42,977	50,555	52,789	54,930
Other ... ..	1,333	1,496	1,575	1,555	1,860
<b>Total Motor Taxation, etc.</b>	<b>2,165,375</b>	<b>2,354,551</b>	<b>2,580,963</b>	<b>2,762,678</b>	<b>2,860,742</b>
<b>Total, State Taxation £</b>	<b>16,291,029</b>	<b>18,726,372</b>	<b>20,504,734</b>	<b>20,262,919</b>	<b>22,681,527</b>
<b>LOCAL, ETC.</b>					
Wharfage and Tonnage Rates	921,389	987,356	1,086,845	1,054,294	1,080,463
Municipal Rates†—					
City of Sydney ... ..	983,451	958,329	1,000,608	980,800	979,141
Suburban and Country ...	3,045,309	3,119,213	3,168,487	3,326,291	3,320,291
Shire Rates† ... ..	1,294,426	1,330,420	1,380,937	1,491,926	1,491,926
Water and Sewerage Rates, etc.	2,773,341	2,915,269	3,110,200	3,265,000	3,265,000
<b>Total, Local Rates and   Charges ... ..</b>	<b>£ 9,017,916</b>	<b>9,310,587</b>	<b>9,747,077</b>	<b>10,118,311</b>	<b>10,142,821</b>
<b>Grand Total ... ..</b>	<b>£ 25,308,945</b>	<b>28,036,959</b>	<b>30,251,811</b>	<b>30,381,230</b>	<b>32,824,348</b>

\* Motor taxes, etc., are credited to special Road and Transport Funds. (See page 431.)

† Year ended 31st December preceding. ‡ Preliminary.

§ Special Income and Wages Taxes prior to 1939-40.

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 £9 8s. 6d. in 1935-36, £9 4s. 6d. in 1936-37, £10 1s. 2d. in 1937-38, £10 13s. 9d. in 1938-39 and £12 17s. 4d. in 1939-40.

*Taxation per Head of Population.*

The amounts stated in Table 346 are shown below at their equivalent rates per head of population:—

TABLE 347.—State and Local Taxation per Head of Population.

Head of Taxation, or Charge.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
<b>STATE.</b>					
Income Tax ... ..	£ s. d. 1 10 9	£ s. d. 1 18 8	£ s. d. 2 7 0	£ s. d. 2 6 4	£ s. d. 2 10 11
Unemployment Relief and Social Services Taxes...	2 6 7	2 10 9	2 11 4	2 6 7	2 19 9
Family Endowment Tax ...	0 0 6	0 0 2	0 0 1	...	...
Land Tax ... ..	...	...	...	...	...
Stamp and Probate Duties—					
Stamps ... ..	0 8 7	0 9 5	0 10 1	0 9 5	0 10 4
Betting Tickets ... ..	0 0 4	0 0 5	0 0 5	0 0 5	0 0 5
Probate ... ..	0 12 7	0 15 6	0 16 6	0 17 4	0 15 11
Betting Taxes ... ..	0 1 7	0 1 9	0 1 5	0 1 4	0 1 6
Totalisator Tax ... ..	0 0 11	0 0 10	0 0 9	0 0 8	0 0 9
Racecourses Admission Tax ...	0 0 8	0 0 8	0 0 4	0 0 1	0 0 1
Entertainments Tax ... ..	0 0 8	0 0 8	0 0 11	0 1 1	0 1 0
Fees for Registration of Dogs ...	0 0 2	0 0 2	0 0 2	0 0 2	0 0 2
Other Licenses ... ..	0 2 11	0 3 1	0 3 3	0 4 7	0 2 8
<b>Total Governmental Taxation..</b>	<b>5 6 3</b>	<b>6 2 1</b>	<b>6 12 3</b>	<b>6 8 0</b>	<b>7 3 6</b>
<b>Motor Tax Licenses, etc.—</b>					
Motor Tax ... ..	0 12 0	0 13 1	0 14 2	0 15 1	0 15 8
Fees for Registration, Drivers Licenses, etc. ...	0 3 8	0 3 11	0 4 3	0 4 5	0 4 4
Additional Fees, etc., on Commercial Motor Vehicles License Fees ... ..	0 0 3	0 0 3	0 0 3	0 0 3	0 0 3
Charges for Passengers and Goods ... ..	0 0 5	0 0 4	0 0 5	0 0 5	0 0 5
<b>Total, Motor Tax, etc. ...</b>	<b>0 16 4</b>	<b>0 17 7</b>	<b>0 19 1</b>	<b>1 0 2</b>	<b>1 0 8</b>
<b>Total State Taxation ... ..</b>	<b>6 2 7</b>	<b>6 19 8</b>	<b>7 11 4</b>	<b>7 8 2</b>	<b>8 4 2</b>
<b>LOCAL, ETC.</b>					
Wharfage and Tonnage Rates ...	0 6 11	0 7 4	0 8 0	0 7 9	0 7 9
Municipal Rates*—					
City of Sydney ... ..	0 7 5	0 7 2	0 7 5	0 7 2	0 7 1
Suburban and Country ...	1 2 11	1 3 3	1 3 5	1 4 4	1 4 1
Shire Rates* ... ..	0 9 9	0 9 11	0 10 2	0 10 11	0 10 9
Water and Sewerage Rates etc.	1 0 10	1 1 9	1 3 0	1 3 10	1 3 8
<b>Total, Local Rates and Charges</b>	<b>3 7 10</b>	<b>3 9 5</b>	<b>3 12 0</b>	<b>3 14 0</b>	<b>3 13 5</b>
<b>Total, State and Local Taxation</b>	<b>9 10 5</b>	<b>10 9 1</b>	<b>11 3 4</b>	<b>11 2 2</b>	<b>11 17 7</b>

\* Amounts for year ended 31st December preceding.

## 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, 1940, was £2,169.

*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 exemptions, assessable income, concessional deductions and statutory deductions, in respect of incomes derived in 1935-36 to 1939-40, were as follow:—

*Exemptions.*—The incomes exempt from State income tax include the salary of the Governor-General and of the Governor of New South Wales; the official salaries of representatives in Australia of the governments of other countries, foreign consuls, trade commissioners 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, the pay and allowances of members of the military and air forces who serve abroad, and of the naval forces who serve in a sea-going ship, 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 or members of the naval, military or air forces; gifts to the Commonwealth for purposes of defence, 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 1938-39 and 1939-40 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 taxable income not exceeding £5,500.

$$\frac{92}{100} \times \left( 9\text{d.} + \frac{\text{Taxable income} \times 3}{500} \right) \text{ pence in the } \pounds.$$

(b) On taxable income exceeding £5,500.

£5,500 at 38.64 pence in £.

Balance at 55.2 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.

The foregoing rates represent an increase of approximately 8 per cent. on the rates assessed on incomes of individuals derived in the three years 1935-36 to 1937-38.

*Super Tax.*—A super tax of 12d. in the £ is levied on so much of the taxable income of individuals derived during 1938-39 and 1939-40 as exceeds £2,000. This tax is in addition to tax based on the rates shown above.

*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 payable by individual shareholders is allowed of the lesser amount of (a) the tax on the dividends calculated at the rate payable by companies for the year preceding the year of income, or (b) the amount of additional tax due to the inclusion of dividends in the shareholder's assessment. Super tax is excluded from the shareholder's assessment in calculating the rebate.

*Rates of Tax for Companies.*—The rate of tax payable by companies is 2s. 6d. in the £ on the taxable incomes derived in 1938-39 and 1939-40, with the exception of mutual life assurance companies and part of the profits of non-mutual life assurance companies distributed amongst policy holders on which the rate is 1s. 6d. in the £. 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 £. On incomes derived in the three years 1935-36 to 1937-38, the rate of company tax was 2s. 3d. in the £, except on life assurance companies, for which the rate was the same as in 1939-40.

Private companies are liable to pay additional income tax if the dividends distributed out of taxable income within nine months after the close of the year are less than two-thirds of the distributable income, as determined by the Commissioner. The amount payable is the additional amount of tax which would have been payable by shareholders if the determined distribution had been made.

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 348.—State Income Tax Annual Assessments, 1929 to 1940.

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.	
		£		£	£
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
1939	5,350	3,895,652	133,244	2,070,102	5,965,754
1940	5,380	4,561,047	135,837	2,326,684	6,887,731

\* 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. 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. In 1938-39 they were increased by approximately 8 per cent.



The following is a summary of assessments actually issued, amounts collected, and carry-over in each of the past five 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 349.—State Income Tax, Collections and Carry-over, 1936 to 1940.

Heading.	Years ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
Tax Assessed—					
Net Tax Assessed and Levied	£ 4,124,984	£ 5,208,788	£ 6,370,321	£ 6,386,338	£ 7,025,399
Miscellaneous Items ... ..	3,752	7,011	1,614	(-) 241	5,980
Net Tax unpaid from previous year... ..	778,183	670,515	651,247	615,671	652,135
Total Receivable ... ..	4,906,919	5,886,314	7,023,182	7,001,768	7,683,514
Tax Collected ... ..	4,088,164	5,186,972	6,367,046	6,339,215	7,031,961
Tax Writtten off ... ..	148,240	48,095	40,465	10,418	19,974
Unpaid Tax carried forward to succeeding year ... .. £	670,515	651,247	615,671	652,135	631,579

The amount of unpaid tax, £631,579, as at 30th June, 1940, consisted of £210,472, assessed on account of 1938-39, and £421,107 on account of earlier years.

The collections during 1939-40, viz., £7,031,961, consisted of £6,681,898 from assessments on the taxable income earned during 1938-39, and £350,063 in respect of tax assessed on income of previous years, and miscellaneous items.

#### *Unemployment Relief and Social Services Taxes.*

Since 1930 special taxes additional to the State and Commonwealth income taxes also described in this chapter have been levied on incomes to provide for the relief of unemployment and for certain social services.

The first tax of this nature was the Unemployment Relieix Tax levied on income from employment as from 1st July, 1930, and on other income derived in the year ended 30th June, 1930. It was replaced on 1st December, 1933, by the Wages Tax (on income from employment) and the Special Income Tax (on other income), and these were superseded on 1st October, 1939, by the Unemployment Relief and the Social Services taxes levied as a combined tax on both classes of income, the proceeds being apportioned between unemployment relief and social services.

Until 30th June, 1932, the proceeds of the Unemployment Relief Tax were paid into a special fund from which expenditure was subject to approval by the Unemployment Relief Council. As from 1st July, 1932, the proceeds were paid into the Consolidated Revenue Fund, and became subject to Parliamentary appropriation. As from 1st July, 1939, two new funds, both subject to Parliamentary appropriation, were created—the Unemployment Relief Fund and the Social Services Fund. The proceeds

of the wages and special income taxes collected between 1st July, 1939, and 30th September, 1939, and later arrears were paid into the Unemployment Relief Fund, also a proportion of the proceeds of the Unemployment Relief and Social Services taxes, viz.: two-thirds until 31st October, 1940, and five-sevenths thereafter. The balance of the Unemployment Relief and Social Services taxes is paid to the Social Services Fund.

The tax on salaries, wages and other income from employment is levied at the source, i.e., the employer deducts it from the amount due to the employee and pays it to the State either directly by cheque (if he employs ten or more taxable employees) or by affixing stamps to the wages books which employers are required to keep in prescribed form. The tax on income, other than income from employment, is levied by annual assessment issued to the taxpayer. The incidence and rates of tax on both classes of income are similar.

Incomes exempt from these taxes include the incomes, revenues and funds entirely exempt from income tax (see page 402); old age, invalid, war and widows' pensions; allowances under the Family Endowment and Child Welfare Acts; pension received by a resident whose total income from all sources does not exceed £200; Government relief; the wages of crews being non-residents 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 of Australia. At present only Victoria and South Australia reciprocate.

Incomes below a certain limit, as varied from time to time, are exempt, but the tax is levied on the total amount of wages or net income of persons subject to tax, without statutory or concessional deduction (apart from rebate for dependants, etc., as stated below). Since 1st October, 1939, the limit of exempt income has been higher for residents with dependent wife or child under sixteen years than the limit for other persons.

Changes in the exemption limit are indicated below, incomes from employment being exempt if the weekly rate of wages, etc., was less than the amount specified:—

Lowest rate of weekly wages subject to tax.

Dating from—	Resident without dependent wife or child.			Resident with dependent wife or child.		
	£	s.	d.	£	s.	d.
1st July, 1930 ... ..	1	10	0	1	10	0
1st January, 1931... ..	2	0	0	2	0	0
1st December, 1937 ... ..	3	0	1	3	0	1
1st January, 1939... ..	3	0	1	4	4	0
1st October, 1939 ... ..	2	0	0	4	4	0
1st May, 1940 ... ..	3	0	0	4	4	0
1st August, 1940 ... ..	3	0	1	4	5	1

Since 1st December, 1937, a rebate of tax amounting to 6d. a week or 26s. a year has been provided in respect of the wife and each dependent child under sixteen years of age, and since 1st November, 1940, there has been rebate also where necessary to provide that the tax will not reduce the wages of the taxpayer below the taxable limit.

The rate of tax was 1s. on each full £ from January, 1931, to September, 1932. There were substantial reductions between October, 1932, and December, 1937. The tax as at this date and subsequent changes in October, 1939, and January, 1941, are illustrated in Table 350.

According to the scale which was brought into operation on 1st January, 1941, the amount of tax on wages, salaries and other income from employment is 1s. 3d. on wages, etc., amounting to £3 (s. 1d. but less than £3 2s. 0d. per week, and it rises by 1d. or 2d. for each additional 2s. of wages to 3s. 9d. on wages, etc., from £5 2s. 0d. to £5 3s. 11d. per week. Thereafter the tax rises at the rate of 1d. for each 2s. to 16s. 1d. on wages amounting to £19 18s. 0d. and less than £20. Where the income from employment is £20 or more, the tax is 16s. 1d. plus  $\frac{9}{10}$  d. on each 1s. 8d. in excess of £20.

The amount of tax on various rates of salaries and wages per week under the scales in operation since 1st December, 1937, is shown below; the amounts represent gross tax payable by persons without dependants before the deduction of any rebate.

TABLE 350.—Unemployment Relief and Social Services Taxes on Wages (N.S.W.).

Wages per week.	Amount of Tax.			Wages per week.	Amount of Tax.		
	1st Dec., 1937.	1st Oct., 1939.	1st Jan., 1941.		1st Dec., 1937.	1st Oct., 1939.	1st Jan., 1941.
£ s. d.	s. d.	s. d.	s. d.	£ s. d.	s. d.	s. d.	s. d.
2 0 0	Nil.	0 10	Nil.	6 0 0	3 2	5 0	4 6
2 10 0	Nil.	1 3	Nil.	6 10 0	4 0	5 6	4 11
3 0 1	0 10	1 9	1 3 (a)	7 0 0	4 4	5 11	5 4
3 5 0	0 10	2 0	1 6	8 0 0	5 1	6 10	6 2
3 10 0	0 10	2 4	1 10	9 0 0	5 10	7 9	7 0
3 15 0	1 1	2 6	2 0	10 0 0	6 7	8 8	7 10
4 0 0	1 3	2 9	2 3	12 0 0	8 1	10 6	9 6
4 10 0	1 10	3 6	3 0	15 0 0	10 4	13 3	12 0
5 0 0	2 4	4 1	3 7	20 0 0	14 1	17 10	16 2
5 10 0	2 10	4 7	4 1	25 0 0	19 10	22 5	20 3

(a) Reduced by rebate to 1d.

The tax on income other than income from employment 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 limit of exemption is approximately the annual equivalent of the limit in respect of income from employment, and the amount of tax is reduced by rebates in respect of dependants corresponding to those on income from employment noted above.

Where income is derived partly from employment and partly from other sources, the limit of exempt income and rebates are calculated in regard to total income.

Resident taxpayers are exempt from the tax if their total income from all sources in 1939-40 did not exceed £156 or, if they had dependent wife or child, £220.

TABLE 351.—Unemployment Relief and Social Services Taxes (N.S.W.): Rates on Annual Incomes.

Net assessable income.	Rate per £ on Income derived 1933-39.			Rate per £ on Income derived 1939-40.		
	1st £100.	2nd £100.	Balance.	1st £100.	2nd £100.	Balance.
Not exceeding £156 ... ..	d. 4	d. ...	d. 7	d. 4½	d. 10	d. 11
Over £156 but not exceeding £218...	4	...	10	4½	10	11
„ £218 „ „ £260...	6	10	10·5	6½	10	11
„ £260 „ „ £312...	7	10	10·5	7½	10	11
„ £312 „ „ £1,040...	7	10·5	10·5	8·55	9·5	10·45
„ £1,040 ... ..	9	10·5	* { 10·5 11	8·55	10·45	* { 10·45 11·4

\* £800 at the lower rate; balance at the higher rate.

*Companies:* The combined rate of Unemployment Relief Tax and Social Services Tax payable by companies is 12d. in the £ on net assessable income derived in 1939-40, less 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. A company is required to deduct and remit to the Commissioner of Taxation tax (at the rate of 1s. in the £) on dividends paid to non-resident shareholders on a New South Wales register, also on interest paid to persons not domiciled in New South Wales, Victoria and South Australia.

#### *Unemployment Relief and Social Services Taxes Collections.*

The following statement shows the amount of Unemployment Relief and Social Services taxes collected as deductions from earnings or by annual assessment in each year since 1930-31.

TABLE 352.—Unemployment Relief and Social Services (or Wages and Special Income) Taxes, Collections, 1931 to 1940.

Year ended 30th June.	Sale of stamps and deductions from earnings.	Assess- ments on incomes.	Total collections.	Year ended 30th June.	Sale of stamps and deductions from earnings.	Assess- ments on incomes.	Total collections.
	£	£	£		£	£	£
1931 ...	2,720,887	1,654,916	4,375,803	1936 ...	3,364,082	2,826,210	6,190,292
1932 ...	4,014,399	1,785,120	5,799,519	1937 ...	3,559,553	3,242,336	6,801,889
1933 ...	3,718,960	2,983,479	6,702,439	1938 ...	3,389,603	3,559,681	6,949,284
1934 ...	3,165,178	2,083,109	5,248,287	1939 ...	3,004,863	3,359,072	6,363,935
1935 ...	3,120,034	2,142,587	5,262,621	1940 ...	4,669,684	3,582,637	8,252,321

The deductions from earnings collected in any year relate almost entirely to the earnings of that year, and the collections by assessment relate, for the most part, to income derived in the year preceding the year of collection.

#### *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 abolished at the end of the year 1933.

*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. Rates and incidence of the tax were altered in 1921, 1931, 1933 and 1939.

Estates of members of the Naval, Military and Air Forces of the British Empire and Allies who die during the present war or within a year thereafter, as a result of injuries received or disease contracted on active service, have been exempted.

The dutiable value of an estate is the assessed value of all property of the deceased situated in New South Wales at his death, and in case of deceased persons domiciled in New South Wales at death, 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.

Probate duty is levied under several scales of rates graded according to the value of the estate and the rates rise with each additional £1,000 of value to the maximum where the value exceeds £100,000 if the deceased was domiciled in New South Wales, or £75,000 if domiciled elsewhere at death. The lowest scale applies to bequests of a philanthropic nature, as specified in the Stamp Duties Act; and there are separate scales for property of persons domiciled in New South Wales at date of death, which passes to beneficiaries within certain degrees of kinship. Where different scales apply to various portions of an estate, duty under each scale is calculated according to the rate applicable to the total amount of the estate. For example, if the dutiable value of the estate of a person with local domicile at death is valued at £10,000, the rate of duty on the portion passing to public hospitals, etc., is 4½ per cent.; on the

portion passing to widow or lineal issue  $5\frac{1}{2}$  per cent., or to widower, brother or sister or issue of such,  $7\frac{1}{2}$  per cent.; and on other property  $10\frac{1}{2}$  per cent. Duty is not charged on estates of persons with New South Wales domicile if the value does not exceed £500, nor on property passing to widow or children under 21 years of age if the value of the estate does not exceed £1,000.

The rates of duty payable under the various scales where the date of death was 7th November, 1939 or later are shown in the following table:—

TABLE 353.—State Probate Duties (N.S.W.) Rates.

Final Balance of Estate.	Rates of Duty Payable on Property—			Other.
	Passing to public hospital or trust for poor relief or education in New South Wales. A.	Passing to Widow or lineal issue of deceased. *	Passing to widower, lineal ancestor, brother or sister or issue of brother or sister. C.	
£	Per cent.	Per cent.	Per cent.	Per cent.
<i>Domicile in New South Wales.</i>				
501 to 1,000 ...	2	3	5	8
	Rising by $\frac{1}{4}\dagger$ per cent. per £1,000 to—			
3,001 to 4,000 ...	$2\frac{3}{4}$	4	6	9
	Rising by $\frac{1}{2}$ per cent. per £1,000 to—			
60,001 to 61,000 ...	17	$18\frac{1}{2}$	$20\frac{1}{2}$	$23\frac{1}{2}$
	Rising by $\frac{1}{4}\dagger$ per cent. per £1,000 to—			
75,001 to 76,000 ...	20	22	24	27
	Rising by $\frac{1}{2}$ per cent. per £1,000 to—			
100,001 and over ...	25	27	29	32
<i>Domicile outside New South Wales.</i>				
500 or under ...	3			8
501 to 1,000 ...	$3\frac{1}{4}$			$8\frac{1}{2}$
	Rising by $\frac{1}{2}$ per cent. per £1,000 to—			
50,001 to 51,000 ...	20			25
	Rising by $\frac{3}{4}\dagger$ per cent. per £1,000 to—			
65,001 to 66,000 ...	23			30
	Rising by $\frac{1}{2}$ per cent. per £1,000 to—			
75,001 and over ...	25			32

\* Lower rates may be charged if estate does not exceed £5,000, see below.

† Rate in column A, rising by  $\frac{1}{4}$  per cent. per £1,000. † Rate in column A, rising by  $\frac{3}{4}$  per cent. per £1,000.

Provision is made for abatement of duty, where necessary, so that the value of the estate will not be reduced by the tax below the value (less duty) of an estate of the highest value taxable in the next lower grade. If the value of an estate—local domicile—does not exceed £5,000, property passing to widow and/or children under 21 years of age is dutiable as follows:—

Final Balance of Estate—	Rate of Duty.
£	£
501 to 1,000 ...	Exempt.
1,001 to 2,000 ...	$\frac{1}{2}$ rates in Column B of Table 353.
2,001 to 3,000 ...	$\frac{5}{8}$ " " "
3,001 to 4,000 ...	$\frac{3}{4}$ " " "
4,001 to 5,000 ...	$\frac{7}{8}$ " " "

Particulars of the amount of probate duty collected in each of the past five years are shown in Table 346. 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 increased as from 7th November, 1939.

The amount of Stamp Duty collected in each of the past five years is shown in Table 346.

#### *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. Since the 1st October, 1932, the rates have been one penny for each ticket issued 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, as a percentage levy on the total amount of bets made by backers. The rate was first fixed at 1 per cent., reduced to  $\frac{1}{2}$  per cent. on 1st January, 1938, and increased to  $\frac{1}{2}$  per cent. on 4th November, 1939. 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 greyhound race meetings on other courses 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 for each of the last eleven years the total amount of taxation collected by the State in connection with betting, horse and greyhound racing.

TABLE 354.—State Taxes on Racing and Betting, 1930 to 1940.

Year ended 30th June.	Racing Clubs and Associations.	Book-makers Licenses.	Winning Bets and Book-makers Turnover.	Betting Tickets.	Totalisator.	Race-courses Admisstion.	Entertainments Tax on admission to Race Courses.*	Total.
	£	£	£	£	£	£	£	£
1930	68,704	38,507	.....	116,933	198,172	129,320	.....	546,636
1931	57,676	30,947	227,650	75,674	142,939	86,579	7,750	629,215
1932	53,202	20,732	204,098	65,488	122,049	76,992	4,244	555,805
1933	56,341	31,273	103,433	36,332	104,231	71,459	3,482	406,551
1934	47,519	28,904	104,353	32,254	110,567	78,780	3,980	406,312
1935	49,289	33,125	101,531	36,200	119,790	82,016	5,467	427,418
1936	59,585	37,916	117,332	46,880	115,611	87,787	5,906	471,017
1937	75,886	38,559	115,586	52,183	114,720	88,000	6,223	491,157
1938	75,150	35,587	91,471	52,474	97,082	48,933	6,429	407,126
1939	94,125	35,579	53,483	58,996	94,155	14,371	44,716	395,425
1940	91,622	32,749	80,454	55,142	102,508	13,104	50,130	425,709

\* Calendar year ended six months earlier.

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 admissions to greyhound race meetings in the metropolitan district and Newcastle, which are subject to the admission tax described above, and admissions for which the charge does not exceed 1s. 6d.

The entertainments tax is collected on the payments for admission 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.

On admissions 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" at page 193.

*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 346 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 owned by a resident of Australia is exempt from the tax. The rate of tax payable by residents on assessments made after 30th June, 1940, is 1  $\frac{1}{18750}$  d. for the first £ of value in excess of £5,000, then it increases uniformly by  $\frac{1}{18750}$  d. for every increase of £1 to 5d. in the £ on a taxable value of £75,000; and the tax is 9d. for every £ in excess of that amount.

Absentee owners are required to pay 1d. in the £ on the value up to £5,000 and the rate on higher values is 1d. more than the corresponding rate payable by a resident.

These rates are double those in force at 30th June, 1940, which represented an increase of 11.1 per cent. on the rates as at 30th June, 1938. They are, however, the same as the rates in operation in the years 1914-15 to 1917-18 and 1922-23 to 1926-27, and 16 $\frac{2}{3}$  per cent. lower than the rates in force from 1918-19 to 1921-22.

Lands exempt from taxation are those owned by a State, municipality, or other public authority, by savings banks, life assurance societies, friendly societies or trade unions, and those used for religious, charitable, or educational purposes, and grounds owned by clubs, etc., and used for sports (except golf and horse-racing). The exemption in respect of life assurance societies, friendly societies, clubs, etc., is only partial if the lands are not used solely for the purposes of such bodies. In the case of non-mutual life assurance societies, the amount of exemption is reduced in the proportion which the value of policies in Australia bears to the total value of policies.

The following table gives particulars regarding taxable lands held in New South Wales at the 30th June each year, 1930 to 1938. Details relating to each State and the Commonwealth are shown in the annual reports of the Commonwealth Commissioner of Taxation.

TABLE 355.—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 Lands.	Country Lands.	
	Town.	Country.	Town.	Country.			
	£000.	£000.	£000.	£000.	£	£	acres 000.
1930	142,828	120,618	80,106	64,698	1,035,636	547,682	32,325
1931	129,350	105,941	68,416	54,458	800,223	405,384	31,035
1932	126,024	94,737	65,046	50,568	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	184,438	32,814
1936	142,679	114,680	64,079	53,227	428,331	204,459	32,391
1937	144,572	117,429	63,920	53,948	436,692	208,651	32,785
1938	149,889	119,377	64,832	53,502	497,221	227,912	32,105

The tax assessed in the Commonwealth on land held at 30th June was £3,116,253 in 1930, £1,145,381 in 1935, £1,277,585 in 1937, and £1,432,319 in 1938. The sharp decline in the amount of tax between 1930 and 1935 was due to a fall in values of land and to reductions in rates of tax, viz., 33 $\frac{1}{3}$  per cent. in 1932 and 25 per cent. in 1933.

*Commonwealth Income Tax.*

The Commonwealth, as well as the various States, levies 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 State Commissioners of Taxation in all the States (except Western Australia), 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 income taxes.

*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; pay and allowances of members of the military and air forces serving abroad, and of the naval forces serving in a seagoing ship.

*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 (with net income not exceeding £50) who has care of the taxpayer's children under 16 years of age, and is maintained by him; £50 for each child under the age of 16 years; £50 for the taxpayer's mother if she is a resident and is wholly maintained by him; 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, institutions and funds for the comfort and welfare of soldiers, airmen and sailors, 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; gifts to the Commonwealth for purposes of defence.

These deductions are made firstly from personal exertion income, then from property income.

*Statutory exemption* on income derived in 1939-40 by resident taxpayers and absentees (other than companies) is £200 less £1 for every £1 by which the income exceeds £200. The deduction is made firstly from property income, then from personal exertion income. The statutory exemption on income derived in the years 1936-37 to 1938-39 was £250, less £1 for every £2 by which the income exceeded £250.

*Rate of Tax—Individuals.*—The rates of tax on income derived in 1939-40 are much higher than those formerly in operation. The rates on income from personal exertion are—

- (a) On taxable income not exceeding £400, 16d. in the £.
- (b) On taxable income exceeding £400 but not exceeding £1,500, 16 $\frac{1}{2}$ d. in the £, increasing by  $\frac{1}{2}$ d. for every £ in excess of £401.
- (c) On taxable income exceeding £1,500—first £1,500 at 60d. in the £, balance at 120d. in the £.

The rates on taxable income from property are:—

- (a) On taxable income not exceeding £400, 20d. in the £.
- (b) On taxable income exceeding £400 but not exceeding £1,200, 20 $\frac{1}{2}$ d. in the £, increasing by  $\frac{1}{2}$ d. for every £ in excess of £401.
- (c) On taxable income exceeding £1,200—First £1,200 at 60d. in the £, balance at 120d. in the £.

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. From 1922 to 1937-38 this principle of averaging was applied to other incomes; subsequently it was restricted to incomes from rural industries.

*Minimum Tax.*—The minimum amount of tax is 10s.

*Payment of Tax by Instalments.*

An instalment plan for the payment of Commonwealth income tax on salary and wages was introduced in January, 1941. Employers are required to deduct the instalments when paying salary or wages where earnings in any week or part thereof exceed £3 17s. The method of deduction is (a) by stamps delivered to the employee who is required to cancel each stamp and affix it in an approved stamp book, or (b) where there is a large group of permanent employees, by cash deductions to be remitted by the employer to the Taxation Department.

Taxpayers who are not employees may, at their own option, purchase stamps for the payment of income tax by instalments.

The instalments for the payment of tax on income derived in the year 1939-40 are being deducted, according to the following scale, from salaries and wages received by employees between 1st January and 30th June, 1941. Deductions are discontinued when an employee obtains from the Department of Taxation a certificate of exemption to show that he has paid his tax or is not liable to pay tax:—

TABLE 356.—Commonwealth Tax on Income derived in year 1939-40—Instalments deducted from Wages, January to June, 1941.

Rate of Salary or Wages per week.				Amount of weekly deduction (employees without dependants) January to June, 1941.					
£	s.	d.		£	s.	d.			
3	17	1	and not exceeding	4	10	0	0	2	0
4	10	1	”	5	10	0	0	5	0
5	10	1	”	6	10	0	0	9	0
6	10	1	”	7	10	0	0	14	0
7	10	1	”	8	10	0	0	1	0
8	10	1	”	9	10	0	0	1	2
9	10	1	”	10	10	0	0	1	10
10	10	1	”	11	10	0	0	1	13
11	10	1	”	12	10	0	0	2	2
12	10	1	”	13	10	0	0	2	5
13	10	1	”	14	10	0	0	2	9
14	10	1	”	15	10	0	0	2	12
15	10	1	”	16	10	0	0	2	16
16	10	1	”	17	10	0	0	2	19
17	10	1	”	18	10	0	0	4	1

When the rate of wages or salary exceeds £18 10s. 0d. per week the amount of deduction is 5s. multiplied by the number of pounds (nearest £).

The amounts shown above are deducted where the employee has no dependants, and they are reduced by 5s. for each dependant, *i.e.*, the taxpayer's spouse and/or mother if maintained by the taxpayer, and dependent children under 16 years of age. If provided by the employer, sustenance is taken into account at 15s. per week and quarters at 5s. per week in computing the deduction.

*Taxation of Companies.*

*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 or dividends on 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, but a resident company which is a shareholder is entitled to a rebate in respect of dividends which form part of its taxable income. Prior to the income year 1939-40, other shareholders were entitled to rebates of tax on dividends as described in earlier issues of the *Year Book*.

*Companies.*—The rate of tax payable in respect of income derived in 1938-39 and 1939-40 is 2s. in the £. Tax at this rate is payable also 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 £200 paid or credited to a non-resident individual.

The company rate was 1s. in the £ on income derived in 1936-37 and 1s. 1.8d. in 1937-38.

*Additional Companies Tax* is payable on *undistributed income*, ascertained by deducting from taxable income taxes paid during the year, dividends paid from taxable income within six months (or if a non-resident public company nine months) after the close of the year and, in the case of certain public companies, the net loss incurred in carrying on business outside Australia. The amount of tax payable by private companies is the additional tax which would have been payable by shareholders had the taxable income been distributed in full. Public companies are levied at the rate of 2s. in the £ on the undistributed income.

*Companies Super Tax* at the rate of 1s. in the £ is payable on the taxable income in excess of £5,000 derived in 1939-40 by companies except the following, viz., private companies; co-operative companies; life assurance companies the profits of which are divisible only among policyholders or which have a deficiency of assets, companies (other than cash-order and similar companies) in which little or no capital is required, to the extent to which profit arises from commissions, fees or charges for services rendered.

*Wartime Company Tax.* This tax applies to taxable profits derived in 1939-40 and is based on the principle of taxing profits according to their relationship to the capital employed in earning them. Taxable profit consists of taxable income as assessed from Federal income tax, less income tax payable thereon other than tax on undistributed income.

Companies which are exempt from the super-tax, as described above, and companies, not being subsidiary companies, with taxable profits not exceeding £1,000, are exempt from the Wartime Company Tax. If the amount assessed is less than the super-tax payable by a company it is not required to pay Wartime Company Tax; and if the Wartime Company Tax is the greater the amount of super-tax is deducted therefrom.

Profits up to "the statutory percentage," which is 8 per cent. of capital employed, are not subject to Wartime Company Tax, and profits in excess of 8 per cent. are taxed according to the following scale. For instance, a company with profit representing 10½ per cent. of capital employed, pays as tax 6 per cent. of profits which represent 2 per cent. of capital employed, plus 12 per cent. of profits which represent ½ per cent. of capital employed.

TABLE 357.—Commonwealth Wartime Company Tax—Rates of Tax.

Taxable Profit expressed as percentage of capital employed.		(3) Rates of Tax on "Excess" taxable profits, as specified in column (2).
(1) Total.	(2) "Excess" (over 8 per cent. of capital employed) subject to war-time Company Tax.	
Per cent.	Per cent.	
Over 8 to 9	1 or less	4% on "excess."
" 9, 10	Over 1 to 2	4% on first 1% "excess" and 8% on balance of "excess."
" 10, 11	" 2, 3	6, " 2 " 12 " "
" 11, 12	" 3, 4	8, " 3 " 16 " "
" 12, 13	" 4, 5	10, " 4 " 20 " "
" 13, 14	" 5, 6	12, " 5 " 24 " "
" 14, 15	" 6, 7	14, " 6 " 28 " "
" 15, 16	" 7, 8	16, " 7 " 32 " "
" 16, 17	" 8, 9	18, " 8 " 36 " "
" 17, 18	" 9, 10	20, " 9 " 40 " "
" 18, 19	" 10, 11	22, " 10 " 44 " "
" 19, 20	" 11, 12	24, " 11 " 48 " "
" 20, 21	" 12, 13	26, " 12 " 52 " "
" 21, 22	" 13, 14	28, " 13 " 56 " "
" 22	" 14	30, " 14 " 60 " "

The statutory percentage may be increased above 8 per cent. in particular cases on the decision of the Board of Referees constituted to investigate such matters.

The rate of tax payable by a company engaged in primary production is determined in relation to taxable profits averaged over a period not exceeding five years.

#### *Commonwealth Estate Duties.*

The Estates Duty Assessment Act, which came into operation on 21st December, 1914, provided for the imposition of a Federal duty on properties of persons who died after the commencement of the Act.

Where the whole of the estate passes to the widow, children or grand-children there is a statutory exemption of £2,000 from the value of the estate for duty and it diminishes by £1 for every £10 of value between £2,000 and £10,000, and by £1 for every £2 of value in excess of £10,000. Where no part of the estate passes to the widow, children or grand-children, the exemption is £1,000, diminishing by £1 for every £10 of value between £1,000 and £6,000 and by £1 for every £8 of value in excess of £6,000. Proportionate deductions are allowed when only part of an estate passes to the widow, children and grand-children.

Estates of members of the naval, military and air forces dying on active service are exempt from duty if the value does not exceed £5,000.

The rates of duty, ranging from 1 per cent. to 15 per cent. of the dutiable value of the estate, remained unchanged from the date of commencement in 1914 to 20th May, 1940; then the following scale, ranging from 3 per cent. to 20 per cent., was introduced:—

Value for duty of the Estate.	Rates of Duty (per cent. of value for duty).
Not exceeding £10,000 ... ..	3 per cent. increasing by 3/100 per cent. per £100 to—
£19,900 to £20,000 ... ..	6 per cent. increasing by 3/200 per cent. per £100 to—
£99,900 to £100,000 ... ..	18 per cent. increasing by 1/200 per cent. per £1,000 to—
£500,000 or more ... ..	20 per cent.

#### *Customs, Excise and Primage Duties.*

The power to impose customs and excise duties in Australia is vested exclusively in the Commonwealth. Particulars regarding the customs and excise tariffs and 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).

Certain 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, but many of the exemptions were removed in November, 1940.

The rate of the tax was the same for all taxable goods until 22nd November, 1940, when these were classified into three groups, each with a different rate of sales tax.

The rate of tax was 2½ per cent. of sale value, as from 1st August, 1930. Subsequent changes were as follows:

Date.	Per cent.	Date.	Per cent.
1930—1st August ... ..	2½	1938—22nd September ...	5
1931—11th July ... ..	6	1939—9th September ...	6
1933—26th October ... ..	5	1940—3rd May ... ..	8½
1936—11th September ... ..	4	1940—22nd November ...	5, 10 or 15

The amount of sales tax collected in New South Wales was £3,207,349 in 1931-32, £3,849,015 in 1938-39, and £5,064,725 in 1939-40.



*Flour Tax.*

In order to obtain funds to assist wheatgrowers during a period of low prices for wheat, a flour tax was levied by the Commonwealth in December, 1933, replacing a levy in New South Wales by the State Government. The rate of tax was £4 5s. per ton (2,000 lb.) from 4th December, 1933, until it terminated on 31st May, 1934. It was levied again at the rate of £2 12s. 6d. per ton from 7th January, 1935, to 24th February, 1936.

The Commonwealth imposed the tax 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", where the changes in rates of tax are also shown.

The rate of tax is fixed on the recommendation of a Commonwealth Advisory Committee.

Flour tax collected in New South Wales amounted to £705,337 in 1938-39 and £983,438 in 1939-40.

*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 £77,523 in 1937-38, £74,396 in 1938-39, and £84,925 in 1939-40, the collections in New South Wales being £32,701, £28,949 and £35,175 respectively.

*Gold Tax.*

Gold produced in Australia or in any Australian Territory and delivered on or after 15th September, 1939, to the Commonwealth Bank is subject to taxation by the Commonwealth. Wrought gold and gold coin are exempt from the tax and rebates of tax are allowed to prospectors in respect of the first 25 ounces of gold in any year and to other producers where the profit from working, after payment of tax, does not exceed 30s. per ounce fine. The tax is collected by the Commonwealth Bank which deducts the amount from the purchase price payable to producers or other persons. The rate of tax varies according to the price of gold and is one-half of the amount by which the price exceeds £9 per ounce fine. Collections are paid into the Consolidated Revenue Fund except the amount derived from gold produced in the Mandated Territory of New Guinea, which is paid into a trust account to be expended for the defence and other purposes of the territory.

The amount of gold tax paid into the Consolidated Revenue Fund in 1939-40 was £1,214,621 of which £344,080 was collected in New South Wales.

## STATE FINANCE.

The divisions of the public accounts of the State of New South Wales at 30th June, 1940, are listed in Table 371. The following are the chief operating accounts:—

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.

The *Unemployment Relief Fund* and the *Social Services Fund* receive the proceeds of special taxation, (as described on page 405), repayments of advances and interest thereon and such other amounts as may be authorised by statute. The resources of the Unemployment Relief Fund may be expended on grants and loans for relief of unemployment, food relief, training of youths and other persons for employment, recouping to the Consolidated Revenue Fund capital charges on indebtedness remitted to the Metropolitan and the Hunter District Water Boards, and on loan moneys expended since 1st July, 1932, for the relief of unemployment, and administration. Expenditure from the Social Services Fund includes family endowment, widows pensions, payments in respect of children under the Child Welfare Act, relief to deserted wives and administrative costs. Both funds are subject to appropriation by Parliament.

The funds of the *Railways, Transport Trusts and Sydney Harbour Trust* relating to the State-owned transport services are described in the chapter "Trade Transport and Communication" of this Year Book.

Particulars of the *Closer Settlement Fund* for the promotion of land settlement are shown on page 434.

The *Road Transport and Traffic Fund* and the *State Transport (Coordination) Fund* dealing with the administration and control of road traffic and the regulation of commercial motor vehicles are described in the chapter "Motor and Other Licensed Vehicles."

The *Special Deposits Account* is an account in the Treasury books for recording transactions relating to sums held by or deposited with the Treasurer, 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.

Within this division of the public accounts there are numerous individual accounts, as illustrated in Table 374. Many of them are subsidiary to the funds already mentioned and are applied to special purposes, such as the purchase of stores, making of advances, etc. Some, however, are important operating accounts similar in character to the Consolidated Revenue, Railways and Closer Settlement Funds. Examples of these are the Main Roads Accounts, Public Vehicles Account, Burrinjuck Electricity Supply Account and Government Insurance Office Accounts.

The *General Loan Account* receives moneys borrowed by the Government on the issue of stock, Treasury bills, and debentures under the authority of a Loan Act. Expenditure on works, services and redemptions 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 tables of revenue and expenditure presented in this chapter relate to 1928-29 and later years. Comparisons with earlier years are rendered obscure by a series of far-reaching changes in the composition and form of the public accounts which took place between 1924-25 and 1927-28. There have been further modifications of book-keeping procedure since 1928-29. These relate chiefly to the practice adopted in 1931-32 of deducting certain items of departmental revenue from the expenditure of departments and including net amounts in the accounts; previously gross amounts of revenue and expenditure were included. But the scope of the tables has not been subject to major adjustments, and they are of value in comparing the balance on revenue accounts.

A summary of the combined revenue operations of the Governmental section of the State accounts, the chief business undertakings of the State and the road vehicles registry and traffic control branch is shown in Table 358. Though not embracing all State activities, the table covers the field usually embraced within the State Budget. The special roads funds are considered separately on page 431.

The Governmental section relates to the administrative functions of Government, including the provision of social services. These were within the ambit of the Consolidated Revenue Fund between 1933-34 and 1938-39, then special funds were constituted for unemployment relief and social services. Prior to 1st July, 1933, special funds existed for Family Endowment and Unemployment Relief.

The funds within the Governmental section, together with the Road Transport and Traffic Fund, are on a "cash" or "receipts and payments" basis, but the revenue and working expenses of the business undertakings are on an "income and expenditure" basis. The public debt charges represent the actual cash payments of interest, exchange on interest and sinking fund in respect of all activities included in the table.

TABLE 358.—State Revenue and Expenditure, 1929 to 1940.

Year ended 30th June.	Revenue.						
	Govern- mental.	Business Undertakings.				Road Transport and Traffic Fund.	Total State Revenue.
		Railways. (c)	Tramways and Omnibuses.	Sydney Harbour.	Hunter District Water and Sewerage.		
	£000.	£000.	£000.	£000.	£000.	£000.	£000.
1929 ...	20,757	19,616	4,458	1,103	307	...	46,241
1930 ...	21,915	17,827	3,903	1,018	296	...	44,959
1931 ...	22,357	15,206	3,058	840	299	415	42,175
1932 ...	21,766	15,001	3,305	832	273	366	41,543
1933 ...	25,098	15,405	3,318	880	272	382	45,355
1934 ...	21,857	14,890	3,465	856	276	425	41,769
1935 ...	21,439	16,003	3,618	968	294	450	42,772
1936 ...	23,174	16,954	3,758	1,041	303	489	45,719
1937 ...	25,471	17,816	3,928	1,094	321	529	49,159
1938 ...	27,633	19,486	4,295	1,186	369	577	53,546
1939 ...	26,422	19,147	4,374	1,156	...	611	51,710
1940 ...	28,523	19,955	4,468	1,203	...	606	54,755

Year ended 30th June.	Expenditure.							
	Govern- mental(c) (Ordinary Depart- mental).	Business Undertakings (Working Expenses). (a)				Road Transport and Traffic Fund.	Public Debt Charges. (b)	Total State Expen- diture.
		Railways.	Tramways and Omnibuses	Sydney Harbour.	Hunter District Water and Sewerage.			
	£000.	£000.	£000.	£000.	£000.	£000.	£000.	
1929 ...	17,458	14,978	3,836	369	119	...	11,400	
1930 ...	17,591	14,962	3,626	381	118	...	12,013	
1931 ...	19,866	12,900	3,106	275	105	415	13,361	
1932 ...	21,386	12,533	3,047	246	95	366	18,522	
1933 ...	18,868	12,021	2,829	223	91	382	14,648	
1934 ...	16,389	11,295	2,751	233	93	425	13,791	
1935 ...	15,935	11,606	2,997	275	92	450	13,718	
1936 ...	17,370	11,946	3,155	288	100	489	14,062	
1937 ...	18,219	12,406	3,305	298	108	529	14,217	
1938 ...	20,429	13,655	3,821	349	123	577	14,542	
1939 ...	20,430	14,321	3,956	380	...	611	14,465	
1940 ...	22,571	14,359	4,040	359	...	606	15,115	

(a) Excluding interest, exchange and sinking fund charges. (b) Interest, exchange and sinking fund.  
(c) Excludes £800,000 contribution from Consolidated Revenue to meet losses on developmental railways.

The accounts of the Hunter District Water and Sewerage Board were excluded from the State accounts as from 1st July, 1938. At this date the Board was constituted as an independent statutory body with power to arrange its own finances in accordance with the authority granted by Parliament.

Expenditure in 1939-40 included £275,595 relating to earlier years, being overdraft balances in old accounts transferred in this year to Consolidated Revenue Account.

An amount of £800,000 in each year, being a contribution by the Consolidated Revenue Fund towards losses incurred on developmental railway lines, has been eliminated from both Governmental expenditure and railway revenue. These are, therefore, lower by £800,000 than the amounts shown in Tables 364 and 367 respectively.

The larger business undertakings exercise an important influence on the budgetary position. With the exception of the tramways in 1930-31, the annual revenue obtained by each has been sufficient to pay working expenses but heavy deficiencies have been incurred in some years after debiting interest and other public debt charges. In the railways substantial deficiencies were incurred in each year from 1928-29 to 1935-36, a small surplus in the next two years and deficiencies amounting to £1,171,522 and £443,833 respectively in 1938-39 and 1939-40. The tramways were operated at a loss during the years 1928-29 to 1931-32 but, with the omnibus services, returned a surplus in each subsequent year. Sydney Harbour services have returned a surplus except in the three years 1930-31 to 1932-33. The net results of these undertakings in 1939-40 after allocating public debt charges are shown in Table 367, and comparative results for a series of years are contained in the chapters "Railways and Tramways" and "Shipping" of this Year Book.

The annual surpluses and deficiencies based on the foregoing aggregate statement of revenue and expenditure were as follows:—

TABLE 359.—State Revenue, Annual Surplus or Deficiency, 1929 to 1940.

Year ended 30th June.	Deficiency.	Year ended 30th June.	Deficiency.	Year ended 30th June.	Deficiency.
	£		£		£
1929	1,919,033	1933	3,707,015	1937	*77,124
1930	3,732,194	1934	3,208,391	1938	*49,839
1931	7,852,443	1935	2,301,170	1939	2,453,329
1932	14,651,253	1936	1,690,781	1940	2,294,951

\* Surplus.

In the last twelve years there were surpluses in 1936-37 and 1937-38 amounting to £126,963 and deficiencies amounting to £43,810,560 in the other years, so that the net deficiency of the period was £43,683,597. Of this, £4,400,000 has been funded and the balance was obtained from cash in the Special Deposits Accounts and by short-term loans, viz., Treasury Bills £30,580,000, and advances by the Commonwealth Bank £1,550,000.

The 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 £1,736,884 in 1939-40 and £13,184,289 in the twelve years ended 30th June, 1940. The total payments to the sinking fund, including those from road and other funds, Commonwealth contributions and interest earnings, are shown in Table 391.

The exceptionally large deficiency in 1931-32 was due partly to special causes, viz., the collection in 1932-33 of certain revenues normally collectable in 1931-32 and the payment in 1931-32 of a substantial amount of expenditure normally payable in 1930-31.

*Governmental Receipts.*

The following table provides a summary of the main items of Governmental receipts during the last five years, together with the amounts per head of population.

TABLE 360.—Governmental Receipts, 1936 to 1940.

Classification.	Year ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
	Amount.				
	£	£	£	£	£
Contribution by Commonwealth towards					
Interest ... ..	2,917,411	2,917,411	2,917,411	2,917,411	2,917,411
Taxes ... ..	14,125,654	16,371,822	17,917,771	17,500,241	19,820,785
Land Revenue ... ..	1,999,549	1,791,594	1,871,754	1,656,885	1,627,974
Receipts for Services Rendered	1,479,753	1,477,914	1,562,419	1,688,601	1,739,361
General Miscellaneous ... ..	2,952,172	2,912,249	3,363,337	2,653,921	2,410,824
<b>Total ... ..</b>	<b>23,174,539</b>	<b>25,470,990</b>	<b>27,632,692</b>	<b>26,422,062</b>	<b>28,522,355</b>
	Per Head of Population.				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Contribution by Commonwealth towards					
Interest ... ..	1 2 0	1 1 9	1 1 6	1 1 4	1 1 1
Taxes ... ..	5 6 4	6 2 2	6 12 4	6 8 0	7 3 6
Land Revenue ... ..	0 12 9	0 13 4	0 13 10	0 12 2	0 11 9
Receipts for Services Rendered	0 11 2	0 11 0	0 11 6	0 12 4	0 12 7
General Miscellaneous ... ..	1 2 3	1 1 9	1 4 10	0 19 5	0 17 6
<b>Total ... ..</b>	<b>8 14 6</b>	<b>9 10 0</b>	<b>10 4 0</b>	<b>9 18 3</b>	<b>10 6 5</b>

Taxes represented 69.5 per cent. of the receipts in 1939-40. Details of these taxes are shown in Table 346, together with motor taxes, fees, etc., which are paid into special funds.

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 455, and the special grants shown as miscellaneous receipts in Table 363. 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 457). 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 49,263,000 acres have been absolutely alienated, 18,986,000 acres are in course of sale on terms, and 113,627,000 acres are occupied by landholders at rental under various leasehold tenures. Unoccupied lands include 16,160,000 acres of reservations, roads and beds of lakes and rivers. About 3,024,000 acres were available for selection on 30th June, 1940.

In a considerable area the State has reserved to itself mineral rights, which produce a substantial income from royalties. In addition, there are approximately 7,000,000 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 361.—Governmental Revenue, Receipts from Land, Minerals and Forests.

Particulars.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Receipts from Sales ... ..	835,170	805,936	829,025	728,733	703,069
Rentals for Leases, Fees and other Receipts ... ..	551,260	562,785	561,793	530,891	552,577
Royalties on Minerals, Rents for Mining Leases, etc. ... ..	214,795	259,453	372,257	268,392	259,912
Forestry—Royalties, Rentals, etc.	98,324	103,420	108,679	128,872	112,416
Total, Land Revenue ... ..	1,699,549	1,791,594	1,871,754	1,656,888	1,627,974

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 £91,538 in 1935-36, £97,128 in 1936-37, £96,592 in 1937-38, £108,478 in 1938-39, and £113,111 in 1939-40.

Royalties on minerals constitute the principal item of mining revenue. 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 362.—Governmental Revenue, Receipts for Services Rendered.

Particulars.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
Harbour Rates and Fees, Pilotage, etc. ...	304,979	330,122	356,785	369,338	355,892
Fees—					
Registrar-General ... ..	157,458	177,117	197,791	192,367	173,095
Law Courts ... ..	191,210	204,591	221,291	246,525	244,678
Valuation of Land ... ..	61,820	44,870	47,343	47,822	52,540
Grain Elevators—Handling Fees, etc. ...	356,893	338,510	319,352	389,419	443,120
Charge for Collection of Motor Taxes ...	37,197	...	...	...	...
Maintenance of Inmates of Public Institutions	28,840	23,165	29,245	23,512	24,240
Maintenance of Patients in Mental Hospitals	101,650	105,941	106,346	108,748	128,502
Other ... ..	239,706	253,598	284,266	310,870	317,294
Total... ..	1,479,753	1,477,914	1,562,419	1,688,601	1,730,361

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 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 £194,787 in 1935-36, £237,104 in 1936-37, £425,485 in 1937-38, £442,585 in 1938-39, and £429,892 in 1939-40.

Receipts for the principal services rendered to the Commonwealth Government in 1939-40 were:—Maintenance of old-age and invalid pensioners in State institutions £44,630; contribution for the training of boys and maintenance of farms £1,783, services of magistrates, £1,442; and other, £2,327.

#### 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 363.—Governmental Revenue, General Miscellaneous Receipts.

Particulars.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
Interest Collections—	£	£	£	£	£
Metropolitan Water, Sewerage, and Drainage Board Advances	201,237	193,226	187,543	90,930	170,709
Country Towns Water Supply & Sewerage Works	184,119	160,605	170,799	120,941	45,402
Rural Bank, Agencies	54,804	106,880	107,327	99,636	117,789
Daily Credit Balances with Banks	5,963	13,755	16,603	12,620	19,260
Advances to Necessitous Farmers	28,900	10,918	9,253	7,514	10,378
Advances for Wire-netting	14,955	22,580	17,621	11,691	11,044
Other Interest	110,618	96,376	143,564	127,148	70,972
Rents of Buildings, Wharves, etc.	35,017	31,724	32,323	32,102	28,764
Fines and Forfeitures	86,189	73,133	68,007	73,601	80,851
Darling Harbour Resumed Area	41,525	44,008	46,059	46,724	47,241
Repayments—Advances for Unemployment Relief	30,897	24,649	21,583	90,073	3,574
Repayment—Balances not required	44,440	134,372	113,494	16,433	1,421
Repayments to Credit of Votes, previous years	613,342	385,707	421,196	288,721	233,983
State Lotteries (Gross Profit)	736,300	766,040	845,750	905,440	865,650
State Superannuation Board—Repayment of part Employers' contributions and Interest thereon	328,728	328,728	328,728	328,728	328,728
Tourist Bureau Collections	.....	65,833	122,198	122,052	112,059
Prison Industries	59,499	59,696	62,724	64,278	64,499
Sale of Products, etc., of Departments	63,427	69,642	65,635	75,169	81,427
Water Conservation and Irrigation—Rents, Rates, etc.	19,881	21,337	22,711	20,918	23,274
Commonwealth Government—State's share of special grants	205,000	197,000	50,000	50,600	...
Other Miscellaneous Receipts	87,631	76,040	509,314	74,262	90,799
Total	2,952,172	2,912,249	3,363,337	2,658,921	2,416,824

In 1937-38 the item "Other Miscellaneous Receipts" included a sum of £442,230, representing working profits and surpluses from the realisation of certain State industrial enterprises.

The Special Commonwealth grants of £50,000 in 1937-38 and 1938-39 were portions of grants of £79,000 for training youths and placing them in employment. In each year an amount of £50,000 was credited to revenue to offset expenditure in supplementing wages paid to young apprentices in skilled trades, and the balance of £29,000 was set aside in a Special Deposits Account for technical education.

Interest receipts in this group do not include large sums taken to account as land revenue in respect of Crown lands sold on the instalment system.



*Governmental Expenditure.*

The Governmental expenditure from revenue during the last five years and the amount per head of population are shown in the following table. The ordinary departmental expenditure is classified according to functions. The annual contribution to railways £800,000 is included here but not in Table 358.

TABLE 364.—Governmental Expenditure, Functional Classification, 1936 to 1940.

Classification.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
	Amount.				
	£	£	£	£	£
Ordinary Departmental—					
Legislative and General Administration (exclusive of Interest, etc., shown below)	1,450,173	1,504,194	1,767,908	1,625,818	1,622,048
Maintenance of Law, Order, and Public Safety	2,485,561	2,552,723	2,747,601	2,788,494	2,908,139
Regulation of Trade and Industry	82,323	90,036	107,144	114,245	116,277
Education	4,199,828	4,392,728	5,051,547	5,364,801	5,372,953
Science, Art and Research	58,573	86,764	71,287	73,624	70,995
Public Health and Recreation	1,849,889	2,031,813	2,276,957	2,330,917	2,591,666
Social Amelioration*	5,243,290	5,306,685	5,899,861	5,206,773	6,972,953
War Obligations	70,583	75,682	90,772	73,945	72,482
Development and Maintenance of State Resources...	2,486,348	2,747,892	2,938,939	3,288,413	3,335,496
Local Government	243,014	230,274	277,038	363,032	307,790
Total Ordinary Departmental	18,170,582	19,019,391	21,229,054	21,230,062	23,370,799
Public Debt Charges†—					
Interest	5,513,987	5,084,521	5,375,79	5,941,385	5,675,104
Exchange on Interest	706,056	633,273	668,389	697,380	837,897
Sinking Fund	1,077,000	1,199,725	778,012	1,448,494	1,206,285
Total Public Debt Charges	7,297,043	6,917,519	6,822,194	8,087,259	7,719,286
Total Governmental	25,467,625	25,936,910	28,051,248	29,317,321	31,090,085
	Per Head of Population.				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ordinary Departmental—					
Legislative and General Administration	0 10 11	0 11 3	0 13 1	0 11 11	0 11 9
Maintenance of Law, Order, and Public Safety	0 18 9	0 19 0	1 0 3	1 0 5	1 1 1
Regulation of Trade and Industry	0 0 8	0 0 8	0 0 10	0 0 10	0 0 10
Education	1 11 7	1 12 9	1 17 4	1 19 3	1 18 11
Science, Art and Research	0 0 5	0 0 8	0 0 6	0 0 7	0 0 6
Public Health and Recreation	0 13 11	0 15 2	0 16 10	0 17 0	0 18 9
Social Amelioration*	1 19 6	1 19 7	2 3 7	1 18 1	2 10 5
War Obligations	0 0 6	0 0 7	0 0 8	0 0 7	0 0 6
Development and Maintenance of State Resources...	0 18 9	1 0 6	1 1 8	1 4 0	1 4 2
Local Government	0 1 10	0 1 9	0 2 0	0 2 8	0 2 3
Total Ordinary Departmental	6 16 10	7 1 11	7 16 9	7 15 4	8 9 2
Public Debt Charges†—					
Interest	2 1 6	1 17 11	1 19 8	2 3 6	2 1 1
Exchange on Interest	0 5 4	0 4 9	0 4 11	0 5 1	0 6 1
Sinking Fund	0 8 1	0 8 11	0 5 9	0 10 7	0 8 9
Total Public Debt Charges	2 14 11	2 11 7	2 10 4	2 19 2	2 15 11
Total Governmental	9 11 9	9 13 6	10 7 1	10 14 6	11 5 1

\* Exclusive of Interest, Exchange and Sinking Fund contribution on Loans expended on Unemployment Relief, which are included under Public Debt charges in this table.

† See comment following this table.

The public debt charges shown in the above table represent the balance paid from Governmental revenues of the State, and are exclusive of interest, exchange and sinking fund paid from earnings of business undertakings, etc. The total amount of public debt charges paid in respect of all State activities is shown in Table 389, which relates to interest and exchange, and Table 391, which relates to sinking fund.

Fluctuations in the public debt charges paid from the Governmental accounts are due mainly to the failure of business undertakings to earn their full allocation of the public debt charges in the year in which it falls due. In accordance with the accountancy methods employed, the public debt charges, as paid, are debited to the Governmental section of the accounts, and are offset by recoups from business undertakings and other activities. When undertakings are unable to pay their due proportion of the debt charges the shortage remains as a charge to the Governmental account to be paid by the undertaking when finances permit. When such arrears of public debt charges are paid by undertakings they are included as a Governmental receipt in the year of payment under the heading "General Miscellaneous Receipts—Repayments to Credit of Votes, Previous Years," as in Table 363.

The following table shows a classification of the Governmental expenditure according to objects and services during the last three years:—

TABLE 365.—Governmental Expenditure, Objective Classification, 1938 to 1940.

Object or Service.	Year ended 30th June		
	1938.	1939.	1940.
	£	£	£
Salaries and Payments of like Nature ... ..	8,739,904	9,172,834	9,367,753
Departmental Maintenance and Working Expenses—			
In connection with Buildings and Sites ... ..	813,671	850,319	711,996
Stores and Stationery ... ..	469,556	487,151	472,795
Plant and Equipment ... ..	162,639	209,191	136,856
Postal, Telegraphic and Telephones ... ..	140,961	146,482	150,760
Travelling and Removal Expenses ... ..	298,757	318,151	309,557
Maintenance of Motor Vehicles, etc. ... ..	44,148	58,881	65,899
Conveyance of School Children ... ..	26,526	29,008	31,908
Police Quarters and Uniforms of Police and Nurses ... ..	128,769	127,471	129,823
Institutions—Provisions, Maintenance and Gratuities to Inmates ... ..	339,989	383,528	385,876
Other ... ..	291,301	254,961	266,654
Total ... ..	2,716,317	2,865,143	2,662,114
Public Debt Charges ... ..	6,822,194	8,087,259	7,719,286
Other Services —			
Pensions, Gratuities, Superannuation	733,676	695,409	715,975
Grants, Contributions, Subsidies—			
Hospitals ... ..	1,032,853	1,020,076	1,295,092
Shire, Municipal and Park ... ..	241,205	292,708	411,022
Educational and Scientific ... ..	125,230	133,395	140,426
Other ... ..	382,459	580,891	603,035
Deserted Wives, Widows Pensions and Child Welfare Act ... ..	909,812	967,601	957,539
Charitable Relief ... ..	143,806	171,752	207,537
Family Endowment ... ..	1,469,932	1,363,833	1,337,020
Food Relief ... ..	1,263,901	1,419,836	1,791,222
Unemployment Relief—Works, Grants, Loans, etc. ... ..	1,499,747	431,315	1,688,650
Scholarships and Bursaries ... ..	73,436	107,468	115,809
Rail and Tram Concessions ... ..	276,504	471,349	290,768
Contribution to Losses on Developmental Railways ... ..	800,000	800,000	800,000
Rural Bank, Government Agency Administration ... ..	128,804	147,390	159,974
Maintenance of Public Works and Services	247,116	273,777	213,552
Other ... ..	444,352	315,285	613,311
Total ... ..	9,772,833	9,192,085	11,340,932
Total Governmental Expenditure ... ..	28,051,248	29,317,321	31,090,085

*Road and Traffic Funds.*

Revenues derived by the State from the taxation and registration of road transport vehicles, licensing of drivers, etc., are paid into separate funds and devoted to road and traffic purposes. Particulars of the funds (viz., Road Transport and Traffic, Public Vehicles, State Transport (Co-ordination) and Main Roads) are shown in the chapter, "Motor and Other Licensed Vehicles," of this Year Book.

The following table shows a brief classification of the receipts and payments of these funds in the last three years. The Road Transport and Traffic Fund, which is included in the aggregate statement of State revenue and expenditure shown in Table 358 is repeated below in order that the special finances provided by the State for road and traffic purposes may be viewed as a whole.

TABLE 366.—Motor Taxes, Fees, etc., Receipts and Payments, 1938 to 1940.

Particulars.	Year ended 30th June.		
	1938.	1939.	1940.
	Receipts.		
Road Transport and Traffic Fund—	£	£	£
Registration Fees, Drivers Licenses, etc. ...	572,988	607,281	600,415
Exchange, Search Fees, Miscellaneous ...	3,545	3,990	5,869
Total ... ..	576,533	611,271	606,284
Public Vehicles Fund (Special Deposits Account)—			
Tax on Public Motor Vehicles ... ..	42,205	59,123	62,822
Service License Fees (Motor Omnibus) ...	11,340	12,093	13,163
Total ... ..	53,545	71,216	75,985
State Transport (Co-ordination) Fund—			
License Fees ... ..	24,731	25,811	25,228
Charges on Commercial Motor Transport—			
Passenger ... ..	13,677	12,283	11,964
Goods ... ..	36,878	40,506	42,966
Permits, etc. ... ..	1,575	1,555	1,860
Fines, Penalties and Miscellaneous ...	406	446	698
Total ... ..	77,267	80,601	82,716
Main Roads Special Deposits Account—			
Tax on Motor Vehicles (Other than Public Motor Vehicles) ... ..	1,883,569	2,004,027	2,102,325
Total All Funds—			
Tax on Motor Vehicles ... ..	1,925,774	2,063,150	2,165,147
Registration Fees, Drivers' Licenses, etc. ...	572,988	607,281	600,415
Special Licenses, Fees and Charges on Commercial Motor Vehicles ... ..	88,201	92,248	95,181
Miscellaneous—Exchange, Search Fees, etc. ...	3,951	4,436	6,567
Total Receipts ... ..	2,590,914	2,767,115	2,867,310

TABLE 366.—Motor Taxes, Fees, etc., Receipts and Payments, 1938 to 1940  
—continued.

Particulars.	Year ended 30th June.		
	1938.	1939.	1940.
	Payments.		
	£	£	£
Road Transport and Traffic Fund—			
Administration, Traffic and Transport Control	544,963	584,957	580,009
Provision of Traffic Facilities ... ..	9,083	9,857	10,352
Payments to Road Making Authorities ...	22,487	16,457	15,923
Total ... ..	576,533	611,271	606,284
Public Vehicles Fund (Special Deposits Account)—			
Provision of Traffic Facilities ... ..	12,871	10,125	8,368
Payments to Road Making Authorities ...	16,978	28,349	37,868
„ „ Tramways ... ..	5,655	7,312	6,446
Total ... ..	35,504	45,786	52,682
State Transport (Co-ordination) Fund—			
Administration and Transport Control ...	24,309	36,302	22,097
Payments to Railways ... ..	46,351	98,728	60,306
„ „ Tramways ... ..	126	65	33
Total ... ..	70,786	135,095	82,436
Main Roads Special Deposits Account—			
Payments to Road Making Authorities ...	1,883,569	2,004,027	2,102,325
Total All Funds—			
Administration, Traffic and Transport Control...	569,272	621,259	602,106
Provision of Traffic Facilities ... ..	21,954	19,982	18,720
Payments to Road Making Authorities ...	1,923,034	2,048,833	2,156,116
„ „ Railways and Tramways ... ..	52,132	106,105	66,785
Total Payments ... ..	2,566,392	2,796,179	2,843,727

The major part of the funds distributed amongst road making authorities is paid to the Main Roads Department, and only small amounts to municipal and shire councils.

The Main Roads Special Deposit Account, as shown in the table, is an intermediate account into which are paid the taxes collected by the Commissioner for Road Transport and Tramways in respect of motor vehicles other than public motor vehicles. The balance at the credit of this account is distributed amongst the funds of the Main Roads Department. In addition to the taxes raised by the State, the Main Roads Department receives substantial sums from a tax levied on petrol by the Commonwealth Government, contributions by municipal and shire councils and loan votes by the State. The finances of the Main Roads Department, and the system of Federal aid for roads are reviewed in the chapter, "Roads and Bridges."

#### ACCOUNTS OF STATE ENTERPRISES.

The principal State enterprises are those usually known as business undertakings, viz., railways, tramways, motor omnibuses, and Sydney Harbour works. The capital of these enterprises has been provided by the State Treasury, mostly from loan funds. Their financial operations on

revenue account were included in 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 Governmental Accounts (viz. Consolidated Revenue, Unemployment Relief and Social Services Funds, etc.), 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 in connection with the Hunter District Water and Sewerage Board on 1st July, 1938; previously the accounts of this undertaking had been treated in the same manner as the railways, tramways and Sydney Harbour.

Details regarding the individual business undertakings are published in the other chapters of this Year Book. Particulars of their revenue and expenditure during the year ended 30th June, 1940, are summarised in the following table:—

TABLE 367.—State Business Undertakings, Revenue and Expenditure, 1939-40.

Service.	Revenue.	Expenditure.					Surplus or Deficit (-)
		Working Expenses	Capital Debt Charges.			Total.	
			Interest.	Ex-change.	Sinking Fund.		
<b>Business Undertakings—</b>	£	£	£	£	£	£	£
Railways ...	20,754,851	14,358,684	5,350,000	690,000	800,000	21,198,684	(-) 443,833
Trams and Omnibuses							
Metropolitan—							
Tramways ...	3,145,741	3,761,637	271,457	37,385	39,364	4,123,291	44,345
Omnibuses...	1,021,895						
Total, Metropolitan.	4,167,636	3,761,637	282,539	38,918	40,197	4,123,291	44,345
Newcastle—							
Tramways ...	184,852	277,824	26,752	3,584	4,159	315,728	(-)15,455
Omnibuses...	115,421						
Total, Newcastle ...	300,273	277,824	29,544	3,965	4,395	315,728	(-)15,455
Total, Trams and Buses	4,467,909	4,039,461	312,083	42,883	44,592	4,430,019	28,890
Sydney Harbour ...	1,203,227	350,212	422,054	57,553	63,210	902,029	301,198
Total, Business Undertakings ...	26,425,987	18,757,357	6,084,137	790,436	907,802	26,530,732	(-)113,745

\* Amounts chargeable for Year.

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 £151,844 in respect of freight concessions allowed to primary producers and on the carriage and handling of coal. 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 (£14,646,934) portion of the sinking fund charge used in writing off discarded assets, £316,333, but does not include loan management expenses £28,083 which the Commissioner appropriates from net earnings.

The working expenses of the tramways and omnibuses include interest on a temporary loan £4,866 and loan management expenses £1,659 which are treated in the accounts published by the Commissioner for Road Transport and Tramways as appropriations from net earnings. Charges for current depreciation also are included in working expenses, the total amount of £265,103 being distributed as follows, viz.: metropolitan tramways £108,427 and omnibuses £135,522, and Newcastle tramways £4,756 and omnibuses £16,398. An appropriation of £17,385 towards arrears of tramways depreciation has been excluded from expenditure.

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 1938-39:—

TABLE 368.—State Enterprises, Revenue and Expenditure, 1938-39.

Enterprise.	Revenue.	Expenditure.			Surplus.	Deficit.
		Working Expenses.	Interest and Exchange.	Sinking Fund.		
Water Supply—	£	£	£	£	£	£
Broken Hill* ... ..	52,474	37,518	2,988	...	11,968	...
Junees* ... ..	9,180	5,442	7,891	2,484	...	6,637
South-West Tableland* ... ..	26,816	21,996	27,310	...	...	22,490
Electricity—						
Burrinjuck ... ..	148,625	110,047	46,255	4,603	...	12,280
Port Kembla ... ..	125,204	89,701	26,018	...	9,485	...
Metropolitan Meat Industry ... ..	591,818	611,531	32,731	4,235	...	56,679
Port Kembla Coal Shipment ... ..	38,965	31,236	3,307	...	4,422	...
State Coal Mine ... ..	161,074	154,479	12,615	1,416	...	7,436
Murrumbidgee Irrigation Area... ..	239,060	196,042	226,590	...	...	183,572

\* Year ended 31st December, 1938.

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, or their activities have been merged into the Consolidated Revenue Fund; e.g., the Government Tourist Bureau and the Building Construction Branch. A statement of the aggregate profits and losses of the industrial undertakings which have been closed or sold, including the profits and losses on realisation, was shown on page 349 of the Year Book for 1937-38.

#### CLOSER SETTLEMENT ACCOUNT.

The Closer Settlement Fund is maintained as a separate account, and its transactions are not included in the ordinary revenue budget of the State.

It was established under an Act passed in 1906 and replaced as from 1st July, 1928, by a new Closer Settlement Fund, incorporating its assets and liabilities and the Returned Soldier Settlement Accounts.

The capital of the Closer Settlement Fund was derived from loan moneys made available by the State, the issue of debentures in part payment for estates, Parliamentary appropriations from the Consolidated Revenue Fund, assurance fees paid in respect of property under the Real Property Act, and Crown lands used for closer settlement purposes.

A summary of the transactions of the Closer Settlement Fund on a *cash or receipts and payments* basis, including both revenue and capital transactions, during the last five years is shown in the following table:—

TABLE 369.—Closer Settlement Fund, Receipts and Payments, 1936 to 1940.

Particulars.	Year ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
<b>Receipts—</b>					
Repay of Principal, Interest and Fire Insurance Premiums	668,695	734,129	661,056	471,473	975,447
Fees under Real Property Act	19,505	18,843	22,396	24,720	21,855
Sale of Inscribed Stock and Bonds (Renewal)	92,150	93,015	77,655	.....	.....
Transfer from General Loan Account	.....	.....	10,000	.....	.....
<b>Total Receipts</b>	<b>780,350</b>	<b>845,987</b>	<b>771,107</b>	<b>496,193</b>	<b>997,302</b>
<b>Payments—</b>					
Acquisitions, Improvements, etc.	12,715	7,971	122,505	444,238	26,070
Fire Insurance Premiums	2,532	2,621	2,265	2,480	2,693
Claims under Real Property Act	107	386	421	246	206
Administration	22,746	21,894	24,068	25,205	24,235
Interest	437,509	435,766	433,859	431,373	423,771
Contribution to Sinking Fund	46,845	52,762	56,201	58,579	66,438
Redemption of Closer Settlement Debentures	.....	.....	.....	97,300	34,400
Repayment of Inscribed Stock and Bonds	92,150	95,400	77,850	.....	.....
<b>Total Payments</b>	<b>614,664</b>	<b>616,770</b>	<b>717,169</b>	<b>1,059,421</b>	<b>579,813</b>
<b>Excess of Receipts</b>	<b>165,686</b>	<b>229,217</b>	<b>53,938</b>	<b>*563,228</b>	<b>417,489</b>

\* Excess of payments.

The fund has been in overdraft since 1929-30. The maximum overdraft was £926,729 at 30th June, 1939, but it declined to £509,240 in 1940.

The fund is required to contribute to the National Debt Sinking Fund and to pay interest on its loan debt. 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 489, 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.

The preparation of an annual statement of income and expenditure and a balance-sheet of the fund is prescribed by the Closer Settlement Fund Act, 1928, and accounts compiled on an *income and expenditure basis* show that there was a surplus of assets amounting to £1,816,710 at 30th June, 1928. During the next ten years a large measure of relief was granted to settlers in the form of reduction of capital value of the lands, debts were written off and interest charges, etc., were reduced or suspended because of financial difficulties of settlers. As a result there was a deficiency of £855,624 at 30th June, 1938.

Subsequent operations resulted in a loss of £134,050 in 1938-39, and £120,633 in 1939-40, so that the accumulated deficit was £1,110,307 at 30th June, 1940. In 1939-40, the income amounted to £423,272 and the expenditure to £543,905. The income included £396,680 on account of interest

earnings and £18,466 for rentals; expenditure consisted of interest £425,258, administrative and maintenance expenses £25,280, and debtors written off £93,367.

A summary of the balance-sheets at 30th June, 1939 and 1940, is set out below:—

TABLE 370.—Closer Settlement Fund, Balance Sheet, 1939 and 1940.

Liabilities and Assets.	30th June—	
	1939.	1940.
	£	£
Liabilities.		
Capital Funds—		
Loan—Commonwealth Inscribed Stock ... ..	12,441,549	12,441,549
Less—Sinking Fund balance ... ..	272,765	339,203
	12,168,784	12,102,346
Closer Settlement Debentures ... ..	34,400	.....
Consolidated Revenue Fund ... ..	1,635,000	1,635,000
Crown Lands ... ..	361,673	365,951
Real Property Act Assurance Fees ... ..	755,639	777,287
	14,955,496	14,880,584
Interest ... ..	513	.....
Overdraft ... ..	926,730	509,240
Total Liabilities ... ..	15,882,739	15,389,824
Assets.		
Debtors ... ..	13,532,971	13,228,140
Land ... ..	1,308,254	999,702
Buildings, Plant, etc. ... ..	53,180	51,675
Total Assets ... ..	14,894,405	14,279,517
Accumulated Deficiency ... ..	988,334	1,110,307

Closer Settlement Debentures of a total face value of £5,041,429 were issued between 1914-15 and 1929-30, as part consideration for estates acquired by the Government. All the debentures have been redeemed, the final maturities in 1939-40 amounting to £34,400. Redemptions were made from the following sources: General Loan Account and Closer Settlement Fund £3,896,679, National Debt Sinking Fund £236,800, and conversion to Commonwealth stock under the national debt conversion, £907,950.

#### 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 various accounts open at 30th June, 1940, are shown below. All amounts paid into any of the accounts mentioned are deemed to be "public moneys." 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.



TABLE 371.—State Accounts, Balance at 30th June, 1940.

Account.	Invested in Securities.	Cash at Bank.	Total.
Credit Balances—	£	£	£
Special Deposits Account* ... ..	1,892,613	13,710,646	15,603,259
Special Accounts ... ..	...	483,014	483,014
Government Railways Fund ... ..	...	113,825	113,825
Metropolitan Transport Trust General Fund ...	...	346,010	346,010
Newcastle and District Transport Trust General Fund ... ..	...	18,100	18,100
Sydney Harbour Trust Fund ... ..	...	822,462	822,462
Road Transport and Traffic Fund ... ..	...	3,545	3,545
State Transport (Co-ordination) Fund ... ..	...	1,536	1,536
Miners' Accident Relief Account... ..	77,000	...	77,000
General Loan Account ... ..	...	4,088,640	4,088,640
Commonwealth Treasury Bills (Sydney) Account ...	...	30,580,000	30,580,000
Revenue Deficits Loans (Funding) Account ...	...	4,400,000	4,400,000
Total Credit Balances ... ..	1,969,613	54,567,778	56,537,391
Debit Balances—			
Consolidated Revenue Fund ... ..	...	35,967,587	35,967,587
Unemployment Relief Fund ... ..	...	50,291	50,291
Social Services Fund ... ..	...	89,034	89,034
Closer Settlement Account ... ..	...	509,240	509,240
Loan Expenditure Suspense Account ... ..	...	479,580	479,580
Cornsacks Purchase Suspense Account ... ..	...	1,097	1,097
Grain Elevators Freight Suspense Account ... ..	...	7,387	7,387
Advances for Departmental Working Accounts and Other Purposes and Advances to be recovered... ..	...	9,928,099	9,928,099
Metropolitan Water, Sewerage and Drainage Board Advance Account ... ..	...	5,095,940	5,095,940
Debits not Transferred to Treasurer's Public Accounts ... ..	...	138,218	138,218
Total Debit Balances ... ..	...	52,266,473	52,266,473
Net Credit Balance ... ..	1,969,613	2,301,305	4,270,918

\* Details are shown in Table 374.

All the accounts are combined to form the "Treasurer's General Banking Account" in which the balances of the accounts in credit offset the overdrafts on others. Temporary borrowings to maintain the general cash position are credited to the Commonwealth Treasury Bills (Sydney) Account. Extensive borrowing for this purpose was necessary to meet the heavy deficiencies incurred by the Consolidated Revenue Fund during the depression years. Long term loans specifically allocated to meet portions of revenue deficiencies incurred in 1935-36, 1938-39 and 1939-40 are held in the Revenue Deficit Loans (Funding) Account pending legislative authority for funding the deficiencies. Further loans of short duration amounting to £1,100,000 in 1938-39 and £1,000,000 in 1939-40, for the purpose of financing portion of the revenue deficiencies incurred in these years are included in the Special Deposits Accounts. At 30th June, 1940, the net amount outstanding was £1,550,000.

The account "Advances for Departmental Working Accounts and Other Purposes, and Advances to be Recovered" embraces a number of individual accounts which have been opened for the purpose of drawing against the Treasurer's General Banking Account to provide capital for Departmental Working Accounts and advances of a recoverable nature. The debit balances as at 30th June, 1940, consist largely of sums advanced to Government accounts, the chief being the Railways Fund £7,050,000, Family

Endowment Fund £2,498,984, and Newcastle and District Transport Trust General Fund £132,325. The Family Endowment Fund was merged into the Consolidated Revenue Fund on 1st July, 1932, but the advance was not transferred.

The Metropolitan Water, Sewerage and Drainage Board Advance Account represents the outstanding balance of repayable advances from the Treasurer's General Banking Account, and it relates almost entirely to advances amounting to £6,495,000 made to the Board between 1925 and 1930 to enable it to continue the construction of new works pending the flotation of its own loans. The advances are being repaid by annual instalments of £243,314, including principal and interest, spread over a period of 40 years.

The net ledger balances at 30th June in each of the last five years are shown below.

TABLE 372.—State Accounts, Net Credit Balances, 1936 to 1940.

Net Balances.	1936.	1937.	1938.	1939.	1940.
Cash—	£	£	£	£	£
London ... ..	52,368	28,267	48,440	52,790	24,557
Remittances in Transit to London	1,958,300	1,677,500	1,460,400	1,252,000	1,452,500
Sydney ... ..	2,535,362	2,480,041	2,379,382	1,183,663	824,248
Total Cash ... ..	4,546,030	4,191,808	3,888,222	2,488,453	2,301,305
Securities ... ..	1,751,698	1,816,204	1,850,481	1,945,767	1,969,613
Total Cash and Securities ...	6,297,728	6,008,012	5,738,703	4,434,220	4,270,918

#### 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. 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 merge the balances into the "Treasurer's General Banking Account". By this means they provide a substantial reserve against which the Treasurer may draw to meet temporary requirements and to finance the overdrafts of other accounts. 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 loan accommodation.

The following table shows the amount of the Special Deposits and Special Accounts at intervals since 1929, classified according to the nature of liability and the form in which the deposits are held. Deposits with internal liability comprise funds of the State Government and its various undertakings and instrumentalities; those with external liability represent repayable deposits and trust funds.

TABLE 373.—Special Deposits and Special Accounts, 1929 to 1940.

As at 30th June.	Nature of Liability.		Form of Deposit.		Total Special Deposits and Special Accounts.
	Internal.	External.	Cash.	Securities.	
£	£	£	£	£	£
1929	4,316,496	20,388,518	23,365,206	1,339,718	24,705,014
1931	3,874,056	19,824,248	22,091,240	1,607,004	23,698,304
1934	4,022,733	19,031,181	21,534,392	1,519,522	23,053,914
1938	4,335,151	10,743,534	13,305,203	1,778,482	15,078,685
1939	3,217,602	12,466,288	13,815,123	1,868,767	15,683,890
1940	3,548,977	12,537,296	14,193,660	1,892,613	16,086,273

At the 30th June, 1940, the amount at the credit of the Special Deposits Account was £15,603,259, and the Special Accounts £483,014. The marked decline in the amount after 1933-34 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 was £8,465,983.

The amount at the credit of the principal accounts as at 30th June, 1940, is shown in the following table:—

TABLE 374.—Special Deposits and Special Accounts, Principal Accounts.

<i>Special Deposits Accounts.</i>			
Internal Liability—	£	External Liability—	£
Housing Funds ... ..	47,544	Fixed and Short Call Deposits—	
Homes for Unemployed ...	1,325	Superannuation Board ...	959,116
Government Insurance Office	861,855	Public Trustee ... ..	500,000
Main Roads Department ...	254,972	Compensation Fund	
Forestry Account ... ..	23,561	(Liquor) ... ..	303,371
Maritime Services Board ...	500,000	Other ... ..	153,147
Departmental Funds ... ..	263,357	Commonwealth Bank—Advances and Deposits reducible by Instalments ...	6,660,052
Working Accounts of Depts., etc.—		Commonwealth Bank—for Deficit ... ..	1,550,000
Advances for Car Purchase	15,710	Commonwealth Government—Accounts and Advances ...	352,211
Broken Hill Water Supply	38,992	Trustee Companies ... ..	120,870
Burrinjuck Electricity ...	225,063	Unclaimed Moneys, Intestate Estates, Dormant Funds, etc. ... ..	409,780
Coal Shipment, Port Kembla ... ..	41,109	Bankruptcy Suits and Unclaimed Dividends ...	40,770
Government Printing Office	72,716	Workers Compensation Security ... ..	531,299
Murrumbidgee Irrigation...	126,018	Dame Walker Hospital ...	25,475
Works and Railway Store Account ... ..	58,365	Family Endowment, Unpresented Cheques ... ..	53,226
Public Vehicles Account ...	261,654	Sundry Security Deposits ...	138,149
Port Kembla Electricity ...	206,643	Unclaimed Salaries and Wages ... ..	2,862
State Lotteries ... ..	62,309	Relief and War Funds ...	6,774
Sydney Harbour Bridge ...	46,921	Other ... ..	242,180
Treasury Fire Risks ... ..	197,040		
Wire Netting ... ..	24,436	Total External Liability...	12,054,282
Other Working Accounts	53,338		
Suspense Accounts ... ..	163,050	Total Special Deposits ...	15,603,259
Other ... ..	2,429		
Total Internal Liability ...	3,548,977		

*Special Accounts.*

(External Liability.)

	£		£
Master in Equity ... ..	68,131	Public Trustee ... ..	376,384
Master in Lunacy ... ..	19,446	Prothonotary ... ..	19,053
		Total Special Accounts ...	483,014

The total sum to the credit of the accounts on the 30th June, 1940, was £16,086,273, of which £1,892,613 was invested in securities; £11,359,289 was not invested but was used in advances and on public account at interest ranging from 1 to 4 per cent.; the remainder was used similarly, but without interest. In cases where interest was being paid by the Treasurer

at 30th June, 1940, the rate was 3 per cent., with the following exceptions:—Main Roads and Treasury Fire Risks, 1 per cent.; Insurance Funds, 2½ per cent.; Port Kembla and Burrinjuck Electricity and South-West Tablelands Water and Mines Subsidence Insurance Fund, 2 per cent.; Fixed Deposit, 2 to 4 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 1½ per cent. on Equity Accounts, 1 per cent. on Lunacy Accounts, and 2½ 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 375.—Special Deposits and Special Accounts, Cash and Investments.

Funds.	As at 30th June.		
	1938.	1939.	1940.
In Banks—			
Special Deposits Account ... ..	£ 12,803,186	£ 13,332,222	£ 13,710,646
Special Accounts ... ..	502,017	482,901	483,014
Australian Consolidated Inscribed Stock	1,120,844	1,233,655	1,263,354
Securities not Specified ... ..	652,637	635,112	629,259
Total ... ..	£ 15,078,684	£ 15,683,890	£ 16,086,273

#### STATE LOAN FUNDS.

Moneys raised on loan by the State 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 loans credited to the General Loan Account comprise both new loans to be expended on works and services, and conversion or renewal loans for repayment of maturing loans. As a general rule the expenses of flotation are paid from the gross proceeds of loans and only the net proceeds are paid into the account. Additional credits are obtained from repayments to the account of loan moneys expended in earlier years. These repayments are derived mainly from the sale of land, works, materials, etc., acquired by means of loan funds, and the repayment of loan capital advanced to settlers and local governing and statutory bodies. Normally they constitute an important contribution towards the funds available for expenditure on new loan works.

The expenditure from the General Loan Account is subject to Parliamentary appropriation and consists of amounts expended on works and services, repayment of maturing loans—mostly from the proceeds of conversion loans—and the payment of stamp duty on the transfer of stocks issued in London.

*Annual Loan Expenditure on Works and Services.*

Particulars of the loan expenditure on works and services by the State Government from the General Loan Account (including old loan accounts now defunct and the Loan Expenditure Suspense Account) since 1901 are shown in the following table. The average annual amounts at intervals of five years are stated from 1901 to 1930 and the annual amounts thereafter. Gross loan expenditure represents the new expenditure in each period; from this repayments to the loan account are deducted to obtain the net loan expenditure or net amount added to the accumulated loan expenditure outstanding.

TABLE 376.—Annual Loan Expenditure on Works and Services,  
1901 to 1940.

Year ended 30th June.	Gross Loan Expendi- ture.	Repay- ments of Amounts Spent in Previous Years.	Net Loan Expendi- ture.	Year ended 30th June.	Gross Loan Expendi- ture.	Repay- ments of Amounts Spent in Previous Years.	Net Loan Expendi- ture.
	£	£	£		£	£	£
1901-05*	3,441,660	226,920	3,214,740	1933	4,910,836	589,405	4,321,431
1906-10*	2,248,947	157,127	2,091,820	1934	7,798,094	793,616	7,004,478
1911-15*	7,032,586	357,577	6,675,009	1935	10,607,075	882,313	9,724,762
1916-20*	6,996,935	479,126	6,517,809	1936	9,491,108	1,512,288	7,978,820
1921-25*	11,829,369	1,220,688	10,608,681	1937	7,182,523	846,445	6,336,078
1926-30*	12,594,670	1,183,143	11,411,527	1938	8,110,740	3,009,875	5,100,865
1931	6,152,467	654,218	5,498,249	1939	8,788,604	3,380,748	5,407,856
1932	4,032,067	644,924	3,387,143	1940	6,945,371	1,059,105	5,886,266

\* Annual average.

The repayments were unusually large in 1937-38 and 1938-39. This was due partly to the repayment from loans raised by municipal and shire councils of amounts expended from the General Loan Account in earlier years on the construction of water and sewerage works in country towns. Formerly these repayments were spread over a long term of years and the instalments were paid from the annual revenues of the councils.

The expenditures shown in the table do not include flotation expenses and stamp duty on transfers of stock issued in London, which are paid from the proceeds of loans. During the past five years such expenses amounted to £564,816 in 1935-36, £238,351 in 1936-37, £315,730 in 1937-38, £135,925 in 1938-39, and £35,872 in 1939-40.

Transactions relating to Closer Settlement Debentures issued in part payment of large estates acquired for closer settlement and Commonwealth advances for the construction of the Grafton-Kyogle-South Brisbane railway line are omitted from Table 376. Liability in respect of both items is reflected in the public debt of the State, but the transactions were not passed through the General Loan Account although they provided works and services of a type usually acquired from loans. Closer Settlement Debentures amounting to £5,041,500 were issued between 1914-15 and 1929-30, and Commonwealth advances for the Grafton-South Brisbane railway

amounting to £1,419,593 were expended between 1925-26 and 1930-31. The distribution of these amounts according to the year of issue or expenditure is shown in the 1938-39 issue of the Year Book at page 462.

*Distribution of Annual Loan Expenditure.*

The principal items of the gross loan expenditure by the State Government on works and services, and of repayments to the loan account, during each of the past five years are shown below.

TABLE 377.—Distribution of Annual Loan Expenditure, 1936 to 1940.

Work or Service.	Year ended 30th June.				
	1936.	1937.	1938.	1939.	1940.
	Gross Loan Expenditure.				
	£	£	£	£	£
Railways ... ..	2,541,986	2,259,999	2,575,000	2,310,000	1,602,328
Tramways ... ..	172,930	159,700	123,700	18,883	3,469
Omnibuses ... ..	3,500	127,135	180,700	10,000	120,364
Water Supply, Sewerage and Drainage ... ..	1,412,918	692,760	987,113	850,728	417,673
Water Conservation and Irrigation—					
Murrumbidgee Irrigation Area ... ..	72,209	70,831	188,316	176,402	258,276
River Murray Commission and Settlement... ..	104,604	119,051	126,477	121,231	56,869
Water and Drainage Trusts, etc. ... ..	454,518	299,084	379,256	353,786	425,380
Keppit Storage Reservoir ... ..	...	...	523	1	44,922
Wyangala Storage Reservoir and Other ... ..	24,694	8,812	4,345	2,894	572
Harbours, Rivers, Wharves, etc.—					
Sydney Harbour ... ..	44,500	54,000	27,000	106,844	66,606
Other ... ..	123,307	155,196	734,310	849,103	410,689
Roads, Bridges and Punts ... ..	232,560	772,925	821,881	1,953,801	550,055
Circular Quay Improvements... ..	...	...	...	9,396	75,072
Industrial Undertakings, etc.—					
Electricity ... ..	38,959	92,572	195,518	217,983	291,054
Abattoirs, Tourist Resorts, Dredge Repair Shop, etc. ... ..	2,097	679	2,607	...	...
Agriculture—					
Grain Elevators ... ..	297,206	44,658	26,712	52,559	17,573
Other, including Advances to Farmers ... ..	71,958	215	1,134	95,504	40,893
Land, including Closer Settlement and wire netting ... ..	535	114	10,108	222	155,892
Housing ... ..	80,429	35,369	35,311	35,500	682
Public Buildings, Sites, etc.—					
Courts, Police Stations and Gaols ... ..	25,581	29,932	19,623	32,630	9,973
Educational and Scientific ... ..	172,318	230,110	413,835	439,771	487,971
Hospitals and Charitable ... ..	217,862	300,736	368,136	381,636	287,944
Recreation Reserves, Parks, Baths, etc. ... ..	18	76,534	169,121	231,949	70,788
Administrative ... ..	4,987	1,265	1,465	2,834	2,748
Miscellaneous ... ..	1,047	32,020	184,666	88,140	159,761
Miscellaneous Works in Shires and Municipalities ... ..	...	175,249	533,881	386,614	349,143
Unemployment Relief Works* ... ..	3,391,065	1,443,577	2	59,893	838,674
<b>Total Gross Loan Expenditure on Works and Services ... ..</b>	<b>9,491,108</b>	<b>7,182,523</b>	<b>8,110,740</b>	<b>8,788,604</b>	<b>6,945,371</b>
	Repayments to Loan Account.				
	£	£	£	£	£
Railways ... ..	380,170	355,911	231,545	307,713	255,867
Tramways ... ..	255,953	10,499	512,489	126,294	111,402
Omnibuses ... ..	2,607	1,141	57,079	4,292	4,103
Water Supply, Sewerage and Drainage ... ..	54,803	171,101	1,234,131	1,726,921	146,859
Water Conservation and Irrigation ... ..	123,849	54,829	65,169	185,370	104,200
Harbours, Rivers, Wharves, etc. ... ..	3,764	75,519	87,172	23,056	24,649
Roads, Bridges and Punts ... ..	100,435	103,221	102,829	103,321	99,481
Industrial Undertakings, etc. ... ..	1,648	19,613	89,264	278,676	28,729
Agriculture ... ..	5,251	2,345	132,523	144,203	151
Land ... ..	1,016	11,535	628	70,516	66,924
Housing ... ..	19	12	110,228	11,074	163
Public Buildings, Sites, etc. ... ..	2,388	1,645	2,952	59,783	34,620
Miscellaneous Works in Shires and Municipalities ... ..	...	...	9,400	5,520	4 8/2
Unemployment Relief Works ... ..	580,885	38,674	374,466	334,009	177,111
<b>Total Repayments ... ..</b>	<b>1,512,288</b>	<b>846,445</b>	<b>3,009,875</b>	<b>3,380,748</b>	<b>1,050,105</b>
<b>Net Loan Expenditure on Works and Services ... ..</b>	<b>7,978,820</b>	<b>6,336,078</b>	<b>5,100,865</b>	<b>5,407,856</b>	<b>5,886,266</b>

\* See explanation hereunder.

In recent years much of the expenditure on works for the relief of unemployment has not been identified as such but has been classified according to the kind of works (roads etc.) on which the moneys have been expended.

*Total Loan Expenditure.*

A broad view of the field of State capital investment is provided by the following table, which shows the aggregate loan expenditure on principal works and services from 1853 to 1940. It is apparent from the table that a large proportion of the loan expenditure has been devoted to the establishment of assets which provide essential aids to industry and community services, and therefore constitute valuable assets. Normally, these assets return sufficient revenue to pay a large proportion of the interest, sinking fund, etc., on the Public Debt. Some, however, are of a developmental character, and promote the growth of settlement and industry without earning directly any part of the capital debt charges on money spent in their construction. Transport services (i.e., railways, tramways and omnibuses) are the most important object of investment and account for 49.1 per cent. of the total loan expenditure; water, sewerage and drainage works represent 12.4 per cent., harbours and rivers 6.6 per cent., roads and bridges 6.1 per cent., and water conservation and irrigation 5.5 per cent.

TABLE 378.—Accumulated Loan Expenditure on Works and Services, 1853 to 1940.

Work or Service.	£	Work or Service.	£
Railways ... ..	152,622,710	Land—	
Tramways ... ..	8,699,649	Closer Settlement and Returned	
Omnibuses ... ..	444,017	Soldiers Settlement ... ..	11,668,424
Water Supply, Sewerage and Drainage—		Advances for Wire Netting, etc. ...	363,075
Metropolitan ... ..	28,624,478	Crown Lands and Forests Improve-	
Hunter District ... ..	7,409,025	ments ... ..	258,223
Country Towns ... ..	4,772,113	Other ... ..	28,040
Water Conservation and Irrigation—		Housing ... ..	1,932,142
Water and Drainage Trusts, etc. ...	4,084,253	Public Buildings, Sites, etc.—	
Murrumbidgee Irrigation Area ...	9,713,352	Courts, Gaols, Police and Fire	
River Murray Commission ...	2,982,945	Stations ... ..	1,469,938
River Murray Settlement and		Educational and Scientific ... ..	7,757,305
Coomoalla Irrigation Area ...	213,602	Hospitals and Charitable ... ..	4,370,229
Wyangala Storage Reservoir ...	1,213,364	Recreation, Reserves Parks, Baths,	
Wentworth Irrigation Area ...	31,332	etc. ... ..	780,038
Keepit Storage Reservoir ...	45,354	Administrative ... ..	857,500
Harbours, Rivers, Wharves, etc.—		Other ... ..	1,148,366
Sydney Harbour ... ..	11,998,304	Miscellaneous Works in Shires and	
Other ... ..	9,797,154	Municipalities ... ..	1,475,116
Roads, Bridges and Punts (Harbour		Unemployment Relief (including	
B. i. g. £8,195,487) ... ..	20,256,535	Grants and Repayable Advances	
Circular Quay Improvements ...	84,968	to Shires and Municipalities) ...	10,615,163
Industrial Undertakings—		Immigration ... ..	569,930
Newcastle Dockyard and Dredge		Other ... ..	89,283
Repair ... ..	1,094,564	Works transferred to Commonwealth	3,965,937
Tourist Bureau and Resorts ...	119,527	Works in Queensland prior to	
Abattoirs and Meat Distributing...	1,618,441	Separation ... ..	49,855
Electricity ... ..	2,065,115	Total Loan Expenditure on Works	
Coal Mine ... ..	580,687	and Services to 30th June, 1940 ...	329,376,722
Other ... ..	307,395		
Agriculture—			
Grain Elevators ... ..	5,202,969		
Other, including Advances to			
Farmers ... ..	1,996,230		

The accumulated loan expenditure on works and services amounted to £329,376,722 at 30th June, 1940, and the public debt of the State at the same date was £364,325,538. The difference between the two amounts is due to a number of factors, such as the inclusion in the public debt of certain

items which are not recorded in the General Loan Account and the redemption of public debt from the sinking fund. The following statement furnishes a reconciliation:—

TABLE 379.—Reconciliation of Accumulated Loan Expenditure with Public Debt of State, 30th June, 1940.

	£	£
Accumulated Loan Expenditure from General Loan Account on Works and Services (Table 378) ... ..	.....	329,376,722
<i>Add</i> —Loan Expenditure not shown in General Loan Account—		
Commonwealth Advance—Grafton—South Brisbane Railway ... ..	1,416,762	
Closer Settlement Debentures converted into Commonwealth Stock	907,650	
Advances to Settlers ... ..	120,050	
Revenue and General Cash Deficiencies—		
Long Term Loans ... ..	9,401,543	
Short Term Loans ... ..	32,130,000	
Flotation and Negotiation Expenses (including Discounts on Issue) in respect of Loans credited to General Loan Account ... ..	17,668,580	
,, Unexpended Balance of Loan Funds ... ..	.....	61,644,585
		3,639,060
		394,660,367
<i>Less</i> —Redemptions of Public Debt from Revenue and Sinking Funds ... ..	25,546,824	
Debt cancelled by Commonwealth in respect of Properties transferred from State to Commonwealth ... ..	4,788,005	
		30,334,829
Public Debt at 30th June, 1940 (Tables 382 to 386) ... ..	.....	364,325,538

Thus the principal components in State Loan Expenditure to 30th June, 1940, are £331,821,184 expended on works and services of various kinds; £41,531,543 expended to meet deficits on revenue accounts; £17,668,580 being discounts allowed to lenders and loan flotation expenses; while £3,639,060 of loan money remained on hand unexpended. The total amount of loans raised (£394,660,367) was offset to the extent of £30,334,829 by redemption of debt from revenue and sinking fund and transfer of certain properties to the Commonwealth.

*Loan Raisings and Cost of Management, etc.*

Matters relating to the raising of loans by Australian Governments, with certain exceptions, are determined by the Australian Loan Council in terms of the Financial Agreement of 1927, to which reference is made on page 455. Operations incidental to the flotation of loans are conducted by the Commonwealth Government and the loans are secured by the issue of Commonwealth stock, debentures, bonds, etc. Each State is liable to the Commonwealth for the loans raised on its behalf.

At 30th June, 1940, the loans outstanding on account of the State of New South Wales amounted to £364,325,538, of which £193,088,910 was owing in Australia, £158,697,020 in London and £12,539,608 in New York. The greater part of these loans is represented by Commonwealth securities but a substantial amount of the overseas loans is secured by New South Wales securities issued prior to adoption of the Financial Agreement in 1927. Commonwealth securities in respect of the indebtedness of New South Wales comprise amounts of £192,088,820 in Australia, £104,777,497



in London and £3,892,634 in New York; and New South Wales securities £90 in Australia, £53,919,523 in London and £3,646,974 in New York. An amount of £1,000,000 was an advance by the Commonwealth Bank for which securities had not been issued at 30th June, 1940.

Inscription and management of the Commonwealth securities are conducted by the Commonwealth Government, but the State is required to pay expenses allocated to its share of the total securities issued. Similar services in respect of New South Wales securities are performed by financial agents appointed by the State, viz., the Westminster Bank Ltd., in London, and Chase National Bank in New York. Commission and other expenses of management are charged to revenue, amounts in the past three years being £54,583 in 1937-38, £56,708 in 1938-39 and £55,813 in 1939-40.

Expenses incidental to the issue of loans, such as underwriting commission, brokerage, advertising, printing, etc., are paid from the proceeds of loans. The amount in each of the past five years is shown on page 441.

The following table shows particulars of loans placed on the market for public subscription by the Commonwealth Government since 1934 and the amounts allotted therefrom to New South Wales. These constitute nearly the whole of the loans raised by the State of New South Wales in the period shown, but do not include a number of smaller loans raised by the sale of securities "over the counter" and by direct negotiation with financial institutions and Government instrumentalities.

TABLE 380.—Loans Raised by Public Subscription, 1934 to 1940 (including conversion loans).

Date.	Commonwealth Flotations on account of all Australian Government.					Share allocated to New South Wales.			
	Face Value.	Issue Price.	Interest Rate.		Years Currency (date).	Face Value.	Discount and Expenses.		Net Proceeds.
			Nominal.	Yield including Redemption.			Discount.	Expenses of Flotation.	
Issued in Australia.									
	£000.	£	Per cent.	£ s. d.		£	£	£	£
June, 1934 ...	12,234	98½	3½	3 7 8	14	6,114,200	91,713	43,262	5,070,225
Nov., " ...	15,046	99½	3	3 0 5	14	6,936,880	17,342	44,085	6,875,453
June, 1935 ...	12,503	99½	3½	3 8 5	14	7,368,110	36,841	49,570	7,281,699
Nov., " ...	7,964	99½	3½	3 15 6	14	3,729,480	9,324	28,034	3,692,072
June, 1936 ...	9,018	98½	3½	3 17 6	15½	4,386,990	65,805	33,826	4,287,859
Nov., " ...	7,516	97½	3½	3 19 4	15	1,995,570	49,869	16,937	1,928,694
April, 1937 ...	7,871	99½	3½	3 19 1	11½	2,855,500	21,412	23,597	2,809,991
Nov., " ...	8,195	99½	3½	3 15 6	14	2,798,540	6,996	22,866	2,768,678
May, 1938 ...	10,418	99½	3½	3 15 10	16	2,421,740	12,109	19,596	2,390,035
Nov., " ...	a69,027	100	3½	3 17 6	16	710,396,770	...	64,186	16,382,584
Feb., 1939 ...	8,526	100	3½	3 17 6	16	2,812,440	...	24,952	2,787,488
May, " ...	4,751	99	3½	3 19 2	16	1,805,000	18,050	15,300	1,771,650
June, " ...	3,000	100	3½	3 10 0	4	1,330,000	...	...	1,330,000
Dec., " ...	12,000	100	3½	3 10 0	3, 4, 5	3,640,000	...	...	3,640,000
Mar., 1940 ...	8,958	100	3½	3 7 6	6½	1,370,000	...	†	†
May, " ...	9,207	100	3½	3 12 6	16½	1,931,000	...	†	†
June, " ...	6,771	100	2½	2 15 0	5	...	...	...	...
May, " ...	13,811	100	3½	3 5 0	16	...	...	...	...

\* Includes for conversion purposes. a £64,847,000, and b £10,396,761. † Not available.

Issued in London.

Feb., 1934* ...	21,637	97	3½	3 13 8	25	3,970,050	119,372	†	3,859,678
Nov., " ...	14,602	99	3½	3 5 11	40	...	...	...	...
Jan., 1935* ...	22,384	100	3½	3 5 0	26	...	...	...	...
July, " ...	13,470	100	3	3 0 0	6	12,420,113	...	162,525	12,257,583
Jan., 1936* ...	21,657	95½	3	3 5 10	22	21,657,000	974,565	282,429	20,400,003
June, " ...	16,551	99	2½	2 18 6	7	10,954,609	109,546	159,042	10,686,012
June, 1937* ...	12,361	96½	3½	3 16 2	15	12,330,358	432,633	158,771	11,769,554
Nov., " ...	11,410	97	3½	3 15 1	17	6,427,465	192,824	81,816	6,152,823
June, 1938 ...	7,000	90	3½	3 16 6	18	...	...	...	...
Dec., " ...	2,518	100	4	4 0 0	32	...	...	...	...
June, 1939 ...	6,000	98½	4	4 2 0	25	...	...	...	...
Dec., " ...	4,605	99	3½	3 15 5	4	...	...	...	...

\* Conversion Loans. † Paid from Loan Account.

The loan of £3,000,000 in June, 1939, was subscribed by the Commonwealth Bank, and £12,000,000 in December, 1939, by the Commonwealth Bank and the trading banks conjointly.

The State has not raised any new loan money overseas since 1929. During the eight years 1932-33 to 1939-40, however, its share in twelve of the sixteen conversion loans floated in London by the Commonwealth amounted in the aggregate to £113,618,178. Two of these loans, amounting to £18,788,423, were for the further conversion of loans converted in 1932 and 1933.

The new loans floated in London by the Commonwealth in June, 1938 and 1939, were for defence purposes, with the exception of £5,000,000 of the 1938 loan which was used for funding Treasury Bills.

Moneys obtained by two special forms of borrowing by the Commonwealth for war purposes are not included in the table, viz., interest free loans and war savings certificates.

The interest free loans are current usually for the duration of the war and six months thereafter. Up to 30th June, 1940, the amount subscribed in Australia was £3,864,626.

War savings certificates are issued in three denominations, the face value being £1, £5 or £10, payable seven years after purchase. They may, however, be cashed on demand at purchase price, plus an allowance for interest. The purchase price of the certificates is four-fifths of the face value and the interest for the full term is 3½ per cent. per annum. Individual holdings may not exceed £250 face value. Sale of the certificates was commenced on 18th March, 1940, and the amount sold in Australia up to 30th June, 1940, was £6,109,122 with a face value of £7,636,402.

#### 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.

Particulars of the plan and of the circumstances leading up to it and the financial and economic crisis which affected the State of New South Wales in common with Australia as a whole are given in the Commonwealth Year Books for 1931 and 1937.

The terms and conditions of the conversion of the debt were set out on page 667 and following pages of the Official Year Book of New South Wales 1930-31.

## THE PUBLIC DEBT.

The public debt of New South Wales had its origin in 1841, when, on 28th December, the first loan amounting to £49,000 was offered locally. The issue was made during 1842 in two instalments, the prices being par and £98 with nominal interest rates of 5½d. per cent. and 4d. per cent., respectively, per diem. The proceeds of the loan were devoted to the promotion of immigration; previously funds for this purpose had been obtained from the sale of crown lands. The first overseas loan was raised in London in 1854.

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	...	...	...	...	...	54,900
„ „ Sydney Water Supply	...	...	...	...	...	28,000
„ „ Railways	...	...	...	...	...	256,400
„ „ Public Works	...	...	...	...	...	21,000
Total	...	...	...	...	...	£1,000,800

The growth of the public debt between 1842 and 1845 and thereafter at quinquennial periods until 1895 is shown in the following table.

TABLE 381.—Public Debt of New South Wales, 1842 to 1895.

As at 31st December.	Amount.	As at 31st December.	Amount.	As at 31st December.	Amount.
	£		£		£
1842	49,500	1860	3,830,230	1880	14,903,919
1845	97,700	1865	5,749,630	1885	35,564,259
1850	132,500	1870	9,681,130	1890	48,383,333
1855	1,000,800	1875	11,470,637	1895*	58,220,933

\* As at 30th June.

Most of the debt in these years consisted of long dated debentures and inscribed stock and there were outstanding at times relatively small amounts of Treasury Bills of shorter currency.

In later years Closer Settlement Debentures were issued in part payment for large estates acquired by the Government for subdivision. At a later stage certain repayable advances were made by the Commonwealth to

assist in financing special works and services undertaken by the State. These liabilities are incorporated in the following statement, which shows the composition of the public debt at various dates from 1900 to 1940:—

TABLE 382.—Public Debt of New South Wales, 1900 to 1940.

At 30th June.	Long Term Debt.			Short Term Debt.	Total Public Debt.	Per Head of Population.
	Stock, Debentures, etc.	Closer Settlement Debentures.	Common- wealth Government Advances.			
	£	£	£	£	£	£ s. d.
1900	65,332,993	...	...	...	65,332,993	47 17 7
1905	82,321,998	...	...	...	82,321,998	56 12 2
1910	92,525,095	...	...	...	92,525,095	57 6 6
1915	127,735,405	24,422	...	...	127,759,827	67 11 4
1920	152,776,082	4,126,836	2,746,731	...	159,649,649	77 3 9
1925	201,702,327	3,572,800	10,229,638	...	215,504,765	93 19 10
1930	256,044,716	1,302,150	9,212,905	3,545,252	270,105,023	106 15 7
1931	258,277,694	1,040,150	8,950,854	19,037,033	287,305,731	112 9 5
1932	258,954,988	132,200	8,950,854	37,684,534	305,722,576	118 11 7
1933	266,820 343	132,100	8,949,189	38,297,776	314,199,408	120 16 2
1934	276,355,570	131,700	8,948,523	39,302,776	324,738,569	123 17 4
1935	297,261,231	131,700	1,417,262	38,422,776	337,232,969	127 10 2
1936	304,589,256	131,700	1,416,762	40,570,276	346,707,994	130 1 6
1937	308,349,461	131,700	1,416,762	40,525,276	350,423,199	130 2 10
1938	311 915,216	131,700	1,416,762	40,835,276	354,298,954	130 6 2
1939	315,531,952	34,400	1,416,762	42,895,276	359,878,390	131 0 3
1940	320,813,500	...	1,416,762	42,095,276	364,325,538	131 5 7

The short term debt became considerable after 1929 when special measures were adopted to provide Government finance during the depression. It consists largely of Treasury Bills which usually are current for periods of three to six months. In earlier years Treasury Bills, of relatively small amount, were of longer duration and are included under long term debt.

At 30th June, 1940, the short term debt comprised Treasury Bills £40,545,276, Commonwealth Debentures £550,000, and a Commonwealth Bank advance £1,000,000. The debentures and advance are repayable by instalments over a period of two years.

Commonwealth advances were made for various purposes, viz., settlement of returned soldiers and sailors on the land, construction of wheat silos, the Grafton-Kyogle-South Brisbane railway line and works under the Migration Agreement. The only Commonwealth advance outstanding at 30th June, 1940, was that for construction of the Grafton-Kyogle-South Brisbane railway; the total amount advanced between 1924-25 and 1930-31 was £1,419,593 and repayments amounted to £2,831.

In considering the rate of growth of the debt, attention should be paid to 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 productivity, 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.

*Domicile of Public Debt.*

Prior to 1900 the London money market was the principal source of State loan moneys, and 84 per cent. of the public debt at 30th June, 1900, had been incurred in London. Borrowing on the London market continued actively until 1929, but the State's growing requirements for new loan capital were met to a much greater extent from local resources. Two loans totalling £10,273,973 were raised in New York in 1926-27 and the State's share of a loan raised in New York by the Commonwealth in 1927-28 was £3,955,615.

Except for certain short term loans raised in London for revenue deficits in 1930 and 1931, no new loans have been raised overseas since 1929, although there have been a number of conversion loans to provide for the redemption of old loans at maturity. For this reason and because of the purchase and cancellation of securities through the sinking fund, the overseas debt has been declining gradually since 1931. In 1937 the debt outstanding in Australia exceeded for the first time the amount owing overseas.

The following table shows the amount of State public debt outstanding in Australia, London and New York at quinquennial intervals from 1900 to 1930 and annually thereafter.

TABLE 383.—Public Debt of New South Wales, Place of Domicile, 1900 to 1940.

At 30th June.	Public Debt Outstanding—				Proportion.	
	Australia.	Oversea.		Total Public Debt.	Australia.	Oversea.
		London.	New York.			
	£ (Aust.)	£ (Stg.)	£*	£	Per cent.	Per cent.
1900	10,272,343	55,060,650	...	65,332,993	15.72	84.28
1905	18,314,448	64,007,550	...	82,321,998	22.25	77.75
1910	25,370,290	67,154,803	...	92,525,093	27.42	72.58
1915	42,592,540	85,167,287	...	127,759,827	33.34	66.66
1920	57,672,204	101,977,445	...	159,649,649	36.12	63.88
1925	79,266,609	136,238,156	...	215,504,765	36.78	63.22
1930	99,430,095	156,729,300	13,945,628	270,105,023	36.81	63.19
1931	107,501,666	165,978,441	13,825,624	287,305,731	37.42	62.58
1932	127,142,930	164,971,509	13,608,137	305,722,576	41.59	58.41
1933	138,365,661	162,363,286	13,470,461	314,199,408	44.04	55.96
1934	149,712,307	161,680,120	13,346,142	324,738,569	46.10	53.90
1935	162,421,505	161,585,121	13,226,343	337,232,969	48.16	51.84
1936	172,099,601	161,437,120	13,171,273	346,707,994	49.64	50.36
1937	176,810,481	160,541,620	13,071,098	350,423,199	50.46	49.54
1938	181,932,521	159,446,470	12,919,963	354,298,954	51.35	48.65
1939	188,413,400	158,751,952	12,713,038	359,878,390	52.35	47.65
1940	193,088,910	158,697,020	12,539,608	364,325,538	53.00	47.00

\* Repayable in "Dollars"—converted at rate of 4.8665 dollars to £.

The public debt as shown in Tables 382 to 386 represents the amounts used for book-keeping purposes without adjustment for the considerable changes in the value of Australian currency relatively to English and American currencies which have taken place since 1929. The London debt therefore represents the amount repayable in sterling, and the New York debt represents the amount repayable in dollars converted at the rate of 4.8665 dollars to £1. Because of currency depreciation (shown in Table 422 in respect of exchange between Australia and London) the debt outstanding in London and New York would be appreciably greater than is shown in the table if expressed in terms of Australian currency.

*Domicile and Rates of Interest on Public Debt.*

The following tables show in respect of the New South Wales public debt as at 30th June, 1940, the amount in the various registers and the rates of interest.

TABLE 384.—Public Debt of New South Wales at 30th June, 1940,  
Domicile and Rates of Interest.

Rate per cent.	Public Debt Outstanding.			Total. Public Debt.	Annual Interest.
	Australian.	London.	New York.		
Short Term Securities—					
£ s. d.	£(Aust.)	£(Stg.)	£*	£	£
3 10 0 ... ..	550,000	...	...	550,000	19,250
2 15 0 ... ..	1,000,000	...	...	1,000,000	27,500
2 5 0 ... ..	...	9,965,276	...	9,965,276	224,219
1 15 0 ... ..	9,070,000	...	...	9,070,000	158,725
1 10 0 ... ..	21,510,000	...	...	21,510,000	322,650
Total, Short Term	32,130,000	9,965,276	...	42,095,276	752,344
Long Term Securities—					
5 5 0 ... ..	...	17,870,500	...	17,870,500	938,201
5 0 9 ... ..	3,035	...	...	3,035	153
5 0 0 ... ..	...	16,770,655	8,646,974	25,417,629	1,270,881
Total, £5 and over	3,035	34,641,155	8,646,974	43,291,164	2,209,235
4 13 0 ... ..	432,910	...	...	432,910	20,130
4 10 0 ... ..	...	...	3,892,634	3,892,634	175,160
4 5 3 ... ..	2,124,060	...	...	2,124,060	90,538
4 1 4½ ... ..	10,784,960	...	...	10,784,960	438,813
4 0 0 ... ..	57,019,328	29,683,931	...	86,103,259	3,444,130
Total, £4 and under £5	70,361,258	29,083,931	3,892,634	103,337,823	4,168,780
3 17 6 ... ..	23,111,700	...	...	23,111,700	895,578
3 15 0 ... ..	28,630,139	7,607,633	...	36,237,772	1,358,916
3 12 6 ... ..	1,931,000	...	...	1,931,000	69,999
3 10 0 ... ..	9,398,150	33,477,901	...	42,876,051	1,500,662
Total, £3 10s. and under £4	63,070,989	41,085,534	...	104,156,523	3,825,155
3 9 9 ... ..	45,700	...	...	45,700	1,594
3 7 6 ... ..	9,162,430	...	...	9,162,430	309,232
3 5 0 ... ..	3,450,764	...	...	3,450,764	112,150
3 2 6 ... ..	2,000	...	...	2,000	63
3 2 0 ... ..	477,211	...	...	477,211	14,794
3 0 0 ... ..	12,724,222	32,721,013	...	45,445,235	1,363,357
2 15 0 ... ..	...	10,954,600	...	10,954,600	301,252
2 14 3 ... ..	291,421	...	...	291,421	7,905
2 6 6 ... ..	645,653	...	...	645,653	15,011
1 13 4 ... ..	...	243,161	...	243,161	4,053
1 5 0 ... ..	665,711	...	...	665,711	8,321
1 1 8 ... ..	58,426	...	...	58,426	633
Matured ... ..	90	2,350	...	2,440	...
Total, under £3 10s.	27,523,628	43,921,124	...	71,444,752	2,138,365
Total Long Term	160,958,910	148,731,744	12,539,608	322,230,262	12,341,535
Total Public Debt	193,088,910	158,697,020	12,539,608	364,325,538	13,093,879

\* Repayable in "Dollars"—Converted at the rate of 4/8665 dollars to £.

The rates of interest payable on the State loan debt have declined substantially since 30th June, 1931, when 72.8 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, 1940, the maximum rate was 5½ per cent., 11.9 per cent. of the loans bore interest at rates of 5 per cent. or over, and 31 per cent. was at rates under 3½ per cent.

Additional details are given in the following table:—

TABLE 385.—Public Debt of New South Wales in Interest Groups, 1931 and 1940.

Nominal Rate of Interest.	As at 30th June, 1931.		As at 30th June, 1940.	
	Amount.	Percentage.	Amount.	Percentage.
	£		£	
5½ to 6½ ... ..	88,461,781	30·8	...	...
5 to 5½ ... ..	120,737,637	42·0	43,291,164	11·9
4 and under 5 ... ..	38,652,511	13·5	103,337,823	28·4
3½ and under 4 ... ..	20,248,030	7·0	104,706,523	28·7
1 and under 3½ ... ..	19,193,022	6·7	112,987,588	31·0
Matured ... ..	12,750	...	2,440	...
Totals ... ..	287,305,731	100·0	364,325,538	100·0

*Domicile and Term of Public Debt.*

The dates of repayment of the debt extend to 1976, and the amounts falling due for redemption in successive years vary considerably as will be seen from the following table, which shows the amount outstanding as at 30th June, 1940, in Australia, in London and in New York, according to the latest due dates for repayment:—

TABLE 386.—Public Debt of New South Wales, at 30th June, 1940, Domicile and Dates of Maturity.

Year of Maturity (ended 30th June).	Public Debt Outstanding—			Total Public Debt. £
	Australia. £ (Aust.).	Overseas.		
		London. £ (stg.).	New York. £*	
Short Term Debt—				
1941 ... ..	31,490,000	9,965,276	...	41,455,276
1942 ... ..	640,000	...	...	640,000
Total, Short Term	32,130,000	9,965,276	...	42,095,276
Long Term Debt—				
1941 ... ..	711,846	...	...	711,846
1942 ... ..	30,085,590	12,420,113	...	42,505,703
1943 ... ..	15,937,270	10,954,600	...	26,911,870
1944 ... ..	7,372,650	...	...	7,372,650
1945 ... ..	7,818,482	...	...	7,818,482
1946 ... ..	1,880,100	...	...	1,880,100
1948 ... ..	4,774,247	...	...	4,774,247
1949 ... ..	13,645,700	12,268,489	...	25,914,189
1950 ... ..	11,115,360	...	...	11,115,360
1951 ... ..	4,672,845	11,707,278	...	16,380,123
1952 ... ..	9,925,500	...	...	9,925,500
1953 ... ..	7,000	11,789,758	...	11,796,758
1954 ... ..	4,511,685	11,018,048	...	15,529,733
1955 ... ..	12,967,810	...	...	12,967,810
1956 ... ..	13,928,901	...	3,892,633	17,821,534
1957 ... ..	1,931,000	...	4,312,648	6,243,648
1958 ... ..	4,433,964	38,171,400	4,334,327	46,939,691
1959 ... ..	...	3,829,050	...	3,829,050
1960 ... ..	4,415,334	...	...	4,415,334
1962 ... ..	4,262,102	...	...	4,262,102
1963 ... ..	103,804	10,283,396	...	10,390,200
1966 ... ..	...	14,055,000	...	14,055,000
1971 ... ..	...	9,273,446	...	9,273,446
1976 ... ..	...	2,957,816	...	2,957,816
Interminable ... ..	362,897	...	...	362,897
Permanent ... ..	900	1,000	...	1,900
Government Option ... ..	6,070,923	...	...	6,070,923
Overdue ... ..	90	2,350	...	2,440
Total, Long Term	160,938,910	148,731,744	12,539,608	322,230,262
Total Public Debt.	193,088,910	158,697,020	12,539,608	364,325,538

\* Repayable in "Dollars"—converted at rate of 4·8605 dollars to £

The loans have been classified according to the latest date of maturity but some of them are redeemable earlier at the Government's option, subject to notice ranging up to twelve months being given.

Of the loans outstanding at 30th June, 1940, loans amounting to £28,520,392 have passed the earliest maturity date and £6,070,923 was issued on terms placing redemption within the option of the Government. These loans comprise £6,571,291 in Australia, £24,127,391 in London and £3,892,633 in New York.

The following table indicates the movements which have taken place in the public debt of New South Wales during the last five years. It shows the conversion loans and new loans raised, including those arranged privately as well as those publicly subscribed shown in Table 380; also redemptions from conversions, sinking fund and the loan account. Particulars of conversion loans are included in the year in which the maturing loans were repaid, although some of them were floated in the previous year.

TABLE 387.—Transactions on Public Debt of New South Wales, 1936 to 1940.

Particulars.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
Long Term Loans raised—	£	£	£	£	£
Conversion or Renewal Loans—					
London—					
Cash Subscribed and Converted					
Stocks ... ..	33,102,548	10,845,054	18,162,965	...	...
Discounts ... ..	974,565	109,546	625,458	...	...
Australia—					
Cash Subscribed and Converted					
Stocks ... ..	362,100	93,015	77,655	10,416,761	4,760,395
Discounts ... ..	50	2,385	195	...	48,085
Total Conversions (Face Value)	34,439,263	11,050,000	18,866,273	10,416,761	4,808,480
New Loans—					
Australia—					
Cash subscribed ... ..	8,091,104	5,546,262	5,260,697	6,036,357	7,479,700
Discounts ... ..	75,316	81,578	19,303	17,972	300
Total New Loans (Face Value)	8,166,420	5,627,840	5,280,000	6,054,329	7,480,000
Total Long Term Loans Raised	42,605,683	16,677,840	24,146,273	16,471,090	12,288,480
Long Term Loans Repaid—					
From Conversion and Renewal Loans—					
London ... ..	33,102,548	10,845,054	18,162,965	...	...
Australia ... ..	362,100	93,015	77,655	10,416,761	4,760,395
From Sinking Fund and Revenue A/c's—					
London and New York* ... ..	1,029,635	1,105,221	1,871,743	901,243	222,262
Australia ... ..	783,325	871,960	467,960	1,536,150	1,974,042
From Loan Accounts ... ..	550	2,385	195	97,500	84,633
Total Long Term Loans Repaid	35,278,158	12,917,635	20,580,518	12,951,654	7,041,332
Net Increase in Long Term Debt	7,327,525	3,760,205	3,565,755	3,519,436	5,247,148
Net Increase in Short Term Debt ... ..	2,147,500	(—) 45,000	310,000	2,060,000	(—)800,000
Net Increase in Public Debt ... ..	9,475,025	3,715,205	3,875,755	5,579,436	4,447,148

\* Exclusive of small amount of Short Term Debt. (—) Decrease.

#### 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, 1940, 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, 1934-1940, represent the limit of overdrafts and not the amount outstanding.

TABLE 388.—Loans Guaranteed by State, 30th June, 1940.

Loans Issued by—	£	£
Metropolitan Water, Sewerage and Drainage Board ...	23,916,875	
Hunter District Water Board ... ..	1,450,000	
Broken Hill Water Board ... ..	197,444	
Rural Bank of New South Wales ... ..	25,314,610	
Public Hospitals ... ..	1,341,410	
Shire and County Councils ... ..	295,048	
Fire Commissioners ... ..	171,500	
		52,686,887
Overdrafts and Advances (under Government Guarantee Act, 1934-1940)—(Limit of Guarantee.)		
Hospitals ... ..	651,242	
Co-operative Building Societies ... ..	12,224,825	
Other Co-operative Societies, Marketing Boards, etc. ...	438,536	
Film Producing Companies ... ..	52,500	
Miscellaneous ... ..	12,550	
		13,379,653
Advances to Settlers (Government Guarantee Act, 1929-1934)—		
Rural Bank Borrowers ... ..	.....	290,280

Of the loans issued by the Metropolitan Water, Sewerage and Drainage Board, £2,000,000 is repayable in sterling in London and £1,412,925 in New York in dollars which have been converted at the rate of \$4.86 to the £. An amount of £164,478 included in shire and county council loans, representing the net amount outstanding after deducting sinking fund balances, is repayable in sterling in London.

#### THE INTEREST BILL OF THE STATE.

The amount of *annual interest* on the public debt of New South Wales as at 30th June, 1940, is shown in Table 384 as £13,093,879. 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, 1940 was £13,418,296, comprising £12,259,029 on Debentures and Funded Stocks, £833,575 on Treasury Bills, £1,376 on Closer Settlement Debentures and £324,316 on moneys held temporarily by the Government. The amount paid on the overseas debt was £6,477,624 *viz.*, £5,863,608 in London and £614,016 in New York; and £6,940,672 was paid in Australia.

The amounts of overseas interest payments are expressed in terms of Australian currency unadjusted for exchange variations since 1929. As, however, interest on the public debt is payable in the currency of the country of domicile, the State incurs an additional charge for exchange in acquiring, at current rates, the equivalent sterling and dollar funds with which to pay interest in London and New York. The charge for exchange on overseas interest payments amounted to £1,781,816 during the year ended 30th June, 1940.

The following table shows the amount of interest *actually paid* on the public debt in Australia, London and New York at intervals between 1900 and 1940; also the interest paid on moneys temporarily held by the Government (i.e., bank overdrafts and Special Deposits accounts) and, since 1930-31, the cost of exchange on overseas interest payments.

TABLE 389.—Interest and Exchange on Public Debt and Temporary Advances, Amount Paid, 1900 to 1940.

Year ended 30th June.	Total Amount of Interest Paid on—				Exchange on Overseas Interest Payments.	Total Interest and Exchange.
	Public Debt.			Moneys in Temporary Possession of Government.		
	Australia.	London.	New York.			
	£	£	£	£	£	£
1900 ...	337,691	1,972,580	...	99,544	2,403,815	2,409,815
1910 ...	825,802	2,300,513	...	62,838	3,189,153	3,189,153
1920 ...	2,092,673	4,104,509	...	289,285	6,486,467	6,486,467
1930 ...	4,982,945	7,444,973	681,826	656,996	13,796,713	13,796,713
1931 ...	5,517,620	7,256,883	583,567	768,651	14,126,721	14,063,366
1932†	5,506,354	8,552,815	757,979	602,960	†15,820,108	†19,433,859
1933 ...	5,153,787	7,270,200	662,848	420,454	13,507,349	15,858,202
1934 ...	5,172,730	7,051,214	652,436	335,391	13,211,791	15,142,306
1935 ...	5,306,675	6,552,542	646,313	309,587	12,875,117	14,746,832
1936 ...	5,594,412	6,643,050	640,785	278,511	13,156,758	15,003,679
1937 ...	5,902,914	6,193,312	638,864	295,784	13,030,874	14,680,371
1938 ...	6,130,044	6,110,252	632,720	265,430	13,138,446	14,776,561
1939 ...	6,279,857	5,884,254	621,922	318,921	13,104,954	14,771,782
1940 ...	6,591,090	5,863,608	614,016	349,582	13,418,296	15,200,112

† Includes payments due in 1930-31 but deferred until 1931-32.

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 are conducted as separate enterprises or accounts, and the balance is paid from the tax and other general revenue of the Governmental accounts (e.g., Consolidated Revenue Fund). A similar procedure is followed in regard to payments on account of exchange on interest payments overseas. In 1939-40 the amount of interest paid by the business undertakings, etc., was £7,743,192. In addition a considerable amount of interest, etc., accrued to the Governmental accounts as revenues from various other objects on which loan moneys have been expended. The amount of exchange paid by the business undertakings in this year was £943,919. Payments of interest and exchange in 1939-40 included the following:

	Undertakings, etc.	Interest.	Exchange on Overseas Interest Payments.	
			£	£
Railways ...	...	5,350,000	690,000	
Tramways and Motor Omnibuses ...	...	311,627	42,284	
Closer Settlement Fund ...	...	425,771	.....	
Metropolitan Water, Sewerage & Drainage Board ...	...	481,295	65,500	
Hunter District Water Board ...	...	127,800	17,200	
Maritime Services Board (Sydney Harbour) ...	...	417,341	54,000	
Sydney Harbour Bridge ...	...	291,747	37,000	
Main Roads Department ...	...	179,872	23,300	

*Rates of Interest on Public Debt.*

A classification of the public debt of New South Wales as at 30th June, 1940, according to the nominal rates of interest payable, is shown in Table 384.

The average "effective rates of interest" quoted below are calculated on the basis of the amount of interest actually paid and take into account changes in the composition of the debt during each year by reason of the flotation of new loans, conversion of old loans and redemptions from sinking funds, etc. The rate was 3.66 per cent. in 1900-01, and the lowest rate since that year was 3.489 per cent., in 1911-12. During the next ten years there was a gradual rise to 5.1606 per cent. in 1922-23. Variations since 1925-26 are shown below:—

TABLE 390.—Interest on Public Debt of New South Wales, Average Effective Rates, 1926 to 1940.

Year ended 30th June.	Rate. Per cent.	Year ended 30th June.	Rate. Per cent.	Year ended 30th June.	Rate. Per cent.
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
1929 ...	5.14062	1934 ...	4.12554	1939 ...	3.67296
1930 ...	5.17204	1935 ...	3.92041	1940 ...	3.67829

## 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 457.

## 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, 1938, on pages 21 to 33.

*Australian Loan Council.*

All borrowings by the States 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, 1938.

In June, 1939, by common consent, the loan programmes of local governing and semi-Governmental authorities were brought within the purview of the Loan Council. Following the outbreak of war a Works Co-ordinator was appointed to examine and report upon the works projects embodied in the programmes submitted by each Government.

*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 4½ per cent. compound interest. Since 1st July, 1933, additional contributions have been made by the State, in terms of a resolution of the Australian Loan Council, to provide for the repayment of the amount of discount on conversion loans floated after November, 1936. Such contributions are at a rate sufficient to repay the amount of discount within the currency of the conversion loan. 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 year, and the aggregate since 1st July, 1928, are shown below:—

TABLE 391.—National Debt Sinking Fund, Transactions on Account of New South Wales.

Year ended 30th June.	Receipts.					
	Contributions by—				Interest.	Total Receipts.
	State of New South Wales—					
	Common- wealth.	On Loans Issued.	4½% on Cancelled Securities.	Total New South Wales.		
	£	£	£	£	£	£
1928 and 1929 ... ..	657,039	*635,345	3,004	638,349	15,885	*1,311,273
1930 ... ..	403,979	710,508	45,479	755,987	32,609	1,192,575
1931 ... ..	429,307	762,154	109,278	871,432	11,148	1,311,887
1932 ... ..	462,025	807,854	168,436	976,290	12,628	1,450,943
1933 ... ..	514,016	846,293	231,208	1,077,501	20,121	1,611,638
1934 ... ..	545,389	877,667	288,576	1,166,243	11,779	1,723,411
1935 ... ..	570,404	901,513	385,446	1,286,959	5,395	1,862,758
1936 ... ..	589,886	939,108	396,854	1,335,962	14,666	1,940,514
1937 ... ..	616,767	998,834	501,555	1,500,389	20,318	2,137,474
1938 ... ..	628,400	1,046,631	598,154	1,644,785	14,291	2,287,476
1939 ... ..	635,913	1,081,877	696,232	1,778,109	11,655	2,425,677
1940 ... ..	657,304	1,171,075	800,852	1,971,927	15,241	2,644,472
Total, 1928 to 1940...	6,710,429	*10,778,859	4,225,074	15,003,933	185,736	*21,900,098

Year ended 30th June.	Payments—Net Cost of Securities Repurchased and Redeemed. (Australian Currency.)				Face Value of Securities Repurchased and Redeemed.		
	Australia.	London.	New York.	Total.	Australia.	London.	New York.
	£	£	£	£	£	£ stg.	£†
1929 ... ..	286,812	415,415	180,814	883,041	286,812	426,600	192,767
1930 ... ..	721,416	671,417	82,235	1,475,068	720,994	750,000	91,544
1931 ... ..	681,099				681,099	588,452	120,004
1932 ... ..	141,326	2,817,457		4,048,650	153,726	711,332	217,487
1933 ... ..	408,768				403,903	796,000	137,676
1934 ... ..	476,116	1,351,943	137,855	1,965,914	454,065	1,088,270	124,319
1935 ... ..	780,275	119,389	143,209	1,042,873	779,902	95,000	119,799
1936 ... ..	790,944	1,404,891	67,943	2,263,778	783,324	1,122,065	55,070
1937 ... ..	874,993	1,180,745	122,688	2,178,426	871,760	1,005,046	100,175
1938 ... ..	468,159	2,096,130	186,472	2,750,761	468,160	1,720,698	151,135
1939 ... ..	1,537,858	793,902	258,960	2,590,720	1,536,150	694,318	209,925
1940 ... ..	1,970,382	56,646	217,028	2,244,056	1,966,170	48,832	173,431
Total, 1928 to 1940...	9,138,148	12,305,139		21,443,287	9,106,065	9,046,523	1,690,332

\* Includes balance of old sinking fund account transferred to National Debt Sinking Fund, £30,061.

† Face value of securities in Dollars converted at \$4-8/65 to £.

The payments shown in the table for repurchases and redemptions of securities are expressed in terms of Australian currency, and the exchange on overseas remittances is included in the net cost of securities acquired in London and New York. In this respect the table differs from particulars published in earlier issues of the Year Book, which showed the sterling price of securities acquired in London and New York, with exchange as a separate item.

The face value of securities repurchased and redeemed corresponds with the value at which the securities were included in the statement of public debt (Tables 382 to 386), as described on page 449. During the twelve years the sinking fund has been in operation the average price in Australian currency paid for £100 face value of securities repurchased and redeemed

was £100 7s. in Australia, £114 12s. 1d. in London and New York, and £108 1s. 4d. in the three centres. In 1939-40 the average price per £100 face value was £100 4s. 3d. in Australia, £116 in London, £125 2s. 9d. in New York, and the general average was £102 10s. 10d. The balance at credit of the sinking fund as at 30th June, 1940, was £456,811. The following table indicates the source of contributions by New South Wales:—

## New South Wales.

TABLE 392—National Debt Sinking Fund, Source of Contributions by

Source.	Contributions in respect of year—			Total, 1-7-28 to 30-6-40.
	1937-38.	1938-39.	1939-40.	
	£	£	£	£
Railways ... ..	530,000	...	425,000	955,000
Road Transport and Tramways ... ..	38,349	40,778	43,389	404,460
State Coal Mine ... ..	1,320	1,400	1,530	9,874
Closer Settlement Fund ... ..	56,201	58,000	64,000	576,003
Met. Water, Sew'ge and Drainage Board	234,960	71,005	71,000	950,543
Hunter District Water Board ... ..	16,452	18,000	...	185,039
Country Towns Water Supply and Sewerage Works ... ..	38,372	2,740	3,323	139,988
Water and Drainage Trusts ... ..	1,933	900	876	10,062
Main Roads Department ... ..	26,600	28,820	40,050	210,442
Sydney Harbour Bridge ... ..	39,228	40,385	44,564	295,196
Sydney Harbour Services ... ..	56,853	58,987	62,210	550,326
Burrinjuck Hydro-Electric Scheme ...	4,000	4,500	5,600	38,201
Metropolitan Meat Industry Commissioner	3,291	4,100	4,100	39,219
State Metal Quarries ... ..	...	...	...	2,233
Tourist Bureau ... ..	...	...	...	797
Unemployment Relief Fund ... ..	...	...	163,500	165,158
Consolidated Revenue Fund ... ..	597,226	1,448,494	1,042,785	10,471,317
<b>Total ... ..</b>	<b>£1,644,785</b>	<b>1,778,109</b>	<b>1,971,927</b>	<b>15,003,858</b>

## PRIVATE FINANCE.

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### 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, 1914-1918, 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.

At the end of 1929 special measures were adopted to meet the exchange crisis which developed with the onset of depression. The Commonwealth Bank was given legal power to acquire a large amount of gold from the trading banks and (with the authority of the Treasurer) to require persons holding gold coin or bullion to exchange it for Australian notes. On 21st May, 1932, the Commonwealth Bank was relieved of its legal obligation to redeem Australian notes in gold coin.

Following the outbreak of war on 3rd September, 1939, the Commonwealth Government placed restrictions upon the transmission of money (including Australian notes and gold) to places outside Australia, and by regulation under the National Security Act, 1939, prescribed that all gold held in Australia except gold coin to the value of £25, wrought gold and gold held for commercial use, must be delivered to the Commonwealth Bank. The export or transfer from Australia of securities in any form is prohibited and persons possessing any interest in securities, including gold, may not dispose of or otherwise deal with them if they are situated in any foreign country, Canada, Newfoundland or Hong Kong, or if the principal and interest thereof are payable in the currency of any country other than the British Empire (apart from Canada, Newfoundland and Hong Kong).



Particulars of such foreign securities must be furnished to the Commonwealth Bank, and the Treasurer is empowered to acquire them for national purposes. The demand for sterling and foreign exchange balances is regulated by a system of import licences, and a system of licensing applied to exports ensures that proceeds from the sale of Australian products overseas are paid through the Commonwealth Bank to the persons entitled thereto. Exemption from the various restrictions, prohibitions, and conditions imposed by the regulations may be granted by the Treasurer or other competent authority.

#### COINAGE.

The face value of coins held by banks in New South Wales at 30th June, 1940, was: Gold £19,023, silver £769,267, and copper £51,024. In addition, the Note Issue Department of the Commonwealth Bank held, in Sydney, gold coin to the standard value of £4,112.

Australian coins are legal tender in Australia as follows, viz., gold for the payment of any amount, silver up to forty shillings, and bronze up to one shilling. Imperial coins also are legal tender for these amounts, except silver coins minted since 31st March, 1920, but few Imperial coins are in circulation in Australia. Australian notes, which have replaced gold coins as units of internal currency, are legal tender for any amount.

Branches of the Royal Mint 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. The denominations of silver coins are two shillings, one shilling, sixpence and threepence, and of bronze coins one penny and one half penny. Crown pieces, in value equivalent to five shillings, were issued for the first time in 1937, but are not in general circulation. 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  $\frac{11}{12}$  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 was £3 17s. 10½d. (Australian currency), equivalent to £4 4s. 11½d. per oz. fine.

The Commonwealth Bank fixes the price which it is prepared to pay for gold lodged at the mint in Australia. 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 price of gold in London has been controlled by the Bank of England since September, 1939.

The following table shows the average price per oz. of fine gold and the average value of the sovereign in London and Australia in each of the years ended 30th June, 1929 to 1940, and in each month since July, 1939. London prices are expressed in sterling and Australian prices in local currency:—

TABLE 393.—Gold prices in London and Australia.

Month or Year.	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.	Per cent.
Year ended 30th June—					
1929 ... ..	4 4 11	1 0 0	4 4 11	1 0 0	.....
1930 ... ..	4 4 11	1 0 0	4 6 3	1 0 4	1·5
1931 ... ..	4 4 11	1 0 0	4 19 4	1 3 5	16·9
1932 ... ..	5 7 7	1 5 4	6 11 4	1 10 11	54·6
1933 ... ..	6 1 7	1 8 7	7 9 9	1 15 3	76·2
1934 ... ..	6 11 8	1 11 0	8 2 0	1 18 2	90·6
1935 ... ..	7 1 3	1 13 3	8 14 10	2 1 2	105·7
1936 ... ..	7 0 8	1 13 1	8 14 0	2 1 0	104·8
1937 ... ..	7 0 10	1 13 2	8 15 3	2 1 3	106·2
1938 ... ..	7 0 0	1 12 11	8 13 10	2 0 11	104·6
1939 ... ..	7 6 9	1 14 7	9 2 9	2 3 0	115·1
1940 ... ..	8 4 9	1 18 9	10 8 4	2 9 1	145·2
Month.					
1939—					
July ... ..	7 8 6	1 14 11	9 4 11	2 3 6	117·6
August ... ..	7 10 6	1 15 5	9 10 5	2 4 10	124·1
September ... ..	8 7 7	1 19 5	10 11 0	2 9 8	148·4
October ... ..	8 8 0	1 19 7	10 11 0	2 9 8	148·4
November ... ..	8 8 0	1 19 7	10 11 11	2 9 11	149·5
December ... ..	8 8 0	1 19 7	10 12 6	2 10 0	150·1
1940—					
January ... ..	8 8 0	1 19 7	10 12 9	2 10 1	150·4
February ... ..	8 8 0	1 19 7	10 13 2	2 10 2	150·9
March ... ..	8 8 0	1 19 7	10 13 3	2 10 2	151·0
April ... ..	8 8 0	1 19 7	10 13 3	2 10 2	151·0
May ... ..	8 8 0	1 19 7	10 13 3	2 10 2	151·0
June ... ..	8 8 0	1 19 7	10 13 0	2 10 2	150·7
July ... ..	8 8 0	1 19 7	10 11 0	2 9 8	148·4
August ... ..	8 8 0	1 19 7	10 12 6	2 10 0	150·1
September ... ..	8 8 0	1 19 7	10 13 3	2 10 2	151·0
October ... ..	8 8 0	1 19 7	10 14 0	2 10 4	151·9
November ... ..	8 8 0	1 19 7	10 14 0	2 10 4	151·9
December ... ..	8 8 0	1 19 7	10 14 0	2 10 4	151·9

Stg.—Sterling.

A.—Australian Currency (see exchange rates, page 490).

Current Australian gold prices are published in the "Monthly Summary of Business Statistics."

The nominal value of one ounce of standard silver ( $\frac{37}{10}$  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, where

the average price per standard ounce was 1s. 7.5d. in 1938, 1s. 8.6d. in 1939, and 1s. 10.3d. in 1940. A comparative statement of London prices (sterling) since 1911 is shown below:—

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.
1921	3 0·9	1926	2 4·7	1931	1 2·6	1936	1 8·1
1922	2 10·4	1927	2 2·1	1932	1 5·9	1937	1 8·1
1923	2 7·9	1928	2 2·7	1933	1 6·1	1938	1 7·5
1924	2 9·9	1929	2 0·5	1934	1 9·2	1939	1 8·6
1925	2 8·1	1930	1 5·7	1935	2 4·9	1940	1 10·3

### 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. In June quarter, 1940, the value of bank notes outstanding in New South Wales was only £51,133.

#### *Australian Notes.*

In 1910 the Federal Treasurer was authorised to issue Australian notes, and the circulation of notes by any of the States was prohibited.

Since December, 1920, the note issue has been controlled and the notes have been issued by the Commonwealth Bank, in which a Note Issue department has been established. Control is exercised 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 notes are issued in denominations of 10s., £1, £5, £10, £20, £50, £100, and £1000. Five shilling notes were authorised but have not been issued. The notes were payable in gold on demand at the seat of Federal Government until 1920, and at the head office of the Commonwealth Bank until 21st May, 1932, when this provision was abolished.

The profits of the note issue, after paying working expenses and commission to the Commonwealth Bank 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 minimum gold reserve in respect of the notes is 25 per cent. of the notes in circulation. 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 394.—Australian Note Issue, 1914 to 1940.

End of June.	Australian Notes in Circulation.			†Note Issue Reserve.	
	Held by Banks.	Held by Public.	Total.	Total.	Proportion of Note Circulation.
1914 ...	£ *	£ *	£ 9,573,738	£ 4,106,767	Per cent 42·90
1921 ...	34,303,896	23,924,174	58,228,070	23,478,128	40·32
1929 ...	17,805,812	24,452,414	42,258,226	22,151,497	52·42
1931 ...	25,302,258	25,351,168	50,653,426	15,226,530	30·06
1932 ...	26,504,968	24,798,458	51,303,426	10,500,455	20·47
1933 ...	23,346,413	24,207,013	47,553,426	11,506,949	24·20
1934 ...	21,284,099	25,016,859	46,300,958	15,507,537	33·49
1935 ...	20,202,000	26,848,107	47,050,107	15,994,026	33·99
1936 ...	18,253,277	28,791,659	47,044,936	†15,999,240	34·01
1937 ...	17,536,707	29,502,266	47,038,973	†16,011,663	34·04
1938 ...	17,630,440	31,403,737	49,034,177	†16,007,349	32·64
1939 ...	14,829,109	32,701,015	47,530,124	†16,029,604	33·73
1940 ...	13,936,977	46,938,238	60,875,215	†16,081,528	26·42

\* 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.

‡ Valued in Australian currency, previously in gold and Sterling currency.

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 wool, wheat, and other seasonal products are sold.

The total amount of the note issue was fairly steady between 1933 and 1939, except for temporary movements in 1934 and 1938. In 1940 the notes rose to the highest level reached since the commencement of the issue.

Since 1933 holdings by banks have declined and notes in public circulation have increased. The reduction in holdings by banks in the last two years was due to the withdrawal of notes of high denomination formerly held in the central clearing house to guarantee settlement of balances as between the trading banks. Such guarantee is unnecessary because these banks keep substantial accounts with the Commonwealth Bank and settle balances by cheques drawn on these accounts.

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. In 1932, when part of the reserve had been converted into sterling assets, the amount of such assets was expressed in sterling currency. Since March, 1936, the total amount of the reserve has been stated 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. The amount of the special reserve is £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. Under war conditions the maximum amount which may be sent by the one person or to the one payee is limited to £5 per week to sterling countries, or £5 per month to other countries, including Canada, Newfoundland and Hongkong.

The following table gives particulars of the money orders issued and paid in New South Wales during the five years ended June, 1939:—

TABLE 395.—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 Common- wealth.	Total.
	£	£	£	£	£	£	£
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 ...	7,222,268	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
1939 ...	7,837,252	716,693	180,152	8,734,097	753,010	337,205	1,090,215

The amount of money orders issued in other Australian States and oversea countries for payment in New South Wales usually exceeds the amount sent from this State.

The maximum amount for which a single postal note is issued is £1, and particulars regarding postal notes are shown below:—

TABLE 396.—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.	
	£	£	£	£
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
1939 ...	2,971,205	520,425	3,491,630	306,022

The number of New South Wales postal notes paid in the State during the year ended June, 1939, was 7,967,274, and 1,446,595 were paid in other Australian States. The postal notes paid in New South Wales from issues in other States numbered 823,950.

## BANKS.

Institutions which transact banking business in New South Wales are required, in terms of the Census Act of 1901, to furnish to the Government Statistician quarterly statements of their assets and liabilities in New South Wales. 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.

Fourteen banking institutions transacted business in New South Wales during 1940. 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 1939 are shown in the following table:—

TABLE 397.—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.
<i>Head Office in N.S.W.—</i>												
Commonwealth of Australia ... ..	196	16	35	(a)6	14	4	1	272	...	2	1	275
Rural ... ..	49	...	...	...	...	...	...	49	...	...	...	49
† New South Wales ... ..	303	93	98	(a)17	93	4	1	609	74	2	10	695
† Commercial of Sydney	226	118	35	5	...	...	1	385	...	1	...	386
<i>Head Office in Victoria—</i>												
† Commercial of Australia ...	73	129	50	(a)43	24	21	1	341	27	1	...	369
† National of Australasia ...	41	150	47	47	47	2	...	334	...	2	...	336
<i>Head Office in Queensland—</i>												
† Queensland National ...	5	1	95	...	...	...	1	102	...	1	...	103
<i>Head Office in South Australia—</i>												
† Adelaide ... ..	1	1	1	55	2	...	...	60	...	1	...	61
<i>Head Office in London—</i>												
† Australasia ... ..	67	78	22	7	15	11	1	201	46	2	...	249
† Union of Australia... ..	66	57	26	17	22	3	...	191	46	1	...	238
† English, Scottish, and Australian ... ..	68	95	27	(b)33	13	17	...	253	...	1	...	254
<i>Head Office in New Zealand—</i>												
New Zealand ... ..	1	1	...	...	...	...	...	2	140	1	2	145
<i>Head Office in France—</i>												
Comptoir National... ..	1	1	...	...	...	...	...	2	...	2	541	545
<i>Head Office in Japan—</i>												
Yokohama Specie ... ..	1	...	...	...	...	...	...	1	...	1	42	44
<b>Total ... ..</b>	<b>1,098</b>	<b>740</b>	<b>436</b>	<b>230</b>	<b>230</b>	<b>62</b>	<b>6</b>	<b>2,802</b>	<b>333</b>	<b>18</b>	<b>596</b>	<b>3,749</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 200 in New South Wales, and 852 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.

*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 397, 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 1929 and subsequent years profit and loss results for periods ending, and balance sheet figures as at dates within the months of March and October in each calendar year. The New Zealand, French and Japanese banks, with only small business in New South Wales, are not included. Others excluded are the Commonwealth and Rural Banks, which are not strictly upon the same trading basis as private institutions, and the Primary Producers' Bank, which went into liquidation in 1931, after operating on a small scale for eight years.

TABLE 398.—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—	
					Capital.	Total Shareholders Funds.
		£	£	£	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
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
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
1939	9	37,136,362	32,905,731	2,282,703	6·15	3·26
1940*	9	37,136,362	32,986,761	2,296,137	6·18	3·27

\*Preliminary.

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. Where banks do not disclose the amount of such provision, it may have been made before the ascertainment of profits.

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 at 30th June, 1940, was £4,000,000 in the General Banking Department and £2,000,000 in the Rural Credits Department; profits amounted to £494,525 in 1939-40, as

compared with £388,159 in 1938-39. Stock and debentures issued on behalf of the Rural Bank outstanding at 30th June, 1940, amounted to £14,555,303. The profits of the Rural Bank amounted to £36,873 in 1939-40.

*Average Liabilities and Assets in New South Wales (all Trading Banks).*

The following statements, which include particulars of all the banks listed in Table 397, 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 in 1921.

TABLE 399.—Trading Banks, Average Liabilities in New South Wales.

June Quarter.	Bank Notes.	Deposits.					Other Liabilities.	Total Liabilities within New South Wales (exclusive of Shareholders' Funds).
		Bearing Interest.		Not Bearing Interest.		Total Deposits.		
		Government.	Other. (a)	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
1929	64	5,086	73,247	2,369	53,914	134,616	6,554	141,234
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
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
1939	51	10,434	81,112	313	58,742	150,601	7,343	157,995
1940	51	11,886	86,459	2,290	71,212	171,847	11,440	183,338

(a) Includes Commonwealth Savings Bank Deposits, £6,309,000, in 1921.

† 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. Subsequently the rise and fall were determined mainly by fluctuations in the volume and value of production. The 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 1939-40 deposits rose under the influence of wartime financial policy.

In December quarter, 1940, deposits amounted to £185,119,588, viz., interest bearing £104,458,235 and non-interest bearing £80,661,353. Comparative figures for December quarter, 1939, were, total deposits £155,128,665, interest bearing £91,105,866, and non-interest bearing £64,022,799.

The ratio of interest bearing deposits to total deposits was 58 per cent. in 1929, 66 per cent. in 1931, 61 per cent. in 1939, and 57 per cent. in 1940.



TABLE 400.—Trading Banks, Average Assets in New South Wales.

June Quarter.	Coin and Bullion.	Australian Notes.*	Advances, Securities, etc.			Landed Property.	Amounts Due from Other Banks.	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	1,919	480	45,622
1900 ...	6,126	...			34,385	1,874	661	43,036
1911 ...	14,525	1,771			42,456	1,872	1,283	61,907
1921‡ ...	10,152	11,812			104,709	2,574	3,187	132,434
1929 ...	11,984	11,046	24,248	119,575	143,823	3,188	3,788	173,829
1931 ...	908	15,922	9,346	127,007	136,353	3,654	3,287	160,124
1932 ...	1,055	12,510	21,162	117,477	138,639	3,876	2,420	158,500
1936 ...	963	11,203	21,189	126,282	147,471	4,292	1,419	165,348
1937 ...	1,135	13,629	23,055	130,286	153,341	4,579	1,257	173,941
1938 ...	1,454	10,392	19,477	147,158	166,635	4,840	1,321	184,642
1939 ...	1,527	9,876	24,549	152,986	177,535	4,955	1,306	195,199
1940 ...	1,479	13,780	43,386	147,511	190,897	5,157	1,781	213,094

\* Includes cash deposited with the Commonwealth Bank by other banks in 1926 and later years.

† Includes Commonwealth Treasury Bills.

‡ Commonwealth Savings Bank included.

The cash reserves of the banks consist of coin and bullion, Australian notes and cash with the Commonwealth Bank. The proportion of these reserves to liabilities and to deposits has little significance in relation to the banking figures of one State, especially those which include particulars of the Commonwealth Bank. 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 June quarter, 1932, £4,859,616 in 1939, and £19,098,846 in 1940. A statement of cash ratios based on Australian figures is shown on page 471.

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 represents 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.)*

The course of trading bank business in New South Wales is indicated more clearly by reference to the aggregates of private trading banks, excluding the figures of the Commonwealth, Rural and overseas banks with only one branch in the State.

The Commonwealth Bank conducts Federal Government business, controls the note issue and performs other functions of central banking. 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 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 1929 to 1940.

TABLE 401.—Private Trading Banks, Liabilities in New South Wales.  
(Ex Commonwealth, Rural and Oversea Banks with one branch in N.S.W.)

June Quarter	Deposits.					Bank Notes and Other Liabilities.	Total Liabilities in N.S.W.
	Bearing Interest.		Not Bearing Interest.		Total Deposits.		
	Government.	Other.	Government.	Other.			
	£000	£000	£000	£000	£000	£000	£000
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	1,062	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	620	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
1939	1,904	64,373	178	50,915	117,370	1,336	118,706
1940	2,673	66,037	250	59,683	123,643	1,431	130,074

\* Excluding liabilities to shareholders.

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 gradually between 1933 and 1939, and there was a marked increase in 1940 due to heavy war expenditure. The movement in deposits at interest was somewhat irregular during this period, trending downwards until 1936 and upwards during the last four years.

TABLE 402.—Private Trading Banks, Assets in New South Wales.  
(Ex Commonwealth, Rural and Oversea Banks with one branch in N.S.W.)

June Quarter	Cash Balances.*	Advances, etc.				Landed and House Property.	Amounts due from other Banks.	Total Assets in N.S.W.
		Treasury Bills.	Government and Municipal Securities.	Other Advances, etc.	Total Advances and Securities.			
	£000	£000	£000	£000	£000	£000	£000	£000
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	4,250	4,015	90,453	98,718	3,409	723	113,614
1933	11,026	4,471	7,505	90,490	102,466	3,318	800	117,610
1934	12,205	4,562	9,085	90,021	103,668	3,354	990	120,217
1935	11,916	3,829	9,324	96,933	110,086	3,456	1,023	126,481
1936	9,993	3,529	3,353	100,903	107,785	3,432	1,207	122,417
1937	12,737	3,441	3,912	102,850	110,203	3,533	1,039	127,512
1938	9,825	3,360	5,718	116,883	125,961	3,764	1,138	140,688
1939	9,360	4,227	4,876	120,499	129,602	3,845	1,113	143,920
1940	13,118	18,539	12,258	116,370	147,167	4,044	1,088	165,417

\* Coin, Bullion, Australian Notes and Cash with Commonwealth Bank.

A comparison of deposits and advances in December quarter 1938 to 1940 indicates the trend of banking business during the latter part of these years.

	1938.	December Quarter,	
	£000	1939. £000	1940. £000
Deposits—Interest bearing ...	64,427	66,007	67,773
Non-interest bearing	49,212	55,262	66,914
Total deposits... ..	113,639	121,269	134,687
Advances ... ..	119,731	121,321	113,732

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 403.—Private Trading Banks, Ratios in N.S.W. 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.
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	84.90	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
1939 ...	56.47	102.67	62.92	89.76	96.63	46.20	17.13
1940 ...	53.41	90.46	60.80	81.21	93.07	58.33	22.87

\* Excluding Treasury Bills. † Including Treasury Bills.

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 not been included because particulars are not available. The London balances are normally regarded as equivalent to cash in Australia, and if included, the cash ratios would show that the position of the banks is more liquid than is indicated by the ratios in the table.

The amount of London balances held by the Australian banking system (including the Commonwealth Bank) is shown in Table 423.

#### *Size of Depositors' Accounts.*

A classification of accounts according to the amount of deposit has been published in this chapter of earlier issues of the Year Book. The information is not available for 1940.

## 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. Since 27th April, 1925, exchange balances between the banks have been settled by cheques drawn on and paid into the Commonwealth Bank, and for this purpose the banks have established accounts with the Commonwealth Bank through which settlements are made in full each day. 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 404.—Inter-bank Clearings, Sydney, 1896 to 1940.

Year.	Amount of Exchanges. *	Year.	Amount of Exchanges. *
	£		£
1896	117,718,862	1933	641,401,538
1901	167,676,707	1934	716,086,124
1911	304,488,435	1935	775,985,112
1921	709,734,554	1936	842,609,556
1929	1,043,324,614	1937	937,334,454
1930	*872,387,876	1938	942,422,514
1931	683,175,641	1939	932,367,369
1932	588,732,343	1940	1,074,824,350

\* Government Treasury Bill transactions have been excluded from the amounts stated for 1930 and later years.

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 do not include 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 introduced in April, 1925, valid comparison is possible only subsequent to that date. In compiling the following index, the years 1926 to 1930 (inclusive) are taken as the base period, and the amount of clearings in each month is calculated as a ratio per cent. of the average amount of clearings in the same 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 ratio for each month is re-computed as a three months' moving average, so that the index for each month, as published below, represents the average of the ratios for that month and the two preceding months, with the average for respective months in 1926-1930 as base represented by 100.

TABLE 405.—Index of Bank Clearings, Sydney.

Month.	Average. 1926-1930.	1929.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
January ...	100	107	82	63	68	78	75	89	101	97	98	110
February ...	100	107	82	62	66	77	75	86	101	96	96	110
March ...	100	106	81	*	63	75	74	85	98	95	93	107
April ...	100	104	82	*	63	74	78	87	103	102	98	111
May ...	100	104	77	*	67	74	79	86	100	103	100	111
June ...	100	104	75	66	68	78	86	87	103	106	101	115
July ...	100	106	66	62	68	76	83	85	97	101	98	116
August ...	100	108	65	64	66	73	84	86	98	101	99	118
September ...	100	107	64	65	69	73	82	87	101	99	99	117
October ...	100	106	65	66	70	76	85	91	101	101	100	113
November ...	100	103	66	68	74	80	89	96	103	102	102	114
December ...	100	164	64	69	74	77	90	99	101	102	106	115
Year ...	100	106	72	65	68	76	82	89	101	101	100	113

\* Index not ascertainable on account of suspension of State Government banking transactions.

It should be noted that no adjustment 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 480.

#### *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 and it gradually began to exercise the functions of a central bank.

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. Provision has been made 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 Bank is authorised to raise loan capital amounting to £16,000,000, of which £6,000,000 may be provided by the Commonwealth Government and £10,000,000 by the issue of debentures. Additional powers to raise loan capital for the purposes of the Rural Credits Department are stated below.

The Bank has not yet exercised its authority to raise loans and at 30th June, 1940, its capital consisted solely of accumulated profits. The capital account of the General Banking Department amounted to £4,000,000, transferred from the reserve fund in 1924, and of the Rural Credits Department to £2,000,000, obtained by the appropriation of one-quarter of the profits of the Note Issue Department between 1925 and 1932. The balances of reserve funds were: General Banking Department, £2,990,874; Rural Credits Department, £338,232; and Savings Bank, £2,899,944.

The net profits of the Note Issue Department are paid to the Commonwealth Treasury and those of the General Banking Department and Savings Bank are divided equally between the reserve funds and the National Debt Sinking Fund. The profits of the Rural Credits Department are retained for the purposes of the Department, being divided equally between the reserve fund and the development fund. The following statement shows the net profits earned during each of the last five years and the manner in which they were distributed.

TABLE 406.—Commonwealth Bank and Savings Bank, Net Profits, 1936 to 1940.

Department, etc.	Year ended 30th June—				
	1936.	1937.	1938.	1939.	1940.
	£	£	£	£	£
			<i>Profits.</i>		
General Banking Department	419,586	355,933	331,301	356,579	456,793
Rural Credits Department ...	45,158	49,518	32,888	31,580	37,732
Note Issue Department ...	855,720	898,585	839,883	766,731	985,993
Savings Bank... ..	334,726	305,774	291,552	316,282	372,941
Total ... ..	1,655,190	1,609,810	1,495,624	1,471,172	1,853,459
			<i>Distribution of Profits.</i>		
Reserve Funds* ... ..	422,314	380,371	344,315	368,011	452,599
Commonwealth Treasury ...	855,720	898,585	839,883	766,730	985,993
National Debt Sinking Fund	377,156	330,854	311,426	336,431	414,867
Total ... ..	1,655,190	1,609,810	1,495,624	1,471,172	1,853,459

\* Including half profits of Rural Credit Department paid to Development Fund.

The profits of the Savings Bank are net amounts after payment of a share to State authorities in terms of agreements under which State savings banks amalgamated with the Commonwealth Savings Bank. The share of profits paid to State authorities was £259,589 in 1939-40.

#### *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.

The Development Fund, which receives one-half of the net profits of the department, is used at the discretion of the Board of Directors, for the promotion of primary production. At 30th June, 1940, the credit balance of the Development Fund was £17,578.

*Liabilities and Assets of Commonwealth Bank.*

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 1936 to 1940.

TABLE 407.—Commonwealth Bank, Average Liabilities and Assets in New South Wales.

Particulars.	June Quarter.				
	1936.	1937.	1938.	1939.	1940.
<b>Liabilities—</b>	£	£	£	£	£
Deposits at interest—					
Government ...	5,000,000	3,538,461	4,577,726	8,307,692	9,000,000
Other ...	12,054,614	14,795,557	16,810,389	15,709,314	19,426,393
Deposits not bearing interest—					
Government ...	20,030	15,220	16,560	19,037	1,952,516
Other ...	5,449,059	7,647,843	7,922,487	6,618,604	9,966,422
Total deposits ...	22,523,703	25,997,081	29,327,162	30,654,647	40,345,331
Other liabilities ...	5,594,988	8,263,336	4,635,863	5,245,627	9,844,345
<b>Total Liabilities in New South Wales...</b>	<b>28,118,691</b>	<b>34,260,417</b>	<b>33,963,025</b>	<b>35,900,274</b>	<b>50,189,676</b>
<b>Assets—</b>					
Coin and Bullion ...	288,092	238,821	337,951	459,239	547,794
Australian Notes ...	1,294,914	1,206,198	1,246,989	1,193,703	1,044,204
Advances, etc. ...	9,052,136	9,635,753	11,683,973	14,678,342	13,169,482
Government Securities* ...	13,082,111	14,460,063	9,417,073	14,589,482	11,401,240
Landed Property ...	373,601	366,744	346,124	351,886	323,179
Notes, Bills and Balances from other Banks ...	87,614	80,081	85,370	107,494	535,341
<b>Total Assets in New South Wales ...</b>	<b>24,183,468</b>	<b>25,987,660</b>	<b>23,117,480</b>	<b>31,380,146</b>	<b>27,021,240</b>

\* Including municipal securities and Commonwealth Treasury Bills.

The liabilities classified as "other" 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 £5,046,667. At 30th June, 1940, they were £125,692,708 in the General Bank and Rural Credits Departments, £70,848,016 in the Note Issue Department and £151,485,609 in the Savings Bank.

#### 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 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 Industries" 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, 1940, there were 56 branches in Sydney and important country centres, and 44 branches of the Commonwealth Bank acting as agents, provided banking facilities for the Department's customers.

The balance sheet of the Rural Bank Department as at 30th June, 1940, was as follows:—

TABLE 408.—Rural Bank of New South Wales, Rural Bank Department Balance Sheet.

<i>Liabilities</i>		<i>Assets.</i>	
	£		£
Stock and Debentures Issued	14,555,304	Cash and Bank Balances ...	464,259
Reserve Fund ... ..	834,336	Investments—	
Special Reserve ... ..	1,285,891	Commonwealth Government	
Deposits, Other Liabilities and		Securities ... ..	299,415
Reserves for Contingencies	2,168,785	Fixed Deposits ... ..	702,369
Government Agency Dept.—		Metropolitan Water Board	
Capital Accounts ... ..	65,586	Securities ... ..	227,416
Guarantee and Other Funds	105,134	Other Securities ... ..	47,231
		Reserve Fund Investments—	
		Commonwealth Govern-	
		ment Securities ... ..	610,660
		Metropolitan Water Board	
		Securities ... ..	64,163
		Fixed Deposits ... ..	120,904
		Loans and Advances to	
		Customers ... ..	15,549,834
		Sundry Debtors and other	
		Assets ... ..	202,934
		Due by other Departments	7,067
		Bank Premises ... ..	718,784
<b>Total ... ..</b>	<b>19,015,036</b>	<b>Total ... ..</b>	<b>19,015,036</b>

The assets and liabilities shown above, other than capital items, are included in the particulars of trading banks published in Tables 399 and 400.

The net profit for the year 1939-40 amounting to £36,873 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, 1940, amounted to £1,285,891. The share of the profits amounted to £163,715 in 1938-39 and £182,006 in 1939-40.

#### *Advances for Homes Department.*

An account of the operations of the Advances for Homes Department is published in the chapter "Social Condition," (page 186) 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, 1940, was as follows:—

TABLE 409.—Rural Bank of New South Wales, Advances for Homes Department Balance Sheet.

Liabilities.		Assets.	
	£		£
Stock and Debentures		Cash at Bankers ... ..	119,198
Issued ... ..	11,556,750	Reserve Fund Investments—	
Reserve Fund ... ..	867,068	Commonwealth Government Securities ... ..	662,857
Deposits, other Liabilities and Reserves for Contingencies	1,199,566	Metropolitan Water Board Securities ... ..	101,241
Amounts due to Other Departments ... ..	13,104	Fixed Deposits ... ..	60,349
		Commonwealth Government Securities ... ..	244,780
		Metropolitan Water Board Securities ... ..	50,938
		Fixed Deposits with other Banks ... ..	40,276
		Rural Bank Department Stock ... ..	765,000
		Sundry Debtors and other Assets ... ..	2,439
		Loans on Mortgage and Contracts of Sale ... ..	11,589,410
<b>Total ...</b>	<b>13,636,488</b>	<b>Total ...</b>	<b>13,636,488</b>

The net profit in 1939-40 was £39,090, 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 is defined by 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 by the Department for the purpose of making further advances.

The financial operations of the various agencies during the year ended 30th June, 1940, 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 Industries and Land Legislation and Settlement.

TABLE 410.—Rural Bank of New South Wales, Government Agency Department, 1939-40.

Agency.	Revenue Collections.	Adminis- trative Expenses.	Particulars of Advances.		
			Made during 1939-40.	Repaid during 1939-40.	Outstanding at 30th June, 1940.
	£	£	£	£	£
Building Relief ... ..	9,541	13,456	78,327	89,239	297,762
Government Housing ... ..	18,423	2,297	4,791	29,210	369,583
Home Building Scheme ... ..	8,035	4,720	85	35,896	157,439
Advances to Settlers ... ..	18,386	16,320	34,419	60,525	803,421
Rural Reconstruction ... ..	49,136	67,625	686,230	376,832	2,523,270
Government Guarantee ... ..	...	151	4,588	...	6,631
Irrigation ... ..	199,458	27,577	164,878	121,736	1,918,395
Rural Industries ... ..	11,430	32,370	183,164	159,459	1,036,156
Closer Settlement ... ..	290	1,897	146,140	2,108	153,015
<b>Total</b> ... ..	<b>314,699</b>	<b>166,413</b>	<b>1,302,622</b>	<b>875,005</b>	<b>7,265,672</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.*, public securities, 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 in New South Wales at 17 branches which conduct savings bank business only, at 198 branches of the Commonwealth Bank, and at numerous post offices and agencies. 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 not operating for profit, such as friendly societies. Changes in the rates of interest are shown in Table 420.

The total liabilities and assets of the Commonwealth Savings Bank at 30th June, 1940, amounted to £151,485,609. The liabilities included reserve fund, £2,899,944, and depositors' balances £140,533,539. The assets consisted largely of Government securities £107,690,905, and securities of municipalities and other public authorities £33,722,719; coin, cash and money at short call amounted to £5,969,122, representing a proportion of 4.2 per cent. of depositors' balances, bank premises to £767,290, and other assets to £3,335,573.

*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 411.—Savings Bank Deposits in New South Wales.

Year ended 30th June.	Savings Bank Deposits.					
	Amounts Credited.		Withdrawals.	Increase in Depositors' Balances.	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
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	82,465,430	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
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	86,015,685	31 12 9
1939	66,576,777	1,609,757	67,154,749	1,458,104	87,473,789	31 16 11
1940	64,125,646	1,604,057	71,339,989	(—) 5,362,889	82,110,900	29 11 9

\* Calendar year.

(—) Decrease in Deposits.

There was a decrease in the amount of depositors' balances during the year 1939-40, the first in any year since 1930-31. The large excess of withdrawals over deposits during the year was due in part to withdrawals for the purpose of subscriptions to war loans and purchases of War Savings Certificates.

The net amount paid for war savings certificates purchased in New South Wales between 18th March, when sales of certificates commenced and 30th June, 1940, was £2,439,917.

Reduction in the rates of interest on deposits has caused a decline in the amount of interest credited annually to depositors. Changes in the rates since 1928 are shown in Table 420.

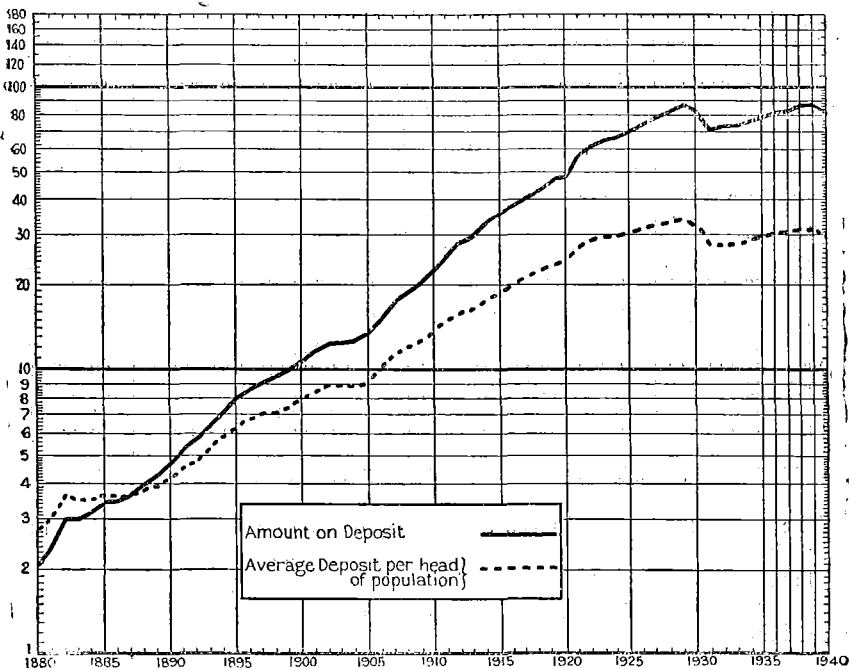
The number of accounts in active operation as at 30th June, 1932, and each succeeding year is shown below, together with the average amount of deposits per account.

TABLE 412.—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	1937	1,218,245	67 5 5
1933	1,038,338	69 12 9	1938	1,288,515	66 15 1
1934	1,082,016	69 19 6	1939	1,330,404	65 15 0
1935	1,118,537	69 13 0	1940	1,312,697	62 11 0
1936	1,163,713	68 14 11			

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, 1880-1940. (Ratio Graph.)



The numbers at the side of the graph represent £1,000,000 of deposits, and £1 of 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, 1940, the net amount of deposits at credit of private and public accounts in the savings and the trading banks in New South Wales was £253,741,292 or £91 8s. 8d. 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 represent the deposits as at 30th June in each year, and those for the trading banks are the averages of the June quarter:—

TABLE 413.—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.
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 ...	72,307,635	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
1939 ...	87,473,789	91,546,048	179,019,837	57,664,037	236,683,874	86 3 4
1940 ...	82,110,900	93,128,314	180,239,214	73,502,078	253,741,292	91 8 8

\* Excluding deposits lodged by Savings Banks in Trading Banks.

## INTEREST RATES.

The effective interest rates in the various financial fields are of fundamental importance, because interest charges represent a substantial proportion of cost in large 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 446 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 on income from property levied at the rate of 7½ per cent. on income derived in 1929-30 and 10 per cent. on income derived in 1930-31.

TABLE 414.—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 22½ 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 most of the converted securities. This level was reached towards the end of 1932 and the lowest point, following further decline, in November, 1934.

Since 15th June, 1940, minimum prices have been fixed for the sale of Government securities on all Australian Stock Exchanges.

The monthly averages of weekly statements of yields on Government securities, including redemption, on the Stock Exchange are shown in the following table at intervals since October, 1931, following conversion, to December, 1940.

TABLE 415.—Commonwealth Securities, Average Yield Subsequent to Conversion, 1931 to 1940.

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.
1931—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	1937—	£ s. d.	£ s. d.	£ s. d.	£ s. d.
October ...	6 5 0	5 12 11	5 4 3	5 9 3	March ...	4 0 10	4 1 5	4 0 7	4 1 0
November ...	5 18 0	5 5 7	4 19 3	5 3 7	June ...	3 13 0	3 15 6	3 16 11	3 15 4
December ...	4 16 8	4 13 11	4 10 8	4 12 3	September ...	3 16 4	3 16 3	3 17 6	3 16 8
1932—					December ...	3 13 4	3 14 9	3 15 2	3 14 5
March ...	5 2 0	5 1 4	4 15 5	4 17 4	1938—				
June ...	5 0 3	4 18 10	4 14 5	4 16 1	March ...	3 11 6	3 12 8	3 14 4	3 12 10
September ...	4 1 8	4 2 2	4 1 11	4 1 11	June ...	3 16 1	3 15 6	3 16 1	3 15 10
December ...	3 18 11	3 19 1	3 19 3	3 19 1	September ...	3 16 1	3 15 9	3 16 7	3 16 1
1933—					December ...	3 17 3	3 18 5	3 18 5	3 17 11
March ...	3 14 10	3 17 4	3 17 8	3 16 9	1939—				
June ...	3 12 8	3 15 2	3 16 4	3 15 0	March ...	3 17 3	3 17 9	3 17 8	3 17 6
September ...	3 12 2	3 13 10	3 14 11	3 13 10	June ...	3 18 9	3 19 6	3 19 5	3 19 2
December ...	3 9 8	3 11 1	3 13 6	3 12 1	August ...	3 19 6	4 0 1	3 19 11	3 19 10
1934—					September ...	4 1 0	4 1 1	4 1 9	4 1 3
March ...	3 7 11	3 9 1	3 12 5	3 10 4	October ...	3 18 5	3 19 10	4 0 2	3 19 5
June ...	3 4 6	3 4 7	3 9 2	3 6 8	November ...	3 16 10	3 18 5	3 19 1	3 18 0
September ...	3 4 0	3 4 0	3 8 8	3 6 0	December ...	3 15 5	3 17 3	3 17 11	3 16 9
October ...	3 1 9	3 2 6	3 6 1	3 3 9	1940—				
November ...	3 1 2	3 2 6	3 6 4	3 3 5	January ...	3 14 3	3 15 7	3 16 2	3 15 2
December ...	3 2 1	3 3 1	3 7 7	3 4 3	February ...	3 12 4	3 12 10	3 12 7	3 12 7
1935—					March ...	3 10 10	3 12 0	3 12 5	3 11 8
March ...	3 4 11	3 6 6	3 11 11	3 7 9	April ...	3 5 10	3 7 6	3 9 5	3 7 5
June ...	3 8 8	3 9 6	3 13 6	3 10 7	May ...	3 5 1	3 6 5	3 9 1	3 6 8
September ...	3 16 6	3 15 3	3 18 2	3 16 7	June ...	3 5 8	3 8 1	3 9 5	3 7 6
December ...	3 14 11	3 14 9	3 16 11	3 15 6	July ...	3 5 9	3 7 9	3 9 7	3 7 5
1936—					August ...	3 5 7	3 7 3	3 9 5	3 7 1
March ...	3 16 10	3 16 10	3 18 10	3 17 5	September ...	3 4 0	3 6 5	3 9 0	3 6 0
June ...	3 18 2	3 18 3	3 19 7	3 18 7	October ...	3 2 10	3 6 2	3 9 2	3 5 6
September ...	3 17 0	3 18 9	3 19 10	3 18 7	November ...	3 1 0	3 4 10	3 8 1	3 4 0
December ...	3 19 4	4 0 0	4 0 5	4 0 0	December ...	3 1 6	3 4 11	3 8 5	3 3 11

The yields quoted relate to all Commonwealth loans with an unexpired currency of more than five years at the various dates shown, including those embraced in the conversion in 1931 and all subsequent issues prior to March, 1940. 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. An alternative method of calculation sometimes adopted is to estimate net yield on the basis of earliest date of maturity when bonds are above par and on latest date when bonds are below par. On this basis average yields at the end of December, 1940, were £3 0s. 10d. per cent. on maturity of 5 to 10 years and £3 1s. 10d. per cent. on all bonds of 10 years or longer maturities. The nominal rates of



interest payable range between  $2\frac{3}{4}$  per cent. and 4 per cent., though the major part of the loans carry nominal rates of interest between  $3\frac{1}{2}$  per cent. and 4 per cent. 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 issues in recent years which have been incorporated in the table as from initial quotations on the Stock Exchange.

Interest on the securities is free of State income, unemployment relief and social services taxes. It is subject to Federal tax on income, but was exempt from the special tax on income from property levied at the rate of 10 per cent on income derived in 1931-32, 6 per cent. in 1932-33 and 1933-34, and 5 per cent. in 1934-35. Moreover, Federal income tax at rates in excess of those imposed by the Federal Income Tax Act, 1930 may not be levied on stocks converted in 1931 or issued between 1931 and March, 1940. This limitation was not a condition of loans floated in March, 1940 or subsequently. A short review of the rates of income tax appears on page 402 *et seq.*

#### Commonwealth Treasury Bills.

Commonwealth Treasury Bills were first issued in 1927 for the retirement of 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, have been as follows:—

TABLE 416.—Rate of Discount on Commonwealth Treasury Bills,  
1927 to 1940.

Month of Change.		Rate of Discount.
		Per cent.
1927—	June ... ..	4
1928—	February ... ..	$4\frac{1}{2}$
1929—	October ... ..	$5\frac{1}{2}$
1930—	October ... ..	6
1931—	July ... ..	4
1932—	November ... ..	$3\frac{1}{2}$
1933—	January ... ..	$3\frac{1}{2}$
	February ... ..	$2\frac{3}{4}$
	June ... ..	$2\frac{1}{2}$
1934—	April ... ..	$2\frac{1}{2}$
	October ... ..	2
1935—	January ... ..	$1\frac{3}{4}$
1940—	May* ... ..	$1\frac{1}{2}$

\* Rate unchanged, January, 1941.

*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 417.—Trading Banks, Fixed Deposit Rates, 1920 to 1940.

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.
1920—July ... ..	3½	4	4½	5
1927—August ... ..	4	4	4½	5
1930—January ... ..	4½	4½	5	5½
1931—June ... ..	3½	3½	4	4½
November ... ..	3	3½	3½	4
1932—March ... ..	2½	3	3½	4
May—June ... ..	2½	3	3½	3½
August ... ..	2½	2½	3	3½
November ... ..	2½	2½	3	3½
1933—February... ..	2	2½	2½	3
1934—April ... ..	2	2½	2½	2½
August ... ..	1½	2½	2½	2½
October ... ..	1½	2	2½	2½
1936—March ... ..	2	2½	2½	3
1940—January ... ..	1½	2½	2½	2½
May* ... ..	1½	2	2½	2½

\* Rates unchanged, January, 1941.

Rates of interest paid by the Commonwealth Bank have been approximately the same as those of private banking institutions since January, 1924. A divergence occurred between 17th December, 1934, and 23rd March, 1936, when the Commonwealth Bank rates for deposits at three and six months were 1 per cent. and 1½ per cent. respectively.

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 former rates.

Reductions in the rates in 1940 were part of the wartime financial policy.

*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 418.—Trading Banks, Overdraft and Discount Rates, 1920 to 1940.

Date of Change.	Overdraft Rates.	Rates of Discount on Bills at—	
		Three months.	Over three months.
	Per cent.	Per cent.	Per cent.
1920—July ... ..	6 to 8	5 to 6	6 to 7
1924—January ... ..	6 to 8	5½ to 7	5½ to 7
1925—January ... ..	6 to 8	5½ to 7	6 to 7
1927—August ... ..	6½ to 8	6 to 7	6½ to 7
1930—March ... ..	7 to 8½	6½ to 7½	7 to 7½
1931—July ... ..	5 to 7	5 to 7	5 to 7
1932—July ... ..	5 to 6	5 to 6	5 to 6
1934—June ... ..	4½ to 5½	4½ to 5½	4½ to 5½
July ... ..	4½ to 5	4½ to 5	4½ to 5
1936—April to August... ..	4½ to 5½	4½ to 5½	4½ to 5½
October*... ..	4½ to 5½	4½ to 5½	4½ to 5½

\* Rates unchanged, January, 1941.

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.

The rates are now fixed by regulations under the National Security Act, 1939, and may not be increased above the level ruling on 31st August, 1939, unless the increase is authorised by the Federal Treasurer.

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 419.—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.
1930—January ... ..	*6½	*5½	6½	6½	*6½
July ... ..	...	6	...	...	...
1931—July ... ..	5½	5	...	...	...
October ... ..	...	...	†	5½	†
1932—July ... ..	5	4½	...	...	...
December ... ..	...	...	5	5	5
1933—January ... ..	4¾	4¼	...	...	...
July ... ..	...	4	...	...	...
1934—April ... ..	4½	...	...	...	...
July ... ..	...	3¾	...	4¾	...
September ... ..	...	...	...	...	4¾
October ... ..	...	...	4¾	...	...
November ... ..	4¼	...	...	...	...
1935—January ... ..	...	...	...	4½	...
April ... ..	...	...	4½	...	4½
1937—January ... ..	...	...	4¾	4¾	4¾
1940—July† ... ..	...	3½	...	...	...

\* Rates prevailing prior to January, 1930.

† Rates reduced in terms of Interest Reduction Act, 1931. ‡ Rates unchanged, January, 1941.

The increased Rural Bank rate of 4¾ 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 4¾ 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 420.—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 ... ..	2½	1¾	1¾	2½
January, 1935 † ... ..	2	1½	1½	2

\* Whole amount of balance. † Rates unchanged, January, 1941.

*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 421.—Interest Rates on Mortgages, 1933 to 1940.

* 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—			1938—		
October ...	5.5	5.9	March ...	5.0	5.3
November ...	5.4	5.8	June ...	5.0	5.4
December ...	5.4	5.7	September ...	5.0	5.6
1934—			December ...	5.1	5.4
March ...	5.2	5.4	1939—		
June ...	5.1	5.4	March ...	5.1	5.6
September ...	5.2	5.4	June ...	5.1	5.6
December ...	5.0	5.2	September ...	5.2	5.5
1935—			December ...	5.5	5.8
March ...	4.8	5.2	1940—		
June ...	4.6	5.2	January ...	5.5	5.8
September ...	4.8	5.2	February ...	5.4	5.7
December ...	4.9	5.3	March ...	5.4	5.7
1936—			April ...	5.2	5.7
March ...	4.9	5.2	May ...	5.0	5.7
June ...	4.9	5.2	June ...	5.0	5.6
September ...	4.8	5.3	July ...	5.0	5.6
December ...	4.9	5.2	August ...	4.9	5.6
1937—			September ...	5.0	5.6
March ...	4.9	5.2	October ..	5.0	5.5
June ...	4.9	5.3	November ...	5.1	5.5
September ...	5.1	5.4	December ...	5.0	5.5
December ...	5.0	5.3			

\* 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 418. Particulars of rates of interest charged by the Rural Bank are shown in Table 419. Advances by the Government of New South Wales, mainly to primary producers, are made usually at lower rates than advances from other sources.

*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  $5\frac{1}{4}$  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 embargo on the export of gold, which was imposed during the Great War, 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. The premium was reduced by £5 per cent. in December, 1931, when the Commonwealth Bank assumed the function of exchange control. After the outbreak of war on 3rd September, 1939, the Commonwealth Government assumed comprehensive powers to control Australia's foreign exchange balances. These are described briefly on page 460.

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.

The variations in the rates of exchange, Australia on London, at each date of change since October, 1924, are shown below. The rates are quoted on the basis of £100 in British currency in London.

TABLE 422.—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.	£ s. d.	£ s. d.
1924—15 Oct. ...	96 10 0	96 2 6	95 15 0	97 10 0	97 5 0	97 0 0
1925— 6 May ...	99 5 0	98 10 0	98 0 0	99 10 0	99 2 6	98 12 6
10 June ...	99 15 0	99 2 6	98 12 6	100 0 0	99 12 6	99 5 0
4 Dec. ...	99 15 0	99 0 0	98 10 0	100 0 0	99 12 6	99 5 0
1926— 9 June ...	99 15 0	99 2 6	98 12 6	100 2 6	99 15 0	99 7 6
12 July ...	99 17 6	99 5 0	98 15 0	100 5 0	99 17 6	99 10 0
5 Aug. ...	100 0 0	99 7 6	98 17 6	100 7 6	100 0 0	99 12 6
1 Oct. ...	99 15 0	99 2 6	98 12 6	100 2 6	99 5 0	99 7 6
1927—20 April ...	100 2 6	99 10 0	99 0 0	100 10 0	100 2 6	99 15 0
27 June ...	100 5 0	99 12 6	99 2 6	100 12 6	100 5 0	99 17 6
25 July ...	100 7 6	99 15 0	99 5 0	100 15 0	100 7 6	100 0 0
7 Nov. ...	100 7 6	99 12 6	99 2 6	100 15 0	100 7 6	100 0 0
1928—19 Mar. ...	100 10 0	99 15 0	99 5 0	101 0 0	100 12 6	100 5 0
4 Oct. ...	100 10 0	99 15 0	99 3 9	101 0 0	100 12 6	100 5 0
1929—22 July ...	100 15 0	100 0 0	99 8 9	101 5 0	100 17 6	100 10 0
3 Sept. ...	101 0 0	100 5 0	99 13 9	101 10 0	101 2 6	100 15 0
10 Oct. ...	101 5 0	100 10 0	99 17 6	101 15 0	101 6 3	100 17 6
18 Dec. ...	101 12 6	100 17 6	100 5 0	102 2 6	101 13 9	101 5 0
1930—28 Jan. ...	102 0 0	101 5 0	100 12 6	102 12 6	102 3 9	101 15 0
17 Feb. ...	102 10 0	101 15 0	101 2 6	103 2 6	102 13 9	102 5 0
10 Mar. ...	103 10 0	102 15 0	102 2 6	104 2 6	103 13 9	103 5 0
24 Mar. ...	106 2 6	105 7 6	104 15 0	106 10 0	106 1 3	105 12 6
9 Oct. ...	108 10 0	107 17 6	107 8 9	109 0 0	108 15 0	108 10 0
1931— 6 Jan. ...	115 2 6	114 10 0	114 1 3	115 10 0	115 5 0	115 0 0
13 Jan. ...	118 0 0	117 7 6	116 18 9	118 7 6	118 2 6	117 17 6
17 Jan. ...	125 0 0	124 7 6	123 18 9	125 10 0	125 5 0	125 0 0
28 Jan. ...	130 0 0	129 7 6	128 18 9	130 10 0	130 5 0	130 0 0
3 Dec. ...	125 0 0	124 7 6	123 15 0	125 10 0	125 5 0	125 0 0
1932—12 Mar. ...	125 0 0	124 10 0	124 0 0	125 10 0	125 5 0	125 0 0
19 Mar. ...	125 0 0	124 11 3	124 2 6	125 10 0	125 5 0	125 0 0
23 April ...	125 0 0	124 12 6	124 5 0	125 10 0	125 6 3	125 2 6
14 May ...	125 0 0	124 13 9	124 7 6	125 10 0	125 7 6	125 5 0
2 July ...	125 0 0	124 15 0	124 10 0	125 10 0	125 7 6	125 5 0
1934—18 Aug. ...	125 0 0	124 13 9	124 7 6	125 10 0	125 7 6	125 5 0
1935—12 Jan. ...	125 0 0	124 13 9	124 7 6	125 10 0	125 8 9	125 6 3
1938— 8 Aug. ...	125 0 0	124 13 9	124 7 6	125 10 0	125 10 0	125 8 9
1939—15 Sep. ...	125 0 0	124 6 3	123 15 0	125 10 0	125 8 9	125 3 9
11 Nov. ...	125 0 0	124 11 3	124 5 0	125 10 0	125 10 0	125 8 9
1940—26 Oct.*	125 0 0	124 10 0	124 3 9	125 10 0	125 10 0	125 8 9

\* Rates unchanged, January, 1941.

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. The banks quote special buying rates for settlement by air mail.

The following table shows particulars of Australia's reserves of international currency in June of each year since 1928. The reserves include visible stocks of gold in Australia and in transit, and the net London funds of the trading banks and Commonwealth Bank, including the Note Issue Department.

TABLE 423.—Australian Reserves of International Currency, 1928 to 1939.

June.	£ stg. 000.	£A 000.
1928	106,401	107,199
1929	87,863	88,522
1930	36,539	38,845
1931	27,186	35,409
1932	39,759	49,798
1933	46,163	57,819
1934	66,474	83,259
1935	46,523	58,270
1936	46,277	57,962
1937	71,220	89,203
1938	63,274	79,251
1939	44,575	55,830

## 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.

Wartime regulations promulgated by the Commonwealth Government place restrictions on the formation of new companies and the issue of new capital by existing companies. By these regulations consent of the Federal authorities must be obtained before a proposed new company may be registered, and before an existing company may increase either nominal, issued or called-up capital. The restriction on the increase of called-up capital does not apply to a company engaged principally in mining for gold.

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 424.—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 ...	528	16,940,799	94	5,585,987	16	273,350	3	16,690
†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
†1936-40 ...	823	15,605,386	101	7,549,518	3	82,105	3	49,735
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
1939... ..	872	16,109,225	99	5,977,300	2	120,025	...	...
1940... ..	566	6,345,595	78	7,365,350	...	...	2	17,500

\* Includes companies limited by guarantee.

† Average per annum.

Registrations and nominal capital were at a high level during the six years 1934 to 1939. In 1940 there was a marked decline in the capital of new companies but increases of capital were maintained at a high level.

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. New companies registered as proprietary companies numbered 925 in 1937, 786 in 1938, 811 in 1939 and 539 in 1940, the nominal capital being £15,678,415, £11,746,903, £12,840,725 and £5,861,095 respectively.

The number of registrations of foreign companies (*i.e.*, those with original registration outside New South Wales) was 74 in 1929, 55 in 1932, 79 in 1938, 74 in 1939 and 41 in 1940.



The total number of limited companies which appeared to be in active existence in New South Wales at the end of various years since 1929 was as follows:—

TABLE 425.—Companies operating in New South Wales.

End of Year.	Companies.		End of Year.	Companies.	
	Local.	Foreign.		Local.	Foreign.
	No.	No.		No.	No.
1929 ... ..	6,044	935	1937 ... ..	7,867	1,035
1931 ... ..	5,587	900	1938 .. ..	8,204	1,090
1932 ... ..	5,750	902	1939 ... ..	8,639	1,123
1936 ... ..	7,234	974	1940 .. ..	8,837	1,145

## 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 reductions in capital and capitalisation of reserves.

TABLE 426.—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
1939 ... ..	212·4	170·7	159·6	121·8	259·6	175·0	183·6
1940 ... ..	211·3	160·8	137·6	121·8	250·2	167·2	180·4
1940—							
January ...	229·0	174·0	151·9	131·8	269·9	181·6	195·2
February ...	222·7	170·9	146·7	132·3	269·3	178·2	191·1
March ...	216·9	167·2	141·5	131·8	263·4	173·7	186·2
April ...	217·2	165·6	137·3	132·8	260·7	172·9	187·3
May ...	210·3	159·5	137·9	128·3	254·5	168·1	182·0
June ...	186·8	138·4	128·6	109·8	233·3	150·6	160·0
July ...	191·9	138·1	128·5	104·8	225·3	150·9	162·3
August ...	197·3	149·9	131·1	112·2	226·5	155·4	168·2
September...	207·0	157·5	133·5	116·4	234·9	162·1	176·4
October ...	215·4	164·6	133·9	117·8	251·8	168·3	184·3
November ..	219·9	174·1	140·3	120·8	256·7	172·8	186·2
December...	220·6	169·2	139·7	122·3	255·7	172·1	185·4

Monthly averages, from July, 1929, to December, 1939, 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 wide 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.

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.

Further details regarding the co-operative movement are set forth in the chapters of this Year Book relating to social condition, agriculture and the dairying industry.

The number of co-operative societies on the register at 30th June, 1939, was 611, including 7 permanent building societies registered under the Building and Co-operative Societies Act of 1901. There were 82 trading, 159 rural, 328 building, 5 investment, 2 community settlement and 26 community advancement societies; also 8 associations of co-operative societies and one union of co-operative associations. Of these societies 82 were in liquidation at 30th June, 1939.

*Co-operative Trading and Rural Societies.*

The majority of the co-operative 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.

The objects of the co-operative rural societies 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.

Particulars regarding the transactions of the co-operative trading and rural societies in the three years ended June, 1939, are shown below.

TABLE 427.—Co-operative Trading and Rural Societies, 1936-37 to 1938-39.

Particulars.	Trading Societies.			Rural Societies.		
	1936-37.	1937-38.	1938-39.	1936-37.	1937-38.	1938-39.
Societies (active) ... ..	46	43	45	115	121	123
Members ... ..	36,885	39,340	40,806	52,330	54,168	55,860
Members Funds—	£	£	£	£	£	£
Share capital ... ..	510,791	553,860	591,854	1,003,876	1,027,772	1,077,787
Reserves ... ..	382,328	397,494	422,299	951,558	1,000,440	1,026,739
Total... ..	893,119	951,354	1,014,153	1,955,434	2,028,212	2,104,526
Turnover ... ..	2,243,530	2,467,574	2,701,131	13,826,488	16,469,556	17,451,032
Net Income ... ..	146,390	169,647	200,143	196,536	218,114	177,773

The number of societies, as shown in the table, does not include societies in liquidation nor new societies from which annual returns were not due.

\* 65849—D

*Co-operative Building Societies.*

Co-operative building societies are classified as (1) permanent, (2) Starr-Bowkett terminating societies and (3) other terminating societies. A summary of the operations of the building societies for which the annual return was made in the year 1938-39 is shown below:—

TABLE 428.—Co-operative Building Societies—Year ended June, 1939.

Particulars.	Permanent Societies.	Starr-Bowkett Societies.	Other Terminating Societies.	Total.
	No.	No.	No.	No.
Societies ... ..	7	79	154	240
Shareholders or Members ... ..	2,727	17,553	18,911	39,191
	£	£	£	£
Transactions during 1938-39—				
Income ... ..	107,550	36,044	347,089	490,683
Working Expenses ... ..	54,678	22,051	312,625	389,354
Advances Made ... ..	441,322	309,999	4,584,230	5,335,551
Deposits (New) and Subscriptions ... ..	83,857	(—) 71,588	364,408	376,767
Repayment of Loans ... ..	339,878	369,779	(a)	709,657
Assets—				
Assets—				
Advances on Mortgage ... ..	1,431,564	1,574,714	(b) 7,681,037	10,687,315
Other ... ..	320,339	251,050	18,206	589,595
Total Assets ... ..	1,751,903	1,825,764	7,699,243	11,276,910
Liabilities—				
Paid up Capital ... ..	592,498	.....	.....	592,498
Members' Subscriptions ... ..	.....	1,488,213	598,472	2,086,685
Reserve Funds and Surplus ... ..	371,682	266,474	61,023	699,184
Deposits ... ..	727,242	.....	.....	727,242
Advances from Lending Institution ... ..	49,217	.....	7,019,319	7,068,536
Other ... ..	11,264	71,077	20,424	102,765
Total Liabilities ... ..	1,751,903	1,825,764	7,699,243	11,276,910

(a) Included with subscriptions. (b) Aggregate amount advanced to members; repayments not deducted.

In Star-Bowkett building societies 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.

The terminating building societies, other than Starr-Bowkett, obtain funds from banks and other financial institutions and make advances to members as they apply for them. The repayment of the loans obtained by nearly all these societies is guaranteed by the Government of New South Wales. The loans approved by such societies in 1938-39 amounted to £4,095,303 and advances amounting to £4,501,697 were made. Loans approved in 1939-40 were £2,503,406 and advances made £3,009,100. The expansion of their activities in recent years is illustrated below:—

TABLE 429.—Terminating Building Societies with Government Guarantee, 1937 to 1940.

Particulars.	At 30th June—			
	1937.	1938.	1939.	1940.
Societies granted Government Guarantee No.	6	114	156	165
Members ... .. No.	} (a) {	15,000	18,787	19,493
Shares ... .. No.		180,000	238,502	253,748
Nominal Share Capital ... .. £		9,500,000	13,020,761	13,324,565
Funds Available ... .. £	195,000	7,922,325	11,364,825	12,224,825
Loans Approved ... .. No.	} (a) {	6,700	12,106	15,337
Amount ... .. £		4,400,000	8,653,449	11,156,855
Advances to Members ... .. £		2,900,000	7,505,392	10,514,492

(a) Not available.

In addition to the societies to which the particulars in the foregoing table relate, there were eleven societies operating without Government guarantee in 1939-40.

Further details of these societies are contained in the chapter Social Condition of this volume.

*Co-operative Investment Societies.*

There were five co-operative investment societies on the register at 30th June, 1939, including two new societies and one in liquidation. The other two societies consist of employees of the Australian Gas Light Company and the North Shore Gas Company respectively. Share capital amounted to £15,928 and other funds to £1,316. Shares in companies and Government securities were valued at £16,194.

*Co-operative Associations.*

There were at 30th June, 1939, eight associations of co-operative societies and one union of co-operative associations. One association was comprised by twenty-three co-operative trading societies, with a share capital of £73,624, and reserves and undistributed surplus amounting to £65,245. Two acted as marketing agents for groups of five rural societies engaged in the fruit-growing industry, and another, formed by one of the groups to operate a wine distillery, was in liquidation. There were four associations of terminating building societies, one being composed of Starr-Bowkett societies.

The union of associations was engaged in marketing prunes on behalf of two associations.

## 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.

*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 from 1935 to 1938.

TABLE 430.—Friendly Societies, Actuarial Valuations.

Valued as at—	Number.	Liabilities.	Assets.			Surplus or Deficiency (—)
			Accumulated Funds.	Future contributions.	Total.	
<i>Affiliated Societies.</i>						
30th 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	1,839,850	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
Do 1937 ...	3	2,708,778	1,544,542	1,515,548	3,060,090	351,312
Do 1938 ...	1	524,939	292,943	293,420	586,363	61,424
<i>Single Societies.</i>						
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 431.—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
1921	2,134,339	194,358	83,065	2,411,762	12.08
1931	3,640,368	261,663	117,209	4,019,240	16.58
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
1938	4,287,123	360,965	120,970	4,769,058	22.48
1939	4,412,391	368,971	127,101	4,908,463	23.19

\*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 1929 are shown in the following statement:—

TABLE 432.—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.
	£	£	£	£	£	£	£	£	£	£
1929	832,187	219,788	66,173	1,118,148	319,787	77,928	343,381	161,200	42,638	945,034
1931	765,113	210,164	49,290	1,024,567	307,979	75,747	298,299	171,820	76,076	929,921
1932	758,229	162,321	106,244	1,026,794	299,508	78,144	292,065	153,500	87,749	910,966
1933	706,755	154,769	77,852	939,366	259,351	83,648	276,515	157,175	71,952	848,641
1934	717,738	167,992	56,296	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	295,606	157,976	54,241	845,502
1938	769,100	202,036	31,884	1,003,020	260,815	87,947	307,417	163,744	45,540	865,403
1939	767,621	208,651	38,264	1,014,536	278,738	89,368	306,029	165,051	35,945	875,131

Disbursements on account of benefits amounted to £741,096 in 1928-29 and £674,135 in 1938-39. The decrease in the period was a result of declining membership and adjustment of benefits. The average cost of medical attendance and medicine per adult member was 30s. 10d. in 1928-29, and 32s. 1d. in 1938-39.

After allowing for interfund transfers and payments from one branch to another, expenses of management amounted to £163,445 in 1938-39, representing 15s. 5d. per head of mean membership, and 21.3 per cent. of contributions and 16.2 per cent. of total income.

#### 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 indefinitely. The main provisions of the scheme were described in the chapter "Social Condition" of the Year Book for 1937-38.

#### *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 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 1938-39 and 1939-40 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 433.—Life Assurances, Ordinary Business in Force in New South Wales, Classification.

Classification.	1938-39.				1939-40.			
	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	154,072	84,886,084	18,651,027	2,402,048	163,290	89,646,044	19,576,042	2,500,879
Pure Assurance	225,516	55,402,778	7,043,856	2,197,600	240,540	59,786,822	7,481,491	2,363,696
Endowment.	1,674	3,471,019	66,925	126,239	17,389	3,839,522	69,824	139,874
Total...	396,335	143,759,881	25,761,808	4,725,887	421,219	153,272,388	27,127,357	5,004,449

In 1939-40 the majority of the policies, viz., 57.1 per cent., represented endowment assurances; whole-life policies were 38.8 per cent. and endowments 4.1 per cent. of the total number. The amount assured under the whole-life policies represented 58.5 per cent. of the total (exclusive of bonus additions), the average per policy being £549; endowment assurance policies, with an average of £248 per policy, covered 39.0 per cent. of the total amount assured, and endowment policies, with an average of £221 per policy, 2.5 per cent.

*Industrial Branch.*

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 434.—Life Assurances, Industrial Business in Force in New South Wales, Classification.

Classification.	1938-39.				1939-40.			
	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.
Assurance ... ..	No. 65,093	£ 1,614,558	£ 69,490	£ 89,048	No. 66,650	£ 1,659,476	£ 75,931	£ 95,120
Endowment Assurance ... ..	704,488	87,166,320	1,609,978	2,229,201	846,623	89,876,757	1,786,111	2,391,159
Pure Endowment ... ..	47,724	1,641,152	3,673	102,659	49,223	1,666,215	7,660	104,655
Total ... ..	907,905	40,422,030	1,683,141	2,420,908	962,499	43,202,448	1,809,702	2,590,934

\* Partly estimated.

In the industrial branch endowment assurance policies constituted 88 per cent. of the number of policies in 1939-40 and 92 per cent. of the total amount assured. The average amount assured per policy, excluding bonuses, was £25 for assurance, £47 for endowment assurance, and £34 for pure endowment.

#### Annuities.

Transactions in annuities are not numerous, the business in force in New South Wales in 1939-40 being 1,317 policies for an aggregate amount of £180,253 per annum in the ordinary branch, and one policy representing £22 per annum in the industrial department.

#### New Business.

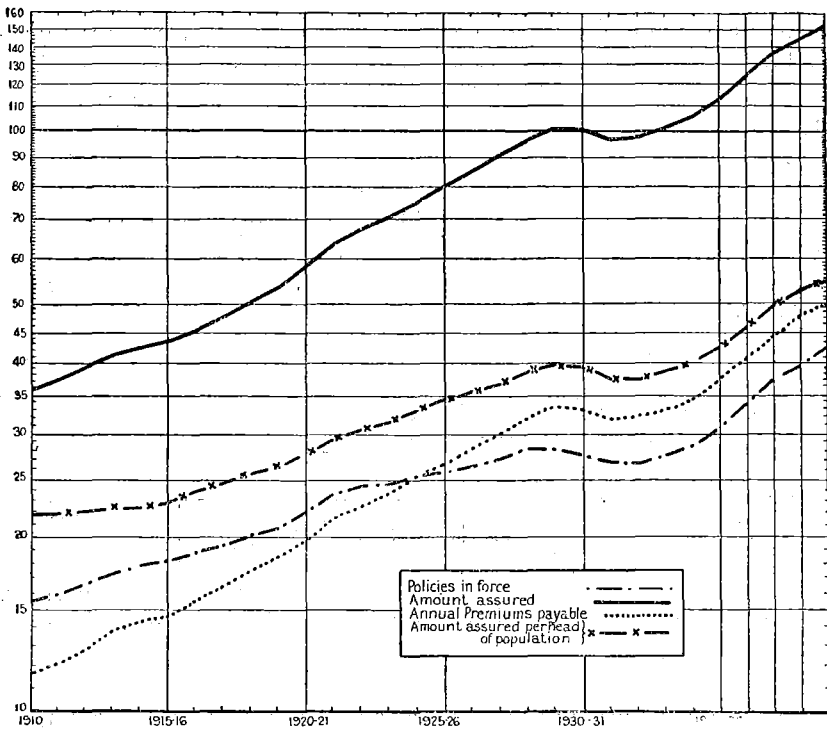
Particulars of the new life assurance business, ordinary and industrial, effected in New South Wales in various years since 1928-29 are shown in the following table:—

TABLE 435.—Life Assurances, New Business in New South Wales, 1929 to 1940.

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
1931-32	18,784	7,460,868	263,102	89,736	4,203,452	252,045
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	54,933	18,251,496	625,795	168,996	7,810,204	484,746
1938-39	50,820	17,329,790	593,735	158,675	7,522,170	466,463
1939-40	50,520	18,179,537	595,366	156,787	7,539,660	471,618

There was a marked decline in the amount assured under new policies between 1928-29 and 1931-32, and steady improvement in each subsequent year, except 1938-39, when there was a decline of about 5 per cent. In 1939-40 the amount of new business was nearly 29 per cent. greater than in 1928-29.

LIFE ASSURANCE—ORDINARY BUSINESS, 1910 to 1940.  
(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 is shown below:—

TABLE 436.—Life Assurances in Force in New South Wales, 1929 to 1940.

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
1931-32	269,653	97,240,267	3,197,987	576,063	25,490,126	1,517,663
1935-36	309,197	113,050,294	3,698,220	722,602	31,282,712	1,868,116
1936-37	339,169	123,383,743	4,041,661	785,467	34,161,415	2,044,260
1937-38	370,049	134,207,435	4,409,449	854,504	37,649,441	2,253,914
1938-39	396,335	143,759,881	4,725,887	907,905	40,422,030	2,420,908
1939-40	421,219	153,272,388	5,004,449	962,499	43,202,448	2,590,934

The bonus additions effective in 1939-40 amounted to £27,127,357 in the ordinary branch, and those in the industrial branch were estimated at £1,869,702.

In 1929-30 the amount of ordinary and industrial assurances in force was £127,930,800, or with bonus additions £145,935,600. A decline in the early years of the depression was recovered by 1934-35, and assurances in force grew steadily to £196,474,800 in 1939-40, when assurances and bonus additions amounted to £225,472,000, or 54 per cent. more than in 1929-30.

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 437.—Life Assurance in New South Wales, Average per Head and per Policy, 1929 to 1940.

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
1931-32	105	223	37 14 3	9 17 9	361	44	11 17 2	2 12 8
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
1938-39	144	331	52 6 9	14 14 4	363	45	11 18 6	2 13 4
1939-40	152	347	55 4 7	15 11 4	364	45	11 17 7	2 13 10

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 46 per cent., to £55 4s. 7d. per head in ordinary assurances and an increase of 57 per cent. to £15 11s. 4d. per head in the industrial branch.

Variations in the value of new business effected annually are shown in Table 435 and fluctuations in the surrender and maturity of existing policies in recent years are indicated below.

TABLE 438.—Life Assurances, Surrender and Maturities in New South Wales, 1929 to 1940.

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
1938-39 ... ..	581,946	57,270	2,610,882	1,034,981
1939-40 ... ..	680,014	124,771	2,771,020	1,178,011

The gradual growth of payments under maturing policies is a natural outcome of the increasing age of societies and business in force. There was, however, an abnormal increase in surrenders, as a result of depression, between 1928-29 and 1931-32. There was a decline in later years, but the payments have been much greater than in 1928-29, and there was a marked increase in 1939-40. As payments made under surrenders are based upon premiums actually paid on policies, the resultant decrease in amounts assured, as shown in Table 436, is 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 439 to 444, prepared to show the nature and composition of revenue and expenditure, 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 oversea 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 oversea 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 1901, is shown below:—

TABLE 439.—Life Assurance Societies, Summary of Total Business, 1901 to 1940.

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.
1900-01	No. 14	No. 331,868	£ 000 4,093	£ 000 2,648	£ 000 26,491*	£ 000 1,162	per cent. 4.51
1910-11	14	1,056,173	7,131	4,619	45,668	1,963	4.46
1920-21	16	1,944,845	14,009	7,944	83,029	4,116	5.16
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
1938-39	18	4,494,727	39,328	25,384	264,790	11,238	4.36
1939-40	18	4,720,390	41,206	27,584	278,933	11,846	4.36

\* Exclusive of capital and reserve funds, etc.

Accumulated funds in 1940 were more than six times the amount in 1911. There was gradual increase in earning power of funds from 1910-11, when 4.46 per cent. was realised, until 1930-31, when the rate was 5.67 per cent. In recent years the rate has been 4.36 per cent.

The following table shows details of the total revenue and expenditure of the societies operating in New South Wales during 1939-40:—

TABLE 440.—Life Assurance Societies, Revenue and Expenditure, 1939-40.

Particulars.	Ordinary Branch.	Industrial Branch.	Total.
<b>Revenue—</b>	£	£	£
Premiums (New and Renewal) ... ..	21,142,533	7,844,297	28,986,830
Consideration for Annuities... ..	299,830	.....	299,830
Interest, Dividends and Rents ... ..	9,718,033	2,127,525	11,845,558
Other Receipts ... ..	13,378	60,103	73,481
<b>Total Receipts ... ..</b>	<b>31,173,774</b>	<b>10,031,925</b>	<b>41,205,699</b>
<b>Expenditure—</b>			
Claims and Policies matured ... ..	11,765,905	3,758,317	15,524,222
Surrenders ... ..	2,633,092	575,652	3,208,744
Annuities ... ..	335,274	33	335,307
Cash Bonuses and Dividends ... ..	503,490	72,598	576,088
Expenses, incl. commission and brokerage	3,093,127	2,484,759	5,577,886
Taxes ... ..	580,119	120,159	700,278
Other ... ..	1,379,950	281,619	1,661,569
<b>Total Expenditure ... ..</b>	<b>20,290,957</b>	<b>7,293,137</b>	<b>27,584,094</b>

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 68.8 per cent. of the receipts in

1939-40, and the latter 31.2 per cent., in the ordinary branch; corresponding figures for the industrial branch were 78.2 per cent., and 21.2 per cent. respectively. Payments on account of death claims, policies matured and surrendered, and cash bonuses and dividends amounted in 1939-40 to £15,237,761, or 75.1 per cent., of the total expenditure in the ordinary branch, and to £4,406,600 or 60.4 per cent. in the industrial branch. Expenses of management and taxation constituted 18.1 per cent. of the expenditure in the ordinary branch and 35.7 per cent. in the industrial.

The excess of revenue over expenditure, carried to assurance and other funds, amounted to £10,882,817, or 35 per cent. of total revenue in the ordinary branch, and £2,738,788 or 27 per cent. in the industrial branch.

#### *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 441.—Life Assurance Societies, Expenses and Premium Income, Total Business.

Year.	Management Expenses, Taxes, etc.	Premium Income.	Total Revenue.	Management Expenses, etc.	
				Per cent. of—	
				Premium Income.	Total Revenue.
	£	£	£		
1900-01	565,380	2,799,512	4,093,376	20·19	13·81
1910-11	1,016,153	5,074,204	7,131,250	20·03	14·25
1920-21	2,222,218	9,870,814	14,009,157	22·51	15·86
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
1938-39	6,000,709	27,679,853	39,328,127	21·68	15·26
1939-40	6,278,164	28,986,830	41,205,699	21·66	15·26

The expenses of management in 1939-40 included an amount of £700,278 for income and land taxes, stamp duty, etc.

Particulars regarding the management expenses of the ordinary and industrial branches are stated separately in the following table for each of the past five years.

TABLE 442.—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.
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
1938-39	17·46	11·83	33·13	26·02
1939-40	17·37	11·78	33·21	25·97

The expense 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 (in all countries) of the Australasian societies at the various balance dates in 1939-40:—

TABLE 443.—Life Assurance Societies, Liabilities and Assets, 1939-40.

Liabilities.		Assets.	
	£	Loans—	£
Assurance Funds ...	270,163,326	On Mortgage ...	70,212,909
Guarantee Funds* ...	692,446	„ Municipal and Other	
Investment Fluctuation		Local Rates ...	50,083,607
Fund* ...	4,346,844	Reversionary, Life, and	
Paid-up Capital ...	2,433,164	Other Interests ...	336,490
Reserve Funds* ...	1,296,954	Policies ...	30,130,698
		Personal Security ...	11,228
		Government Securities..	33,370
		Other Debentures and	
		Bonds ...	1,088,812
		Miscellaneous Loans ...	2,208,379
		Total ...	154,110,393
		Government Securities ...	85,045,873
Other Liabilities—		Other Securities and Shares ...	18,214,022
Claims admitted but not		Real Estate ...	16,500,520
paid ...	2,452,972	Cash, Fixed and Current	
Outstanding Accounts ...	642,936	Bank Accounts ...	3,411,739
Miscellaneous ...	2,314,303	Establishment and Goodwill	1,087,016
		Other Assets ...	5,973,392
		Total Assets ...	£284,342,955
Total Liabilities ...	£284,342,955		

\* Contingency Funds are included under three heads.



The rapid growth of funds of life assurance companies is shown in Table 439.

The following table indicates the main classes of assets in which accumulated funds of Australasian life assurance societies have been invested:—

TABLE 444.—Life Assurance Societies, Investments, 1916 to 1940.

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	8,236	172,803
1931-32 ...	41,169	37,769	26,807	3,098	50,628	10,585	8,538	178,594
1932-33 ...	40,437	37,806	27,977	3,016	56,423	11,410	9,248	186,317
1933-34 ...	40,454	38,250	28,524	2,905	61,810	12,549	9,636	194,128
1934-35 ...	42,655	39,415	28,791	3,078	66,829	13,405	10,647	204,820
1935-36 ...	45,500	40,688	28,837	3,220	72,848	14,256	11,881	217,230
1936-37 ...	51,087	42,375	29,038	3,498	75,507	16,248	13,373	231,126
1937-38 ...	56,251	45,054	29,134	3,525	79,672	17,276	14,625	245,537
1938-39 ...	63,201	48,144	29,270	3,463	81,493	18,098	15,908	259,577
1939-40 ...	70,213	50,083	30,131	3,683	85,046	18,214	16,501	273,871

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. With the rapid growth of assurance funds between 1921 and 1931, 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. During the past four years mortgage loans and loans to municipalities have absorbed the bulk of the funds available for investment.

Large sums are held on fixed deposit with banks; the amount was £2,208,566 in 1939-40. Current bank balances amounted in the aggregate to £1,071,687.

In 1939-40 Government securities represented 31 per cent. of the total investments, other securities and shares 7 per cent., mortgage loans 26 per cent., loans to municipalities 18 per cent., and loans on policies 11 per cent.

#### *Fire Marine and General Insurance.*

The nature of the general insurances effected in New South Wales during the year 1939-40 is indicated by the following summary of the returns under the Census Act, 1901, supplied to the Bureau of Statistics by 160 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 445.—General Insurances\* in New South Wales, Classes of Risk, Revenue and Expenditure, 1939-40.

Nature of Insurance.	Premiums in New South Wales.	Expenditure in New South Wales.				Proportion of Premium Income.		
		Losses.	Expenses of Management.		Total.	Losses	Commission and Agents' Charges.	Other Management Expenses.
			Commission and Agents' Charges.	Other.				
	£	£	£	£	per cent.	per cent.	per cent.	
Fire .. .. .	2,279,189	706,501	388,014	640,558	1,826,073	34·95	17·02	28·10
Marine .. .. .	816,797	206,125	52,697	147,674	406,496	25·24	6·45	18·08
Aviation .. .. .	5,240	2,054	843	1,292	4,189	39·20	16·09	24·66
Boiler Explosion .. .. .	14,882	3,463	1,572	3,903	8,938	32·27	10·56	26·23
Burglary .. .. .	82,802	29,052	13,703	17,273	60,028	35·09	16·55	20·86
Elevator .. .. .	4,205	575	659	1,206	2,440	13·67	15·67	28·68
Guarantee .. .. .	26,520	4,885	4,211	6,212	15,308	18·42	15·88	23·42
Hailstone .. .. .	109,884	75,805	20,144	30,027	125,976	68·99	18·33	27·33
Householders' Comprehensive..	123,684	53,654	17,074	23,249	99,977	49·38	13·80	23·65
Live Stock .. .. .	15,714	5,981	2,259	3,684	11,924	38·06	14·38	23·44
Loss of Profits .. .. .	58,007	15,020	10,392	14,972	40,384	25·89	17·91	25·81
Motor Car .. .. .	1,476,124	952,113	209,166	240,078	1,401,357	64·50	14·17	16·26
Motor Cycle .. .. .	23,911	14,390	3,244	3,188	20,822	60·18	13·57	13·33
Personal Accident .. .. .	238,733	107,132	48,103	51,451	206,686	44·88	20·15	21·55
Plate-glass .. .. .	70,790	22,724	13,092	15,871	51,687	32·10	18·49	22·42
Pluvius .. .. .	11,507	7,329	870	2,710	10,959	63·69	7·56	23·55
Public Risk .. .. .	74,379	22,111	11,998	15,122	49,231	29·73	16·13	20·33
Sprinkler .. .. .	3,925	752	635	921	2,338	19·92	16·18	23·46
Workers' Compensation and Employers' Liability .. .. .	1,911,019	1,430,176	79,852	312,938	1,822,966	74·84	4·18	16·38
Other .. .. .	47,814	9,898	5,746	8,722	24,366	20·70	12·02	18·24
Total Premiums .. .. .	7,395,117							
Total Interest, Rents, etc. ..	347,802							
Total .. .. .	7,742,919	3,759,770	884,274	1,547,051	6,191,095	48·56	11·42	19·98

\* Exclusive of Life Assurance.

The total losses in 1939-40 amounted to £3,759,770 or 49 per cent. of the premiums. The expenses for commission and agents' charges were £884,274, and for general management £1,547,051, making a total of £2,431,325 or 31 per cent. of the premium income. In 1938-39 losses amounted to £3,841,460, or 55 per cent. of premium income, and expenses £2,277,064, represented 33 per cent.

Fire, workers' compensation and employers' liability, motor vehicles and marine are the principal classes of insurance. They yielded 88 per cent. of the premiums in 1939-40.

Premium income declined from £6,229,699 in 1928-29 to £4,335,485 in 1932-33, then increased gradually to £7,395,117 in 1939-40, when it was £1,165,418, or 18·7 per cent., more than in 1928-29. The increase, as compared with 1938-39, was £452,394.

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 446.—General Insurance in New South Wales, Revenue and Expenditure, 1929 to 1940.

Particulars.	1928-29.	1932-33.	1936-37.	1937-38.	1938-39.	1939-40.
Revenue—	£	£	£	£	£	£
Premiums ... ..	6,229,699	4,335,485	5,945,300	6,590,333	6,942,723	7,395,117
Interest, etc. ... ..	329,369	258,703	279,466	281,656	307,134	347,802
Total ... ..	6,559,068	4,594,188	6,224,766	6,871,989	7,249,857	7,742,919
Expenditure—						
Losses ... ..	3,804,141	1,882,944	3,149,006	3,517,159	3,841,460	3,759,770
Management—						
Commission and						
Agents' Charges ... ..	838,496	571,655	740,386	798,278	838,425	884,274
Other Expenses ... ..	1,396,078	1,223,163	1,205,939	1,305,320	1,438,639	1,547,051
Total ... ..	6,038,715	3,677,762	5,095,331	5,620,757	6,118,524	6,191,095
Proportion to Premium	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Income—						
Losses ... ..	61.06	43.43	52.97	53.37	55.33	48.53
Expenses—						
Commission, etc. ... ..	13.46	13.19	12.45	12.11	12.08	11.42
Other ... ..	22.41	28.21	20.28	19.81	20.72	19.98

During the past five years 54 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 in the principal classes during the last ten years:—

TABLE 447.—General Insurance in New South Wales, Ratio of Losses, 1931 to 1940.

Class.	Proportion per cent. of Losses to Premiums.									
	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Fire ... ..	49.3	38.8	29.3	27.3	28.4	56.1	36.4	35.4	45.0	34.95
Marine ... ..	40.8	95.4	36.5	49.5	51.9	48.9	36.7	38.4	28.3	25.24
Personal Accident ... ..	45.4	48.6	41.9	43.0	41.6	41.1	44.2	40.2	46.4	44.88
Employers' Liability and Workers' Compensation ... ..	73.2	83.4	79.5	78.8	77.5	79.6	77.7	74.6	71.5	74.84
Motor Car and Motor Cycle ... ..	62.0	52.3	49.4	50.0	55.9	61.5	65.0	67.4	66.8	64.43
All Classes... ..	55.2	53.4	43.4	45.0	47.4	60.1	53.0	53.4	55.3	48.56

The total amount of the fire insurance written in New South Wales was £629,950,000 in 1928-29, £658,868,000 in 1938-39, and £695,782,000 in 1939-40. The measures taken for the prevention of fire are described in the chapter "Local Government."

Insurance relating to the liability of employers is compulsory in respect of practically all classes of employees. 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 £1,500,035 in 1939-40. Premium rates were increased substantially as from 1st August, 1937.

The premium receipts for marine insurance increased from £498,217 in 1938-39 to £816,797 in 1939-40, as a result of higher charges to cover war risks.

#### *Government Insurance Office.*

The establishment of the Government Insurance Office of New South Wales was the outcome of an extension of workers' compensation benefits in 1926 in order that employers might be able to fulfil at lowest cost their compulsory obligations to insure employees. The office took over an internal insurance fund, which had been created under the Treasury Insurance Board in 1911 for the insurance of Government buildings against fire risks.

The Government Insurance Office transacts workers' compensation insurance for both private and public employers, and general insurance business for Government departments and instrumentalities, Government contractors, and municipal and shire councils.

During the six years ended 30th June, 1939, the Government withheld payment of premiums on departmental insurances which would form a charge on the Consolidated Revenue Fund. The payment of workers' compensation premiums was resumed as from 1st June, 1939, but other premiums are still withheld.

A summary of the revenue account of the Government Insurance Office for the year 1939-40 is shown below:—

TABLE 448.—Government Insurance Office, Revenue and Expenditure, 1939-40.

Particulars.	Workers' Compensation.	Fire and Marine.	Motor Vehicles.	Other.	Total.
	£	£	£	£	£
Premiums <i>less</i> Reinsurances, etc. ...	205,278	22,589	16,098	3,305	247,270
Interest, etc. ... ..	12,248	15,443	1,964	2,186	31,841
Total Revenue ...	£ 217,526	38,032	18,062	5,491	279,111
Claims <i>less</i> Reinsurances, etc. ...	178,289	5,683	9,474	2,051	195,497
Expenses (and Taxation) ...	15,543	6,334	2,621	730	25,228
Total Expenditure ...	£ 193,832	12,017	12,095	2,781	220,725
Surplus ... ..	23,694	26,015	5,967	2,710	58,386

The trading surplus of the Government Insurance Office in 1939-40 amounted to £58,386, and profit on investments of £1,704 was brought to account.

Of the total profits, £21,491 was appropriated to a contingent liability reserve in respect of premiums unpaid by Government departments, £23,846 was distributed as bonuses to policy holders and the balance, £14,753, was added to general reserve. Premiums unpaid by Government departments in 1939-40 were £15,485 for fire and marine, and £6,006 for general accident insurance. The total amount unpaid up to 30th June, 1940, was £236,785.

Assets at 30th June, 1940, included funds at Treasury £202,908, and Government securities £670,652.

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 449.—Bankruptcies in New South Wales, 1934 to 1940.

Particulars.	Year ended 31st July—						
	1934.	1935.	1936.	1937.	1938.	1939.	1940.
<b>Sequestration Orders—</b>							
Number ... ..	346	251	247	256	268	277	322
Liabilities ... ..	£ 362,264	269,103	372,566	326,344	270,720	281,280	260,412
Assets... ..	£ 166,859	107,832	162,986	173,780	92,932	109,328	117,727
<b>Orders for Administration, Deceased Debtors' Estates—</b>							
Number ... ..	20	18	14	11	12	18	11
Liabilities ... ..	£ 81,372	29,104	27,054	9,491	9,074	24,920	56,777
Assets ... ..	£ 42,067	15,773	18,295	12,248	5,901	18,385	29,867
<b>Composition and Assignments without Sequestration—</b>							
Number ... ..	14	9	5	4	2	4	15
Liabilities ... ..	£ 24,263	7,158	3,402	1,757	1,072	1,402	19,232
Assets ... ..	£ 7,611	2,628	1,218	1,094	358	758	10,266
<b>Deeds of Arrangement—</b>							
Number ... ..	266	167	173	193	172	217	301
Liabilities ... ..	£ 493,342	349,711	275,690	331,239	258,564	377,529	465,039
Assets... ..	£ 510,932	309,676	226,976	283,255	230,078	318,932	426,249
<b>Total—Number ...</b>	646	445	439	464	454	516	649
<b>Liabilities £</b>	961,241	655,076	678,712	668,831	539,430	685,131	801,460
<b>Assets £</b>	727,469	435,909	409,475	470,377	329,269	447,403	584,109

In cases in which sequestration orders were granted assets amounted to 45.2 per cent. of liabilities in 1939-40, and the average over the past seven years was 43.5 per cent. Corresponding ratios under compositions and assignments without sequestration were 53.4 per cent., and 41.1 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.

#### 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 450.—Titles granted under Real Property Act, 1936 to 1940.

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1936	693,337	26,054	719,391	846,636	1,346,058	2,192,694
1937	791,899	5,989	797,888	946,638	983,160	1,929,848
1938	989,876	14,739	1,004,615	1,406,651	1,371,574	2,778,225
1939	1,153,685	15,871	1,169,556	1,566,130	907,099	2,473,229
1940	1,103,800	6,619	1,110,419	1,497,520	736,692	2,234,212

At the close of 1940 land of an aggregate area of 55,846,738 acres was registered under the Act, the declared value as at date of registration being £134,888,218. The great part of this land consists of Crown grants issued since 1863, and it includes 2,960,291 acres of land originally under the Registration of Deeds Act, but now under the Real Property Act.

The following table shows for 1929 and each of the past nine 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 451.—Real Estate, Conveyances and Transfers, 1929 to 1940.

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	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
1934	5,174	18,316	23,490	1939	4,936	27,221	32,157
1935	4,880	21,210	26,090	1940	4,566	26,487	31,053

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. To enable the Government to compensate persons erroneously deprived of property a fee was levied at the rate 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. The fees were paid into an assurance fund until 1907, and subsequently into the Closer Settlement Fund. The fee was abolished as from 9th December, 1940.

#### 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 pawnbrokers, 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 1940 was 103.

#### 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. 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.

Under National Security Regulations consent of the Federal Treasurer is necessary before a person or company may issue any securities or mortgage or charge on property in excess of £5,000 in a year. Exceptions are made in the case of banks and pastoral companies provided the loans are made in the ordinary course of business and are repayable on demand.

Particulars of the mortgages of real estate, crops, wool, and live stock in 1929 and 1932 and each of the last five years, are shown below.

TABLE 452.—Mortgages Registered, 1929 to 1940.

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
1932	14,557	8,642,026	10,346	4,773	5,578	8,474,237
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
1939	31,225	22,443,703	4,662	4,564	4,530	5,979,670
1940	25,298	16,497,222	3,923	4,804	4,167	5,886,844

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. In many mortgages the amount is omitted and it is probable that the totals shown in the table 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 did not represent new advances. The particulars for 1932 relate substantially to new mortgages and the marked decline between 1929 and 1932 was due largely to the absence of renewals.



The amount of mortgage registrations as shown in Table 452 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 453.—Mortgages of Real Estate, 1936 to 1940.

Mortgages of Real Estate.	Year ended 31st December.				
	1936.	1937.	1938.	1939.	1940.
First Mortgages—	£000	£000	£000	£000	£000
Urban Securities ...	10,269	10,847	14,966	13,052	8,486
Rural ... ..	4,958	5,764	5,044	3,952	2,734
Unspecified ... ..	506	985	1,831	820	311
<b>Total First</b>	<b>15,733</b>	<b>17,596</b>	<b>21,841</b>	<b>17,824</b>	<b>11,531</b>
Collaterals ... ..	3,289	4,507	3,126	2,293	3,696
Second & Other Mortgages	1,489	1,708	2,000	2,326	1,270
<b>Total ... ..</b>	<b>20,511</b>	<b>23,811</b>	<b>26,967</b>	<b>22,443</b>	<b>16,497</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 six years 1935 to 1940 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 454.—First Mortgages of Real Estate, Classification of Mortgagees, 1935 to 1940.

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
1939 ... ..	1,525	1,403	10,058	4,838	17,824
1940 ... ..	985	771	5,733	4,042	11,531

\* These do not represent the total amount lent, as many of the mortgages are fluctuating overdrafts, the amount of which is not stated.

Institutions constitute the most important class of lenders on first mortgage, and the amount in this group represented 50 per cent. in 1940. The increase after 1936 was 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. Lenders grouped as "private and others" represented 35 per cent. in 1940, banks 7 per cent., and Government 9 per cent.

The trend of interest rates on loans secured by the mortgage of real estate is shown in Table 421.

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 before or 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 has been extended to the day of the month in 1943 corresponding to the day of the month specified in the mortgage, or to 28th February, 1943, if payable on demand. 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 455.—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 in 1929-30 and each of the last nine years, including intestate and other estates administered by the Public Trustee:—

TABLE 456.—Estates of Deceased Persons.

Year ended 30th June.	Estates.	Amount.	Year ended 30th June.	Estates.	Amount.
	No.	£		No.	£
1930	8,406	25,002,546	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
1934	8,636	20,096,120	1939	10,668	26,202,317
1935	8,544	20,300,912	1940	10,828	26,598,763

A rough test of the diffusion of wealth may be made by relating the number of people who died possessed of property to the number of deaths, as in the following statement.

As total deaths include those of a large number of minors at ages when the proportion of property owners is small, separate details are shown as to the ratio of estates to 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.

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 457.—Ratio of Deceased Estates to Deaths.

Ratio of Estates.				Ratio of Estates.			
Period.	Per 100 (total) Deaths.	Per 100 Deaths of Adult Males.	Per 100 Deaths of Adult Males and Females.	Period.	Per 100 (total) Deaths.	Per 100 Deaths of Adult Males.	Per 100 Deaths of Adult Males and Females.
1910-14	22.9	56.6	34.0	1935-39	39.7	82.2	46.3
1915-19	30.1	71.3	42.1	1936	38.6	81.7	45.7
1920-24	29.0	68.1	39.3	1937	39.2	80.4	45.7
1925-29	33.3	75.6	43.3	1938	40.9	84.5	47.4
1930-34	37.0	79.7	45.0	1939	40.4	83.5	46.7

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 period 1915-1919, 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, 1940, have been graded according to value:—

TABLE 458.—Estates of Deceased Persons, Ten Years ended June, 1940.  
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 £1,001 ... ..	57,631	19,021,732	63·28	8·58
£1,001 to £5,000 ... ..	24,331	54,284,908	26·72	24·48
£5,001 to £12,000 ... ..	5,778	44,171,257	6·34	19·91
£12,001 to £25,000 ... ..	2,179	36,688,265	2·39	16·54
£25,001 to £50,000 ... ..	788	27,117,763	0·87	12·23
Over £50,000 ... ..	368	40,507,989	0·40	18·26
Total ... ..	91,075	221,791,914	100·0	100·0

The average value per estate during the period was £2,435, but of the property-owners who died 63 per cent. possessed less than £1,000, the total value of their property being 8.6 per cent. of the aggregate. Nearly half of the property devised was contained in 3.7 per cent. of the estates.

## LOCAL GOVERNMENT

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The basis of the existing system of Local Government in New South Wales was established by three Local Government Acts passed by the Parliament of New South Wales in 1905 and 1906. Important modifications and extensions of the system were made from time to time and incorporated in the Local Government Act, 1919, which, with subsequent amendments and comprehensive ordinances, constitutes the present-day charter of Local Government in the State.

The civic affairs of the central part of the capital city of the State, however, are governed by a special Act—the Sydney Corporation Act, 1932-1940. This Act incorporates and amends various enactments relative to the City of Sydney, which was first constituted by statute in 1842.

The City of Greater Newcastle, which ranks second in importance, is subject to the general provisions of the Local Government Act, though constituted with certain additional powers by special Act in 1938, as described on page 525.

An outline of the various enactments relative to Local Government between 1842 and 1919 is published on pages 327-334 of the Official Year Book for 1922.

Coincident with the general provisions of the various Local Government Acts are statutes relating to main roads and gas and electricity throughout the State, as well as a Valuation of Land Act and other statutes which are in various ways supplementary to the system of local government.

Separate statutes relate to water supply, sewerage and drainage in the metropolitan area (a large area in and around Sydney and suburbs and extending to Wollongong on the south coast) and in the Hunter District (relative to Newcastle and environs). These services are administered by quasi-autonomous boards on which constituent local authorities are represented. There are also special legislative provisions relative to water supply and sewerage in country towns, and water trusts in country districts.

### *Local Government Bodies.*

Local Government extends over the whole of the Eastern and Central land divisions of the State, comprising almost three-fifths of its total area. The sparsely populated Western Division is not incorporated in local government areas except six municipalities and parts of two other municipalities. The area and population of these districts are shown at page 46 of this Year Book.

The principal groups of local government bodies at 31st December, 1939, were as follows:—

*The City of Sydney*, embracing five square miles containing the principal commercial parts of the metropolis and abutting on to Sydney Cove and Darling Harbour.

*The City of Greater Newcastle*, 36 square miles in area, including the former City of Newcastle and ten former suburban municipalities and parts of two shires.

*Municipalities* (excluding the cities of Sydney and Greater Newcastle), of which 48 are suburbs of Sydney and 109 are in the country. The suburban municipalities cover an area of 241 square miles and the country municipalities, which include most of the principal towns of the State, 1,854 square miles.

*Shires* (139 in number, with an area of 181,873 square miles) which, though including some large towns not incorporated as municipalities, consist mainly of smaller urban areas and extensive rural lands. The shires range in area from 49 square miles (Woy Woy) to 5,883 square miles (Lachlan).

*County Councils*, of which there are eight, are combinations of municipalities and shires for the administration of certain specified local services of common benefit.

#### *Statistics of Local Government.*

Statistics of finances, etc., of Local Government bodies are compiled annually in the Bureau of Statistics and Economics from copies of the annual accounts and statements furnished by each local council to the Department of Works and Local Government for examination. These accounts and statements are kept in prescribed form and relate to the year ended 31st December. Summarised results do not become available until approximately sixteen months after the end of the year to which the accounts relate.

The arrangement of the financial statistics in this Year Book differs in certain respects from that of earlier years. They are now presented in a simplified form, with general summary tables relating to all the local governing bodies. The municipalities and shires are grouped as follows:—(1) Metropolis, embracing the City of Sydney and forty-eight suburban municipalities (as generally grouped for statistical purposes); (2) City of Greater Newcastle (formerly classified with country areas); (3) Country municipalities, and (4) Shires, including those adjacent to the metropolitan area.

#### SYSTEM OF LOCAL GOVERNMENT.

##### *Sydney Corporation Act.*

In terms of the Sydney Corporation Act of 1932-1940, 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 County 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.

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.

#### *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) the owner or rate-paying lessee of ratable land; (b) the occupier of ratable

land for a continuous period of three months by virtue of a miner's right or business license or, the yearly value of the land being at least £5, as direct tenant; (c) a resident for a continuous period of 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, 1940, there were 34 such committees.

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. There were eight County Councils at the end of 1938. 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. The Northern Riverina and Southern Riverina County Councils were engaged in the preliminary work of constructing water supply systems.



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.

*Greater Newcastle.*

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 2nd 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 1938 the incorporated area was about 184,000 square miles, or nearly 60 per cent. of the total area of the State (309,433 square miles). The population in municipalities and shires as at 31st December, 1938, was 2,711,080, or 99 per cent. of the total population.

The area, population and value of ratable property in the incorporated areas as at 31st December, 1938, were as stated below:—

TABLE 459.—Municipalities and Shires, Area, Population and Value of Ratable Property, 1938.

Local Areas.	Area.	Population.	Unimproved Capital Value.	Improved Capital Value.	Assessed Annual Value.
	acres.	No.	£	£	£
City of Sydney ...	3,220	88,870	47,819,002	155,913,500	7,016,108
Suburban Municipalities	152,087	1,190,800	95,055,890	288,322,904	21,661,859
Total, Metropolitan	155,307	1,279,670	142,874,892	444,236,404	28,677,967
City of Greater Newcastle	22,945	115,660	7,912,843	23,651,495	1,897,512
Country—					
Municipalities ...	1,192,948	489,530	26,072,590	93,932,477	7,292,320
Shires ...	116,395,060	826,220	142,219,746	287,977,837 †	†
Total Country ...	117,588,008	1,315,750	168,292,336	381,910,314	†
Total Municipalities and Shires ...	117,766,260	2,711,080	319,080,071	849,798,213	†

\* Excluding non-ratable properties (see page 527).

† Not available.

‡ Estimated.

The area of the 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 911 square miles.

Few shires assess improved capital value or assessed annual value for rating purposes, and the improved capital value of ratable lands within shires is here estimated (by reference to various data) at approximately twice the unimproved capital value.

A general summary of the finances of municipalities, shires and county councils in 1938 is shown in the following table. Explanations and other details of the finances are shown later, viz., revenue accounts, pages 537 to 549, and loan accounts, pages 551 to 558.

TABLE 460.—Local Government, N.S.W., Summary of Finances, 1938.

Particulars.	Municipalities and Shires.			County Councils. *	Total.
	Sydney and Suburbs.	Greater Newcastle.	Country.		
Revenue—	£	£	£	£	£
Ordinary Services ... ..	4,518,176	349,378	5,789,855	.....	10,657,409
Electricity and Gas ... ..	112,180	453,212	1,524,057	3,272,997	5,362,446
Water and Sewerage ... ..	.....	.....	1,025,978	11,927	1,037,905
Total Revenue ... ..	4,630,356	802,590	8,339,890	3,284,924	17,057,760
Expenditure from Revenue ...	4,710,785	842,455	7,633,133	3,155,144	16,341,517
Expenditure from Loans, Government Advances and Time Payment Debts ... ..	787,746	140,165	1,818,901	492,860	3,239,672
Net Long Term Debt Out- standing† ... ..	12,410,481	1,023,082	10,237,667	12,946,537	36,617,767

\* Including Grafton and South Grafton Water Board.

† Net Debt (after deducting sinking funds) comprising loan debt, Government advances and time payment debts.

#### 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, principally from an annual levy on unimproved capital value.

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 provided for a central valuing authority, and the Valuer-General appointed by the Governor may 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. The valuations of the City of Sydney are made by a City Valuer who is a salaried officer of the City Council.

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 by 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, 1939, the valuations in force in 110 municipalities and 49 shires were made by the Valuer-General, and in 48 municipalities and 90 shires, 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 and the determination of the improved capital value and of the assessed annual value is optional, except in urban areas, in which the assessed annual value must be determined. The Valuer-General usually determines improved values and assessed annual values for all lands in 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, or certified under the Public Instruction Act, 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 1938. Complete data are not available as, to the value of improvements in shires because a large proportion of the shires do not record the improved capital or assessed annual value. For the purpose of completing the table, an estimate has been made on the basis of various data which indicate that, in the aggregate, the value of improvements in country shires is approximately equal to the unimproved value.

TABLE 461.—Municipalities and Shires, Ratable Property, Unimproved Value, and Value of Improvements, 1938.

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.
	£000	£	£ s.	£000	£	£ s.
City of Sydney ...	47,819	538	14,850 12	108,094	1,216	33,569 14
Suburban Municipalities ...	95,056	80	625 0	193,267	162	1,270 15
Total Metropolitan	142,875	112	919 19	301,361	236	1,940 8
City of Greater Newcastle ...	7,913	68	344 17	15,739	136	685 18
Country—						
Municipalities ...	26,072	53	21 17	67,860	139	56 18
Shires ...	142,220	172	1 4	*145,758	176	1 5
Total Incorporated Areas ...	319,080	118	2 14	*530,718	196	4 10

\*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 462.—Municipalities and Shires, Valuations of Ratable Property, 1921 to 1938.

At 31st December.	City of Sydney.	Suburban Municipalities.	Total Metropolitan.	City of Greater Newcastle.	Country.		Total.
					Municipalities.	Shires.	
	£000	£000	£000	£000	£000	£000	£000
Unimproved Capital Value.							
1921 ...	35,887	57,291	93,178	6,040	20,965	128,273	248,456
1925 ...	46,656	80,253	125,909	8,261	23,633	144,425	302,228
1929 ...	60,983	110,157	171,140	9,877	30,337	166,658	378,012
1930 ...	60,896	118,852	179,748	9,953	30,720	168,854	389,275
1931 ...	56,961	118,250	175,211	9,972	30,814	162,740	378,737
1932 ...	48,910	100,586	149,496	7,488	27,278	148,849	333,111
1933 ...	48,930	94,174	143,104	7,032	25,181	143,700	319,017
1934 ...	45,979	91,681	137,660	6,976	23,723	141,789	310,148
1935 ...	45,891	90,946	136,837	6,959	23,258	139,018	306,072
1936 ...	45,799	90,367	136,166	7,379	23,658	139,213	306,416
1937 ...	47,823	91,731	139,554	7,589	24,528	139,387	311,058
1938 ...	47,819	95,056	142,875	7,913	26,072	142,220	319,080
Improved Capital Value.							
1921 ...	99,647	156,849	256,496	15,450	59,115	*	*
1925 ...	151,367	233,913	385,280	22,387	73,940	*	*
1929 ...	193,989	309,864	503,853	26,446	97,207	*	*
1930 ...	221,857	330,381	552,238	27,506	101,262	*	*
1931 ...	192,194	334,391	526,585	27,817	103,736	*	*
1932 ...	154,595	294,577	449,172	21,619	93,340	*	*
1933 ...	143,791	280,854	424,645	20,892	88,134	*	*
1934 ...	137,272	275,461	412,733	21,337	83,574	*	*
1935 ...	139,587	271,062	410,649	21,698	82,351	*	*
1936 ...	139,818	275,031	414,849	22,327	84,479	*	*
1937 ...	150,840	275,906	426,746	23,042	87,383	*	*
1938 ...	155,913	289,323	445,236	23,652	93,432	*	*
Assessed Annual Value.							
1921 ...	4,484	11,038	15,522	982	4,373	*	*
1925 ...	6,811	17,535	24,346	1,612	5,713	*	*
1929 ...	8,344	23,676	32,020	2,003	7,687	*	*
1930 ...	9,554	25,246	34,800	2,002	8,248	*	*
1931 ...	8,253	23,040	33,293	2,099	6,178	*	*
1932 ...	6,464	21,868	28,332	1,654	7,288	*	*
1933 ...	6,471	20,399	26,870	1,569	6,793	*	*
1934 ...	6,146	19,909	26,055	1,542	6,441	*	*
1935 ...	6,294	19,805	26,099	1,581	6,445	*	*
1936 ...	6,292	19,873	26,165	1,670	6,590	*	*
1937 ...	6,788	20,746	27,534	1,779	6,834	*	*
1938 ...	7,016	21,662	28,678	1,898	7,292	*	*

\* Not available.

Valuations are made usually at triennial intervals, and the values shown above do not indicate the annual changes in the value of real property, but rather the trend over a longer period.

The marked increase in values between 1921 and 1930 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 the suburbs, 60 per cent. in the Newcastle area and 34 per cent. in the country. There was even greater relative growth in improved values, viz., 123 per cent. in the City of Sydney, 111 per cent. in the suburbs and 78 per cent. in Newcastle.

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.

The ratio of assessed annual value to improved capital value in 1938 was 4.5 per cent. in the City of Sydney, 7.5 per cent. in the suburbs, 6.7 per cent. in Newcastle and 7.7 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., 8.3 per cent., 7.4 per cent., and 8.5 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 in municipalities ascertained by deducting the unimproved from the improved values, are indicated hereunder at intervals since 1921:—

TABLE 463.—Municipalities, Ratable Property, Value of Improvements, 1921 to 1938.

Areas.	Value of Improvements on Ratable Lands.						
	1921.	1931.	1932.	1935.	1936.	1937.	1938.
Metropolitan—	£000	£ 000	£000	£000	£000	£000	£000
City of Sydney ...	63,760	135,233	105,685	93,696	94,019	103,017	108,094
Suburban ...	99,558	216,141	193,990	180,116	184,664	184,175	193,267
Total Metropolitan ...	163,318	351,374	299,675	273,812	278,683	287,192	301,361
City of Greater New- castle.	9,410	17,845	14,131	14,739	14,948	15,453	15,739
Country Municipalities	38,150	72,922	66,062	59,093	60,821	62,855	67,860
Total Municipalities ...	210,878	442,141	379,868	347,644	354,452	365,500	384,960

## 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 346 and 347 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 464.—Municipalities and Shires, Rates Levied, 1921 to 1938.

Year.	Rates Levied.					
	Ordinary Services.	Electricity Fund.	Gas Works Fund.	Water Supply Fund.	Sewerage Fund.	Total.
	£	£	£	£	£	£
1921	3,464,565	23,535	4,698	111,767	36,305	3,640,870
1926	4,792,905	88,781	5,126	156,646	46,529	5,089,987
1929	6,114,899	95,078	5,386	222,425	68,106	6,505,894
1930	6,402,744	92,669	4,354	238,037	80,866	6,818,670
1931	5,815,792	86,326	4,631	251,904	81,955	6,240,608
1932	5,209,173	70,917	4,137	242,505	87,964	5,614,696
1933	4,969,745	64,894	3,135	249,438	83,691	5,370,903
1934	4,894,605	54,425	2,016	256,925	95,139	5,303,110
1935	4,898,439	51,154	2,292	248,828	100,280	5,300,993
1936	4,969,623	47,732	2,526	260,318	109,786	5,389,985
1937	5,086,892	44,851	2,864	269,802	125,799	5,530,208
1938	5,304,475	46,769	2,401	287,146	137,909	5,778,700

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. 9d. in 1921, £2 15s. 1d. in 1930 and £2 2s. 10d. in 1938. The amount per head of population in 1921 was £1 19s. 5d. in the metropolitan area, £1 5s. 11d. in Newcastle, £1 12s. 5d. in country municipalities and £1 10s. 4d. in the shires. Corresponding amounts per head in 1930 were £3 0s. 3d., £2 0s. 5d., £2 12s. 4d., and £2 9s. 8d., respectively, and in 1938 £2 7s. 7d., £1 11s. 3d., £2 4s. 3d. and £1 16s. 3d. respectively.

*City of Sydney—Rating.*

The Sydney Corporation Act prescribes that the City 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.

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  $\frac{3}{4}$ 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 1921, 1926 and each of the last ten years:—

TABLE 465.—City of Sydney, Rates Levied, 1921 to 1938.

Year.	City Fund.		Main Roads Rates.	Harbour Bridge Rates.	Total Rates Levied.
	Rate struck in the £ on U.C.V.	Total Amount Levied.			
	pence.	£	£	£	£
1921 ... ..	5	750,742	.....	.....	750,742
1926 ... ..	3 $\frac{1}{2}$	653,409	46,201	93,246	792,856
1929 ... ..	*3 $\frac{1}{2}$	*883,124	63,107	126,270	1,072,501
1930 ... ..	*3 $\frac{3}{4}$	*945,948	63,068	126,310	1,135,326
1931 ... ..	3 $\frac{1}{4}$	890,697	59,273	118,888	1,068,858
1932 ... ..	4 $\frac{1}{2}$	877,694	48,920	98,990	1,025,604
1933 ... ..	4 $\frac{1}{2}$	886,656	43,010	66,048	995,714
1934 ... ..	4 $\frac{1}{2}$	857,848	41,640	63,387	962,875
1935 ... ..	4 $\frac{1}{2}$	856,307	41,593	63,358	961,258
1936 ... ..	4 $\frac{1}{2}$	856,438	41,636	42,278	940,352
1937 ... ..	4 $\frac{1}{2}$	893,061	43,516	44,207	980,784
1938 ... ..	4 $\frac{3}{32}$	960,484	.....	.....	960,484

\* Exclusive of  $\frac{1}{4}$ d. for Main Roads, covered by the City Fund Rate which was 3 $\frac{3}{4}$ d. in 1929 and 4d. in 1930.

The City Fund rate levied in 1938, 1939 and 1940 was 4 $\frac{27}{32}$ d.



*Rating under Local Government Act.*

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.

*Shires* may levy rates 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 the 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.

The following table shows for various years since 1908 the amount of rates levied in the municipalities and shires operating under the Local Government Act.

TABLE 466.—Municipalities and Shires (Excluding City of Sydney),  
Rates Levied, 1908 to 1938.

Year.	Suburbs of Sydney.	City of Greater Newcastle.	Country.		Total.
			Municipalities.	Shires.	
	£	£	£	£	£
1908 ... ..	356,413	37,922	230,814	364,284	989,433
1921 ... ..	1,187,648	113,107	602,154	987,219	2,890,128
1926 ... ..	1,919,565	155,327	832,109	1,390,130	4,297,131
1930 ... ..	2,641,953	211,239	1,110,622	1,719,530	5,683,344
1934 ... ..	1,970,006	165,184	923,611	1,281,434	4,340,235
1935 ... ..	1,963,988	164,946	916,375	1,294,426	4,339,735
1936 ... ..	1,994,540	170,522	954,151	1,330,420	4,449,633
1937 ... ..	1,999,867	174,113	994,507	1,380,937	4,549,424
1938 ... ..	2,069,963	179,544	1,076,783	1,491,926	4,818,216

The rates included above are of four kinds; viz., general, local, special and loan. General rates are levied on all ratable lands within a municipal or shire area, but other rates, imposed to meet local or special needs, frequently apply to portion only of an area. In 1938 the rates levied consisted of general rates £3,745,449 or 78 per cent., and local, special or loan rates £1,072,767 or 22 per cent. The general rates amounted to £1,824,919 or 88 per cent. of the total rates in the suburbs of Sydney, £169,335 or 94 per cent. in Newcastle, £549,371 or 51 per cent. in country municipalities and £1,201,824 or 81 per cent. the shires.

The proportion of general rates is lowest in country municipalities, where separate rates are frequently levied for water supply, sewerage and electricity services administered by the councils. In the shires the services are not so extensive and in the suburbs of Sydney and in Newcastle they are not administered by the councils.

The amount of rates levied increased up to 1930, due partly to higher rating and partly to a rapid appreciation of unimproved capital values. Then a sudden shrinkage in the value of ratable lands and a reduction in rates caused the amount to decline. Since 1936 unimproved values have risen again and the level of rating has increased gradually. The amount of rates in 1935 was only slightly greater than in 1926 and it was £1,343,609 or 24 per cent. less than in 1930. Between 1935 and 1938 there was an increase of £478,481, but the amount levied was less by £865,128 or 15 per cent. than in 1930.

The following table shows the average rate levied per £ of unimproved capital value in groups of municipalities and shires at intervals since 1908. These averages are based upon the aggregate unimproved value of ratable land within each group and the total amount of rates levied—whether they were general over the whole municipality or shire or applied only to part thereof.

TABLE 467.—Municipalities and Shires (Excluding City of Sydney),  
Average Rate Levied per £ of Unimproved Capital Value,  
1908 to 1938.

Year.	Suburbs of Sydney.	City of Greater Newcastle.	Country.		Total.
			Municipalities.	Shires.	
	d.	d.	d.	d.	d.
1908 ... ..	3.30	2.88	3.57	1.07	1.88
1921 ... ..	4.98	4.49	6.89	1.85	3.26
1926 ... ..	5.43	4.47	7.77	2.21	3.83
1930 ... ..	5.33	5.09	8.68	2.44	4.15
1934 ... ..	5.16	5.68	9.34	2.17	3.94
1935 ... ..	5.18	5.69	9.40	2.24	4.00
1936 ... ..	5.30	5.55	9.67	2.30	4.10
1937 ... ..	5.23	5.51	9.71	2.38	4.15
1938 ... ..	5.23	5.45	9.91	2.52	4.26

The amount of rates levied, as shown in Table 466 represents the amount taken to account by councils as revenue, after deductions from current assessments in respect of reductions of valuations on appeal and amounts written off as irrecoverable. Prior to the depression most of the rates were collected in the year of levy, but the amount of arrears was increasing slowly. After 1929 arrears trebled in the space of three years and continued to increase until 1934, when the amount was £2,618,586. Subsequently there was a decrease of £392,617, or 15 per cent.; nevertheless, the arrears at the end of 1938 were three times the amount in 1929.

The growth of overdue rates and interest or extra charges thereon is shown in the following table:—

TABLE 468.—Municipalities and Shires (Excluding City of Sydney),  
Overdue Rates and Extra Charges, 1921 to 1938.

At 31st December.	Suburbs of Sydney.	City of Greater Newcastle.	Country.		Total.
			Municipalities.	Shires.	
	£	£	£	£	£
1921 ... ..	113,342	7,261	136,888	101,287	358,778
1926 ... ..	165,045	6,431	155,131	185,122	511,729
1929 ... ..	218,935	18,776	222,711	271,375	731,797
1934 ... ..	1,052,823	68,845	662,114	834,804	2,618,586
1936 ... ..	929,523	57,286	650,261	807,446	2,444,516
1937 ... ..	865,688	51,112	635,952	785,509	2,338,261
1938 ... ..	762,170	45,665	623,415	794,719	2,225,969

For purposes of comparison, the amounts in country municipalities and shires would be combined because there have been amalgamations of areas with consequent transfer of overdue rates and charges from municipalities to shires.

\* 65849—F

*Main Roads and Harbour Bridge Rates.*

In terms of the Main Roads Act the councils of municipalities and shires, except the City of Sydney, which was exempted at the end of the year 1937, may be required to contribute towards the cost of 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 the various councils is calculated at a uniform rate on the unimproved capital value of ratable property in the 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  $\frac{3}{4}$ d. in the £ of unimproved capital value of ratable lands in the years 1923 to 1932,  $\frac{3}{8}$ d. in 1933 to 1935 and  $\frac{2}{5}$ 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 469.—Municipalities and Shires, Contributions to Main Roads and Harbour Bridge, 1929 to 1938.

Year.	Contributions by Municipalities (including City of Sydney) and Shires for—		
	Main Roads.	Sydney Harbour Bridge.	Total.
	£	£	£
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 ... ..	239,834	62,705	302,539
1938 ... ..	198,974	341	199,315

## REVENUE FINANCES OF LOCAL GOVERNING BODIES.

The accounts of municipal, shire and county councils in New South Wales are on an income and expenditure basis, and show the income accrued and expenditure incurred during the period to which they relate.

The form of accounts to be used by all councils, except the City of Sydney and the Sydney County Council, is prescribed under the Local Government Act. In each area there must be (a) a general fund, 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; (b) a special fund for each special rate levied; (c) a local fund for each local rate levied; and (d) a separate trading fund for each trading undertaking conducted by the council. The resources of the general fund may be applied to any general purposes throughout the area, such as administration, health, roads, parks, etc., and the payment of interest and principal of loans, but the resources of a special or a local fund may be expended only on the special purpose or in the specified area in respect of which the rate is levied.

The rates and other revenue of the Municipality of Sydney are paid into and its expenses are defrayed out of the City Fund, in terms of the Sydney Corporation Act. Separate accounts are kept in respect of public markets and resumptions of land, but these are subsidiary to the City Fund and are incorporated in it. Conditions governing the accounts of the Sydney County Council are contained in the Gas and Electricity Act, 1935.

Owing to differences in the form of accounts prescribed by the various Acts, it is difficult to prepare summary tables relating to local government finances as a whole. The task is further complicated by reason of the fact that the particular form of accounts prescribed by the Local Government Act for the large number of councils to which it applies differs from that commonly used by public authorities. However, an attempt has been made, as shown below, to compile tables of the revenue accounts of all municipal, shire and county councils on a simplified and uniform basis.

*Ordinary Services Revenue Accounts.*

The functions of local government embraced by the term "Ordinary Services" are those which come within the scope of the City Fund of the Municipal Council of Sydney and the general fund of the councils under the Local Government Act, including special and local funds relating to works and services of a character similar to those covered by the general fund. The trading, water and sewerage funds are excluded, particulars of these being shown in Tables 475 to 481.

A summary of the revenue since 1921 and expenditure from revenue since 1933 on account of ordinary services is shown below:—

TABLE 470.—Local Government (N.S.W.)—Ordinary Services, Revenue and Expenditure from Revenue, 1921 to 1938.

Year.	Metropolitan.		City of Greater Newcastle.	Country.		Total, New South Wales.
	City of Sydney.	Suburban Municipalities.		Municipalities.	Shires.	
Revenue.						
	£	£	£	£	£	£
1921 ... ..	1,125,373	1,585,672	151,069	721,221	1,470,680	5,054,015
1926 ... ..	1,589,981	2,607,041	224,978	956,378	2,694,234	8,072,612
1931 ... ..	1,611,241	3,169,402	265,805	1,185,941	2,469,472	8,701,861
1932 ... ..	1,451,809	2,787,428	249,054	1,144,773	2,369,335	8,002,399
1933 ... ..	1,371,641	2,920,457	265,424	1,210,423	2,793,784	8,561,729
1934 ... ..	1,359,911	3,352,443	426,230	1,559,264	3,505,043	10,202,891
1935 ... ..	1,325,734	3,523,589	489,517	1,808,231	4,147,664	11,294,735
1936 ... ..	1,300,317	3,619,509	514,135	1,802,412	4,017,744	11,254,117
1937 ... ..	1,312,221	3,245,813	429,928	1,543,267	4,008,471	10,539,700
1938 ... ..	1,331,433	3,186,743	349,378	1,640,892	4,148,963	10,657,409
Expenditure from Revenue.						
1933 ... ..	1,433,272	2,845,276	256,782	1,156,405	2,723,443	8,415,178
1934 ... ..	1,410,151	3,280,951	415,526	1,521,365	3,501,162	10,129,155
1935 ... ..	1,335,570	3,524,361	498,479	1,773,231	4,161,230	11,292,671
1936 ... ..	1,360,739	3,662,181	505,600	1,826,137	3,999,574	11,354,231
1937 ... ..	1,349,739	3,325,736	417,899	1,582,256	4,016,820	10,692,450
1938 ... ..	1,316,313	3,294,869	417,022	1,639,586	4,122,483	10,790,273

The figures shown in the table differ from those published in earlier issues of the Year Book because various adjustments have been made in order to place them on a uniform basis for all councils. Particulars of revenue are available over a long period, but comparable figures for expenditure are obtainable only since 1933.

There was expansion of revenue after 1921 and 1932, due in part to increased payments by the State Government to councils undertaking works and services on behalf or as agents of the State. Government grants to councils or contributions towards the cost of purely local government works did not increase greatly.

Works undertaken by councils on behalf of the State were chiefly the construction and maintenance of classified main and developmental roads and other public works for the relief of unemployment. Some of the latter public works were associated directly with local services but would not have been undertaken from current local resources because of the high cost. Receipts from the State in respect of main roads began to increase in 1925, following the formation of the Main Roads Department, and receipts for unemployment relief works rose rapidly after the introduction of an emergency relief works scheme in 1933.

Details regarding these works are published in other chapters of this Year Book, viz., "Roads and Bridges" and "Employment."

*Ordinary Services Revenue.*

Rates form the largest item of revenue in respect of ordinary services and (with interest on overdue rates) represented 77 per cent. of the revenue of the councils, excluding receipts from Government, and 47 per cent. of the total revenue during the years 1935 to 1938. Following a decrease of 22 per cent. during the depression period, rates increased by nearly 8 per cent. during this period of four years.

The chief items of ordinary services revenue in various years since 1921 are shown below.

TABLE 471.—Local Government (N.S.W.)—Ordinary Services, Dissection of Revenue, 1921 to 1938.

Year.	Revenue Raised by Councils.					Amounts Received from Government.	Total Revenue.
	Rates and Interest on Overdue Rates.	Sanitary and Garbage.	Contributions to Works.	Property (Rents, Charges).	Other.		
	£	£	£	£	£	£	£
1921...	3,497,049	*	*	*	*	388,411	5,054,015
1926...	4,839,154	*	*	*	*	1,360,587	8,072,612
1931...	5,942,063	536,699	184,693	283,429	576,958	1,178,019	8,701,861
1935...	5,022,961	462,054	186,940	208,239	496,483	4,828,058	11,294,755
1936...	5,088,782	458,365	224,280	298,250	531,403	4,653,037	11,254,117
1937...	5,198,219	454,107	327,293	283,710	574,333	3,702,038	10,539,700
1938...	5,410,665	455,871	339,927	315,804	622,834	3,512,308	10,657,409

\* Not available.

Particulars of ordinary services revenue in 1938 are shown in greater detail in the Table 472.

The amount of revenue raised by councils was £2 13s. 0d. per head of population in 1938, viz., Sydney and suburbs, £3 2s. 6d.; City of Greater Newcastle, £2 8s. 9d.; country municipalities, £2 4s. 11d., and shires, £2 3s. 8d. Receipts from the Government per head were £1 6s. 0d., viz., Sydney and suburbs, 8s. 6d.; Greater Newcastle, 12s. 0d.; country municipalities, £1 2s. 7d., and shires £2 17s. 1d.

In the metropolitan area and Newcastle amounts received from the Government, related for the most part to unemployment relief works, represented only 12½ per cent. of the total revenue from all sources. In country municipalities the proportion was 33 per cent., and in the shires these receipts exceeded by a substantial amount the revenue raised by the councils. Nearly half the Government payments to the shires was received from the Main Roads Department and the amount represented 83 per cent. of the total payments to councils by this Department. In the aggregate Government payments to councils represented 33 per cent. of their revenue.

TABLE 472.—Local Government (N.S.W.) Ordinary Services Revenue, 1938.

Revenue.	Metropolitan.		City of Greater Newcastle	Country.		Total.
	City of Sydney.	Suburban Municipalities.		Municipalities.	Shires.	
General Rates ... ..	£ 960,484	£ 1,824,919	£ 169,335	£ 549,371	£ 1,201,824	£ 4,705,933
Loan, Local and Special Rates ... ..	.....	242,969	10,209	130,781	214,583	598,542
Extra Charges on Overdue Rates ... ..	2,188	39,961	2,243	27,359	34,439	106,190
<b>Total Rates and Extra Charges ... ..</b>	<b>962,672</b>	<b>2,107,849</b>	<b>181,787</b>	<b>707,511</b>	<b>1,450,846</b>	<b>5,410,665</b>
Miscellaneous License Fees, etc.—						
Charges for Gas, Electric, Hydraulic, etc., Mains ... ..	3,071	15,497	2,008	4,567	1,315	26,458
Gratuitous Payments in lieu of Rates	15,057	2,146	.....	1,035	261	18,499
License Fees for Health, Slaughtering, Dairy Supervision, and Building and other Permits ... ..	14,235	19,410	2,757	15,654	20,472	72,528
<b>Total Miscellaneous License Fees, etc.</b>	<b>32,363</b>	<b>37,053</b>	<b>4,765</b>	<b>21,256</b>	<b>22,048</b>	<b>117,485</b>
Sales and Charges for Services, etc.—						
Contributions to Works ... ..	34,730	185,092	27,131	51,292	41,682	339,927
Sanitary and Garbage Services ... ..	22,161	108,778	6,001	181,877	137,054	455,871
Parks and Reserves ... ..	10,385	39,494	2,047	24,208	8,373	84,507
Baths and Beaches ... ..	1,205	32,052	505	16,410	4,404	54,576
Public Markets ... ..	92,346	317	.....	16,788	2,868	112,319
Cemeteries ... ..	.....	9,526	.....	631	111	10,268
Council Property ... ..	164,024	31,249	43,076	33,278	44,177	315,804
Other ... ..	10,599	92,806	14,946	37,695	87,633	243,679
<b>Total Sales and Charges ... ..</b>	<b>335,450</b>	<b>499,314</b>	<b>93,706</b>	<b>362,179</b>	<b>326,302</b>	<b>1,616,951</b>
<b>Total Revenue Raised by Councils ... ..</b>	<b>1,330,485</b>	<b>2,644,216</b>	<b>280,258</b>	<b>1,090,946</b>	<b>1,799,196</b>	<b>7,145,101</b>
Government Grants—						
Endowment ... ..	.....	.....	.....	.....	177,950	177,950
Main Roads Dept. ... ..	.....	147,203	6,823	76,054	1,150,268	1,380,348
Emergency Unemployment Relief Works ... ..	.....	.....	.....	29,600	215,551	245,151
Subsidy for Payment of Interest and Principal on Loans ... ..	.....	80,867	1,473	20,622	16,806	119,768
Other ... ..	948	314,457	60,824	423,670	789,192	1,589,091
<b>Total Government Grants ... ..</b>	<b>948</b>	<b>542,527</b>	<b>69,120</b>	<b>549,946</b>	<b>2,349,767</b>	<b>3,512,308</b>
<b>Total Revenue on Account of Ordinary Services ... ..</b>	<b>1,331,433</b>	<b>3,186,743</b>	<b>349,378</b>	<b>1,640,892</b>	<b>4,148,963</b>	<b>10,657,409</b>

*Ordinary Services Expenditure.*

Particulars of expenditure on ordinary services, as shown in this chapter, are not presented in the same form as in accounts furnished by the councils which are subject to administration in terms of the Local Government Act (*i.e.*, all councils except the City of Sydney).

The councils' statements are composite in character and show in combination expenditure from both revenue and loans. In this chapter expenditure from each source is shown separately—expenditure from revenue in Tables 473 and 474 and expenditure from loans in Tables 484 to 486. In the dissection of the accounts a degree of approximation was necessary in some instances, but the final results may be regarded as reliable statements of the expenditure by the local governing bodies on ordinary or general services.

A summary of the annual expenditure from revenue on ordinary services in each of the last six years, as shown in the following table, is divided into two parts, *viz.*, (i) *Gross Expenditure*, being expenditure from revenue derived from all sources, *i.e.*, revenue raised by the councils and Government grants towards the cost of councils' services and for main roads, unemployment relief and national works undertaken by councils for the



Government; (ii) *Net Expenditure*, which represents expenditure from councils' own revenue; it has been ascertained by deducting from *Gross Expenditure* the amounts received from the Government as shown in Table 471.

TABLE 473.—Local Government, N.S.W., Ordinary Services, Gross and Net Expenditure from Revenue, 1933 to 1938.

Year.	Gross Expenditure.*				Net Expenditure.*		
	Administra- tion, Works and Services.	Debt Services.		Total Gross Expenditure. *	Administra- tion Works and Services.	Interest and Debt Redemption.	Total Net Expenditure *
		Interest.	Provision for Debt Redemption.				
	£	£	£	£	£	£	£
1933	6,598,998	1,008,112	808,068	8,415,178	4,542,481	1,717,265	6,250,746
1934	8,327,681	962,642	838,832	10,129,155	4,614,128	1,709,910	6,324,038
1935	9,578,743	859,254	854,674	11,292,671	4,840,551	1,624,062	6,464,613
1936	9,633,387	835,617	885,227	11,354,231	5,075,717	1,625,477	6,701,194
1937	8,901,161	814,517	976,772	10,692,450	5,327,325	1,663,087	6,990,412
1938	8,794,729	877,590	1,117,954	10,790,273	5,479,657	1,798,308	7,277,965

\* See explanation in context preceding table.

Expenditure on interest relates to amounts payable on overdrafts, fixed loans, deferred or time payment debts, repayable Government advances and other liabilities. In the accounts of the City of Sydney, the charge is ascertained after deducting from the total amount payable, interest earnings on a considerable body of investments not being part of normal sinking funds. The decline in interest after 1933 occurred mainly in the City of Sydney as the Council paid large sums in settlement of outstanding resumption claims. It was partly due, however, to a reduction in rates of interest and a decline in the amount of loans outstanding. In consequence of greater loan expenditure in recent years the interest payments are rising again.

Amounts shown as provision for debt redemption (*i.e.*, loans, repayable Government advances and deferred or time payment debts) do not embrace all moneys devoted to such purpose. For instance earnings on sinking fund investments in the City of Sydney are credited direct to sinking fund accounts and proceeds of the sale of valuable resumption residues are invested and held for redemption purposes apart from the revenue account. A complete statement of amounts provided for debt redemption from all sources is shown in Table 485.

Councils receive relatively small grants from the Government in respect of interest and repayment of loans raised by councils for main roads and for supplementing Government expenditure on relief works. Such grants amounted to £98,915 in 1933 and £197,236 in 1938.

The net cost of debt services borne by the councils represented 25 per cent. of the total net expenditure on ordinary services in 1938. The ratio was 45 per cent. in the City of Sydney, 30 per cent. in Greater Newcastle, 24 per cent. in the suburbs of Sydney, and 15 per cent. in country municipalities and shires.

Particulars of gross expenditure on ordinary services in 1938 are shown in Table 474. A similar statement regarding net expenditure has not been compiled because complete details are not available as to the objects on which moneys received from the Government were expended. A charge made for depreciation is included in the individual items of expenditure, and in order to eliminate duplication it is deducted as a single amount from total expenditure on works and services.

TABLE 474.—Local Government, N.S.W., Ordinary Services,  
Gross Expenditure from Revenue, 1938.

Expenditure.	Metropolitan.		City of Greater Newcastle	Country.		Total.
	City of Sydney.	Suburbs of Sydney.		Municipalities.	Shires.	
<b>Works and Services—</b>	£	£	£	£	£	£
Administration ... ..	79,076	191,579	28,237	121,963	257,296	678,151
Works—Roads, Streets, Bridges, etc.	186,700	1,290,695	185,027	697,692	3,140,810	5,498,924
Street Lighting ... ..	28,162	148,332	19,896	84,967	59,146	340,503
Sanitary and Garbage ... ..	104,207	222,816	21,181	161,697	119,726	629,627
Parks and Reserves ... ..	53,470	183,870	33,768	130,623	83,940	485,666
Baths and Beaches ... ..	3,529	42,369	11,241	40,316	26,477	123,932
Health Supervision ... ..	24,857	42,544	6,194	29,937	30,576	133,108
Public Markets ... ..	52,402	.....	.....	13,574	2,184	68,160
Cemeteries ... ..	.....	7,358	.....	717	174	8,249
Noxious Animals and Weeds Destruction ... ..	.....	1,719	151	2,720	22,677	27,267
Fire Prevention ... ..	17,705	54,896	5,526	15,666	7,131	100,924
Donations to Hospitals, Charities, Bands and Public Bodies ... ..	500	10,026	1,470	5,959	3,711	21,666
Council Property, including new Plant, Machinery, etc. ... ..	97,711	127,255	5,510	77,517	105,841	413,834
Contributions to Main Roads Dept. and Harbour Bridge ... ..	.....	173,411	.....	7,650	18,254	190,315
Other ... ..	78,589	46,435	10,683	105,274	54,397	205,438
<b>Total Works and Services ... ..</b>	<b>726,908</b>	<b>2,543,365</b>	<b>325,879</b>	<b>1,496,272</b>	<b>3,932,340</b>	<b>9,024,764</b>
<i>Less Depreciation ... ..</i>	<i>.....</i>	<i>73,237</i>	<i>13,614</i>	<i>44,746</i>	<i>98,438</i>	<i>230,035</i>
	<b>726,908</b>	<b>2,470,128</b>	<b>312,265</b>	<b>1,451,526</b>	<b>3,833,902</b>	<b>8,794,729</b>
<b>Debt Charges—</b>						
Interest on Loans, Deferred Debts, Repayable advances from Government and Overdraft ... ..	450,752	248,224	34,983	52,461	91,170	877,590
Repayment of Loans, Deferred Debts Government Advances, including Contributions to Sinking Funds ... ..	138,653	576,517	69,774	135,509	197,411	1,117,954
<b>Total Debt Charges ... ..</b>	<b>589,405</b>	<b>824,741</b>	<b>104,757</b>	<b>188,060</b>	<b>288,581</b>	<b>1,995,544</b>
<b>Total Expenditure from Revenue</b>	<b>1,316,313</b>	<b>3,294,869</b>	<b>417,022</b>	<b>1,639,586</b>	<b>4,122,483</b>	<b>10,790,273</b>

#### Electricity Trading Funds.

In New South Wales establishments for the supply of electricity for public and private use are conducted by municipal and shire councils and county councils formed by groups of municipalities and shires for this purpose. A number of the larger councils and some situated in remote parts of the State have works for the generation as well as the distribution of electricity; other councils purchase supplies in bulk and distribute them to consumers. The principal sources of bulk supplies are generating stations conducted by other councils, the Commissioner for Railways, the Government of New South Wales at Port Kembla and Burrinjuck, and the Victorian State Electricity Commission and those at a number of collieries.

In 1938 electricity services were provided by 81 municipalities, 36 shires and 4 county councils. Of these 24 municipalities, 10 shires and 3 county councils operated generating plants, 52 municipalities, 25 shires and 1 county

council distributed current purchased in bulk, and 5 municipalities and 1 shire generated a quantity of electricity but purchased substantial supplies from other sources.

The largest undertaking is that of the Sydney County Council, which in 1938 distributed electricity direct to consumers in the city and thirty-two suburban 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. The undertaking was established by the Municipal Council of Sydney in 1904 and was transferred to the control of the Sydney County Council on 1st January, 1936. Its supplies of current are generated for the most part at Bunnerong, where a power station was opened in 1929, and small quantities are generated at a station at Pymont.

The St. George County Council purchases from the Commissioner for Railways bulk supplies of electricity which are sold for street lighting and to private consumers in the suburban municipalities of Bexley, Hurstville, Kogarah and Rockdale. 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 South Coast.

A statement of the revenue and expenditure of the electricity concerns of the local governing authorities in 1938 is shown below:—

TABLE 475.—Local Government, N.S.W., Electricity Works, Revenue Accounts, 1938.

Particulars.	County Councils.				Municipalities.	Shires.	Total
	Sydney.	St. George.	Clarence River.	Bega Valley.			
<i>Revenue.</i>	£	£	£	£	£	£	£
Electricity Sales ... ..	2,968,616	162,877	99,512	8,196	1,411,791	321,369	4,972,361
Meter Rent, Installations, etc.	13,405	8,347	4,535	1,387	150,497	38,813	216,984
Trading Revenue ... ..	2,982,021	171,224	104,047	9,583	1,562,288	360,182	5,189,345
Loan Rates ... ..	...	...	...	...	20,956	25,813	46,769
Other ... ..	...	5,133	896	93	17,106	9,160	32,388
Total Revenue ... ..	2,982,021	176,357	104,943	9,676	1,600,350	395,155	5,268,502
<i>Expenditure.</i>							
Cost of Electricity and Distribution ... ..	2,771,552	151,804	84,819	7,070	1,312,892	300,986	4,629,123
Street Lighting Attendance, etc. ... ..	117,100	10,611	883	812	135,127	28,981	293,514
Trading Exp. ... ..	2,888,652	162,415	85,702	7,882	1,448,019	329,967	4,922,637
Trading Surplus ... ..	93,369	13,942	19,241	1,794	152,331	65,188	345,865

The net trading profit in 1938 was £345,865, and all of the undertakings disclosed a profit, with the exception of 8 municipalities and 7 electricity funds in the shires, some of which operate more than one fund. The aggregate amount of the trading losses was £19,796 in these municipalities and £1,597 in the shires.

The foregoing results were realised after charging as costs of electricity and distribution, £865,313 for interest on loans, overdrafts, etc., and exchange thereon, and £922,367 for depreciation and obsolescence of assets. Included in the item other revenue is an amount of £10,687, representing grants

received from the State Government; viz., Clarence River County Council, £298, municipalities, £5,382, and shires, £5,007. Such grants are usually made to promote the extension of electricity services in rural areas and in some instances take the form of an annual subsidy towards the interest and repayment charges on loans.

The electricity undertakings of the councils expend large sums annually in the replacement, improvement and extension of plant and equipment and in the repayment of capital indebtedness for which funds are obtained from loans, moneys reserved to provide for depreciation and trading surpluses. Capital expenditure by all councils amounted to £1,062,923 in 1936, £1,386,863 in 1937 and £2,172,208 in 1938, and debt repayments and sinking fund contributions, including interest earnings on investments, to £396,662, £410,274 and £436,499 respectively. Of the capital expenditure, £111,528 in 1936, £607,678 in 1937 and £720,231 in 1938 was expended from loans and deferred payment debts. A dissection of these capital transactions in 1938 is as follows:—

	County Councils.	Municipalities.	Shires.	Total.
	£	£	£	£
Capital Expenditure ... ..	1,542,780	457,212	172,216	2,172,208
Loan Expenditure ... ..	487,398	130,590	102,243	720,231
Provision for Debt Redemption ...	286,439	104,054	46,006	436,499

Details of the finances of the electricity undertakings in individual municipalities and shires in 1938 are shown in the section Local Government of the Statistical Register, 1938-39.

The growth of the combined municipal, shire and county council electricity enterprises is illustrated by the following table which shows the number of councils engaged and a summary of their revenue accounts at intervals between 1921 and 1938.

TABLE 476.—Local Government, N.S.W., Electricity Works Revenue Accounts, 1921 to 1938.

Year.	No. of Councils.	Expenditure.	Revenue.				Trading Surplus.
			Sales.	Loan Rates.	Other.	Total.	
		£	£	£	£	£	£
1921 ...	35	1,171,064	1,109,548	24,435	53,175	1,187,158	16,094
1926 ...	90	2,701,545	2,571,443	101,586	178,671	2,851,700	150,155
1931 ...	111	3,751,004	3,502,547	86,385	146,407	3,735,339	(—) 15,665
1936 ...	113	4,135,728	4,233,520	47,732	160,224	4,441,476	305,748
1937 ...	118	4,528,825	4,601,029	44,851	187,387	4,833,267	304,442
1938 ...	121	4,922,637	4,972,361	46,769	249,372	5,268,502	345,865

(—) Deficiency.

The quantity of electricity generated by the local government undertakings in 1938 was 748,012,000 units representing approximately 40 per cent. of the total output of all generating stations in New South Wales. In addition the councils purchased 251,326,000 units so that the total supply available by generation and purchase was 999,338,000 units. The councils sold 846,246,000 units. In these gross aggregates electricity generated by one council and purchased by another amounting to 50,181,000 units is duplicated. The net figures are 748,012,000 units generated, 201,145,000 units purchased, and 796,065,000 units sold.

The following table shows the electricity generated, purchased and sold by the various groups of councils in 1938:—

TABLE 477.—Local Government, N.S.W., Electricity Generated, Purchased and Sold, 1938.

Council.	Units Generated.	Units Purchased.	Units Sold.
<b>County Councils—</b>			
Sydney ... ..	683,854,000	...	567,179,000
St. George ... ..	...	31,749,000	27,651,000
Clarence River ... ..	19,210,000	...	15,340,000
Bega Valley ... ..	535,000	...	462,000
<b>Municipalities ... ..</b>	<b>41,451,000</b>	<b>184,685,000</b>	<b>203,306,000</b>
<b>Shires ... ..</b>	<b>2,962,000</b>	<b>34,892,000</b>	<b>32,308,000</b>
<b>Gross Total ... ..</b>	<b>748,012,000</b>	<b>251,326,000</b>	<b>846,246,000</b>
<i>Less purchases between councils ... ..</i>	<i>...</i>	<i>50,181,000</i>	<i>50,181,000</i>
<b>Net Total ... ..</b>	<b>748,012,000</b>	<b>201,145,000</b>	<b>796,065,000</b>

The electricity used in power stations, etc., and lost in transformation and transmission in 1938 was 153,092,000 units or 16 per cent. of the electricity generated and purchased.

The cost of generation, purchase and distribution of electricity in 1938 was £4,629,123 or 1.31d. per unit sold as compared with 1.34d. per unit in 1937. The average price realised for electricity sold was 1.41d. in 1938 and 1.45d. in 1937.

The following summary of the balance sheets of the electricity undertakings of municipal, shire and county councils shows the extent of capital investment and loan debt outstanding at 31st December, 1938:—

TABLE 478.—Local Government, N.S.W., Electricity Works, Balance Sheets, 1938.

Particulars.	County Councils.				Municipalities.	Shires.	Total.
	Sydney.	St. George.	Clarence River.	Bega Valley.			
<i>Liabilities.</i>							
Loan Debt ... ..	£ 14,192,937	£ 194,406	£ 735,833	£ 23,320	£ 1,074,317	£ 530,437	£ 16,751,250
Overdrafts ... ..	163,758	15,621	19,869	2,331	110,031	36,764	348,374
Creditors, etc. ... ..	1,398,779	49,231	37,300	1,218	150,335	48,967	1,685,836
<b>Total Liabilities ... ..</b>	<b>15,755,474</b>	<b>259,258</b>	<b>793,008</b>	<b>26,869</b>	<b>1,334,683</b>	<b>616,168</b>	<b>18,785,460</b>
<i>Assets.</i>							
Land, plant, etc. ... ..	15,143,143	442,008	868,000	23,793	3,106,272	998,754	20,582,570
Debtors, etc. ... ..	557,094	58,131	31,452	1,793	367,681	124,541	1,140,692
Bank and cash ... ..	28,667	19,736	14,854	2,238	140,581	70,886	276,982
Fixed deposits and investments ... ..	2,696,225	89,292	30,000	200	309,271	39,950	3,104,938
<b>Total Assets ... ..</b>	<b>18,425,129</b>	<b>609,167</b>	<b>944,906</b>	<b>28,024</b>	<b>3,923,805</b>	<b>1,234,131</b>	<b>25,165,162</b>
<b>Excess of Assets</b>	<b>£ 2,669,655</b>	<b>349,909</b>	<b>151,898</b>	<b>1,155</b>	<b>2,589,122</b>	<b>617,963</b>	<b>6,379,702</b>

There was a surplus of assets over liabilities in all undertakings except in two municipalities and four funds in the shires, in which the aggregate excess of liabilities was only £5,950.

The balance sheet of the Sydney County Council is not compiled on exactly the same basis as those of the other undertakings. The surplus of assets in the Sydney County Council includes unappropriated balance of revenue account, £96,781, and the following reserves: General, £22,630, Sinking Fund, £2,354,900 and Insurance Fund £112,319. The value of plant, etc., includes capitalised charges for loan discounts and flotation expenses, £301,590 and installation costs of apparatus on hire, £12,335, which are written off by annual charges to revenue. The gross value of Land, Plant, etc., amounted to £21,462,375, being reduced to £15,143,143 by the deduction of depreciation reserve £6,319,232.

#### *Gasworks Trading Funds.*

The supply of coal gas for lighting and heating in New South Wales is mainly the province of private companies.

The only publicly owned gasworks are operated by municipal councils in country towns and these numbered 21 in 1921 and 18 in 1938. A summary of their revenue accounts in various years since 1921 is shown below:—

TABLE 479.—Local Government, N.S.W., Gasworks Revenue Accounts, 1921 to 1938.

Year ended 31st December.	Expenditure.		Revenue.					Surplus or Deficiency (—).
	Cost of Gas and Residuals.	Total Expendi- ture.	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
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
1938 ...	95,006	95,708	74,106	14,388	2,401	3,049	93,944	(—)1,764

Profits on trading, aggregating £3,875 were earned by 8 of the municipal undertakings in 1938 and trading losses aggregating £5,639 were incurred by 10 of them. Costs of manufacture include £11,951 for depreciation of assets and £1,199 for interest on loans, overdrafts, etc. The revenue includes votes from electricity funds £560 and Government grants £18.

The gas manufactured in 1938 measured 282,695,000 cubic feet and the average cost, after deducting proceeds from the sale of residuals, was 5s. 8d. per 1,000 cubic feet. Of 217,029,000 cubic feet of gas sold, 216,537,000 cubic feet were for private consumption and 492,000 cubic feet for public lighting. The average price realised was 6s. 10d. per 1,000 cubic feet of gas sold.

There has been a decline in the activities of municipal gasworks, as a result of an extension of electricity services, and the quantity of gas sold decreased from 375,915,000 cubic feet in 1921 to 217,029,000 cubic feet in 1938. As compared with 1937, however, there was an increase of 6,642,000 cubic feet in 1938.

The balance sheets of the municipal gasworks trading undertakings at 31st December, 1938, are summarised in the following statement:—

TABLE 480.—Local Government, N.S.W., Gasworks Balance Sheets, 1938.

Liabilities.			Assets.		
		£			£
Loans and deferred payment debts		25,851	Buildings, land, stock, plant, etc.		264,744
Sundry creditors, etc.	... ..	18,783	Sundry debtors, including amounts		
Overdrafts	... ..	10,721	due from other funds	... ..	18,073
			Outstanding rates	... ..	1,835
Total Liabilities	... ..	55,355	Fixed deposits and investments	... ..	12,161
Excess of Assets	... ..	250,823	Bank balance and cash	... ..	9,365
Total	... ..	£306,178	Total	... ..	£306,178

A surplus of assets at the end of 1938 was disclosed by all the undertakings. Capital expenditure on the improvement and extension of assets during 1938 amounted to £12,563, including £930 from loan funds. Repayments of capital debt (loans and deferred debts) totalled £2,549.

#### *Water Supply and Sewerage Funds.*

The water supply and sewerage systems of the metropolitan and Newcastle districts and Broken Hill are administered by statutory boards representative of the State Government and the local councils, and two water storage systems, the South West Tablelands and Junee, are under the direct control of the State Government. These are described on page 558 et seq. The Grafton and South Grafton Water Board administers water supply services within the municipalities of Grafton and South Grafton, and the Southern Riverina county council has been formed to supply water to towns in four shires. Other domestic water supply and sewerage works in New South Wales, except those associated with irrigation schemes, 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 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 apportions 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 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 3½ 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. The Act expired on 30th June, 1940. By its terms 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, 1939, the sum of £682,739 had been written off and £2,979,647 had been accepted by the State in full settlement of the debts of fifty-five councils amounting in the aggregate to £3,662,386.

At 31st December, 1938, country water supply services were operated or were under construction by eighty municipalities and thirty-seven shires, and country sewerage services by forty-eight municipalities and eight shires.

Details of the revenue accounts of the water supply and sewerage works of individual councils are shown in section Local Government of the Statistical Register, 1938-39. The following table is a summary of the revenue accounts for the year 1938:—

TABLE 481.—Local Government, N.S.W., Water and Sewerage Revenue Accounts, 1938.

Council.	Expenditure.	Revenue.				Surplus.
		Rates.	Government Grants.	Other.	Total.	
				Water Supply.		
	£	£	£	£	£	£
Southern Riverina County Council ... ..	*	...	...	...	*	*
Grafton and South Grafton Water Board ... ..	10,493	8,267	1,290	2,370	11,927	1,434
Municipalities ... ..	310,538	243,176	133,696	109,262	486,134	175,596
Shires ... ..	52,756	43,970	49,323	22,749	116,042	63,286
Total Water Supplies ... ..	373,787	295,413	184,309	134,381	614,103	240,316
				Sewerage.		
	£	£	£	£	£	£
Municipalities ... ..	142,803	132,173	218,246	22,413	372,832	230,029
Shires ... ..	16,309	5,736	35,752	9,482	50,970	34,661
Total Sewerage ... ..	159,112	137,909	253,998	31,895	423,802	264,690

\* Works under Construction.

Expenditure relates to management and working expenses, depreciation and interest. In water supply works the charge for depreciation was £31,342 and interest amounted to £130,388, including £83,892 payable on debt owing to the Government. For sewerage works the depreciation was £8,407, and interest £73,355, including £34,428 on debt to Government.

Revenue included exceptionally large amounts in respect of Government grants which comprised, in water supply works, contributions towards the capital cost of constructing new works and extending old works, £174,078, interest subsidies £7,439, and other £2,792; corresponding figures for sewerage works were £249,929, £3,769 and £300 respectively.

The surplus of revenue over expenditure was swollen by the inclusion of capital grants by the Government. The deduction of such items would reduce the surplus for water supply to £66,238 and for sewerage to £14,761.

The capital debt of the water supply and sewerage works combined at 31st December, 1938, was £5,904,847, of which £1,646,952 was owing to the Government and £4,257,895 to other creditors (i.e., debenture holders, etc.). As a result of financial arrangements described on page 547, there has been a notable change in the composition of the capital debt since 31st December, 1936, when the aggregate, £4,971,627, consisted of £4,846,675 owing to the Government and £124,952 to other creditors.



*Abattoir Trading Funds.*

The Local Government Act authorises the councils of municipalities and shires, other than those in areas under the jurisdiction of the Meat Industry Act (see page 568) to conduct abattoirs. This power, however, was exercised by only three municipalities at the end of 1938, viz., Albury, Tamworth and Broken Hill.

The abattoirs at Albury and Tamworth form part of the general funds of those councils and particulars of their operations are included in Tables 472 and 474. There is a separate fund for the abattoirs at Broken Hill; revenue in 1938 amounted to £4,523 and expenditure to £4,879, the net result being a deficiency of £356. At the end of the year liabilities amounted to £1,210, including insurance reserves, £1,108; and assets amounted to £8,533, comprising cash and investments, £2,172; debtors, £617; stocks, £260, and land, buildings and plant, £5,484. The excess of assets was £7,323.

The council of the City of Greater Newcastle assumed control on 2nd April, 1939, of the Newcastle District Abattoirs, which were conducted previously by an independent board.

## 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 £250,000 in 1928 to 1930, £150,000 in 1931 to 1936 and £177,500 in 1937 and later years. The allotment for the three years commencing 1st January, 1940, is 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.	

Grants by the State for specific purposes, made to both municipalities and shires, usually form the subject of application by individual councils.

These include annual grants of relatively small amounts to recoup revenue lost through the abolition of tolls on road ferries and special assistance for repairing damage caused by flood, fire, etc.

Large sums are paid to councils which act as construction authority or agent for the State in such matters as maintenance and construction of main roads and unemployment relief works. These activities are described in chapters of this Year Book which relate to roads and bridges and employment.

In regard to measures for the relief of unemployment, assistance in another form is given to the councils 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, 1940, to make agreements with the councils for State contributions towards interest and sinking fund charges in respect of loans raised by them and to make advances to supplement loans raised by councils.

Moneys paid to local governing bodies 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 at intervals between 1921 and 1938.

TABLE 482.—Local Government, N.S.W., Receipts from State Government,\* 1921 to 1938.

Year.	Sydney and Suburbs.	Newcastle.	Country Municipalities.	Shires.	County Councils.	Total.
	£	£	£	£	£	£
1921 ... ..	29,344	2,030	25,864	331,173	—	388,411
1926 ... ..	155,341	11,091	81,060	1,113,095	—	1,360,587
1931 ... ..	197,604	11,276	142,900	828,828	—	1,180,608
1932 ... ..	267,957	31,460	180,370	841,553	—	1,321,340
1933 ... ..	510,710	49,477	326,653	1,317,587	—	2,204,427
1934 ... ..	972,165	203,728	735,653	1,980,097	—	3,891,643
1935 ... ..	1,103,467	258,736	993,519	2,579,062	900	4,935,684
1936 ... ..	1,135,263	268,853	902,063	2,399,043	800	4,706,022
1937 ... ..	682,418	146,792	678,434	2,349,583	926	3,858,153
1938 ... ..	543,475	69,120	907,288	2,439,849	1,962	3,961,694

\* Including amounts to be disbursed by councils as agents for the Government.

Separate details are not available as to Government grants given primarily as financial assistance (e.g., endowment) and moneys received for expenditure by councils as agents for the Government (e.g., on unemployment relief works, main roads, etc.). Nevertheless, the increase in 1926 following the formation of the Main Roads Board, and in 1933 when the system of unemployment relief works was introduced, gives some indication of the important functions performed by local authorities in relation to public works and employment.

A classification of moneys paid by the Government to local governing bodies, showing broadly the objects of expenditure, is given below. Unemployment relief moneys form the largest constituent of those classified as other ordinary services. A large proportion of such moneys was spent on road works and smaller sums on parks, baths, beaches and other services. Payments to water supply and sewerage funds in recent years include substantial contributions towards the capital cost of new works.

TABLE 483.—Local Government, N.S.W., Receipts from State Government.\*  
Objects, 1931 to 1938.

Year.	Ordinary Services.			Trading Funds.		Total.
	Endowment.	Main Roads.	Other.	Electricity and Gasworks.	Water and Sewerage.	
	£	£	£	£	£	£
1931 ... ..	149,533	1,028,486		312	2,277	1,180,608
1932 ... ..	147,095	1,165,570		1,300	7,375	1,321,340
1933 ... ..	148,544	2,006,888		1,872	47,123	2,204,427
1934 ... ..	150,249	3,654,868		3,045	83,481	3,891,643
1935 ... ..	149,250	1,222,667	3,457,041	4,042	102,684	4,935,684
1936 ... ..	149,875	1,064,365	3,439,597	5,033	47,152	4,706,022
1937 ... ..	175,425	1,313,912	2,213,627	2,949	152,240	3,858,153
1938 ... ..	177,950	1,380,348	1,954,384	10,705	438,307	3,961,694

Including amounts paid to councils for disbursement as agents for the Government.

#### LOAN FINANCES OF LOCAL GOVERNING BODIES.

Long term borrowing by local governing bodies in New South Wales is classified for statistical purposes under three headings: (i) *Loans*, i.e., amounts raised by the sale of debentures and inscribed stock to private individuals and financial institutions, mostly banks and life assurance societies; (ii) *Government Advances*, comprising repayable advances in cash and the cost of works and services performed or materials supplied by the State for which councils are liable; and (iii) *Time Payment Debts*, known also as deferred payment debts, relating generally to plant and property acquired by hire purchase and sometimes to work performed under terms of extended payment.

#### *Borrowing Powers.*

The Sydney Corporation Act authorises the Council of the City of Sydney, with the Governor's approval, to raise loans in Australia or any other country by the issue of debentures or inscribed stock secured upon the corporate rates and revenues of the Council from whatever source arising. 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 currency of a loan, including renewals thereof, may not exceed 50 years in the aggregate and repayment may be made by equal yearly or half-yearly instalments of principal and interest or through the operation of a sinking fund established on the basis of 3 per cent. per annum compound interest. The council may not exceed by way of overdraft an amount equal to one-half of the revenue, as certified by the Auditor-General, of the fund to which the overdraft relates.

Loans obtained by the councils of other municipalities and of shires are raised usually under the Local Government Act, 1919, 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 rateable 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.

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.

An Act was passed in 1935 to authorise councils to borrow moneys by ordinary loan for certain classes of works for which, normally, special loans would have been prescribed. These, and provisions enacted in 1937 authorising councils to repay from ordinary loans capital debts owing to the Government for water supply and sewerage works, terminated on 30th June, 1940.

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.

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 Treasurer is empowered on the recommendation of the Minister to guarantee the repayment of loans raised by the municipalities situated within the Western Division (including the municipalities of Balranald, Hillston and Nyngan) and by county councils engaged in the supply of water or sewerage services.

Councils are permitted in terms of the Local Government Act to accept from ratepayers advances not exceeding £500 for the purpose of carrying out works for which the lenders have applied. Such loans may not exceed, in the aggregate, one-tenth of the total revenue for the preceding year, and provision must be made for repayment within ten years and the rate of interest may not exceed 4 per cent.

Councils may enter into time payment contracts to pay for purchases or works by instalments spread over a period of years. The annual payments under such contracts may not exceed 10 per cent. of estimated income in any year and the liability in respect of principal sums owing is taken into account in determining the limit of the council's power to borrow, as described above. Before entering into a contract, except for the purchase of land, a council must advertise the proposed conditions and call tenders for the intended purchases or works.

Government advances are made generally by the Minister and are not subject to statutory limitation.

#### *Loan Expenditure.*

The following table shows particulars of the expenditure by local governing bodies in 1938 from the proceeds of loans raised by the sale of debentures and inscribed stock. Government advances and time payment debts are not included but are shown in Table 486.

TABLE 484.—Local Government, N.S.W., Loan Expenditure, 1938.

Object.	Municipalities and Shires.			County Councils.*	Total.
	Metropolitan.	City of Greater Newcastle.	Country.		
	£	£	£	£	£
Ordinary Services—					
Roads, Bridges, Drainage, etc. ... ..	508,117	38,800	619,049	...	1,166,656
Resumptions Account† ... ..	35,679	...	...	...	35,679
Parks, Baths, Beaches, etc. ... ..	89,749	3,839	81,640	...	175,228
Public Markets ... ..	53,946	...	4,780	...	58,726
Aerodromes ... ..	...	...	14,525	...	14,525
Plant and Property ... ..	80,751	49,298	45,168	...	175,217
Other ... ..	16	...	18,088	...	18,104
Total, Ordinary Services ... ..	£ 768,258	92,027	783,850	...	1,644,135
Trading Undertakings—					
Electricity ... ..	511	47,798	181,800	472,934	703,043
Gas ... ..	...	...	930	...	930
Water ... ..	...	...	286,242	5,461	291,703
Sewerage ... ..	...	...	490,830	...	490,830
Total, Loan Expenditure ... ..	768,769	139,825	1,743,652	478,395	3,130,641

\* Including Grafton and South Grafton Water Board.

† See explanation hereunder.

The distribution of "Ordinary Services" expenditure as shown in the table, is approximate. Only new loan expenditure on works and services is included, and amounts devoted to repayment of old loans, Government advances or time payment debts are excluded.

The item "Resumptions Account" refers to compensation and other capital expenditure incurred in the City of Sydney in respect of property resumed for the purpose of widening roads or other improvements. Frequently there remain to the council valuable residues of resumed property which it lets to tenants or sells in due course. Therefore the expenditure shown in the table should be distributed between the items "Roads, etc." and "Plant and Property" but the allocation cannot be made for lack of data.

The loan expenditure of the local governing bodies in New South Wales is shown below for the years 1928 to 1938, also the amount provided annually for the redemption of loan debt during the years 1931 to 1938.

TABLE 485.—Local Government, N.S.W., Loan Expenditure and Repayments, 1928 to 1938.

Year.	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
1938 ... ..	117,608	1,844,890	689,748	478,395	3,130,641
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 ... ..	479,498	656,310	135,859	267,786	1,539,453
1938 ... ..	267,553	757,928	174,387	281,901	1,481,769

\* 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.

Under the heading "Repayment of loans" is shown the amount of revenue applied in each year to the redemption of loans. The figures include direct repayments to lenders where loans are repayable by yearly or half-yearly instalments and, where loans are of fixed term, credits to sinking funds in the form of contributions from revenue account and interest earnings on accumulated investments which are generally credited direct to sinking fund accounts. Repayments of loans from sinking funds and from renewal or conversion loans are not included.

Fluctuations in the amounts shown as repayments in the City of Sydney are due to the inclusion of special items, viz., the proceeds of sales of resumed property when invested for repayment of loans at maturity, and transfers to revenue account of surplus sinking fund accumulations in respect of matured loans.

The Sydney County Council has in some years expended cash accumulated in ordinary trading operations in the retirement of substantial amounts of debentures, and in this way fluctuations have arisen in repayments by county councils, as shown in the table.

*Government Advances and Time Payment Debts.*

The expenditure from repayable Government advances and time payment debts by local governing bodies in New South Wales amounted to £592,342 in 1931, £319,212 in 1932 and £453,652 in 1933. The following table shows particulars of such expenditure in later years:—

TABLE 486.—Local Government, N.S.W., Expenditure from Government Advances and Time Payment Debts, 1934 to 1938.

Year.	Municipalities and Shires.			County Councils.	All Local Governing Bodies.		
	Sydney and Suburbs.	City of Greater Newcastle.	Country Municipalities and Shires.		Government Advances.	Time Payment Debts.	Grand Total.
	£	£	£	£	£	£	£
1934 ...	109,325	24,701	591,816	4,650	674,583	55,909	730,492
1935 ...	130,139	16,993	381,584	...	473,300	55,416	528,716
1936 ...	65,152	9,142	298,548	...	321,413	51,429	372,842
1937 ...	46,022	330	80,542	...	67,895	58,999	126,894
1938 ...	18,977	340	75,249	14,465	25,725	83,306	109,031

Expenditure from Government advances and time payment debts in 1938 included expenditure on ordinary services amounting to £80,514, viz., roads, bridges, etc., £15,361; parks, baths, beaches, etc., £4,928; plant and property, £54,919, and other items £5,306. Expenditure on electricity works was £17,189; water supply, £6,335; and sewerage works, £4,993.

The decline in the amount of Government advances since 1936 was due largely to new financial arrangements described on page 547.

Repayments of principal in respect of Government advances and time payment debts in the years 1931 to 1938 are shown below:—

Year.	Government Advances and Time-payment Debts.	Year.	Government Advances and Time-payment Debts.	Year.	Government Advances.	Time-payment Debts.
	£		£		£	£
1931 ...	236,666	1934 ...	195,215	1936...	200,031	66,686
1932 ...	216,214	1935 ...	234,984	1937...	198,039	57,350
1933 ...	193,709			1938...	168,836	83,175

The foregoing amounts do not include repayments of Government advances which were made from proceeds of loans raised by councils, nor remissions of indebtedness by the Government. The decline in indebtedness of the Government in 1938 as shown in the following table was due mainly to such transactions:—

TABLE 487.—Local Government, N.S.W., Government Advances and Time Payment Debts, Amounts Outstanding, 1936 to 1938.

At 31st December	Municipalities and Shires.			County Councils.	All Local Government Bodies.		
	Metro- politan.	City of Greater Newcastle.	Country Municipal- ities and Shires.		Government Advances.	Time Payment Debts.	Grand Total.
	£	£	£	£	£	£	£
1936 ...	490,242	83,317	5,492,456	79,860	5,910,597	235,278	6,145,875
1937 ...	476,416	73,159	5,445,345	138,777	5,925,605	208,092	6,133,697
1938 ...	412,470	64,927	2,376,410	17,922	2,614,829	256,900	2,871,729

*Loan Debt.*

The loan debt on account of debentures and inscribed stock issued by local governing bodies in New South Wales amounted to £40,494,308 as at 31st December, 1938. In addition, the long term indebtedness of the councils included £2,614,829 owing to the Government and £211,391 on time payment contracts, as shown in Table 487.

TABLE 488.—Local Government, N.S.W., Loan Debt, Sinking Funds and Interest, 1938.

Local Bodies.	Loans Outstanding.				Accum- ulated Sinking Funds.	Annual Interest.
	Australia	London.	New York.	Total.		
	£	£	£	£	£	£
Municipalities and Shires—						
Sydney, City ...	8,981,304	2,000,000	.....	10,981,304	4,127,142	475,380
Suburbs ...	5,174,590	.....	.....	5,174,590	7,689	226,171
Newcastle, Greater City ...	958,155	.....	.....	958,155	.....	42,071
Country Municipal- ities ...	5,441,563	.....	.....	5,441,563	93,598	142,670
Shires ...	2,350,181	305,000	.....	2,655,181	119,432	102,294
Total Municipalities and Shires ...	22,905,793	2,305,000	.....	25,210,793	4,347,861	988,586
County Councils* ...	8,217,074	5,171,500	1,894,941	15,283,515	2,354,900	703,726
Grand Total ...	31,122,867	7,476,500	1,894,941	40,494,308	6,702,761	1,692,312

\* Includes Grafton and South Grafton Water Board.

The net loan debt, after deducting sinking funds, was £33,791,547 at the end of 1938.

Practically all the loan debts owing by councils under the Local Government Act are repayable by half-yearly instalments. Consequently their accumulated sinking funds are small. On the other hand, most of the loans of the City of Sydney and Sydney County Council were floated for a fixed term, with provision for sinking fund. Therefore the accumulated



sinking funds of these two bodies are large. At the end of 1938 they were equivalent to 37.6 per cent. and 16 per cent. of the respective loans debts.

The total amount of interest on the loan debt was £1,714,987, distributed according to place of payment as follows:—Australia, £1,246,915; London, £363,850; and New York, £104,222.

The following table shows the loan debt at the end of various years since 1921, also the accumulated sinking funds and the net amount of loans outstanding.

TABLE 489.—Local Government, N.S.W., Gross and Net Loan Debt, 1921 to 1938.

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	5,709	28,068
1936 ... ..	10,921	6,714	1,293	14,347	33,275	5,710	27,565
1937 ... ..	11,065	8,169	2,020	14,727	35,981	6,338	29,643
1938 ... ..	10,981	11,574	2,655	15,284	40,494	6,703	33,791

\* 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.

In 1937 and 1938 the councils' loan programmes were expanded and the net loan liability increased by £6,226,000. A substantial part of the increase, however, related to loans raised by councils to repay debts to the Government for water supply and sewerage works. Loan debt outstanding at the end of 1938 in respect of loans used for the repayment of such debts amounted to £2,499,230.

The net loan liability at the end of 1938, was distributed as follows:—Electricity works, £14,251,180, (42.2 per cent); gasworks, £21,978; water supply, £2,265,345, (6.7 per cent.); sewerage, £1,981,452, (5.9 per cent.); and roads, bridges, buildings, parks and reserves, baths, plant, property, etc., £15,271,592 (45.2 per cent.)

The place of redemption and the approximate amount of interest payable on the loan debt of the local governing bodies in New South Wales, are shown in the following table:—

TABLE 490.—Local Government, N.S.W., Domicile of Gross Loan Debt and Interest, 1921 to 1938.

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	9,380,633	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	480,065	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	469,082	1,556,295
1938 ...	31,122,867	9,371,441	40,494,308	1,224,240	468,072	1,692,312

\* Years 1921 to 1929 London only; 1930 to 1938, New York included, viz.: Loan repayable by half yearly instalments, amounted at end of 1938 to £1,894,941, annual interest being £104,222.

#### METROPOLITAN WATER SUPPLY AND SEWERAGE.

The Metropolitan Water, Sewerage and Drainage Board controls the water supply and sewerage services in the county of Cumberland. 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 main source of the Sydney water supply is the Upper Nepean River, with its tributaries, which drain an area of 347 square miles. Storage reservoirs in this system have a total capacity of 108,772,000,000 gallons, the largest being Avon, 47,153,000,000 gallons, Cataract, 20,743,000,000 gallons, Cordeaux, 20,597,000,000 gallons and Nepean, 17,898,000,000 gallons. Further supplies are drawn from the Woronora and Warragamba Rivers. The Woronora catchment is 29 square miles in extent; a reservoir under construction has at present a capacity of 1,474,000,000 gallons and, when completed, its capacity will be 15,479,000,000 gallons. The Warragamba scheme is in the first stages of development. It has a catchment area of 3,383 square miles and water is now drawn by pumps from the normal flow of the river which is impounded by a low weir. The maximum daily offtake, which varies according to the river flow, is 40,000,000 gallons. Water from the Nepean and Warragamba systems is conveyed to the Prospect Dam, thence to Sydney and adjacent areas by means of tunnels, canals, etc. The Prospect Dam has a capacity available by gravitation of 1,951,000,000 gallons.

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-seven service reservoirs throughout the area reticulated, with a total capacity of 525,055,000 gallons.

The total length of water mains as at 30th June, 1939, was 4,539 miles.

The sewerage 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 Board also maintains 87 miles of channels for stormwater 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 491.—Metropolitan Water and Sewerage, Particulars of Services, 1911 to 1939.

Year ended 30th June.	Water Supply.			Sewerage.		
	Premises Supplied.	Total Supply during Year.	Average Daily Supply.	Premises Connected.	Length of Sewers.	Length of Stormwater Drains.
	No.	Thousand gallons.	Thousand gallons.	No.	miles.	miles.
1911	139,237	10,587,434	29,007	108,012	825	49
1916	183,598	14,374,000	39,380	129,650	1,022	54
1921	221,886	17,701,000	48,496	148,923	1,197	64
1926	268,558	24,506,739	67,142	176,388	1,416	67
1931	308,657	30,803,060	84,390	204,772	1,871	76
1935	322,480	33,683,000	92,283	221,701	2,106	79
1936	326,021	34,372,000	93,913	228,195	2,179	82
1937	332,941	35,896,000	98,345	235,992	2,382	83
1938	341,948	38,431,000	105,290	246,825	2,477	86
1939	350,161	38,790,000	106,274	256,502	2,561	87

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	9
1934-35 } to 1938-39 }	9½	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, 1939, was 65,125.

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  $\frac{1}{4}$ d. to  $3\frac{1}{2}$ d. 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, 1939, were derived from the following sources:—

TABLE 492.—Metropolitan Water, Sewerage and Drainage,  
Capital Funds at 30th June, 1939.

Particulars.	Water.	Sewerage.	Drainage.	Total.
New South Wales Government—	£	£	£	£
Loan Funds ... ..	15,070,385	9,871,805	316,448	25,258,638
<i>Less</i> Repayments ... ..	760,370	452,528	15,962	1,228,860
Remission ... ..	3,061,386	4,964,125	172,186	8,197,697
Net ... ..	11,248,629	4,455,152	128,300	15,832,081
Advances ... ..	3,643,273	1,369,982	121,290	5,134,545
Unemployment Relief Fund ...	292,218	290,174	...	582,392
Amount due to New South Wales Government ... ..	15,184,120	6,115,308	249,590	21,549,018
Loans raised by Board ... ..	11,175,048	9,716,806	797,733	21,689,587
Unemployment Relief—Commonwealth Savings Bank ... ..	959	553	...	1,512
*Unemployment Relief Fund (New South Wales)—Grant ... ..	288,903	446,883	3,200	738,986
Total ... ..	£ 26,649,030	16,279,550	1,050,523	43,979,103

\* 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 from 1st July, 1936, and the Board is to expend £3,000,000 from loan funds in each of the years. At 30th June, 1939, debt totalling £8,197,697 had been remitted, including £5,750,000 in 1936-37, £1,750,000 in 1937-38 and £697,697 in 1938-39.

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.

At 30th June, 1939, the amounts outstanding in respect of loans floated by the Board, according to place of repayment, were as follows: Australia, £17,762,557 (Australian currency); London, £2,000,000 (sterling); and New York £1,428,542 (dollars converted at \$4.8665 to £). A distribution of these amounts according to nominal rates of interest is shown below:—

TABLE 493.—Metropolitan Water, Sewerage and Drainage Board, Loans Outstanding, Rates of Interest, 1939.

Nominal Rate of Interest.	Principal Outstanding at 30th June, 1939.			
	Australia.*	London.*	New York.*	Total.*
Per cent.	£	£	£	£
£ s. d.				
0 5 0	1,512	...	...	1,512
3 7 6	500,000	...	...	500,000
3 15 0	1,000,000	...	...	1,000,000
4 0 0	4,625,000	2,000,000	...	6,625,000
4 2 6	1,000,000	...	...	1,000,000
4 3 9	824,750	...	...	824,750
4 5 0	6,326,295	...	...	6,326,295
4 5 3	1,485,000	...	...	1,485,000
4 9 1	1,000,000	...	...	1,000,000
4 16 10	900,000	...	...	900,000
5 0 0	100,000	...	...	100,000
5 10 0	...	...	1,428,542	1,428,542
Total ... ..	17,762,557	2,000,000	1,428,542	21,191,099

\* For currency values see context above the table.

The New York loan was floated in 1930 and the London loan in 1937. Three loans of £1,000,000 each were floated in Australia in 1938-39, viz., in July, 1938, and in January and April, 1939. Each was issued at par, the interest rates per annum being 4½ per cent. on the first loan and 4¼ per cent. on the others. At 30th June, 1939, sinking fund investments held for redemption purposes amounted to £432,935.

The following statement shows particulars of the financial transactions relating to the services controlled by the Metropolitan Board in various years from 1911:—

TABLE 494.—Metropolitan Water, Sewerage and Drainage, Finances, 1911 to 1939.

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
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	25,598,562	1,741,809	600,609	1,141,200	942,294	68,394	98,543	31,969
1939	26,690,265	1,815,089	603,276	1,211,813	974,982	64,449	149,954	22,428
<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
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	15,185,638	999,989	311,961	688,028	557,837	39,202	61,813	29,176
1939	16,018,587	1,067,755	340,236	727,519	612,854	32,165	85,726	(-) 3,226
<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
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	890,513	40,059	11,425	28,634	30,193	1,972	3,549	(-) 6,880
1938	1,005,709	41,526	16,561	24,965	40,016	1,857	4,129	(-) 21,037
1939	1,060,890	43,850	13,910	29,940	41,389	1,869	5,884	(-) 19,202

\* 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 560.

The working expenses shown in the foregoing table do not include expenditure on renewals except in 1925-26, and the three years 1936-37 to 1938-39. The combined expenditure included in respect of renewals for the three services was £76,059 in 1925-26 and £100,000 in each of the years 1936-37 to 1938-39.

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, 1939, the total amount set aside for expenditure on renewals was £1,757,147, of which £337,085 was charged to revenue, £587,171 appropriated from surplus revenue, £190,208 granted by the State from unemployment relief funds and £142,683 obtained from loans. By 30th June, 1939, the sum of £1,699,071 had been expended on renewals and there was an unexpended balance of £58,076.

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. Provision for sinking fund is made at the rate of 5s. per cent. in respect of capital debt owing to the State and at the rate of 10s. per cent. in respect of loans raised by the Board.

#### 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, Mayfield West, 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 495.—Hunter District Water and Sewerage, Particulars of Services, 1911 to 1939.

Year ended 30th June.	Water Supply.			Sewerage.	
	Properties Supplied.	Supply during year.	Average Daily Supply. Per Property.	Properties Connected.	Length of Sewer.
1911	No. 17,164	thousand gallons. 675,214	gallons. 108	No. 1,465	miles. 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
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
1939	48,370	4,330,760	245	28,257	387

The Hunter District Water Board 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, 1939, consisted of the following items, viz., capital indebtedness repayable to the State Government, £4,073,275, non-repayable State and Commonwealth grants for unemployment relief works, £232,887 and loans raised by the Board £800,000. The capital indebtedness to the State was reduced in terms of the Hunter District Water, Sewerage and Drainage Act, 1938, by £1,259,703 and it was provided that further remissions should be made during the three years 1938-39 to 1940-41 conditional upon the Board expending £2,335,000 from loan moneys. The further remission in 1938-39 was £967,517.

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 496.—Hunter District Water, Sewerage and Drainage,  
Finances, 1911 to 1939.

Year ended 30th June.	Capital Debt.	Gross Revenue.	Working Expenses and Manage- ment.	Interest on Loan Capital.	Exchange.	Sinking Fund.	Surplus.
	£	£	£	£	£	£	£
<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
1939 ... ..	2,969,881	246,845	104,084	105,201	13,275	13,407	10,878
<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
1939 ... ..	1,481,185	123,544	56,070	54,943	6,629	6,522	(-) 611
<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
1939 ... ..	123,814	15,343	7,466	7,207	939	957	(-) 1,226



Working expenses in 1938-39 included £23,000 charged to revenue in respect of reserve for renewals, viz., water, £12,020; sewerage, £7,501 and stormwater drainage, £3,479.

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 563.

#### 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 and shires, 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 1940 there were 80 fire brigades comprised of 732 officers and permanent firemen whose services are wholly at the Board's disposal and 291 volunteers. In the country there were brigades at 155 localities, the principal stations being at Newcastle and Broken Hill, and there were 81 officers and permanent firemen and 1,996 volunteers.

The following table shows the revenue account of the Board of Fire Commissioners for the year ended 31st December, 1940:—

TABLE 497.—Fire Brigades, Revenue Account, 1940.

Revenue.		Expenditure.	
	£		£
Subsidy from Government ...	118,080	Administration ... ..	19,491
Subsidy from Municipalities and Shires ... ..	118,080	Salaries, including Payments to Volunteers ... ..	311,337
Subsidy from Fire Insurance Companies and Firms ... ..	236,160	Repairs to Buildings, Plant, and other expenses ... ..	125,005
Other Sources ... ..	8,684	Equipment and Property Charges	38,163
Excess of Expenditure	12,992		
<b>Total ... ..</b>	<b>£493,996</b>	<b>Total ... ..</b>	<b>£493,996</b>

The contributions by the fifty-five municipalities and shires comprising the Sydney fire district in 1940 represented 5s. 9.5d. per £100 of assessed annual value of the ratable land, as compared with 5s. 7d. in 1919.

Contributions amounting to £236,160 were received in 1940 from 124 insurance companies and 42 firms who insured goods with companies not registered in New South Wales. In the Sydney fire district such contributions represented 17.3 per cent. of the premiums less reinsurances, and in the other districts the proportions ranged from 3.36 per cent.

The estimates of the proposed expenditure by the board for the year 1941 amounted to £506,136, viz., £391,584 for the Sydney fire district and £114,552 for other districts.

The balance sheet of the Board as at 31st December, 1940, is shown in the following statement:—

TABLE 498.—Fire Brigades, Balance Sheet, 1940.

Liabilities.		Assets.	
	£		£
Debentures and Accrued Interest	166,866	Land and Buildings ... ..	447,408
Property and Equipment Account ... ..	639,187	Plant and Fire Appliances ... ..	387,260
Bank Balances ... ..	71,878	Stocks on Hand ... ..	65,423
Trust Accounts ... ..	2,507	Revenue A/c ... ..	9,694
Fund Account ... ..	29,347		
<b>Total ... ..</b>	<b>£ 909,785</b>	<b>Total ... ..</b>	<b>£ 909,785</b>

## 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. Ample supplies of nearly all these commodities are produced within the State. Tea, which is the popular household beverage, 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 duties of the Board of Health and the municipal and shire councils.

Standards for the composition, purity and quality of foods are prescribed by regulations under the Pure Foods Act. The Commonwealth Department of Trade and Customs exercises supervision in regard to the composition and labelling of oversea imports of food and drugs.

The councils of municipalities and shires are authorised to establish public markets and to regulate hawking and peddling of food commodities within the incorporated areas. Outside the City of Sydney, however, there are few markets except saleyards for livestock.

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 499.—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 ...	95,034	43,000 *
Fruit ...	146,300	198,147	Producers' (vegetable)...	180,500	383,072

\*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.

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. The agents must be licensed, and must furnish to the Registrar appointed under the Act a substantial bond from an approved insurance company.

\*70593—A

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 of the product who are enrolled as electors in respect of elections of the Parliament of New South Wales, 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. 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. Marketing boards are in operation for rice, eggs, and wine grapes.

#### *Supervision of Weights and Measures.*

The Weights and Measures Act 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 indicate 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 council of the City of Greater Newcastle. 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. A large quantity of meat for consumption in the Metropolitan area is obtained from country abattoirs.

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.; heavy vealers, 6s. 9d.; calves, 2s. 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.

Slaughtering at the Newcastle Abattoir is done by the staff of the Abattoir. There are livestock saleyards at Waratah.

The average retail prices of meat are shown in Table 511, 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 1939 represented 11 lb. per head of population. 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 13,341,000 lb. in 1939.

Preserved fish is supplied almost entirely by importation. The average consumption is about 4½ lb. per head of population.

In the metropolitan district, 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. In this way the marketing of fish is centralised 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 (2lb.) per head per annum.

The consumption of flour is estimated at approximately 200 lb. per head per annum, including 150 lb. per head used for bread. Particulars of the wheat and flour consumed in New South Wales in recent years are shown in the chapter of this Year Book relating to Agriculture. The present annual consumption of flour is estimated to be in the vicinity of 270,000 tons, including approximately 207,000 tons used for bread. Biscuit factories in 1939-40 used 15,457 tons flour including that used in biscuits for export.

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. In December, 1938, prices of bread and flour were made subject to Government regulation and supervision under the Wheat Products (Prices Fixation) Act of N.S.W., and both were proclaimed as commodities under the National Security (Prices) Regulations in September, 1939.

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. In December, 1938, when the price of wheat had fallen again 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 5 $\frac{1}{4}$ d. per loaf for "cash over the counter" retail sales, and 4 $\frac{3}{4}$ d. 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 regarding the plan for assisting wheat growers and the flour tax and its effect on the price of flour are shown in the chapter "Agriculture" of this Year Book.

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 500.—Bread and Flour Prices in Sydney, 1920 to 1941.

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.*	
1920.	d.	d.	£ s. d.	1931.	d.	d.	£ s. d.
1 Jan. ...	4½	4¾	12 15 0	29 Mar. ...	5	5½	10 0 0†
1 Feb. ...	5½	5¾	16 7 6	1932.			
9 " † ...	6	6¼	19 2 6	1 Jan. ...	4½	5½	10 0 0†
13 Dec. † ...	6½	6¾	19 7 6	1933.			
1921.				4 Dec. ...	5	6	11 15 0†
26 Sept. † ...	6½	6¾	20 17 6	1934.			
10 Dec. † ...	4¾	5	12 0 0	1 June ...	4¼	5¼	7 5 0
1924.				13 Aug. ...	4½	5½	9 15 0
21 July ...	5	5½	14 10 0	1935.			
20 Oct. ...	5½	5¾	15 5 0	25 Mar. ...	4¾-5§	5¾	11 2 6†
1925.				21 Oct. ...	5-5½	5½-5¾	12 12 6†
5 Jan. ...	5½	5¾	15 15 0	1936.			
1926.				25 Feb. ...	4½	5	9 10 0
10 May ...	5¾	6	15 0 0	17 Aug. ...	5	5½	12 0 0
12 July ...	6¼	6½	15 15 0	1937.			
6 Dec. ...	6	6½	13 10 0	25 Jan. ...	5¼	5¾	12 15 0
1927.				19 April ...	5½	6	13 7 6
31 Jan. ...	5¾	6	12 10 0	6 Sept. ...	5¼	5¾	12 5 0
19 Sept. ...	6	6½	13 15 0	1938.			
1928.				10 July ...	5	5½	9 0 0
13 Feb. ...	5¾	6	12 15 0	16 Dec. ...	5½ (a)	6	12 10 0†
1929.							
4 Feb. ...	5½	5¾	11 0 0				
1930.							
30 June ...	5	5½	10 5 0				
1 Sept. ...	4¾	5¼	9 10 0				
20 Oct. ...	4½	5	8 15 0				

\* Cash daily or weekly. † Prices fixed by Profiteering Prevention Court. ‡ 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 April, 1941.

The price of bread delivered by bakers to shops in the period covered by the table was ½d. per loaf less than the cash over counter price, except between March and October, 1935, when the wholesale price was 4s. 4½d. per dozen loaves.

From 1920 to June, 1930, the cash over counter price was ¼d. per loaf less than the cash delivered price. Thereafter until the end of 1931 it was ½d. less, and from January, 1932, to 25th March, 1935, it was 1d. less.

*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, together with the organisation of the industry for production

and distribution, is described in the chapter of this Year Book entitled Dairying Industry. An effect of organisation 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. 4½d. 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 501.—Consumption of Butter in New South Wales, 1930 to 1940.

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	1936	91,800,000	34·6
1931	82,915,000	32·6	1937	92,000,000	34·3
1932	83,100,000	32·4	1938	93,680,000	34·6
1933	84,119,000	32·5	1939	93,050,000	34·0
1934	86,650,000	33·2	1940	95,000,000	34·3
1935	88,354,000	33·8			

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 milk district indicate that the average in the year ended 31st March, 1940 was about 24 gallons per head.

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 30 per cent. of the milk supply of Sydney is derived from dairies within the metropolitan area and the balance is obtained 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 depots, 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 1927-28, and in the Newcastle district since 1933-34:—

TABLE 502.—Country Milk distributed in Sydney and Newcastle, 1928 to 1940.

Year.	Metropolitan District.	Year.	Metropolitan District.	Newcastle District.
	gallons.		gallons.	gallons.
1927-28	17,754,800	1933-34	18,038,000	1,183,100
1928-29	19,773,900	1934-35	18,639,500	1,192,000
1929-30	20,998,200	1935-36	20,065,400	1,376,600
1930-31	19,518,700	1936-37	21,249,500	1,616,300
1931-32	20,014,800	1937-38	22,694,800	1,747,300
1932-33	18,245,300	1938-39	24,666,700	1,790,500
		1939-40	24,648,100	1,784,700

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 Hornsby 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 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.

In March, 1932, minimum prices to be paid to dairymen for milk for the metropolitan district, delivered at certain factories were fixed 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 to be separated 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 503.—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 1939-40 show that 14,657 tons of sugar were used in manufacturing confectionery, 7,483 tons in breweries, 9,967 tons in jam and fruit canning, pickles and sauce, 6,404 tons in making aerated waters and cordials, 2,737 tons in making condiments, 3,640 tons in biscuit factories, and 6,833 tons in other food factories. The aggregate quantity used in factories, 51,721 tons, represented nearly 42 lb. per head of population.

Sugar is produced in New South Wales and Queensland in sufficient quantity to supply Australian requirements. In terms of an agreement between the Governments of the Commonwealth and Queensland, the Queensland Government acquires the raw sugar manufactured from sugarcane grown in Queensland and purchases the raw sugar manufactured from cane grown in New South Wales. The Queensland Sugar Board makes arrangements for the refining and distribution of sugar for use in Australia at prices fixed by the agreement, and for the exportation of the surplus. The importation of foreign sugar into Australia is not permitted. The retail price of sugar in Sydney and suburbs 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, 1939, the Netherlands East Indies supplied 65 per cent. of the total importations; 26 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, and substantial quantities are imported from British East Africa, India, Papua, Arabia, 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 is supplemented by imports 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. The Tweed River district of New South Wales and the State of Queensland are the chief sources of the supply of bananas.

## 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 504.—Gas and Electricity—Index of Consumption—Sydney.  
1929 to 1940.

Year.	Index Number.	Year.	Index Number.
1929	105	1935	108
1930	99	1936	112
1931	96	1937	119
1932	96	1938	123
1933	98	1939	131
1934	102	1940	135

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.

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 505.—Gas for Domestic Use—Prices in Sydney, 1911 to 1941.

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	May, 1922 ...	5 9	November, 1931 ...	5 6
„ 1913 ...	3 6	August, 1922 ...	5 8	September, 1932 ...	5 3
August, 1914 ...	3 10	January, 1923 ...	5 6	November, 1933 ...	5 2
March, 1917 ...	4 1½	February, 1925 ...	5 4	March, 1937 ...	5 4
August, 1918 ...	4 5	November, 1925 ...	5 2	September, 1937 ...	5 9
February, 1919 ...	4 4	January, 1926 ...	5 7	February, 1938* ...	{ 5 9
January, 1920 ...	4 8	July, 1926 ...	5 8		to
November, 1920 ...	5 1	August, 1927 ...	5 9		{ 3 11½

\* On sliding scale according to quantity consumed in 2 months.

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 scale introduced in February, 1938, was still in operation in April, 1941.

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 of maximum demand per day, and 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 506.—Electricity—Prices in Sydney—Rates, 1911 to 1941.

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 April, 1941.

REGULATION OF PRICES OF COMMODITIES IN NEW SOUTH WALES.

*State Price-fixing Authority.*

In December, 1938, the powers of the Industrial Commission of New South Wales (see page 622) 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 related to (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 prices of bricks in the metropolitan area, the Commission was further authorised by an Act passed in June, 1939, to fix maximum prices of commodities where, by reason of the 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.

The Commission's reports on rents and on the prices of bricks in Sydney were summarised in Official Year Book, 1938-39. Reports on prices of bricks in Newcastle and Wollongong and on the prices of tiles were issued in 1940. References to the Industrial Commission for further inquiries were withdrawn in March, 1940.

*War Time Regulation of Prices.*

Within a few days of the declaration of war in September, 1939, the Commonwealth Government adopted measures for the control of prices and the prevention of profiteering in Australia. Proclamations were issued fixing the prices prevailing at 31st August, 1939 (plus any increased sales tax as from 9th September) as the maximum prices of approximately 60 commodities. At a conference of Australian Premiers on 9th September it was agreed to set up a joint prices administration operating under Commonwealth law, except where existing State price fixing authorities were required to continue. Subsequent action for regulating prices was taken in terms of the (Commonwealth) National Security Act, 1939, which commenced on 9th September. Control is vested in the Commonwealth Min-

ister for Trade and Customs and a Commonwealth Prices Commissioner who is assisted by three advisers. In each State there is a Deputy Prices Commissioner and an honorary advisory committee (nominated by the State Government). Early in October, 1939, a comprehensive prices order was issued embodying an "averaging" system whereby prices may be varied in accordance with changes in costs without specific fixation. The order also provides that the basic price (31st August) may be varied by the Commissioner or that specific prices may be fixed for any commodity.

Goods or services are brought within the price fixing authority of the Commissioner when declared by the Commonwealth Minister for Trade and Customs by notice in the Gazette. A declaration may be made generally or in respect of any part of Australia or any proclaimed area or in respect of any person or body or association of persons. Prices or the bases of prices of commodities are determined and proclaimed by the Commissioner but may be referred back by the Minister for Trade and Customs for reconsideration by the Commissioner.

The Commissioner may conduct investigations, summon and examine witnesses, and obtain returns. He may fix maximum prices at which declared goods may be sold and may fix different maximum prices according to differences in the quality of the goods, quantity sold, terms and conditions of sale, or for different localities, maximum prices on a sliding scale, for cash, or delivery, or relatively to those charged by individual traders on a date or to wages or other costs, or upon other principle or condition; and he may vary orders made by him. It is an offence to refuse to sell a reasonable quantity of a declared commodity at the fixed price, or to speculate or corner the market or restrict the circulation of goods.

The Commissioner is authorised to fix maximum rates and charges for declared services supplied or carried on by a public utility undertaking or industrial or commercial enterprise such as electricity, gas or water supply, transport, sewerage, disposal of refuse, or drainage.

As a general rule, the prices prevailing at 31st August, 1939, are the basis of the price fixing orders issued by the Commissioner. It is provided, however, that "basic" prices prevailing at that date may be adjusted in cases where the profit margin in such prices is found to be inequitable either to trader or consumer. It is recognised that some increases in prices in Australia are inevitable, e.g., those arising from increased prices of imported materials and goods, higher ocean freights etc. on such imports, and from higher prices of local raw materials used in manufacturing. The system of "averaging" permits importers, wholesalers and manufacturers to vary their prices by averaging the cost of new stocks and old stocks of any commodity and adding a normal profit margin thereto. With the permission of the Commissioner, imported goods due to arrive within three months may be taken into the calculation. The system of averaging applies also where the new stock is acquired at lower cost than the old.

In the retail trade the averaging system is not generally applicable. The maximum price which may be charged is the cost to the retailer plus normal gross profit margin. Special provisions are made in respect of proprietary goods, consignment goods and raw materials such as coal, metals, hides, leather, timber, etc., where the principles adopted have been either a formula or specific determination of basic prices at intervals.

The Commissioner exercises his authority to fix prices of particular commodities or prices in defined areas when circumstances render this course advisable, but the necessity for determining specific prices has been obviated to a large extent by the promulgation of these general rules.

A list of goods and services declared up to 8th April, 1941, is shown below.

*Commodities Subject to Wartime Prices Regulation, 8th April, 1941.*

Almonds.	Cotton wool, medicated or otherwise.	Handles ( <i>see</i> Wooden).
Asbestos, crude.	Cream of tartar.	Hemp—
Baking powder.	Cream separators.	Rope, cordage, twine, yarn and manufactures thereof.
Bark, wattle.	Dates.	Hides and Skins (unless for export)—
Bicarbonate of soda.	Dental equipment, parts and accessories.	Cattle.
Bicycles.	Dental supplies.	Calf.
Bicycle parts and accessories.	Diamonds, industrial.	Yearling.
Biscuits.	Drugs and Chemicals, viz.—	Rabbit — dyed and dressed.
Bitumen.	Ammonium bromide.	Sheep Pelts.
Bitumen, cutback.	Bismuth carbonate.	Hosiery, full fashioned.
Bituminous emulsions.	Borax.	Infants and invalids' foods.
Blankets.	Borax glass.	Jams and fruit jellies.
Bran and Pollard.	Carbonate of soda (Soda Ash).	Jute and hessian manufactures—
Bread.	Lead acetate.	Bags and sacks.
Brooms and brushes.	Lead nitrate.	Piece goods.
Building materials, n.e.i.:—	Magnesium sulphate (Epsom salts).	Woolpacks.
Bricks.	Methyl salicylate.	Kalsomine.
Builders' hardware, viz.:—	Paradichlor-Benzene.	Latex.
Brackets.	Phenazone.	Leather—
Door closers.	Potassium bichromate.	Dressed from hides.
Door handles.	Potassium bromide.	From sheepskins.
Door knobs.	Potassium citrate.	From marsupial skins.
Door springs.	Potassium iodide.	Kid.
Fanlight openers.	Sodium bichromate.	Sole.
Fasteners — cupboard, door and window.	Sodium bromide.	Splits.
Finger plates.	Sodium iodide.	Upper, from calfskins, hides and yearlings.
Hinges.	Sodium salicylate.	Matches.
Hooks—hat and coat.	Dyes and dry colours.	Meat, canned, and extract of.
Latches.	Electrical appliances—	Mercury.
Locks.	Cable and wire (covered).	Metal powders—
Sash fittings.	Storage batteries and parts thereof.	Bronze.
Screw hooks.	Engineers' Supplies—	Gold.
Doors.	Gate valves.	Metals—
Iron and Steel Sheet—	Steam unions of gun metal and bronze.	Aluminium, scrap.
Black.	Essential Oils—Citrus.	Brass, scrap.
Galvanised flat.	Fertilisers.	Bronze, scrap.
Galvanised corro-gated.	Fish in tins.	Copper—bars, blocks, ingots, pig and scrap.
Kalsomine.	Fish paste.	Gunmetal scrap.
Latex.	Flexible shafting and casing for same.	Lead, pig and scrap.
Lime.	Flour—	Tin ingots.
Paints, varnishes and enamels.	Plain.	Zinc—bar, blocks, ingots, scrap, shavings, dust.
Paper hangings.	Self-raising.	Mica.
Plaster of paris.	Fruit and Vegetable Pulp.	Milk and cream—condensed concentrated and powdered (including powdered skim milk).
Plywood.	Fruits—	Needles—
Sanitary articles of earthenware.	Canned.	for Knitting machines.
Structural beams.	Dried.	for Sewing machines.
Structural troughing.	Furniture and furnishings—	Knitting, for hosiery manufacture.
Tiles.	Blind rollers.	
Wall and ceiling boards.	Glass, plain clear sheet.	
Window frames.	Glycerine.	
Butter.	Golf balls.	
Camphor.	Grain and Pulse, prepared or processed—	
Candles.	Breakfast foods.	
Cement, Portland.	Oatmeal.	
Citric acid.	Wheatmeal.	
Coal.		
Cocoa.		
Coffee.		
Coke.		
Cornflour.		

*Commodities Subject to Wartime Prices Regulation—continued.*

<b>Oils—</b>	Refrigerators and parts—	Surgical dressings—
Benzine, benzoline.	Electrical.	Bandages.
Castor.	Gas.	Gauze.
Crude petroleum.	Resins and gums—	Lint.
Essential—Citrus.	Shellac.	Tapioca.
Fuel oil.	Colophony (rosin).	Tartaric acid.
Gasoline.	Rice.	Tea.
Kerosene.	Rope, cordage, twine.	Tennis balls.
Linseed.	Rubber belting.	Terry towels and towelling,
Mineral lubricating.	Rubber, crude.	terrycloth, terry robing
Motor spirit.	Rubber footwear.	and bath mats.
Naptha.	Rubber hose.	Thread—Linen.
Olive.	Rubber matting.	Timber—
Paraffin (medicinal).	Rubber tyres and tubes.	Dressed and undressed
Pentane.	Sago.	including shooks.
Petrol, or mixtures	Salt.	Logs not sawn.
thereof or mixed with	Sausage casings.	Tinplate.
power alcohol.	Sewing machines and parts.	Tractors.
<b>Onions (grown in Victoria).</b>	Sheep Pelts.	Twine, reaper and binder.
<b>Packing cases—wooden.</b>	Shirts, mens' and boys'.	Vaccines and Sera—
<b>Paper.</b>	Skewers, butchers'.	Canine tick serum.
<b>Piece Goods—</b>	Soap.	Vegetables, dried, canned,
Cotton.	Socks and stockings.	pulped.
Silk.	Stationery and paper manu-	Waste newsprint.
Artificial silk.	factures—	Wax, carnauba (compound)
Mixtures of foregoing.	Envelopes.	Whitelead.
<b>Plate and sheet metal—</b>	Paper bags.	Wirenetting.
Aluminium.	Writing paper.	Wooden handles for tools
Tinplate.	Sugar.	and implements.
<b>Potatoes.</b>		Yarns, woollen and con-
		taining wool.
		Cotton (Australian pro-
		duce).

*Services Subject to Wartime Prices Regulation.*

## Transport by Sea.—

Passenger fares between Australian ports.

Freights for goods between ports in Australia, Papua, New Guinea, and Norfolk Island.

## WHOLESALE PRICES.

The average wholesale prices of various commodities in each year from 1901 to 1920 are published in the "New South Wales Statistical Register" for 1919-20, and those for the years 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, arranged in eight groups, weighted according to the average annual consumption in New South Wales during the three years 1911-1913. The composition of this wholesale price index was explained on page 488 of the 1920 issue of the Year Book. The only important change made was in January, 1930, when local prices of wool and cotton were substituted for the English prices used prior to that date.

The index 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.



TABLE 507.—Wholesale Price Index Numbers (Sydney) 1901 to 1940.

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
1911	1000	1000	1000	1000	1000	1000	1000	1000	1000
1913	1069	1033	1043	1039	1107	1379	1093	1003	1092
1920	2430	1914	3079	2602	2415	3113	2236	2301	2503
1921	1750	1941	1471	2511	2259	1921	2020	1863	1956
1929	1707	1661	1656	2164	1953	2391	1842	1457	1863
1930	1428	1664	1384	2046	1941	2230	1571	1472	1705
1931	1061	1758	1326	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	1458	1504
1935	1270	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	1358	1677
1938	1523	1682	1302	2002	1922	2034	1488	1391	1679
1939	1351	1711	1398	2001	1902	1867	1476	1428	1643
1940	1371	1763	1840	2164	2094	2155	1504	1702	1799

\* 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 in 1937. It declined by 2.2 per cent. in 1939 and rose by 9.5 per cent. in 1940.

In computing the index the component items and the weighting have remained throughout on the basis of average annual consumption during the three years 1911 to 1913. The index therefore serves to indicate long term price changes in respect of standards of usage which prevailed nearly thirty years ago and have since changed substantially in certain major respects. For instance, the agricultural group consists largely of animal fodders of which consumption has declined; on the other hand, the consumption of petrol and other mineral oils has increased considerably and they are not adequately represented in the index. Therefore, the index should be used only as a measure of long term price changes on the basis of consumption standards which prevailed about the base period. It should not be used as a measure of current changes in price level over, say, the past ten years nor as a basis for short term comparisons from month to month. In respect of the period since 1929 reference should be made to the Index of Wholesale Prices of Basic Materials and Foodstuffs published by the Commonwealth Statistician in the Monthly Review of Business Statistics. (See Table 510).

The following table shows the marked fluctuations in wholesale prices of the principal rural products in contrast with the relative stability of prices of the non-rural items included in the Sydney wholesale price index:—

TABLE 508.—Wholesale Price Index Numbers (Sydney) Rural and Non-Rural Commodities, 1911 to 1940.

Year.	Wheat.	Wool.	Butter (Local Sales).	Non-rural Commodities
1911 ... ..	1000	1000	1000	1000
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
1939 ... ..	733	1346	1604	1751
1940 ... ..	1119	1581	1604	1950

The price of wool to which the index numbers up to September, 1939 relate is the average at auction sales in Sydney and the price since that date is based on the agreed price at which the clip was acquired by the British Government, without allowance for any part of the profits on resale which may accrue eventually to the wool growers.

Subsidies paid to the wheat farmers by the Government in the five seasons 1931-32 to 1935-36 and in 1938-39 are not included in the price of wheat on which the index is based. The price for 1939-40 wheat is the price fixed by the Australian Wheat Board for wheat to be used for flour for local consumption.

The index number for butter refers to the supply for local consumption, which is dearer than butter for export. The index number for non-rural commodities is based on the prices of the 74 non-rural commodities included in the general wholesale price index numbers, no highly manufactured commodities being taken into consideration.

The average wholesale prices of twenty-nine 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 509.—Wholesale Prices (Sydney) 1911 to 1940.

Commodity.	1911.	1921.	1929.	1931.	1932.	1939.	1940.
Wheat, milling .. .. bush.	s. d. 3 6	s. d. 8 7 <sup>9</sup>	s. d. 4 10 <sup>6</sup>	s. d. 2 5 <sup>2</sup>	s. d. 3 0 <sup>9</sup>	s. d. 2 6 <sup>8</sup>	s. d. 3 11
Flour .. .. ton	169 9	386 7	230 11	191 3*	197 0*	247 0*	245 6
Chaff, wheaten .. .. "	81 0	123 9	137 2	78 2	78 9	82 0	108 5
Potatoes (local) .. .. "	111 5	119 0	133 6	130 8	120 0	177 4	210 5
Sugar .. .. "	437 6	980 0	746 8	746 8	746 8	604 0	664 0
Tobacco, dark plug .. lb.	5 0	8 2	8 4	10 9	11 0	12 1	12 5
Tea .. .. "	1 1 <sup>5</sup>	2 1	2 2	2 4	2 1	2 2	2 4
Soap .. .. 44 lb.	18 4	28 9	24 0	22 11	22 0	22 1	22 5
Jam .. .. 18 "	6 2	13 0	11 6	10 9	11 7	10 5	10 6
Kerosene .. .. 8½ gal.	7 3	20 8	13 4	13 0	13 2	13 0	14 2
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>	0 11 <sup>4</sup>	1 1 <sup>4</sup> ‡
Leather, sole .. .. "	1 1 <sup>7</sup>	1 11	1 9	1 7	1 8	2 0	2 3 <sup>6</sup>
Woolpacks .. .. each	2 4	3 9	3 10	4 2	3 8	3 11	5 4
Iron—Pig, local .. .. ton	78 4	182 6	120 0	115 0	93 8	85 0	85 0
Plate, girder .. .. "	233 4	696 8	390 0	410 2	434 7	421 3	409 5§
Corrugated, galv. .. "	346 8	979 2	517 6	609 7	571 7	570 0	573 1
Copper, sheet (8 x 3 x 24 ga'e) lb.	0 10 <sup>5</sup>	2 2	1 9	1 3 <sup>6</sup>	1 3 <sup>9</sup>	1 3 <sup>2</sup>	1 3 <sup>4</sup>
Hardwood, local (3 x 2) 100 sup. ft.	17 0	36 0	32 8	32 0	30 2	27 6	31 2
Pine—Local (4½ x 1) 100 sup. ft.	25 5	62 0	61 0	61 8	58 4	61 6	62 10
N.Z. (4½ x 1) .. .. "	22 2	62 0	41 0	42 8	43 6	44 0	47 2
Oregon (2 x 2) .. .. "	15 7	47 1	29 4	36 0	37 8	37 5	58 9
Bricks .. .. 1,000	42 0	68 0	71 7	57 0	57 0	62 7	58 2
Beef—Foreas .. .. 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 3 <sup>2</sup>	0 3 <sup>9</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 5 <sup>5</sup>	0 6 <sup>4</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>3</sup>	0 3 <sup>7</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>2</sup>	0 6 <sup>9</sup>
Butter .. .. "	0 10 <sup>6</sup>	1 10	1 10	1 4	1 3	1 5	1 5
Eggs, new laid .. .. doz.	1 4	2 4	1 10	1 4	1 3	1 4 <sup>4</sup>	1 5 <sup>3</sup>
Cream of tartar .. .. lb.	0 11 <sup>2</sup>	2 0	1 4	2 0	1 10	1 8 <sup>5</sup>	(a)

\*Including tax. † Weighted average (season ended June).  
‡ Agreed price for sale of clip to British Government. § 9 to 18 x ½. (a) Not available.

Index Numbers of Wholesale Prices—Comparison with Other Countries.

The following statement shows the index numbers of wholesale prices of basic materials and foodstuffs in Australia, as compiled by the Commonwealth Statistician from quotations obtained from Melbourne (Victoria) sources; the weighting system is based on average annual consumption during the years 1928-29 to 1934-35 inclusive, and the year 1928-29 is the base = 100. Index numbers are shown also for New Zealand, Canada, United Kingdom and United States of America with the calendar year 1929 as base:—

TABLE 510.—Wholesale Price Index Numbers.—International Comparison.

Year ended unc—	Australia (Melbourne). [Common- wealth Bureau of Census and Statistics.]*	Calendar Year.	New Zealand. [Census and Statistics Office.]	Canada. [Dominion Bureau of Statistics.]	United Kingdom. [Board of Trade.]	United States of America. [Bureau of Labour.]
1929	100	1929	100	100	100	100
1930	100	1930	97	91	88	91
1931	90	1931	91	75	77	77
1932	86	1932	89	70	75	68
1933	82	1933	91	70	75	69
1934	81	1934	92	75	77	79
1935	81	1935	95	75	78	84
1936	84	1936	96	78	83	85
1937	89	1937	103	88	95	91
1938	91	1938	105	82	89	82
1939	92	1939	108	79	90	81
1940	94	1940	121	87	120	82

\* Basic materials and foodstuffs.

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 means of the monthly prices during each year.

TABLE 511.—Retail Prices of Food—Sydney, 1901 to 1940.

Commodity.		1901.	1911.	1921.	1929.	1931.	1932.	1939.	1940.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Bread .. .. .	2lb. loaf	0 2 5	0 3 5	0 6 2	0 5 7	0 5 4	0 5 3	0 6 0	0 6 0
Flour .. .. .	2lb.	0 1 8	0 2 6	0 5 9	0 4 2	0 3 5	0 3 6	0 4 9	0 4 9
Tea .. .. .	lb.	1 3 0	1 3 5	1 19 7	2 2 1	2 3 7	2 2 4	2 3 3	2 5 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
Rice .. .. .	"	0 2 5	0 2 7	0 4 9	0 3 7	0 3 5	0 3 5	0 3 4	0 3 4
Oatmeal .. .. .	lb.	0 2 3	0 2 5	0 4 0	0 4 1	0 3 1	0 3 1	0 3 3	0 2 7
Potatoes .. .. .	7lb.	0 5 7	0 6 1	0 7 3	1 9 1	0 9 4	0 9 4	1 5 8	1 1 7
Kerosene .. .. .	gal	0 10 1	0 11 1	2 10 9	1 11 3	1 9 4	1 9 3	1 7 6	1 7 7
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
Butter .. .. .	lb.	1 0 2	1 1 7	2 0 7	2 0 7	1 7 0	1 5 4	1 7 0	1 7 0
Cheese .. .. .	"	0 7 5	0 8 7	1 3 9	1 4 2	0 11 9	1 0 2	1 2 6	1 2 7
Eggs, Fresh .. .. .	doz.	1 3 0	1 3 5	2 6 5	2 1 1	1 7 3	1 5 5	1 7 0	1 8 2
Bacon, Middle Cut* .. .. .	lb.	0 9 0	0 10 5	1 10 9	1 7 7	1 2 2	1 1 4	1 4 3	1 5 4
Beef, Sirloin .. .. .	"	0 4 5	0 4 5	0 9 1	0 11 3	0 9 3	0 8 7	0 10 4	0 11 3
Rib .. .. .	"	0 3 8	0 3 8	0 6 7	0 8 6	0 7 2	0 6 5	0 7 8	0 8 4
Steak Rump .. .. .	"	0 7 0	0 7 0	1 2 0	1 4 0	1 1 9	1 1 0	1 2 9	1 4 4
Beef, Corned Round .. .. .	"	0 4 0	0 4 0	0 8 1	0 8 6	0 7 8	0 7 3	0 8 2	0 9 1
Mutton, Leg .. .. .	"	0 3 2	0 3 0	0 6 9	0 8 4	0 6 2	0 5 7	0 7 2	0 7 5
Loin .. .. .	"	0 3 8	0 3 8	0 7 6	0 9 3	0 7 6	0 6 6	0 8 0	0 8 9
Chops, Loin .. .. .	"	0 4 2	0 4 0	0 8 6	0 11 0	0 7 9	0 7 1	0 8 9	0 9 5
Leg .. .. .	"	0 3 8	0 3 8	0 8 1	0 9 8	0 7 4	0 6 6	0 8 0	0 8 5
Pork, Leg .. .. .	"	0 6 2	0 7 8	1 3 4	1 2 6	0 11 1	0 10 7	1 1 1	1 1 4
Chops .. .. .	"	0 6 8	0 8 5	1 5 8	1 3 2	0 11 2	0 10 6	1 1 5	1 1 8

\* Rashers in 1932, and later years.

The average prices of meat, tea and eggs were dearer in 1940 than in the previous year, but potatoes and oatmeal were cheaper.

The monthly variations in the average prices of the principal food commodities in Sydney since January, 1939 are shown below. The following items which remained unchanged throughout this period are not included in the table, viz., bread 6d. per 2 lb. loaf (delivered), sugar 4d. per lb., butter 1s. 7d. per lb. and milk 7.1d. per quart.

TABLE 512.—Retail Prices of Food—Monthly.

Month.	Flour 2 lb.	Tea lb.	Jam, Plum. 1½ lb.	Flaked Oats. lb.	Potatoes 7 lb.	Eggs doz.	Beef.		Mutton.	
							Ribs (incl. bone) lb.	Rump Steak. lb.	Leg lb.	Loin Chops lb.
1939.	d.	s. d.	d.	d.	s. d.	s. d.	d.	s. d.	d.	d.
January ...	5-0	2 2-6	9-0	3-1	1 4-5	1 7-5	7-9	1 3-0	7-4	9-2
February	5-0	2 2-6	9-2	3-2	1 9-4	2 1-4	7-8	1 3-0	7-4	9-1
March ...	4-9	2 2-6	9-6	3-3	1 5-6	1 6-6	7-9	1 2-9	7-4	9-2
April ...	4-9	2 2-6	9-6	3-4	1 4-1	1 10-6	8-0	1 3-0	7-2	7-9
May ...	4-9	2 2-5	9-6	3-4	1 1-8	1 11-8	7-6	1 2-9	7-1	8-2
June ...	4-9	2 2-5	9-6	3-4	1 3-2	1 11-9	7-8	1 3-0	7-2	8-4
July ...	4-9	2 2-6	9-6	3-3	1 5-6	1 6-0	7-7	1 3-0	7-2	8-8
August ...	4-9	2 2-6	9-6	3-3	1 8-3	1 3-0	7-4	1 2-8	7-1	8-6
September	4-9	2 2-6	9-8	3-3	1 8-8	1 2-8	7-6	1 2-7	7-1	8-8
October ...	4-9	2 5-6	9-8	3-3	1 10-7	1 2-8	7-7	1 2-8	7-2	8-8
November	4-9	2 5-6	9-8	3-4	1 7-2	1 2-8	7-8	1 2-8	7-2	9-0
December	4-9	2 5-6	9-9	3-4	1 0-4	1 4-8	8-0	1 3-0	7-4	9-2

TABLE 512.—Retail Prices of Food—Sydney—Monthly—*continued.*

Month.	Flour. 2 lb.	Tea. lb.	Jam, Plum. ½ lb.	Flaked Oats. lb.	Potatoes 7 lb.	Eggs. doz.	Beef.		Mutton.	
							Ribs (incl. bone.) lb.	Rump Steak. lb.	Leg. lb.	Loin Chops. lb.
1940.	d.	s. d.	d.	d.	s. d.	s. d.	d.	s. d.	d.	d.
January ...	4·8	2 6·8	10·0	3·4	0 10·6	1 6·0	7·8	1 3·4	7·4	9·2
February	4·8	2 7·6	10·0	3·2	0 10·8	1 9·0	7·9	1 3·6	7·3	9·2
March ...	4·8	2 7·4	10·1	2·9	0 11·6	1 9·5	8·1	1 3·9	7·6	9·4
April ...	4·8	2 6·6	10·2	2·5	1 6·6	2 1·0	8·1	1 4·1	7·6	9·6
May ...	4·8	2 4·8	10·2	2·4	0 11·8	2 3·2	8·3	1 4·3	7·6	9·8
June ...	4·8	2 4·8	10·2	2·4	1 0·0	1 11·9	8·2	1 4·2	7·6	9·6
July ...	4·9	2 2·8	10·2	2·4	1 1·1	1 7·0	8·2	1 4·2	7·5	9·6
August ...	4·9	2 2·8	10·2	2·4	1 0·9	1 5·0	8·3	1 4·3	7·4	9·4
September	4·9	2 3·8	10·2	2·4	1 2·6	1 4·8	8·5	1 4·5	7·4	9·4
October ...	4·9	2 5·8	10·2	2·5	1 2·8	1 4·9	9·2	1 5·5	7·7	9·6
November	5·0	2 6·0	10·2	2·6	1 3·9	1 5·9	9·0	1 5·4	7·6	9·4
December	5·0	2 7·0	10·4	2·8	1 4·6	1 6·0	9·0	1 5·7	7·6	9·4
1941.										
January ...	5·0	2 8·0	10·4	3·0	1 4·6	1 6·9	9·4	1 7·2	8·0	9·7
February	5·0	2 8·0	10·4	3·1	0 9·9	1 8·7	9·0	1 6·5	7·7	9·6
March ...	5·0	2 8·0	10·4	3·4	0 10·6	1 8·8	8·8	1 5·8	7·5	9·4

*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 various countries to July, 1939, and the increases in the first year of the present war. The figures for the oversea countries have been taken from the British Ministry of 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 513.—Retail Prices of Food, Increases in Various Countries.

Country.	Percentage Increases in Retail Food Prices.					as compared with Aug. 1939.
	as compared with July, 1914.					
	July, 1 18.	July, 1920.	July, 1929.	July, 1932.	July, 1939.	August, 1940.
New South Wales ...	34	96	66	32	44	2
Victoria ...	33	108	62	23	51	1
Queensland ...	41	99	58	24	44	3
South Australia ...	25	92	54	10	27	2
Western Australia ...	11	63	45	7	26	3
Tasmania ...	34	84	50	16	35	5
Australia ...	31	94	61	23	42	2
New Zealand ...	39	67	46	8	49	20
South Africa ...	34	97	16	6*	6	4
United States ...	64	115	55	8	27	3
Canada ...	75	127	50	8*	10	6
United Kingdom ...	110	158	49	25	39	20
Germany ...	†	†	56	16	25	6
Sweden ...	168	197	51	28	49	†
Norway ...	179	219	57	34	66	20
France(Paris) ...	106	273	522	449	661	†

\*Percentage decrease.

† Not available.

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 is contained in the chapter Social Condition of this Year Book. Approximately 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.

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.

*Average Rents of Dwellings, Sydney.*

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 year since 1929 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 for each year represent the mean of the averages for the four quarters.

TABLE 514.—Rents, per week, of Dwellings, Sydney, 1929 to 1940.

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 9	22 6
1939 ... ..	19 1	22 7	21 2	25 5	23 3
1940 ... ..	19 4	22 8	21 3	25 7	23 5

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. 9d. in 1931. There was a further reduction of 3s. 7d. after the enactment of the Reduction of Rents Act, 1931. In 1934 rents began to rise slowly, and the average in 1939 was slightly higher than in 1931, but 3s. 1d. below the average in 1930. There was little variation in 1940.

#### *Regulation of Rents.*

Leases of dwellings in New South Wales are subject to the Landlord and Tenant Act, 1899, and its amendments. The right to eject tenants from dwellings leased at rents not exceeding £3 a week is 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. The period of postponement is limited to four months.

In October, 1931, a general reduction of 22½ per cent. in rents was prescribed by law as part of a plan to combat the depression then prevalent in Australia. The period of this proportionate reduction has been extended from time to time in New South Wales, and is to continue until 31st December, 1941, but only in respect of rents of premises under a lease which was made prior to 30th June, 1930, and still subsists—subject to certain provisions for the determination of the rent by a competent court in terms of the Landlord and Tenant Act.

#### *Fair Rents Act, 1939.*

Following an investigation into rents of dwellings by the Industrial Commission (see Year Book 1937-38) and the outbreak of war in 1939 the Fair Rents Act was passed in New South Wales. The Act commenced on 1st December, 1939. It applies to rents of dwellings, including flats, let at a rent not exceeding £3 10s. per week, and shops or buildings used partly as dwellings and partly as shops let at a rent not exceeding £6 per week. The Act prescribes that rents of such dwellings which were subject to lease between 31st May and 31st August, 1939, may not be increased above the rent at the latter date until the fair rent has been determined by a court. The Act does not apply to premises licensed under the Liquor Act, registered clubs, houses ordinarily leased for summer residence, dwellings occupied with more than half an acre of land, nor buildings erected on land used substantially for agricultural purposes.

Jurisdiction under the Fair Rents Act is exercised by the Courts of Petty Sessions upon application by lessor or lessee. The fair rent is determined upon the improved capital value of the property at the rate of  $1\frac{1}{2}$  per cent. above the "prescribed rate" (which is  $5\frac{1}{2}$  per cent.), plus the following annual amounts: (a) rates, (b) allowance for repairs and maintenance, (c) insurance, (d) depreciation in value of the buildings (if it diminishes the letting value), and (e) allowance for time when the dwelling or shop may be untenanted.

The "prescribed rate" is notified by the Minister of Justice in the *Government Gazette* at intervals of not less than three months; it is calculated from the records of the Registrar-General relating to mortgages registered during a period of three to twelve months preceding gazettal. The prescribed rate at the commencement of the Act in December, 1939 was  $5\frac{1}{2}$  per cent., it was increased to  $5\frac{3}{4}$  per cent. on 8th March, 1940 and reduced to  $5\frac{1}{2}$  per cent. on 16th August, 1940.

The determinations of a Fair Rents Court remain in force for a period of twelve months, notwithstanding change of ownership or tenancy.

The Fair Rents Act is to continue in force for the duration of the present war and for twelve months after the declaration of peace.

Provision for the wartime regulation of rents in Australia was made by the National Security (Fair Rents) Regulations issued by the Commonwealth in September, 1939. Authority is conferred upon the several States to constitute boards for determining the fair rents of dwellings, shops and factories. Action under the regulations has not been taken in New South Wales in view of the enactment of the Fair Rents Act by the State Parliament.

#### 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 relates 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 are available for the month of November only. In 1923 and later years the index has been compiled for each quarter, and the annual figures in the table represent the mean of the four quarters. 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 515.—Retail Price Index Numbers—"All Items"—Sydney, 1914 to 1940.

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 ... ..	868	965	904	818	949	889
1938 ... ..	904	1004	941	833	936	913
1939 ... ..	936	1035	972	843	940	936
1940 ... ..	952	1042	985	950	984	974

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 1939 it was higher than in any year since 1930. There was a further increase of

4 per cent. in 1940 when clothing increased by 13 per cent., food and groceries by 2 per cent., and miscellaneous items by 5 per cent. In comparison with the index numbers for 1929 food was nearly 13 per cent. cheaper in 1940, rent was 10 per cent. lower, clothing 3 per cent. cheaper, and the index number for all items was lower by 9 per cent.

The changes in the retail price index numbers in each quarter since March, 1939 are illustrated below. The base of each group is the same as the base of the index numbers in Table 515, viz the weighted average of the group in the six capital cities of Australia in the years 1923-27 taken as 1,000:—

TABLE 516.—Retail Price Index Numbers—"All Items"—Sydney.  
March quarter 1939 to March quarter 1941.

Quarter ended—	Food and Groceries.	Housing (4 & 5 rooms).	Food, Groceries & Housing Combined.	Clothing.	Miscellaneous.	Total Household Expenditure.
1939.						
March.....	944	1027	974	835	937	934
June .....	930	1033	968	841	939	932
September .....	930	1039	970	841	939	933
December .....	940	1040	977	854	943	943
1940.						
March.....	933	1041	973	884	949	946
June .....	957	1041	988	923	985	970
September .....	945	1042	980	948	996	973
December .....	974	1042	998	1046	1004	1008
1941.						
March.....	982	1043	1003	1058	1030	1018

## EMPLOYMENT.

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### DEPARTMENTS OF LABOUR—STATE AND COMMONWEALTH.

Administrative functions of the State of New South Wales in relation to employment and industrial matters are the province of the Department of Labour and Industry and Social Services. The department is concerned with the registration of trade and industrial unions, administrative work in respect of industrial arbitration and conciliation within the jurisdiction of the State, inspection of factories and shops and other matters relating to industrial welfare, apprenticeship and the training of youths, the placement of labour, prevention and relief of unemployment, subsidised immigration and workers' compensation.

In July, 1939, a development and information bureau was constituted in the Department to assist in the development of natural and industrial resources of New South Wales and to collect information concerning the opening of new industries. In 1941 a special section of the Department was organised for the welfare of youth.

The New South Wales Industrial Gazette is issued monthly by the Department. It contains information regarding departmental activities, new industrial legislation, industrial awards and agreements, etc.

The Commonwealth Department of Labour and National Service was established in 1940 with a view to the effective organisation of the labour resources of Australia for the prosecution of the war and for post war rehabilitation and development. The department will co-operate with similar departments of the States. Its work is being organised in seven divisions, viz., employment, industrial relations, industrial training, industrial welfare, record and analysis of employment and man-power statistics, national services and reconstruction.

### CENSUS RECORDS OF EMPLOYMENT.

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 517.—Breadwinners in N.S.W.—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.

The proportion of females recorded as bread winners at the Census 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 518.—Grades of Occupations in N.S.W.—Census, 1901 to 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, 39 per cent., consists for the most part of dependants, pensioners, and persons with private means not actively engaged in business.

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.

## VOLUME OF EMPLOYMENT AND UNEMPLOYMENT—CENSUS RECORDS.

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 519.—Employment and Unemployment (all causes) in New South Wales.

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 (June) ... ..	831,600	(c)81,400 (b)	913,000 (b)	8.9

(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 proceeded uninterruptedly 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 520.—Employment and Unemployment in N.S.W.—Males and Females— Census, 1901 to 1933.

Particulars.	1901.	1911.	1921.	1933.
<b>Wage earning Group—</b>				
Males ... ..	311,313	409,826	509,987	633,528
Females ... ..	75,829	104,515	137,906	191,235
<b>Total ... ..</b>	<b>387,142</b>	<b>514,341</b>	<b>647,893</b>	<b>824,763</b>
<b>Unemployed—</b>				
<b>Number—Males ... ..</b>	<b>21,110</b>	<b>16,210</b>	<b>54,028</b>	<b>189,666</b>
<b>Females ... ..</b>	<b>3,639</b>	<b>2,700</b>	<b>7,612</b>	<b>32,776</b>
<b>Total ... ..</b>	<b>24,749</b>	<b>18,910</b>	<b>61,640</b>	<b>222,442 (a)</b>
<b>Per cent. of Wage-earning</b>				
<b>Group—Males ... ..</b>	<b>6·8</b>	<b>4·0</b>	<b>10·6</b>	<b>29·9</b>
<b>Females ... ..</b>	<b>4·8</b>	<b>2·6</b>	<b>5·5</b>	<b>17·1</b>
<b>Total ... ..</b>	<b>6·4</b>	<b>3·7</b>	<b>9·5</b>	<b>27·0 (a)</b>

(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; 169,583 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.

Particulars as to the number of employed and unemployed wage earners in various industrial groups and of the duration of unemployment as recorded in 1933 are published in previous issues of the Year Book.

## 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 are 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.

The following statement shows the estimates of total employment and private employment in each month since July, 1933. Part-time relief workers are excluded. Employment recorded at the Census in June, 1933, was total employment 594,273 and private employment (that is, total exclusive of government or local government employment) 477,577.

TABLE 521.—Employment in New South Wales—Monthly, 1933 to 1941.

Year ended June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May.	June.
Total Employment*—Thousands.												
1934 .....	599	603	608	614	619	630	610	622	632	629	638	640
1935 .....	647	653	660	670	678	694	670	677	682	685	690	695
1936 .....	700	707	720	726	734	741	718	724	735	738	745	742
1937 .....	747	748	758	771	773	786	767	782	783	789	795	800
1938 .....	804	809	818	830	836	850	820	834	835	836	836	840
1939 .....	839	835	841†	837†	841	860	821	834	834	838	836	832
1940 .....	833	832	838	850	857	866	851	859	866†	852†	837†	856
1941 .....	864	870	874	880	883	905	884	894	903	...	...	...
Private Employment—Thousands.												
1934 .....	483	486	491	497	501	511	492	504	513	510	518	519
1935 .....	526	532	540	549	555	570	546	553	557	559	563	567
1936 .....	573	579	591	598	605	620	590	595	606	609	617	614
1937 .....	617	617	626	637	638	650	631	644	644	647	650	653
1938 .....	656	661	668	680	686	699	671	685	685	687	686	689
1939 .....	688	685	691†	689†	693	709	670	683	683	686	683	679
1940 .....	681	680	687	700	706	724	700	707	712†	698†	683†	700
1941 .....	708	715	720	725	728	749	728	736	742	...	...	...

\* Exclusive of part time relief workers; men in the Forces September, 1939, and later are not included, unless on private employer's pay sheet. † Includes colliery employees idle owing to industrial dispute.

The number of persons in employment increased by 200,000 during the four years ended June, 1938. The increase continued during the next six months, then business activity slackened and the number in June, 1939, was 8,000 less than twelve months earlier. The volume of employment began to expand again after the outbreak of war until a general stoppage in coal mining in March, 1940, caused a temporary reduction in many industries. Work in the mines was resumed towards the end of May and since July, 1940, the number of persons in employment in each month has been about 4 per cent. above the highest number recorded in the corresponding month during the previous seven years.

While information relating to persons in employment is of great value in itself, endeavour was made to render it more useful by relating it to the numbers available for employment. In this way there were 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.

The number of wage-earners in the population was 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 was 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 was 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 at intervals between June, 1933, and March, 1940, are shown below, they 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 was relatively little unemployment among females; unemployment among males was 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 occurred in New South Wales between June, 1933 (Census date) and March, 1940:—

TABLE 522.—Index of Employment and Unemployment.

Middle of Month.	Percentage of employed and unemployed amongst persons (males and females) dependent upon and available for employment—*			
	Including with employed the full-time equivalent of part-time Relief Workers.		Excluding part-time Relief Workers from employed.	
	Employed.	Unemployed.	Employed.	Unemployed.
1933—June ...	74.4	25.6	73.5	26.5
September	76.0	24.0	74.8	25.2
December†	78.5	21.5	76.5	23.5
1934—March ...	79.5	20.5	77.1	22.9
June ...	80.5	19.5	77.8	22.2
September	82.6	17.4	80.0	20.0
December†	85.2	14.8	82.8	17.2
1935—March ...	84.4	15.6	81.9	18.1
June ...	85.9	14.1	83.1	16.9
September	88.4	11.6	85.6	14.4
December†	90.3	9.7	87.8	12.2
1936—March ...	88.9	11.1	86.7	13.3
June ...	89.3	10.7	87.1	12.9
September	90.0	10.0	88.6	11.4
December†	91.9	8.1	90.5	9.5
1937—March ...	92.2	7.8	90.8	9.2
June ...	93.5	6.5	92.3	7.7
September	95.1	4.9	93.9	6.1
December†	97.2	2.8	96.0	4.0
1938—March ...	96.0	4.0	94.9	5.1
June ...	96.1	3.9	95.1	4.9
September	95.8	4.2	94.8	5.2
December†	96.5	3.5	95.4	4.6
1939—January ...	93.0	7.0	91.9	8.1
February	94.4	5.6	93.3	6.7
March ...	94.2	5.8	93.2	6.8
April ...	94.6	5.4	93.5	6.5
May ...	94.3	5.7	93.3	6.7
June ...	93.7	6.3	92.6	7.4
July ...	93.8	6.2	92.7	7.3
August ...	93.5	6.5	92.4	7.6
September	94.0	6.0	93.0	7.0
October ...	95.0	5.0	94.1	5.9
November	95.4	4.6	94.6	5.4
December†	96.1	3.9	95.4	4.6
1940—January ...	94.4	5.6	93.6	6.4
February	95.1	4.9	94.4	5.6
March ...	95.6	4.4	94.9	5.1

\* 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.

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, 1933;

a tendency to decline became apparent in the later months of the year and continued until September, 1939. In April, May and June, 1940, employment was diminished both directly and indirectly by an industrial dispute in coal mining. In May, June, and later months there was a rapid increase in number of enlistments and a rapid increase in number of employees engaged in munitions production and defence contracts. These changes led to an abnormal variation in numbers offering for employment and it became impossible to make reliable estimates of numbers available for employment. Calculation of indexes of employment and unemployment were therefore discontinued.

From the data on which the index of employment is based the following statement has been prepared to show in a concise form the trend of employment and unemployment in each year since the Census of 1933. The annual average number of wage earners in employment represents the mean of the number at the middle of each of the twelve months.

TABLE 523.—Employment and Unemployment in New South Wales—  
Annual Estimates, 1933 to 1940.

Year ended June.	Average Number of Wage Earners in Employment.	Proportion Unemployed amongst Persons Dependent upon and Available for Employment.
		per cent.
1933 (as at Census, 30th June) ...	594,300	26.5
1934 ... ..	620,000	24.2
1935 ... ..	675,000	18.7
1936 ... ..	728,000	13.9
1937 ... ..	775,000	9.9
1938 ... ..	829,000	5.4
1939 ... ..	837,000	6.2
1940 ... ..	850,000	†

\* Part-time relief workers are counted as unemployed. † Not available.

#### 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 in Table 517. The annual returns of rural employment, for instance, relate 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.

Considerable difficulty is experienced in obtaining satisfactory statistics of females employed in rural industries, 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 number of male wage earners working permanently on rural holdings and the amount of wages paid to such permanent employees and to casual employees are shown in chapter "Rural Industries" of this Year Book.

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 524.—Persons Permanently Engaged in Rural Industries, 1911 to 1940.\*

Year.	Agriculture, Poultry, Pig, and Bee-farming.		Dairying.		Pastoral.		Total, Rural Industries. *		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1911	58,299	1,141	27,488	11,293	43,387	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
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
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
1938-39	44,627	356	35,860	6,505	45,854	198	126,341	7,059	133,400
1939-40	43,269	446	35,915	7,130	46,372	266	125,556	7,842	133,398

\* Including proprietors working on their own holdings, and excluding casual workers.

The number of men engaged in cultivating, etc., 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 cultivation are shown in the chapter relating to agriculture. It was ascertained that 57 per cent. of the area sown with wheat in 1939 was ploughed by tractors.

The number of male dairy workers was 35,900 in the last three years as compared with 38,200 in the four seasons ended 1935-36. Recent seasons have not been favourable in the principal dairying districts. The number of men permanently employed in the pastoral industry has fluctuated between 46,900 and 45,900 during the last six seasons.

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 recent years it has been about 126,000.

The decline after 1925-26 in the number of women recorded as rural workers was due mainly to the exclusion from the annual returns of women whose chief occupation is domestic rather than rural. Those recorded in 1925-26 consisted of 2,447 working proprietors and paid employees and 13,841 relatives not receiving wages. The corresponding figures in 1939-40 were 2,316 and 5,526 respectively.

The total number of rural workers in 1939-40 included 67,443 men and 1,298 women, who were classed as working proprietors, i.e., owners, lessees, or share-farmers working on the holdings; 17,629 men and 5,526 women were classed as relatives employed constantly, but not receiving wages. There were 40,484 men and 1,018 women, including managers and relatives, in receipt of wages. The wages paid to these employees and the value of board, etc., amounted to £6,491,054, viz., £6,405,872 to men and £85,182 to women. In addition the wages and keep of casual workers amounted to £3,612,682, including £2,706 paid to women. A comparative statement of number of permanent employees and total wages paid annually in rural industries is shown in the chapter relating to rural industries.

Annual returns relating to employment in the rural, mining and manufacturing industries 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 525.—Persons Engaged in Principal Industries, 1911 to 1940.

Year.	Rural Indus-tries. †	Mining.	Manufacturing.			Total.		
	Total.		Males.	Males.	Females.	Total.	Males.	Females.
1911	142,378	33,367	79,005	25,546	104,551	241,546	38,750	280,296
1920-21	136,283	25,612*	107,700	31,511	139,211	253,888	47,218	301,106
1928-29	128,540	26,562*	135,773	44,983	180,756	280,198	55,660	335,858
1930-31	124,532	18,370*	93,881	33,724	127,605	227,240	43,267	270,507
1931-32	125,451	17,721*	90,667	35,688	126,355	225,317	44,210	269,527
1932-33	130,140	17,721†	99,718	38,786	138,504	239,234	47,131	286,365
1933-34	131,966	16,933†	111,599	42,400	153,999	252,722	50,176	302,898
1934-35	133,818	17,816†	127,114	47,919	175,033	271,338	55,329	326,667
1935-36	134,183	17,864†	140,896	52,304	193,200	285,885	59,362	345,247
1936-37	133,998	18,890†	152,064	56,433	208,497	298,960	62,425	361,385
1937-38	132,630	19,775†	164,391	60,470	224,861	310,217	67,049	377,266
1938-39	133,400	20,891†	167,172	61,609	228,781	314,404	68,668	383,072
1939-40	133,398	22,506†	172,259	64,715	236,974	320,321	72,557	392,878

Note.—Working Proprietors are included in all groups. \* Calendar year ended six months later.  
† Excluding casual workers. ‡ Calendar year ended six months earlier.

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 1921 and later years, is exclusive of fossickers.

The increase in employment in mining during the last five years has been due to greater activity in coal and silver lead mines.

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. Increases in the following years ranged between 12,000 and 21,000, and the number of factory workers in 1937-38 was 44,000 above pre-depression level. There were further increases of 3,900 in 1938-39 and 8,200 in 1939-40. 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.

#### *Index of Employment in Factories.*

An index of employment in factories in New South Wales during the years 1928-29 to 1939-40, and in each month since July, 1935, 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 526.—Index of Employment in Factories in New South Wales, 1929 to 1941.

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.	Index of Factory Employment in each month. (Base, year 1928-29=100).					
	Persons.	Index (Base, 1928-29=100).			1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41. (a).
1929	180,756	100	100	July	101	110	120	126	126	135
1930	162,913	90	88	Aug.	103	111	121	127	126	137.
1931	127,605	71	68	Sept.	104	112	122	127	128	139
1932	126,355	70	67	Oct.	106	114	124	128	131	141
1933	138,504	77	72	Nov.	108	116	125	128	133	142
1934	153,999	85	78	Dec.	109	116	126	127	134	145
1935	175,033	97	88	Jan.	105	113	123	123	132	143
1936	193,200	107	96	Feb.	107	117	125	126	133	145
1937	208,497	115	101	Mar.	109	119	127	128	135	149
1938	224,861	124	108	April	109	118	126	127	132	...
1939	228,781	127	109	May	111	119	127	127	129	...
1940	236,974	131	110	June	110	120	127	127	133	...

(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 during 1937-38, which was sustained with little further increase until June, 1939. A tendency to decline became apparent in July and August, 1939, then an access of war activities in the closing months of the year caused a steady rise. Operations in many workshops were seriously affected by a general stoppage in coalmining in March to May, 1940, but there was further marked progress in factories in 1940-41.

*Index of Employment in Retail Shops.*

The course of employment in retail stores in each month since July, 1933, is illustrated by the following index, which relates to 599 establishments which employed 51,667 persons in June, 1939. Employment in these stores in July, 1933, is taken as a base, equal to 100; no adjustment has been made for increase in population or for seasonal fluctuations:—

TABLE 527.—Index of Employment in Retail Shops in New South Wales. (July, 1933 = 100).

Year.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April.	May.	June.
1933-34 ...	100	93	99	99	102	113	102	104	104	103	105	105
1934-35 ...	108	105	107	108	110	123	109	112	109	111	112	112
1935-36 ...	116	113	113	115	119	133	116	119	117	118	119	120
1936-37 ...	122	120	120	121	123	137	123	125	123	124	126	126
1937-38 ...	129	126	126	127	129	144	128	131	128	129	129	131
1938-39 ...	134	129	128	129	132	148	129	134	129	129	131	130
1939-40 ...	133	129	129	130	133	148	132	135	131	129	130	130
1940-41 ...	131	130	129	130	134	152	131	135	132			

Seasonal influences are apparent in Christmas trade during November and December, and in increased staffs at sale periods—usually February and July. In December there is usually a considerable number of employees (students, women and girls) who do not seek employment at other periods.

Further particulars of employment in retail shops are shown in Tables 538 and 539.

GOVERNMENT EMPLOYEES.

In New South Wales approximately 16 per cent. of all persons in employment are employed by the State and Commonwealth Governments. The State Government provides services such as education, police, justice, health, lands administration, undertakes the construction of public works, etc., and controls railways, tramways, omnibuses and wharves and abattoirs. The Commonwealth services include the post office, telegraphs and telephones, customs, pensions and defence.

The following statement shows the number of Government employees in New South Wales, as at 30th June, in various years from 1929 to 1940.

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.

TABLE 528.—Government Employees in New South Wales, 1929 to 1940  
(excluding Local Government).

Services.	1929.	1931.	1932.	1937.	1938.	1939.	1940.		
							Males.	Females.	Total.
<i>Employees of State Government.</i>									
Administrative, etc.— Public Service Board— Teachers (including Inspectors) ... ..	10,807	11,471	11,155	11,271	11,417	11,497	6,330	5,402	11,732
Hospitals, etc.—General Staffs ... ..	2,514	2,586	2,597	2,713	2,769	2,845	1,396	1,628	3,024
Other ... ..	9,284	9,811	9,261	9,725	10,229	10,572	8,427	2,467	10,894
<b>Total, Public Service Board.</b>	<b>22,605</b>	<b>23,368</b>	<b>23,013</b>	<b>23,709</b>	<b>24,415</b>	<b>24,914</b>	<b>16,153</b>	<b>9,497</b>	<b>25,650</b>
Police ... ..	3,569	3,717	3,656	3,843	3,816	3,867	3,946	12	3,958
Fire Commissioners ... ..	828	833	821	830	923	950	931	36	967
Rural (Government Savings) Bank ... ..	1,704	1,690	337	1,045	1,053	1,098	884	290	1,174
Miscellaneous ... ..	2,662	2,598	2,886	3,065	3,199	3,249	2,378	943	3,321
<b>Total, Administrative, etc.</b>	<b>31,368</b>	<b>32,206</b>	<b>30,713</b>	<b>32,492</b>	<b>33,406</b>	<b>34,078</b>	<b>24,292</b>	<b>10,778</b>	<b>35,070</b>
Business Undertakings and Construction— Railways ... ..				42,763	44,044	43,463	41,274	1,328	42,602
Road Transport and Tramways ... ..	58,011	51,174	49,810	9,982	10,529	10,502	10,300	244	10,634
Maritime Services Board Water Conservation and Irrigation Commission ...	1,232	727	619	1,130	1,196	1,299	1,269	35	1,304
Dept. of Main Roads ...	1,548	1,058	1,050	913	1,113	1,370	1,487	52	1,539
Metropolitan Water, Sewerage and Drainage Board ... ..	3,695	1,343	1,358	3,604	4,260	3,153	5,266	98	5,364
Hunter District Water Board ... ..	5,715	1,894	1,801	10,325	6,807	7,243	4,591	95	4,686
Metropolitan Meat In- dustry Commission ... ..	542	270	336	357	422	2,006	2,051	73	2,124
Miscellaneous ... ..	674	704	676	1,382	1,658	1,734	2,011	33	2,044
Other ... ..	7,372	5,238	4,145	2,137	1,958	1,959	3,611	156	3,767
<b>Total Business Under- takings and Con- struction ... ..</b>	<b>78,789</b>	<b>62,408</b>	<b>59,795</b>	<b>72,593</b>	<b>71,087</b>	<b>72,729</b>	<b>71,950</b>	<b>2,114</b>	<b>74,064</b>
<b>Total, State ... ..</b>	<b>110,157</b>	<b>94,614</b>	<b>90,508</b>	<b>105,085</b>	<b>105,333</b>	<b>106,807</b>	<b>96,242</b>	<b>12,892</b>	<b>109,134</b>
<i>Employees of Commonwealth Government in New South Wales.</i>									
Public Service Commission	14,824	11,557	11,844	13,961	14,997	15,609	14,164	2,669	16,833
Defence, Repatriation and War Service Homes ... ..	1,902	1,512	1,712	2,028	2,426	3,172	5,443	417	5,860
Other ... ..	1,159	1,422	3,022	2,987	3,382	3,375	3,334	856	4,190
<b>Total, Commonwealth in N.S.W. ... ..</b>	<b>17,885</b>	<b>14,491</b>	<b>16,578</b>	<b>18,976</b>	<b>20,805</b>	<b>22,156</b>	<b>22,941</b>	<b>3,942</b>	<b>26,883</b>
<b>Total, Government Employees in N.S.W. ... ..</b>	<b>128,042</b>	<b>109,105</b>	<b>107,086</b>	<b>124,061</b>	<b>126,138</b>	<b>128,963</b>	<b>119,183</b>	<b>16,834</b>	<b>136,017</b>

The foregoing totals exclude persons engaged part-time on unemployment relief works.

The total number of persons employed by the Government of New South Wales at 30th June, 1940, was 109,134, including those absent on military leave. In the administrative departments there were 35,070 employees of whom 11,732 were teachers. The employees in State business undertakings and construction numbered 74,064; of these 53,236 were employed in railway and tramway and road transport services, and 6,810 by the Boards administering the water and sewerage services of the Metropolitan and Hunter districts. The commencement of a programme of construction work caused an increase in employment by the Hunter District Water



Board during 1938-39. Since 1936 the staff of the Metropolitan Meat Industry Commissioner has included the slaughtermen; formerly the slaughtermen were employed by the carcase butchers.

The number of persons employed by the Government of New South Wales at 30th June, 1940 was less by 1,023 than the number in 1929, notwithstanding increases of 925 in teachers, 528 in police and fire services and 2,120 in hospitals and other administrative services.

Employment in New South Wales by the Commonwealth has increased substantially in recent years. The work of the post office has expanded, also the defence and other national services in view of the disturbed condition of world affairs. The increase in 1939-40 was 4,700 persons.

A comparative statement of the number of Government employees in New South Wales at 30th June and the salaries and wages paid to them in the years 1929 to 1940 is shown below:—

TABLE 529.—Government Employees in New South Wales, 1929 to 1940 (excluding Local Government).

Year ended June	Government Employees in New South Wales at 30th June.						Salaries and Wages Paid during the Year.		
	State.*			Commonwealth.*			State.*	Commonwealth.*	Total.
	Males.	Females.	Total.	Males.	Females.	Total.			
	No.	No.	No.	No.	No.	No.	£000	£000	£000
1929 ...	97,803	12,354	110,157	15,497	2,388	17,885	32,163	4,621	36,784
1930 ...	87,335	12,583	99,918	14,868	2,378	17,246	28,957	4,498	33,455
1931 ...	81,848	12,766	94,614	12,506	1,985	14,491	26,375	3,890	30,265
1932 ...	78,003	12,505	90,508	14,240	2,338	16,578	24,247	3,267	27,514
1933 ...	75,884	12,580	88,464	12,711	2,342	15,053	21,135	3,655	24,790
1934 ...	77,348	12,699	90,047	14,103	2,529	16,632	21,067	3,865	24,932
1935 ...	82,230	12,695	94,925	14,110	2,588	16,698	22,364	4,138	26,502
1936 ...	81,311	12,712	94,023	15,119	2,751	17,870	23,669	4,315	27,984
1937 ...	92,417	12,668	105,085	16,004	2,972	18,976	25,195	4,665	29,860
1938 ...	92,539	12,854	105,393	17,419	3,200	20,619	28,383	5,178	33,561
1939 ...	93,954	12,853	106,807	18,808	3,348	22,156	29,526	5,844	35,370
1940 ...	96,242	12,892	109,134	22,941	3,942	26,883	30,364	6,726	37,090

\* Including employees of Governmental bodies listed in Table 528.

The foregoing totals are exclusive of persons engaged part-time on unemployment relief works.

The number of employees of Local Government bodies (municipalities, shires and county councils) not included above was 26,238 as at 31st December, 1938. The amount of wages paid to such employees was £6,237,310 in 1938.

#### 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.

There is an Employment Council to administer matters relating to employment and unemployment. Research directed mainly towards the prevention of unemployment amongst youths and young adults is undertaken in co-operation with the Commonwealth. A Youth Employment Committee representing the Department of Labour and Industry and Social Services and organisations of employers advises as to measures for increasing opportunities for employment and considers problems arising out of the war and its effects upon employment. There is a vocational guidance section and a Director of Youth Welfare was appointed recently to direct activities for the assistance of young persons. Particulars regarding subsidies paid by the Government of New South Wales for the training of young men as apprentices are given on page 609.

#### State Labour Exchanges.

There are State Labour Exchanges, staffed by departmental officers, in Sydney, Newcastle, West Maitland, Wollongong, Broken Hill, Lithgow and six other towns. Eighty-four exchanges are controlled from these centres, and agencies are conducted by the police in 400 country localities. Persons over 14 years of age may register for employment and they must report at least once a month to maintain registration. Fees are not charged for the services provided by the exchanges or agencies. When work is available in a district, registered persons are summoned to report at the exchanges—usually in order of registration. Employment officers are engaged in Sydney in interviewing employers and effecting placements.

There is a special juvenile section of the exchanges in the metropolitan district for the placement of youths in industrial and rural employment.

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 530.—Men (adults) registered at State Labour Exchanges, 1934 to 1941.

Month.	Metro- politan.	New- castle.	Maitland Coalfields	Wollon- gong.	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
December ... ..	26,534	3,448	2,277	721	777	11,704	45,461
1940—June ... ..	24,684	3,337	1,860	1,646	748	11,926	44,201
December ... ..	15,531	1,819	1,568	482	639	8,702	28,741
1941—March... ..	13,875	1,335	1,222	191	540	5,703	22,866

#### 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 28th February, 1941, there were 108 private agencies on the register, including 36 in Sydney, 42 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 28th February, 1941, was 19.

*Part-time Work and Social Aid for Unemployed.*

Part-time employment on public works was provided for a large number of men during the early period of the depression. As economic conditions improved arrangements were made for full time employment where practicable, and part-time relief work was restricted to those not absorbed under full time schemes.

The usual scale of part-time work in recent years has been two weeks in eight weeks for single men and two weeks in four for married men; longer periods are arranged for men with the larger families. Wages are paid at industrial award rates.

The system of social aid provided for unemployed persons and their families is described in the chapter Social Condition of this volume, and details of special taxation levied to provide funds for relief are given in chapter Public Finance.

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 531.—Men in Receipt of Relief, 1933 to 1941.

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... ..	20,390	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
1940—June... ..	10,558	744	11,302	29,015	40,317
Dec. ....	8,791	519	9,310	18,595	27,905
1941—Mar....	9,688	352	10,040	11,188	21,228

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, though this 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. During 1938-39, there was an increase of 4,588 but there was a decline of 10,000 in the following year and further decline of 19,089 between June, 1940, and March, 1941.

#### 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 532.—Expenditure on Food Relief and Relief Works, 1931 to 1940.

Year Ended June.	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.	
1931	£ 1,837,886	£ 101,858	£ 2,373,030	£ ...	£ 44,310	£ 4,357,084	£ ...
1932	5,070,732	130,943	766,613	...	137,164	6,105,452	...
1933	3,510,194	63,296	276,384	...	156,783	4,006,657	2,801,727
1934	1,467,953	247,498	75,430	...	179,099	1,969,980	5,249,776
1935	1,076,670	123,728	41,386	...	173,716	1,415,500	6,993,427
1936	980,759	116,115	836,799	...	192,283	2,125,956	5,423,827
1937	1,114,950	144,614	997,672	...	200,425	2,457,661	3,252,458
1938	1,263,901	137,854	1,465,414	7,896	221,263	3,096,328	3,373,386
1939	1,419,636	165,583	408,147	197,545	241,553	2,432,664	4,026,892
1940	1,791,222	185,863	1,674,394	191,138	234,418	4,077,035*	2,133,232

\* Other payments from the Unemployment Relief Fund in 1939-40 were capital debt charges, £1,719,522, and subsidies to local bodies, £142,430.

#### APPRENTICESHIP AND INDUSTRIAL TRAINING.

Conditions of apprenticeship are subject generally to the Apprentices Act of 1901, which prescribes that children may not be indentured until they reach the age of 14 years and that the hours of work may not exceed 48 per week, except in farming occupations and in domestic service.

Industrial tribunals are authorised by the Industrial Arbitration Act of New South Wales to attach certain conditions to the employment of apprentices who are 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. Apprenticeship awards for various industries prescribing hours of work, wages, term of apprenticeship, extent of technical training, etc., are made by apprenticeship councils constituted for various industries. Each apprenticeship council consists of the Apprenticeship Commissioner as chairman and the members of the conciliation committee established for the particular industry in terms of the Industrial Arbitration Act as described on page 622.

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 extends over a period of four years, but the period may be reduced if the trainee has had previous experience.

The admission of new entrants to subsidy ceased at the end of the year 1939.

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 533.—Apprentices Registered, 1926 to 1940.

Year.	Indentured Apprentices Registered.	Year.	Apprentices Registered.		
			Indentured.	Trainee.	Total.
1926 ...	2,253	1933	529	58*	587
1927 ...	1,981	1934	813	373	1,186
1928 ...	1,823	1935	967	621	1,588
1929 ...	1,446	1936	1,263	963	2,226
1930 ...	1,005	1937	1,436	1,347	2,783
1931 ...	543	1938	1,427	3,800	5,227
1932 ...	403	1939	1,317	1,645	2,962
		1940	1,601	1,697	3,298

\* October to December.

The following statement shows the distribution of indentured apprentices amongst the various trades at the end of 1928 and subsequent years.

TABLE 534.—Apprenticeships Subsisting in December, 1928 to 1940.

Trades.	1928.	1932.	1935.	1937.	1938.	1939.	1940.
Baking ... ..	118	217	252	256	317	379	393
Boilermaking ... ..	293	104	28	105	147	161	201
Bootmaking ... ..	141	155	298	336	325	294	267
Building ... ..	1,791	807	264	640	708	742	702
Butchering ... ..	29	23	16	9	13	17	13
Coachmaking ... ..	362	70	26	45	37	31	22
Confectioners ... ..	10	12	36	34	31	27	31
Electrical ... ..	952	566	347	551	615	688	762
Engineering ... ..	1,398	351	317	646	856	975	1,239
Farriery ... ..	50	32	14	13	12	12	11
Furniture ... ..	875	308	141	268	281	303	252
Gas meter making ... ..	25	21	10	...	3	2	3
Glass-working ... ..	25	31	33	78	95	109	100
Hairdressing ... ..	169	85	156	367	465	497	502
Jewellery, Electroplating etc....	24	31	59	107	129	128	84
Metal Moulding ... ..	174	43	45	112	118	114	124
Optical Trades... ..	10	17	20	32	43	44	47
Pastrycooks ... ..	66	90	67	86	92	135	163
Pharmacists ... ..	...	...	...	46	94	144	162
Printing ... ..	688	233	227	268	296	285	259
Sheet Metal-working and Tin-smithing ... ..	38	17	8	15	16	18	18
Ship and Boat building ... ..	43	15	19	34	41	55	73
Other ... ..	51	52	40	58	56	64	125
Total ... ..	7,332	3,280	2,423	4,106	4,790	5,224	5,573

By the Apprentices (War Service) Act, 1939, provision is made for the suspension of contracts of employment in the case of apprentices or trainee apprentices absent owing to war service and for subsequent revival or cancellation upon the termination of war service. The Commonwealth also has made provision, by regulations under the National Security Act, to protect the rights of apprentices who render war service; the apprenticeship councils are authorised to administer the regulations.

#### 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 relating to factories and shops, scaffolding and lifts and to mining and shipping imposes upon employers the obligation to safeguard their employees against industrial risks.

Factories and shops must be registered annually. The employment of women and juveniles in factories is subject to limitations. Outworkers in the clothing trades must be licensed by the Industrial Registrar of New South Wales. Lift-attendants and crane-drivers must obtain certificates of competency.

Inspection with the object of securing compliance with the law is conducted by a staff of inspectors in the Department of Labour and Industry and Social Services.

## 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 1939 there were 21 fatal accidents in factories and 9,168 non-fatal, including 126 which caused permanent injury. In 1940 the number of accidents in factories was 9,218 of which 21 were fatal and 170 caused permanent injury; accidents which involved absence from work for more than seven days numbered 7,307. The number of accidents reported in connection with lifts, scaffolding and cranes was 42, including 6 fatal, in 1939 and 75, including 5 fatal in 1940. 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 is made under Acts described on page 613 for cases of disablement by pneumoconiosis, tuberculosis, and lead poisoning in the Broken Hill mines and for workers disabled by the effects of silica dust.

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, as described on pages 169 and 269 of this Year Book. 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. The worker is not entitled to compensation under the Act unless incapacitated for at least seven days.

The provisions of this Act were described on pages 971 and 972 of the Year Book for 1937-38, and particulars regarding the Commission charged with the administration of the Act are published on page 252 of this volume.

Employers are required to supply returns to the Workers Compensation Commission in respect of cases admitted to compensation in terms of the Act and from such returns the details shown in Tables 535 and 536 have been compiled.

The number of cases for which returns are supplied 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 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. Other cases excluded from the returns are those for which the employer is not liable for compensation in terms of the Workers' Compensation Act though in some such cases insurers provide compensation in terms of contracts with employers, e.g., injuries which did not disable the worker for at least seven days.

The following statement is a summary of the 65,454 cases admitted to compensation in terms of the Workers' Compensation Act, for which individual returns were supplied to the Commission in 1939-40. The statement covers a large sample of the year's operations though 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:—

TABLE 535.—Workers' Compensation Act—Classification of Cases, 1939-40.

Workers.	Fatal Cases.	Disability Cases Compensated.					Total Disability Cases.	Grand Total, all Cases.
		By Lump Sum.	By Weekly Payments.					
			On Account of Workers.	On Account of Dependants.	Medical Treatment, etc.			
			<i>Cases.</i>					
			(c)	(a)	(b)			
Males ... ..	135	1,286	59,300	(72,820)	(46,726)	60,586	60,721	
Females ... ..	3	44	4,686	(157)	(4,027)	4,730	4,733	
<b>Total ... ..</b>	<b>138</b>	<b>1,330</b>	<b>63,986</b>	<b>(72,977)</b>	<b>(50,753)</b>	<b>65,316</b>	<b>65,454</b>	
			<i>Compensation Paid.</i>					
		£	£	£	£	£	£	
Males ... ..	77,567	228,388	531,635	168,060	200,367	1,128,450	1,206,017	
Females ... ..	576	5,829	26,036	272	18,333	50,470	51,046	
<b>Total ... ..</b>	<b>78,143</b>	<b>234,217</b>	<b>557,671</b>	<b>168,332</b>	<b>218,700</b>	<b>1,178,920</b>	<b>1,257,063</b>	

(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 1939-40 was £575 in fatal cases, £178 in cases of disability compensated by lump sum, and £15 4s. in weekly payments and medical expenses. The average amounts paid in respect of female workers were as follows:—Fatal cases, £192; disability, lump sum, £132; other £9 11s.



The average duration of weekly payments is about 4.3 weeks, the average payment for medical treatment per case in which the cost of treatment was actually paid in 1939-40 was £4 5s. 9d.

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 536.—Workers' Compensation Act—Cases, 1936 to 1940.

Year	Accidents.			Industrial Diseases.			Total Cases Reported.	Compensation Paid during Year.
	Fatal.	Non-Fatal.	Total.	Fatal.	Non-Fatal.	Total.		
£	<i>Males.</i>							£
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
1938-39	112	59,775	59,887	17	618	635	60,522	1,144,979
1939-40	133	59,623	59,756	5	960	965	60,721	1,206,017
	<i>Females.</i>							
1935-36	...	3,295	3,295	...	178	178	3,473	33,628
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
1938-39	...	3,813	3,813	...	313	313	4,126	46,473
1939-40	3	4,163	4,166	...	567	567	4,730	51,046

The compensation paid in each year includes payment 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.

In terms of the Workmen's Compensation (Broken Hill) Act, 1920-1940, and Workmen's Compensation (Lead Poisoning—Broken Hill) Act, 1922-1924 and the Workmen's Compensation (Silicosis) Act, 1920-1936, compensation is provided for workmen disabled by reason of certain industrial diseases. Because disablement from these causes is by gradual process, the legislation is designed to distribute cost of compensation amongst all employers in the industries concerned. At Broken Hill there is a Bureau of Medical Inspection, where men selected for employment in the mines are medically examined as a condition precedent to such employment and employees with symptoms of lead poisoning or pneumoconiosis or tuberculosis are examined with a view to compensation. During the year 1939-40 three cases of temporary disablement on account of lead poisoning were certified, the first for many years.

Compensation in many cases of pneumoconiosis or tuberculosis contracted in the Broken Hill mines is payable under the Workmen's Compensation (Broken Hill) Act, 1920-1940. The compensation is paid by the

mine owners without contribution by the Government if the worker was employed in any of the mines after 31st December, 1920. For other cases eligible under the act, the Broken Hill Pneumoconiosis—Tuberculosis Fund is maintained by contributions—one-half by the Government of New South Wales and one-half by the mine owners. At 30th June, 1940, compensation was payable by the mine owners in respect of 66 cases, viz., to 44 employees who were living and to dependants of 22 deceased workers; the amount of compensation paid during the year 1939-40 was £11,220, and the aggregate amount from 1st March, 1927 to 30th June, 1940 was £123,816. The cases compensated by means of the Pneumoconiosis—Tuberculosis Fund at 30th June, 1940 numbered 590, viz., 259 workers and the dependants of 331 deceased workers, the total number of beneficiaries being 891. The disbursements of the Fund in 1939-40 amounted to £102,471, including compensation £98,778, funerals and special expenses £444, management expenses £3,249. The aggregate disbursements from 1st January, 1921, to 30th June, 1940, amounted to £1,883,616. In all compensation has been paid by the mine owners or the fund in respect of 959 workmen on account of pneumoconiosis or tuberculosis attributable to employment in Broken Hill mines.

The Workmen's Compensation (Silicosis) Act 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. A general compensation fund to which employers may be required to contribute may be established for any specified industry involving exposure to silica dust.

There are two schemes in operation under the Act. Scheme No. 1 covers registered workmen throughout New South Wales engaged in quarrying, cutting, dressing or excavating sandstone, or working in sandstone tunnels while excavating is in progress. The scheme was brought into operation in the county of Cumberland in September, 1927 and extended in 1936 and 1938. The second scheme, proclaimed in March, 1938, 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.

These schemes covered 7,561 workmen in 1939-40 and current awards related to 64 workmen and dependants of 16 deceased workmen; expenditure amounted to £9,631 in 1939-40. Since the schemes came into operation, compensation was awarded in respect of 240 workmen, the aggregate expenditure was £143,428.

#### *Cost of Workers' Compensation Insurance.*

The approximate cost to the employers of insurance in terms of the Workers' Compensation Act, 1926-1938, is shown below in relation to the total amounts of wages paid; the cost in respect of the special Acts (silicosis or Broken Hill mines) is not included. The estimates refer to three periods since the inception of the Act on 1st July, 1926, and to the years ended June, 1938 to 1940. 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 537.—Estimates of Wages and Cost of Workers' Compensation in New South Wales.

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, 1938	177.3	84,407	2,411,049	476	1.36
Year ended June, 1939	183.5	80,713	2,577,046	440	1.40
Year ended June, 1940	190.0	78,276	2,547,985	411	1.34

\* As reported by insurers.

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 higher cost in the last three 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 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 which is the City of Greater Newcastle. 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, 1940, 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 538.—Shops Registered in Shopping Districts, N.S.W., June, 1940.

Class of Shop.	Shops.			Wage-earning employees engaged in or in connection with the sale of goods.						
	Not employ- ing labour.	Em- ploying labour.	Total.	Males.		Females.		Total.		
				Adults.	Minors.	Adults.	Minors.	Males.	Females.	Total.
Butcher ... ..	235	1,315	1,550	2,554	840	302	229	3,394	531	3,925
Chemist ... ..	189	799	988	770	706	207	182	1,476	389	1,865
Confectionery ...	1,471	577	2,048	187	193	424	428	380	852	1,232
Cooked Provisions	530	269	799	179	83	138	150	262	288	550
Fish ... ..	209	136	345	126	53	80	61	179	141	320
Flower ... ..	171	109	280	26	19	85	111	45	196	241
Fruit and Vege- tables ... ..	1,207	573	1,780	339	225	211	216	564	427	991
Hairdressing Goods	691	509	1,200	116	59	484	394	175	878	1,053
Tobacconist ...	933	555	1,493	470	209	124	100	679	224	903
Newsagent ...	260	416	676	260	277	227	249	537	476	1,013
Petrol and Oil ...	308	853	1,161	1,552	986	173	193	2,538	366	2,904
Refreshment ...	388	687	1,075	364	160	729	694	524	1,423	1,947
Restaurant ...	99	596	695	720	200	2,395	523	920	2,918	3,838
General (including Grocers, Drapers, etc.) ... ..	7,744	9,162	16,906	22,882	10,363	15,834	13,670	33,245	29,504	62,749
Grand Total...	14,440	16,556	30,996	30,545	14,373	21,413	17,200	44,918	38,613	83,531

Paid labour was employed in or in connection with the sale of goods in 53 per cent. of the registered shops and the average number of employees in receipt of wages was 2.7 per registered shop and 5 per shop in which paid labour was employed. Male employees outnumbered the females; 37.6 per cent. were men and 25.6 per cent. women of adult age; 17.2 per cent. were boys and 20.6 per cent. were girls under 21 years of age.

The employees at June, 1940, consisted of 53,662 shop assistants, 11,207 office assistants and 18,662 other employees. Of the shop assistants 36 per cent. were men, 25 per cent. were women and 19 per cent. were boys and 20 per cent. were girls.

It is not possible to make reliable comparisons from year to year between numbers of persons employed in registered shops because the returns obtained are usually incomplete. The proportion of employees in respect of whom returns are not received varies and from time to time the area embraced in shop registration districts varies.

Particulars regarding the registered shops in the metropolitan, Newcastle and other shopping districts and the wage earning employees engaged therein are shown below:—

TABLE 539.—Registered Shops—Classification of Employees, June, 1940.

Particulars.	Shopping Districts.								
	Metropolitan.		Newcastle.		Other.		All Shopping Districts.		
Registered Shops—									
Not employing labour ...	9,542		603		4,295		14,440		
Employing labour ...	8,530		659		7,367		16,556		
Total ...	18,072		1,262		11,662		30,996		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
Shop Assistants—									
Adults ...	10,457	9,533	931	555	7,931	3,308	19,319	13,396	32,715
Minors ...	5,334	6,343	518	587	4,316	3,849	10,168	10,779	20,947
Total ...	15,791	15,876	1,449	1,142	12,247	7,157	29,487	24,175	53,662
Office Assistants—									
Adults ...	1,153	3,061	67	177	694	1,029	1,914	4,267	6,181
Minors ...	427	2,914	21	288	198	1,178	646	4,380	5,026
Total ...	1,580	5,975	88	465	892	2,207	2,560	8,647	11,207
Other Employees—									
Adults ...	5,711	3,224	550	166	3,051	360	9,312	3,750	13,062
Minors ...	2,099	1,609	214	80	1,246	352	3,569	2,041	5,600
Total ...	7,810	4,833	764	246	4,297	712	12,871	5,791	18,662
Total Employees—									
Adults ...	17,321	15,818	1,548	898	11,676	4,697	30,545	21,413	51,958
Minors ...	7,860	10,866	753	955	5,760	5,379	14,373	17,200	31,573
Total ...	25,181	26,684	2,301	1,853	17,436	10,076	44,918	38,613	83,531

In the metropolitan shopping district there were 18,072 registered shops and paid labour was employed in 8,530 shops. The number of employees was 51,865 or 6 per shop. In other shopping districts, including Newcastle, there were 12,924 registered shops and 8,026 shops employed 31,666 persons or 4 per shop. There was a majority of female employees in the metropolitan shops but 62 per cent. of the employees in Newcastle and country shops were males.

The foregoing particulars have been compiled from returns supplied to the Department of Labour and Industry and Social Services. As compared with the previous year there was an increase of 652 in the number of returns from shops employing labour; the increases in the various districts were Metropolitan 112, Newcastle 120 and other districts 420.

An award for the metropolitan shop assistants made by the Industrial Commission of New South Wales in October, 1937, provides 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 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.

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 540.—Trade Unions of Employees, 1911 to 1939.

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
1921	197	234,898	23,965	258,863	363,067	345,854	194,360
1927	170	306,380	38,689	345,069	487,723	454,190	357,588
1929	172	287,573	40,025	327,598	633,918	631,517	372,728
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
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
1938	181	275,400	53,048	328,448	462,449	426,725	463,613
1939	184	278,049	53,889	331,938	534,190	492,862	453,799

At the end of the year 1939 there were 184 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 67,332. During the next six years there was an increase of 39,001 and the number in 1939 was the highest since 1929. The number of women in the trade unions declined by 3,200 in 1930 then began to rise and passing the pre-depression peak in 1933, reached the maximum on record, 53,889 in 1939.

The majority of the unions are small. In 1939 there were 26 unions of less than 100 members; 78 with 100 to 1,000 members; 52 with 1,000 to 5,000 members; 12 with 5,000 to 10,000; and 7 unions had more than 10,000 members.

The receipts during 1939 amounted to £534,190, including contributions, £414,744. The total expenditure £492,862, included payments in respect of benefits £73,878, and management and other expenses, such as legal charges in connection with industrial awards, etc., £418,984. 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 1939:—

TABLE 541.—Trade Unions of Employees—Members and Funds, 1939.

Industrial Classification.	Unions.	Membership at end of year.			Receipts.	Expenditure.	Funds at end of year.	Funds per Member.
		Males.	Females.	Total.				
	No.	No.	No.	No.	£	£	£	s. d.
Engineering and Metal Working ...	16	49,331	395	49,726	106,188	94,970	126,020	50 8
Food, Drink, and Narcotics ...	19	28,049	8,729	36,778	33,837	33,683	18,096	9 10
Clothing ...	6	7,601	21,991	29,592	18,944	14,752	15,366	10 5
Printing, Bookbinding, etc. ...	4	6,930	2,539	9,469	20,927	24,227	43,552	92 0
Manufacturing, n.e.i. ...	19	19,227	2,329	21,556	23,109	19,816	29,255	27 2
Building ...	13	21,953	64	22,017	18,428	18,329	15,813	14 3
Mining and Smelting ...	13	18,201	20	18,221	126,102	111,155	38,468	40 4
Railways and Tramways ...	14	39,374	592	39,966	61,075	59,403	24,064	12 6
Other Land Transport ...	5	6,110	...	6,110	7,970	7,035	4,375	14 4
Shipping and Sea Transport ...	11	4,361	20	4,381	11,959	11,828	4,757	21 7
Pastoral, etc. ...	4	11,648	1,017	12,665	17,764	17,326	1,898	3 0
Governmental, n.e.i. ...	19	33,940	5,512	39,452	45,277	42,605	73,621	37 4
Miscellaneous ...	32	31,324	10,681	42,005	36,991	33,994	52,324	24 11
Labour Council and Eight-hour Committees ...	3	...	...	...	5,619	3,739	6,190	...
Total Unions of Employees ...	178*	278,049	53,889	331,938	534,190	492,862	453,799	27 4

\* Exclusive of six Unions for which returns were not furnished.

#### 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 1939 numbered 22. The membership of 21 unions from which returns were received was 12,253 at the end of the year, and the funds amounted to £65,507. The receipts during 1939 amounted to £34,520, and the expenditure to £34,755. The members included 8,517 in the pastoral industry, 1,535 retail tobacco traders and 855 master bakers.

Any seven or more employers who are members of a trade union and comply with the prescribed conditions as to rules, etc., may register under the Trade Union Act of New South Wales.

## INDUSTRIAL UNIONS.

Industrial unions of employees and of employers are registered under the industrial arbitration laws of the State of New South Wales and the Commonwealth as part of the administrative machinery of the arbitration systems.

*Industrial Unions registered in New South Wales.*

For the purpose of bringing an industry under the review of the State industrial tribunals in New South Wales, 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 New South Wales, but employees in rural industries were removed from the operation of the State industrial arbitration 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, 1940, there were 191 unions of employers and 155 unions of employees on the register.

*Industrial Unions registered by the Commonwealth.*

In the Commonwealth system of industrial arbitration, unions are registered in order to submit disputes to the industrial tribunals or to be represented in proceedings relating to disputes. Organisations of employees or employers representing at least 100 employees may be registered.



## INDUSTRIAL ARBITRATION

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In New South Wales there are two systems of industrial arbitration for the adjustment of relations between employers and employees, viz.: the State system which operates under the law of the State within its territorial limits and the Commonwealth system which applies to industrial disputes extending beyond the limits of the State.

There is also a separate system of arbitration under Federal law to determine the industrial conditions of employment in the public service of the Commonwealth.

The relation between the State and Commonwealth system of industrial arbitration rests upon the distribution of legislative powers between the Commonwealth and the component States. The powers of the Commonwealth are those which the States have agreed to confer upon it and are defined in the Commonwealth of Australia Constitution Act; all residual powers remain with the States. In some matters the legislative power is exclusive to the Commonwealth, in others—including industrial arbitration—both Commonwealth and States have jurisdiction. The Commonwealth Constitution Act provides that if a State law is inconsistent with a valid Federal law the latter prevails and the State law becomes inoperative in so far as it is inconsistent. It has been held by the High Court that an award of the Commonwealth Court is a law within the meaning of this section, therefore awards of the Federal industrial tribunals override those made by State tribunals.

The Commonwealth jurisdiction is delimited by the Constitution Act to "conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State." In interpreting the law the High Court of Australia has decided that the Federal Parliament cannot empower an industrial tribunal to declare an award a "common rule" or industry-wide award to be observed by all persons engaged in the industry concerned. The Federal industrial tribunals must proceed by way of conciliation and arbitration between actual parties and cannot bind by award any person who is not a party to an interstate dispute, either personally or through a union.

Notwithstanding these limitations of the Commonwealth jurisdiction in industrial matters the Commonwealth system has gradually become the strongest factor in the sphere of industrial arbitration throughout Australia. Its influence extended in the first place with the gradual adoption of the principle of federation in trade unionism and in political organisation, a tendency which gathered force during the 1914-18 war period. As industry expanded over interstate borders uniformity of industrial conditions was sought by employers, while employees were attracted to the Federal jurisdiction in the expectation of better terms as to wages, etc., than those awarded under State legislation. In many cases, also, the organisations concerned in a Federal award have taken action to have its terms embodied in State awards so that they become binding as a common rule in the industry. Again, for the sake of uniformity, legislatures of some States, notably New South Wales and Victoria, have adopted the Federal wage standards as the basis of State awards and agreements. In New South Wales, for

instance, the basic wages determined by the Commonwealth Court of Conciliation and Arbitration have been adopted for State awards and agreements in substitution for those declared by the Industrial Commission (see page 631).

Since the outbreak of war in September, 1939, the jurisdiction of the Commonwealth in industrial arbitration and conciliation has been extended by regulations under the National Security Act as described on page 624.

#### INDUSTRIAL ARBITRATION SYSTEM OF NEW SOUTH WALES.

##### *Industrial Tribunals.*

The principal tribunal is the Industrial Commission of New South Wales, which consists of five or six members with the same status as puisne judges of the Supreme Court. Subsidiary tribunals are conciliation committees for various industries, each consisting of an equal number of representatives of employers and employees in the industry concerned, together with the Conciliation Commissioner as chairman. The Conciliation Commissioner is appointed for a term of seven years, and additional commissioners may be appointed for a specified period up to twelve months. In matters relating to apprenticeship in an industry the members of the Conciliation Committee with the Apprenticeship Commissioner constitute the Apprenticeship Council (see page 609).

Where an industrial dispute is threatened or has occurred, the Conciliation Commissioner may summon the parties to a compulsory conference in an endeavour to effect a settlement. Where agreement is reached by the parties to proceedings before a conciliation committee or the Conciliation Commissioner, the terms are embodied in an award from which appeal lies to the Industrial Commission. Matters upon which agreements are not effected are referred to the Industrial Commission.

Proceedings before a conciliation committee may be initiated upon the application of employers of not less than twenty employees or by an industrial union and matters may be referred by the Minister or by the Industrial Commission. Awards are binding on all persons engaged in the industry as the tribunal directs and within the locality covered, until varied or rescinded.

Further particulars regarding the industrial tribunals are published at page 253 of this volume.

##### *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 three years is shown below:—

TABLE 542.—State Industrial Awards and Agreements, 1938 to 1940.

Year ended 30th June.	Awards Published.		Agreements Filed.	In Force at end of Year.	
	Principal.	Subsidiary.		Awards.	Agreements.
1938 ... ..	61	1,219	57	540	147
1939 ... ..	73	1,311	22	566	155
1940 ... ..	64	1,421	25	578	160

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, may be appointed by the Governor-General for a term of five years, with authority to intervene in industrial disputes and to summon conferences.

The Court may prescribe rates of wages, hours and other conditions of employment and may grant preference of employment to members of unions. Similar authority may be exercised by a conciliation commissioner insofar as it may be exercised by a single judge.

Matters which would result in the alteration of standard hours or of the basic wage or the principles on which it is computed (see page 633) are determined by the Chief Judge and at least two other judges.

Provision may be made in any award for the appointment of a Board of Reference to deal with matters arising under its terms. Such boards serve a useful purpose in implementing awards and in removing causes of friction between employers and their employees.

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, metal and printing trades and railway and tramway employees.

At 31st December, 1939, there were 128 awards of the Commonwealth Court in force in New South Wales, also 24 agreements filed under the provisions of the Commonwealth Act.

*Wartime Employment Regulations.*

Wartime regulations have been promulgated by the Commonwealth in terms of the National Security Act, 1939, to extend the jurisdiction and powers of Federal industrial tribunals during the period of the war, so that action for the prevention and settlement of industrial disputes may be taken more expeditiously. The Commonwealth Court is authorised, in this way, to deal with all industrial disputes, including those which do not extend beyond the limits of one State, and to apply its determinations as common rules or industry-wide awards.

In the coal mining industry central and local reference boards may be constituted to deal with matters in dispute. In employment for the production of munitions and other war supplies, rates of wages have been fixed for certain groups of workers, and the engagement of such workers for non-essential employment is restricted. The Minister for Labour and National Service may make arrangements for the training of skilled workers to be employed in munition works, etc.

A Trade Union Advisory Panel has been constituted to advise the Federal Government in regard to wartime industrial conditions and employment.

*Crown Employees and Arbitration.*

Under the State industrial arbitration system, employees of the Government of New South Wales and of governmental agencies, with the exception of the police, have access to the ordinary industrial tribunals for the regulation of conditions of employment.

For the public service of the Commonwealth, rates of pay and conditions of employment are regulated by a special tribunal constituted by an arbitrator appointed by the Governor-General. Decisions of the arbitrator may be disallowed by a resolution of either House of the Federal Parliament.

The Commonwealth Court of Conciliation and Arbitration may make awards in respect of employees of the State Government.

**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. The normal working time in New South Wales as prescribed by State and Federal tribunals is 44 hours per week.

Special legislation has been enacted in New South Wales from time to time 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 44-hours week was proclaimed in many industries on the recommendation of a special court.

In September, 1922, the Court of Industrial Arbitration restored the 48-hours week in most of the cases in which the working time had been reduced. Since 4th January, 1926, the 44-hours week has been the standard, 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.

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 closing times of shops in shopping districts are 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 543.—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, <i>n.e.i.</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 and Newspaper shops ... ..	8 0	9 0	8 0
Flowers ... ..	8 30	9 30	9 30
Fruit, Vegetable, Fish, Cakes and Pastry, Cooked Provisions, Tobacconists, Confectioners, Refreshments			
Restaurants, Fish and Oysters (consumed on premises)	11 30	11 30	11 30
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 ordinary hours of work per shift in the coal-mines as fixed by an industrial award dating from 1st January, 1917, were 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 was eleven per fortnight though in many collieries there was no work in winning coal on

Saturdays. In 1939 the Commonwealth Court of Conciliation and Arbitration reduced the maximum hours of underground ("from face to wagon") workers to 40 per week, worked in shifts of eight hours, including one half-hour per shift for meal time counted as time worked, Monday to Friday inclusive. The ordinary hours of surface workers were fixed at 86 per fortnight in shifts of eight hours, and one Saturday shift of six hours including in all shifts crib time, 30 minutes, counted as time worked.

The hours of underground workers in coal mines 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 544.—Hours of Work per Week in Australian States, 1914 to 1940.  
(Adult Male Workers).

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
1925 ... ..	46·76	46·98	43·88	46·97	46·26	47·25	46·44
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	47·09	45·98
1931 ... ..	44·22	46·88	44·98	46·83	45·55	46·76	45·51
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
1939 ... ..	43·92	44·61	43·46	45·83	45·10	45·33	44·35
1940 ... ..	43·70	44·28	43·46	45·23	44·09	44·92	44·04

Between April, 1914, and December, 1929, the average nominal working week for adult males in New South Wales was reduced by 5½ hours to 44·1 hours per week. Then an amendment of the State law, as quoted above, caused a temporary increase of 1½ hours. The average has since declined below 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 for the time worked.

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 is usually observed on a Monday.

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, but the August holiday in 1940 was cancelled. 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.

#### ANNUAL HOLIDAYS WITH PAY.

In New South Wales an annual holiday with full pay has become a custom in some classes of employment e.g., governmental services, banking and insurance, and in many commercial and industrial occupations. But the authority of the industrial tribunals to prescribe such holidays was not recognised for some years after the introduction of industrial arbitration. The High Court of Australia decided in 1912 that the Commonwealth Court of Conciliation and Industrial Arbitration had jurisdiction to award holidays with pay and in 1915 the Court of Industrial Arbitration in New South Wales decided, upon appeal, that an industrial board in a proper case might grant a claim in this respect. In September, 1939, annual leave with pay was prescribed by 219 current awards of State industrial tribunals. Since 1936 the Commonwealth Court has granted claims for such leave in some industries, including coal-mining for which an award was made in 1939.

#### 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 specified union and other persons offering or desiring employment at the same time, preference of employment be given to members of the 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.

## INDUSTRIAL DISLOCATIONS CONTINGENT UPON DISPUTES.

The law relating to industrial disputes was summarised on page 991 of the Year Book for 1937-38.

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 one dispute is recorded 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. 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, 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 no allowance is 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 in such industries as mining, 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 545.—Industrial Disputes, 1929 to 1940.

Year.	Disputes.			Workers Involved.			Duration—Working Days.		
	An- terior.	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	183,818	184,208	1,080	545,668	546,748
1938	1	480	481	269	182,961	183,230	22,327	916,939	939,266
1939	1	532	533	50	211,565	211,615	850	445,633	446,483
1940	2	434	436	253	227,252	227,505	1,596	1,074,118	1,075,714

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.

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 546.—Industrial Disputes According to Year of Commencement, 1929 to 1940.

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	3,699,891	746,486	4,436,377
1930	158	27	185	44,463	7,592	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	46,951	7,915	54,766	164,169	183,487	347,656
1936	254	27	281	79,163	5,214	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
1939	497	35	532	202,621	8,914	211,565	382,458	64,771	447,229
1940	385	49	434	206,022	21,230	227,252	977,744	118,539	1,096,283

In 1940, an extensive dispute about hours occurred in coal-mining. There was a general stoppage in the collieries of New South Wales from 11th March to 20th May, when operations were resumed pending settlement of the dispute by the Commonwealth Court of Conciliation and Arbitration. The loss was 567,000 working days.

Information is given in the following table regarding the duration of the disputes which originated during the year 1940:—

TABLE 547.—Industrial Disputes—Duration, 1940.

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 ... ..	22	3,866	2,004	5	1,170	560	27	5,036	2,564
One day ... ..	277	154,995	154,995	13	4,781	4,781	290	159,776	159,776
Over 1 and not exceeding 10 ... ..	73	31,585	108,781	21	12,013	56,863	94	43,598	165,644
Over 10 and not exceeding 50 ... ..	8	14,160	608,562	7	2,961	36,320	15	17,121	644,882
Over 50 and not exceeding 100 ... ..	5	1,416	103,402	3	305	20,015	8	1,721	123,417
Total ... ..	385	206,022	977,744	49	21,230	118,539	434	227,252	1,096,283

A very large proportion of the disputes are of brief duration. In mining 158,861 workers were involved in 299 disputes lasting one day or less during 1940, with a loss of 156,999 working days, and in other industries 5,951 workers in 18 disputes with a loss of 5,341 work days.

The causes of the disputes in the mining industries and in the non-mining group during 1940 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 548.—Industrial Disputes—Causes, 1940.

Cause.	Mining.			Non-Mining.			All Industries.		
	Dis-locations.	Workers in-volved.	Duration—Working days.	Dis-locations.	Workers in-volved.	Duration—Working days.	Dis-locations.	Workers in-volved.	Duration—Working days.
Wages ... ..	78	24,354	78,157	23	10,124	73,358	101	34,478	151,515
Hours ... ..	28	20,675	582,273	5	4,410	22,075	33	25,085	604,348
Working conditions ...	98	24,684	37,399	5	1,605	4,765	103	26,289	42,164
Employment of persons or classes of persons...	100	40,233	161,968	12	4,268	15,011	112	44,501	176,979
Trade unionism ... ..	21	6,132	7,556	...	...	...	21	6,132	7,556
Sympathy ... ..	4	2,808	22,860	1	200	2,600	5	3,008	25,460
Miscellaneous ... ..	53	86,450	86,845	2	616	716	55	87,066	87,561
Not stated ... ..	3	686	686	1	7	14	4	693	700
Total ... ..	385	206,022	977,744	49	21,230	118,539	434	227,252	1,096,283

In the mining industries disputes about hours were the cause of 60 per cent. of the loss of working time during 1940, disputes about employment of persons or classes of persons 17 per cent., and disputes about wages 8 per cent.

In non-mining industries 62 per cent. of the loss was the result of disputes about wages, and 19 per cent. was lost in disputes about hours.

## WAGES.

Wages paid to industrial workers in New South Wales are regulated for the most part by the industrial arbitration tribunals.

### THE LIVING WAGE.

In determining minimum rates of wages the industrial tribunals in both State and Federal jurisdiction base their decisions on the principle of a living wage which must be sufficient to enable the lowest-paid worker to live according to a reasonable standard of comfort.

In the State jurisdiction the Court of Industrial Arbitration in 1914 adopted the practice of fixing a living wage for the guidance of the wage-fixing tribunals, and in 1918 the 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. Information relating to the standard of living and living wage determinations up to April, 1937, the date of the last declaration by the State tribunal, are published in earlier issues of the Year Book. In October, 1937, the basic wages determined by the Commonwealth Court of Conciliation and Arbitration were adopted, for the sake of uniformity, by the State.

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 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 549.—Living Wages Declared by State Industrial Authority (N.S.W.), 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.
1914	16th February ...	£ s. d. 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 550.

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; and a man, wife, and one child in 1929 and later. The rates as stated in the table for June, 1927, and subsequent dates were supplemented by family allowances for dependent children under 14 years, one child in each family being excluded from endowment since December, 1929. (See page 171 of this Year Book.)

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 634 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.

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 550.—Living Wages (per week) in N.S.W.—State Awards and Agreements, 1937 to 1941.

Date.	Sydney, Newcastle Wollongong— Port Kembla.		County of Yanco- winna.	Other Districts.		Crown Employees (all Districts).†	
	Men.	Women.	Men.	Men.	Women.	Men.	Women.
1937—October ...	s. d. 78 0	s. d. 42 0	s. d. 78 0	s. d. 75 0	s. d. 40 6	s. d. 76 0	s. d. 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
December ...	82 0	44 0*	82 0	79 0	42 6	80 0	43 0
1940—February ...	82 0	44 0*	83 0	79 0	42 6	81 0	43 6
May ...	83 0	44 6*	83 0	80 0	43 0	81 0	43 6
August ...	85 0	45 6*	85 0	82 0	44 0*	83 0	44 6*
November ...	85 0	45 6*	85 0	82 0	44 0*	84 0	45 0*
1941—February ...	88 0	47 6	88 0	85 0	45 6*	86 0	46 0*
May ...	88 0	47 6	90 0	85 0	45 6*	87 0	46 6*

† See context below Table.

\* 6d. higher in some awards.

The "needs basic wage" for Crown employees, *i.e.*, employees of the State Government and statutory bodies, is uniform in all districts. It is derived from the index numbers (weighted average) for five towns, Sydney, Newcastle, Broken Hill, Goulburn and Bathurst, and the fixed loading is 5s.

a week—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.

Except where an award or agreement provides otherwise, the basic wages are subject to adjustment at quarterly intervals according to the retail price index numbers of the preceding quarter. From December, 1937, to December, 1939, inclusive the adjustments were made in March, June, September, and December, and since February, 1940, the rates have been adjusted a month earlier—in February, May, August, and November. 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 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 in a case under the Excise Tariff Act of 1906 the President of the Court had determined as "fair and reasonable" for an unskilled labourer. The rate 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 industry 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 588). 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. per week 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 588. It is issued quarterly and the corresponding adjustments in wages were made two months after the end of each quarter until February, 1940, when arrangements were made to adjust the rates a month earlier, that is, in February, May, August and November. The minimum variation in the needs basic wage for men is 1s. per week, and the rates are adjusted to the nearest shilling. In 1940 unions of employees applied to the Court for a substantial increase in the basic wages. After hearing evidence the Full Bench in February, 1941, announced its decision that, in view of existing circumstances of war and economic adjustment, the matter should be adjourned for further consideration after 30th June, 1941. Before this interval had expired the Commonwealth enacted legislation for a system of family allowances throughout Australia to commence on 1st July, 1941. Allowances will be provided at the flat rate of 5s. a week for dependent children under 16 years of age, except one in the family. They will be payable for families of wage earners and non-wage earners, irrespective of income, but where income is above the limit of exemption from income tax it is proposed to offset the allowances by the abolition of income tax deductions in respect of endowable children (see page 416). Funds for the allowances are to be provided partly by a tax on pay rolls which exceed £20 a week and partly from Consolidated Revenue. Upon the commencement of the Commonwealth family allowances the New South Wales system, as described on page 171, is to be abolished.

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 551.—Basic Wages (per week), Federal Awards—Australian Capitals, 1929 to 1941.

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	66 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
Dec. ...	82 0	80 0	76 0	77 0	77 0	77 0	79 0
1940—Feb. ...	82 0	81 0	77 0	77 0	77 0	78 0	80 0
May ...	83 0	82 0	78 0	78 0	77 0	78 0	80 0
Aug. ...	85 0	84 0	79 0	80 0	79 0	80 0	82 0
Nov. ...	85 0	84 0	79 0	80 0	80 0	81 0	83 0
1941—Feb. ...	88 0	86 0	82 0	82 0	81 0	83 0	85 0
May ...	88 0	87 0	83 0	83 0	82 0	84 0	86 0

† Family Endowment is not included, (see page 171).

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 the rates of wages in the various industries are fixed by wages boards, and the 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 with 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 552.—Living Wage declared by Industrial Tribunals in Various States, 1928 to 1941—Rates per Week.

Year.	Sydney.		Brisbane.		Adelaide.		Perth.	
	Date of Declaration.	Rate.*	Date of Declaration.	Rate.	Date of Declaration.	Rate.	Date of Declaration.	Rate.
		s. d.		s. d.		s. d.		s. d.
1928 ...	...	85 0	...	85 0	...	85 6	...	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. ... Feb. ...	{ 72 0 70 6 69 0
1933 ...	{ Apr. ... Nov. ...	{ 68 6 66 6	...	74 0	...	63 0	{ July ... Aug. ...	{ 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. ... Dec. ...	{ 82 0 81 0 82 0 }	July ...	84 0	Jan. ...	78 0	April ...	82 2
1940 ...	{ May ... Aug. ...	{ 83 0 85 0 }	...	84 0	Nov. ...	84 0	July ...	85 4
1941 ...	Feb. ...	88 0	March ...	89 0	...	84 0	Feb. ...	86 11

\*Family Endowment excluded (see page 171).

#### 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 recognised 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 553.—Rates of Wages in Various Occupations, 1901 to 1940.

Occupation.	1901.	1911.	1921.	1929.	1931.	1932.	1937.	1938.	1939.	1940.
	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	104 0	107 0	108 0	111 0
Boilermaker .....	60 0	66 0	107 6	123 0	92 3	89 1	108 0	111 0	112 0	115 0
Coppersmith .....	60 0	63 0	109 6	118 6	93 2	90 0	109 0	112 0	113 0	116 0
Filter .....	60 0	64 0	107 6	118 6	92 3	89 1	108 0	111 0	112 0	115 0
„ electrical .....	60 0	66 0	108 6	118 6	118 6	106 0	114 0	117 0	118 0	121 0
Baker .....	52 6	56 0	100 6	128 6	128 6	113 6	112 6	119 0	120 0	123 0
Bootlicker .....	45 0	54 0	98 6	102 6	88 0	84 9	99 0	104 0	105 0	110 0
Tailor (ready-made) .....	50 0	55 0	102 6	108 0	87 4	81 0	96 0	98 0	101 0	104 0
Compositor (jobbing) .....	52 0	60 0	105 0	116 0	90 11	86 5	102 0	108 0	109 0	112 0
<b>Building—</b>										
Bricklayer .....	60 0	69 0	108 0	126 6	126 6	101 0	118 0	121 0	122 0	125 0
Carpenter .....	60 0	63 0	110 0	125 0	125 0	112 6	118 0	121 0	122 0	125 0
Painter .....	54 0	60 0	104 0	119 0	116 0	103 6	111 6	114 6	115 6	119 0
Plumber .....	60 0	66 0	110 0	127 0	127 0	114 6	121 0	125 0	126 0	128 6
<b>Mining—</b>										
Coalwheeler (d) per day. {	7 0	8 0	15 7	18 3	17 9	17 3	18 2	18 2	18 8	21 1
„ Metalminer per day. {	7 6	9 1	16 3	18 9	18 3	17 9	18 8	18 8	19 2	21 7
„ {	9 0	11 0	15 2	16 0	16 0	13 11	17 4	19 1	19 3	19 10
„ {			to	to	to	to	to	to	to	to
„ {			15 3	16 3	16 6	14 5	17 11	20 3	20 6	20 6
„ {			to	to	to	to	to	to	to	to
„ {			106 0	114 0	106 6	94 0	101 0	103 0	108 6	112 6
„ {			to	to	to	to	to	to	to	to
„ {			130 0	139 0	130 6	118 0	125 0	127 0	131 0	135 0
„ {			to	to	to	to	to	to	to	to
„ {			1 0	2 9	2 2	2 3½	2 9	2 9½	2 10	2 11½
„ {			1 3							
<b>Rural Industries—</b>										
Shearer per 100 sheep .....	20 0	24 0	40 0	41 0½	32 6 (a)	29 3 (b)	35 0	35 6	35 6	35 6
Station-hand, with keep .....	20 0	25 0	48 0	54 8	42 6	38 2 (c)	45 6	45 6	45 6	46 9
Farm-labourer, with keep {	15 0	20 0	42 0	55 0	20 0	25 0	25 0	25 0	25 0	25 0
„ {	20 0	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	91 0	98 6	94 6	97 0
Standard minimum wage .....	*	45 0	82 0	82 6	82 6	70 0	78 0	81 0	82 0	85 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. (d) Northern District.

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 rates for shearing are subject to annual adjustments in March according to variations in retail price index numbers for the preceding calendar year.

TABLE 554.—Wages Rates—Shearers in New South Wales.

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 to March 1941 ... ..	35 6	...
March 1941 ... ..	36 9	...

Wages of farm labourers are not fixed by award or agreement. A living wage declaration for rural workers was in force during the twelve months ended October, 1922, and there were awards for agricultural workers between October, 1926, and December, 1929. Then 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 553 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 in New South Wales are compiled 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 555.—Average Rate of Wages in Sydney, 1891 to 1940.  
(Adult Males.)

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	1939 ...	96 7
1918 ...	65 11	1929 ...	102 11	1940 ...	99 7

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 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. The living wage in State jurisdiction remained constant at 82s. 6d. from December, 1929, until August, 1932, when it was lowered by 12s. 6d.

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 fixed loading to the basic wages, as described on pages 632 and 634. The increase in more recent years corresponds to the increase in the basic wage as shown in Tables 550 and 551.

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 556.—Average Rates of Wages in Industries, 1911 to 1940.

Group of Industries.	Average Weekly Rates of Wages at end of Year.—Adult Males.					
	1911.	1921.	1929.	1932.	1939.	1940
1. Wood, Furniture, Sawmill, Timber Works, etc. ...	s. d. 55 6	s. d. 101 0	s. d. 107 9	s. d. 88 5	s. d. 102 9	s. d. 105 9
2. Engineering, Shipbuilding, Smelting, Metal Works, etc. ...	55 4	98 7	103 10	85 5	100 10	103 10
3. Food, Drink, and Tobacco Manufacture and Distribution ...	51 4	95 2	101 2	86 5	99 4	102 4
4. Clothing, Hats, Boots, Textiles, Rope, Cordage, etc. ...	51 7	91 10	96 10	76 7	92 3	95 3
5. Books, Printing, Bookbinding, etc. ...	64 4	106 3	123 6	101 8	120 9	122 6
6. Other Manufacturing ...	51 7	97 7	103 7	84 3	99 1	102 5
7. Building ...	63 4	104 7	114 7	100 7	110 0	114 6
8. Mining, Quarries, etc. ...	60 0	105 4	112 9	103 1	113 1	115 2
9. Railway and Tramway Services ...	55 2	95 5	107 8	83 9	97 4	101 1
10. Other Land Transport ...	44 4	92 0	97 1	84 4	96 10	100 10
11. Shipping, Wharf Labour, etc. ...	44 6	100 5	106 2	80 2	99 1	102 9
12. Pastoral, Agricultural, Rural, Horticultural, etc. ...	43 5	92 0	100 9	75 11	80 2	81 10
13. Domestic, Hotels, etc. ...	44 3	89 0	92 7	79 7	92 1	95 5
14. Miscellaneous ...	49 0	91 5	96 5	81 4	95 2	98 10
All Industries ...	51 5	95 10	102 11	84 11	96 7	99 7

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 588). The results indicate the changes in the effective wage.

The nominal wage for each year represents the mean of the average rates at the end of the four quarters.

TABLE 557.—Index Numbers of Nominal and Effective Wages in New South Wales, 1923-27 to 1939-40.

Year ended June.	Average Nominal Wage for a Full Week's Work.—Adult Males.		Index Number of Retail Prices, Sydney, "all Items." ‡	Index Number of Effective Wages (Full Work.)
	Amount.	Index Number.		
1923-27*	s. d. 96 0	1000	1000	1000
1928	102 1	1063	1020	1042
1929	102 10	1071	1034	1036
1930	102 11	1072	1042	1029
1931	98 2	1023	954	1072
1932	93 3	971	872	1114
1933	85 0	885	827	1070
1934	82 10	863	819	1054
1935	83 2	866	826	1048
1936	84 2	877	845	1038
1937	85 9	893	860	1038
1938	91 9	956	881	1085
1939	95 2	991	910	1089
1940	96 9	1008	948	1063

\* Calendar years. ‡ 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.

The trend of effective wages lags behind the movement in retail prices. When prices were falling rapidly between 1928-29 and 1931-32 the index of effective wages rose by  $7\frac{1}{2}$  per cent., but by 1935-36 it had dropped to pre-depression level. Measures taken to increase basic wages after the middle of the year 1937 caused the effective wage index to rise, and in 1937-38 and 1938-39 it was nearly 9 per cent. above the level of the years 1923 to 1927. There was a fall of  $2\frac{1}{2}$  per cent. in 1939-40.

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 predominant rates for work without intermittency or overtime, and not on actual earnings, which fluctuate with the rise and fall in the volume of employment.

#### WAGES PAID IN NEW SOUTH WALES.

It is estimated that the salaries and wages paid in New South Wales in the year ended June, 1940, amounted to £190,000,000. A comparative statement of the aggregate amount paid during the years ended June, 1933 to 1940, is shown below, also the amounts paid to employees on rural holdings, in mines and factories, as recorded in the annual returns (of which details are given in relevant chapters of this Year Book) and to employees of the State and Federal Government:—

TABLE 558.—Estimate of Wages Paid in New South Wales, 1933 to 1940.

Year ended 30th June.	Total Amount of Wages Paid.	Wages Paid in Principal Industries.			Wages Paid to Governmental Employees (b)
		Rural. (a)	Mining.	Factories. (b)	
	£ million.	£ million.	£ million.	£ million.	£ million.
1933 ... ..	109.2	6.7	3.8	23.8	24.8
1934 ... ..	117.0	7.2	3.8	25.7	24.9
1935 ... ..	131.0	7.8	4.2	29.5	26.5
1936 ... ..	143.5	8.6	4.6	33.3	28.0
1937 ... ..	155.9	9.4	4.9	36.6	29.9
1938 ... ..	177.3	10.1	5.8	42.2	33.6
1939 ... ..	183.5	10.0	6.0	44.6	35.4
1940 ... ..	190.0	10.1	6.6	47.7	37.1

(a) Including "keep." (b) Including wages paid to employees in Governmental factories;  
(£4.5 million in 1939-40.)

## 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 559 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 561.

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 1939-40 to the calendar years 1932 to 1939 respectively:—

TABLE 559.—Value of Production, 1871 to 1940.

Year.	Primary Industries.							Total, Primary and Manufacturing Industries.	
	Rural Industries.				Forests, Fisheries, and Trapping.	Mines and Quarries.	Total, Primary Industries.		
	Pastoral.	Agri-cultural.	Dairying and Farmyard.	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	5,133	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
1913	21,555	12,378	7,063	40,996	2,644	8,712	52,352	23,764	76,116
1920-21	20,336	32,373	16,447	69,156	4,089	10,192	83,437	43,128	126,565
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	70,743	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
1938-39	24,894	18,459	16,359	59,712	3,485	11,702	74,899	90,266	165,165
1939-40	35,550	20,392‡	16,188	72,130	3,710	12,914	88,754	96,442	185,196

† Including Government assistance to wheat growers, viz., £992,600 in 1931-32, £1,012,902 in 1932-33, £911,094 in 1933-34, £1,121,600 in 1934-35, £564,368 in 1935-36, and £1,329,180 in 1938-39.  
‡ Including assistance from proceeds of flour tax. \* Calendar year 1932, see context above.

Apart from seasonal influences, fluctuations in the value of pastoral production are mainly the result of variations in the prices of wool.

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 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. It remained near this level until it began to rise in 1934-35, and in the last three seasons it was above the value in any year since 1920-21.

A comparative statement of the quantity and value of wool, wheat and butter produced in various seasons since 1911-12 is shown in Table 562.

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 and 1939 was higher than in any other year since 1926-27. The production in 1939 was estimated as follows:—Coal mines £7,035,000, other mines £4,432,000, and quarries £1,447,000.

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 the succeeding years there was steady improvement, and in 1939-40 the value, £96,442,000, was the highest recorded.

In the following table the estimated value of production, as at place of production in each year, is shown in relation to the population.

TABLE 560.—Value of Production Per Capita, 1871 to 1940.

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.	
1871	14 19 5	4 7 5	2 3 8	21 10 6	0 12 9	3 4 0	25 7 3	4 18 0	
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	
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	
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	
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	
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	
1920-21	9 14 8	15 9 11	7 17 5	33 2 0	1 10 1	4 17 7	39 18 8	20 12 10	
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	
1929-30	10 9 8	6 1 3	5 15 5	22 5 11	1 14 4	3 7 0	27 7 3	28 10 10	
1930-31	7 0 2	4 16 11	4 14 7	16 11 8	1 1 0	2 0 10	20 2 6	19 9 2	
1931-32	7 10 7	5 13 3	4 9 10	17 13 8	1 0 1	2 5 6	21 2 3	18 3 4	
1932-33	8 5 0	6 14 10	4 8 6	19 8 4	1 0 11	2 8 1	22 7 4	19 2 7	
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	
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	
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	
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	
1937-38	13 0 4	7 10 10	5 18 11	26 10 1	1 8 5	4 8 9	32 7 3	31 3 10	
1938-39	9 2 1	6 15 1	5 19 8	21 16 10	1 5 6	4 5 7	27 7 11	33 0 4	
1939-40	12 17 4	7 7 7	5 17 2	26 2 1	1 6 10	4 13 6	32 2 5	34 13 1	



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 1939-40 as follows. No deduction has been made for depreciation of capital, machinery or plant:—

TABLE 561.—Net Value of Primary Production, 1926 to 1940.

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	62,879	3,798	10,416	76,893
1938-39 ...	23,613	13,401	13,147	50,161	3,429	9,948	63,538
1939-40 ...	34,562	17,231	13,266	65,059	3,658	10,927	79,644

Details regarding deductions from the gross values are published in the chapters of this Year Book relating to the rural industries.

WOOL, WHEAT AND BUTTER—PRODUCTION AND FARM VALUES.

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 Government bounties and

subsidies (see below); (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 562.—Production of Wool, Wheat and Butter, 1911-12 to 1940-41.

Season.	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.	
	000 lb.	£000	d.	000 bush.	£000	s. d.	000 lb.	£000	d.
1911-12	404,655	12,421	8½	25,088	4,113	3 3	83,205	3,631	10½
1912-13	326,557	12,045	9½	32,487	5,239	3 3	76,610	3,895	12½
1913-14	379,450	13,143	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	16½	33,806	8,590	5 1	106,968	7,045	15½
1928-29	482,920	30,879	16½	49,257	9,851	4 0	96,244	6,779	17
1929-30	459,970	18,099	10½	34,407	5,448	3 2	105,022	6,842	15½
1930-31	427,220	13,705	8½	65,877	5,215	1 7	114,202	5,931	12½
1931-32	501,648	15,233	8½	54,966	8,130†	2 7†	123,847	5,750	11½
1932-33	532,080	16,659	8½	78,389	9,800†	2 3†	128,931	5,018	9½
1933-34	484,390	29,951	15½	57,057	7,013†	2 2†	148,868	5,167	8½
1934-35	494,981	18,045	9½	48,678	7,150†	2 6†	146,106	5,694	9½
1935-36	472,585	25,408	14	48,822	8,137†	3 1†	125,169	5,765	11½
1936-37	503,616	32,091	16½	55,668	12,989	4 8	109,831	5,548	12½
1937-38	495,027	24,060	12½	55,104	9,299	3 5	120,883	6,513	13
1938-39	437,141	17,076	10½	59,898	6,695†	1 9½†	118,821	6,409	13
1939-40	546,273	28,283	13½	76,552	10,606§	2 9½§	116,814	6,556	13½
1940-41 (a)	518,000	26,200	13½	24,440	(b)	(b)	109,000	6,000	13½

\* Exclusive of the value of milk used in making butter from cream imported or exported interstate.

† Excluding Government bounty, etc.

‡ Includes Government bounties and subsidies.

(a) Preliminary Estimates.

(b) Not yet available.

§ Value and price on basis of proceeds of Australian Wheat Pool, including assistance from Flour Tax.

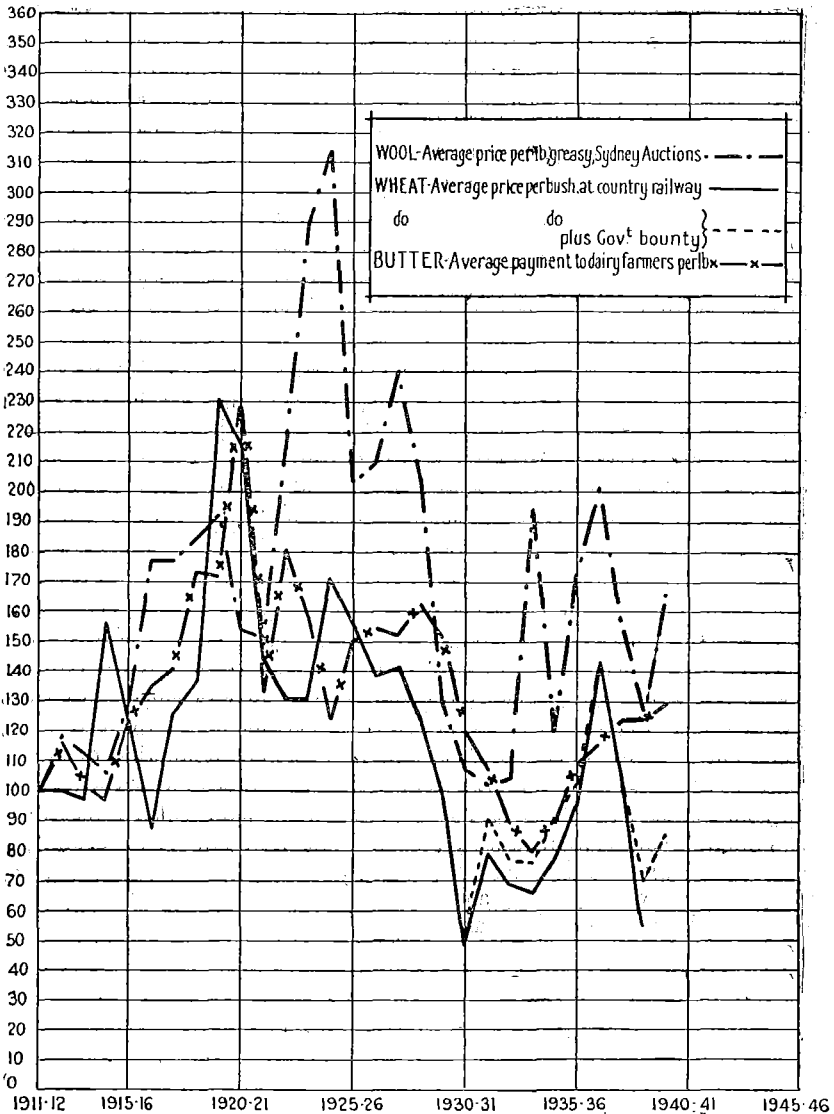
The production of wool in 1939-40 was the largest ever recorded and the value to the grower (on the basis of the agreed price under the Imperial purchase scheme 13.4375d. per lb.) was £28,283,000.

In 1931-32 and subsequent seasons when market conditions were unfavourable, wheat farmers were assisted by subsidy from the State and Commonwealth Governments. The amount of assistance represented 4½d. bushel in 1931-32, about 3d. in 1932-33, nearly 4d. in 1933-34, about 5½d. in 1934-35, and 2½d. in 1935-36. There was substantial recovery in the price of wheat in 1936 and the harvests of 1936-37 and 1937-38 were marketed without subsidy. In 1938-39 the price had declined again and Government subsidy equivalent to 5½d. per bushel was provided. The harvest of 1939-40 was acquired by the Australian Wheat Board under a scheme which is described in the chapter Agriculture. The average price received by the farmers in New South Wales represented 2s. 9½d. per bushel, including payments from the proceeds of the flour tax.

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 following graph illustrates the fluctuations in the values per unit of the principal rural products from season to season since 1911-12. The values used are those shown in Table 562, viz.: for wool, the average price per lb. greasy realised at Sydney auctions; for wheat the average price per bushel at country railway (less cost of bags); and for butter the average price paid at the butter factories to suppliers of milk and cream, expressed as per lb. of butter made therefrom. The average per lb. or per bushel in 1911-12 is taken as a base equal to 100.

**RURAL PRODUCTS—AVERAGE PRICES, 1911-12 TO 1939-40.**  
**WOOL (Sydney Auctions) WHEAT AND BUTTER (Farm Values).**  
 Average in 1911-12=100.



## PRINCIPAL PRIMARY AND SECONDARY PRODUCTS.

The following statement shows the average annual production of the principal commodities, 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, 1939:—

TABLE 563.—Production of Principal Commodities.

Product.	Average Annual Production (000 omitted).				Average Production Per Head of Population.			
	1911-13.	1921-23.	1927-29.	1937-39.	1911-13.	1921-23.	1927-29.	1937-39
Wool (as in the grease) ... lb.	370,221	315,341	475,367	478,595	212.4	147.8	195.6	176.7
Meat, Frozen (Exported)—								
Beef ... ..	11,120	10,271	6,805	14,592	6.4	4.8	2.8	5.4
Mutton and Lamb ... ..	83,828	41,525	28,767	57,753	36.6	19.5	11.8	21.3
Butter ... ..	79,198	86,222	98,130	116,512	45.4	40.5	40.4	43.0
Cheese ... ..	5,845	6,234	6,787	7,636	3.4	3.0	2.8	2.8
Bacon and Ham ... ..	15,940	18,642	24,890	21,866	9.1	8.8	10.0	8.1
Wheat ... ..	31,865	42,353	41,280	56,890	18.3	19.9	17.0	21.0
Maize ... .. bush	4,691	3,813	3,345	3,204	2.7	1.8	1.4	1.2
Potatoes ... .. cwt	1,824	1,046	847	1,043	1.0	0.5	0.4	0.4
Hay ... ..	18,612	23,100	16,168	19,494	10.7	10.8	6.7	7.2
Coal ... .. ton	9,664	10,485	9,397	9,607	5.5	4.9	3.8	3.5
Coke ... ..	401	813	1,036	1,460	0.3	0.4	0.4	0.5
Gold ... .. oz.	2	32	13	73	0.1	0.0	0.0	0.0
Silver* ... ..	14,183	8,741	9,009	9,299	8.1	4.1	3.7	3.4
Lead* ... ..	4,204	2,244	3,457	3,809	2.4	1.1	1.4	1.4
Zinc* ... .. cwt.	3,553	2,447	2,798	2,317	2.0	1.2	1.1	0.9
Timber, (Native) Sawn sup. ft.	150,617	148,938	148,506	164,440	97.0	74.0	62.8	60.7
Fish, Fresh ... .. lb.	15,499	20,588	27,498	27,477	8.9	9.7	11.2	10.1
Rabbit Skins (Exported) ...	5,305	6,747	9,800	2,870	3.0	3.2	4.0	1.1
Iron, Pig ... .. cwt.	771	5,373	9,056	19,651	0.4	2.5	3.7	7.3
Steel Ingots ... ..	—	3,989	8,327	22,678	—	1.9	3.4	8.4
Portland Cement ... ..	2,374	3,778	8,418	7,950	1.4	1.7	3.5	2.9
Bear and Stout ... .. gal.	22,253	24,845	28,308	30,815	12.8	11.7	11.6	11.4
Tobacco ... .. lb.	6,370	12,211	14,914	15,131	3.7	5.7	6.1	5.6
Biscuits ... ..	24,175	39,244	43,744	43,363	13.9	18.4	18.0	16.0
Boots and Shoes ... .. pairs	3,752	4,174	5,007	7,780	2.2	2.0	2.1	2.9
Bricks ... ..	366,985	339,721	435,631	349,198	210.5	159.2	170.2	129.0
Electricity ... .. units	165,249	386,742	892,365	1,797,370	94.8	181.3	367.1	663.8
Gas ... .. 1,000 cub. ft.	4,378	8,465	10,555	10,650	2.8	4.0	4.3	3.9
Jam and Preserved Fruit ... lb.	27,767	30,396	31,498	53,132	15.9	14.3	13.0	19.6
Soap ... ..	31,670	37,085	52,341	52,235	18.2	17.4	21.5	19.3
Sugar Refined ... .. cwt.	1,834	2,373	3,038	2,769	1.1	1.1	1.2	1.0
Meat, Preserved ... .. lb	23,501	4,320	4,948	4,767	14.6	2.0	2.0	1.7

\* 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, silver, lead, zinc, and bricks.

In comparison with the experience of the three years ended June, 1929, the annual production of wheat, butter, coke, iron and steel, 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, 1939.

## RURAL INDUSTRIES.

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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 to 1936, 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 906 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, 1940, the number of agricultural and pastoral holdings of 1 acre or more in extent was 74,909, including 1,317 unoccupied or not used for agricultural or pastoral purposes at that date, and 1,253 used only incidentally for such purposes. These holdings embraced a total area of 174,315,117 acres.

The area of the State not embraced within such holdings is approximately 24,000,000 acres and includes approximately 3,000,000 acres covered by rivers, lakes, harbours, etc.; 5,000,000 acres of rugged land unfit for occupation of any kind; town lands and holdings 1 acre or less 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. Most of the land unsuitable for settlement is in the coastal and tableland divisions, but proportionately smaller areas are found in all divisions.

Of the total area held in rural holdings 1 acre or 2 acres in extent a little over 90 per cent. is used primarily for grazing, approximately 6 per cent. for agriculture and 3 per cent. for dairying, while under 1 per cent. is used for small farming—poultry, pigs, bees, etc. It should be noted, however, that a certain proportion of the areas classified primarily to each of these main purposes is used for subsidiary rural purposes.

Of the 72,339 rural holdings in the State, 45,161 are used primarily for single purposes, viz., 20,578 for grazing only; 10,373 for agriculture only and 14,210 for dairying only; 23,205 holdings are used for two main purposes, viz., 18,144 for agriculture and grazing, 3,752 for agriculture and dairying and 1,309 for dairying and grazing; 1,433 holdings are used for agriculture, dairying and grazing combined and 2,540 are used for poultry, pig and bee farming.

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\* The term "alienated land" as used in this chapter and chapter "Agriculture" refers to the areas so returned by landholders, and includes perpetual leases, homestead selections, etc., as well as land actually alienated or in course of alienation.

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 564.—Rural Holdings, Classification according to Purposes, 1908 to 1940.

Main purpose for which holdings are used.	Number of Holdings.							
	1908.	1911-12.	1925-26.	1935-36	1936-37.	1937-38.	1938-39.	1939-40.
Agriculture only ... ..	7,244	6,814	11,435	10,293	10,741	10,577	10,567	10,373
Dairying only ... ..	3,575	3,157	9,766	14,969	14,521	14,136	14,129	14,210
Grazing only ... ..	21,874	22,011	25,428	21,970	21,968	21,654	20,765	20,578
Agriculture and Dairying ...	8,377	8,258	5,624	4,066	4,178	4,072	3,660	3,752
Agriculture and Grazing ...	18,733	21,969	18,084	15,995	16,669	17,675	18,461	18,144
Dairying and Grazing ...	1,818	2,099	1,794	1,445	1,394	1,316	1,331	1,309
Agriculture, Dairying, and Grazing... ..	3,312	4,362	1,734	1,834	1,716	1,592	1,489	1,433
Poultry, Pig, or Bee Farming ... ..	529	879	1,526	2,786	2,592	2,449	2,426	2,540
<b>Total Holdings of one acre and upwards used mainly for Agricultural and Pastoral purposes</b>	<b>65,462</b>	<b>69,549</b>	<b>75,391</b>	<b>73,358</b>	<b>73,779</b>	<b>73,471</b>	<b>72,828</b>	<b>72,339</b>

NOTE—The basis of classification was amended in 1928-29.

In addition, small holdings—mostly less than 30 acres in extent, which numbered 2,570 in 1939-40—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 conjointly, 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 recent 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 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 45,161, or by 9 per cent. in 1939-40. On the other hand multiple-purpose holdings, which numbered 21,634 in 1930-31, increased to 24,638, or by 13.9 per cent. in 1939-40.

The area of land used principally for each of the principal rural industries in New South Wales was ascertained, in 1930-31, to be: Agriculture, 9,679,649 acres; dairying, 5,482,708 acres; grazing, 155,898,564 acres; and 711,408 acres for other purposes. The respective areas in the various

divisions of the State are shown in Table 568, and 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 is published on pages 712-714 of the Year Book for 1937-38.

A map showing the distribution of rainfall in relation to the geographical distribution of rural industries in New South Wales was published in the Year Book for 1924 opposite page 728.

#### *Size of Holdings.*

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 633 of the Year Book for 1928-29, but similar information for a later year has not been compiled.

Information regarding the number, area and value of alienated lands in holdings according to size as at 31st March, 1937, is shown on pages 854 to 856 of the Year Book of 1937-38.

#### *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, 1940.

TABLE 565.—Area and Tenure of Rural Holdings, 1940.

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.	Total Area in Holdings.
	acres.	acres.	acres.	acres.	acres.
Coastal ... ..	9,503,441	1,391,175	192,712	1,178,690	12,266,018
Tableland... ..	15,069,316	3,363,182	455,730	1,332,712	20,220,940
Western Slopes ... ..	22,003,350	2,002,502	298,707	1,055,929	25,360,488
Central Plains and Riverina ... ..	30,643,724	5,199,703	507,359	2,057,499	38,408,285
Western ... ..	19,531,160	144,168	505,332	57,878,726	78,059,386
New South Wales ... ..	98,750,991	12,100,730	1,959,840	63,503,556	174,315,117

\* See footnote, page 649.

Of the total area occupied, 55.5 per cent. was classed as freehold, and the remaining 44.5 per cent. as Crown land, including 8.1 per cent. leased with full or limited rights of conversion into freehold. Of the other Crown land leases, 91.1 per cent. was 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 1939-40 are shown in the following table:—

TABLE 566.—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 Occupa- tion.
	per cent.	per cent.	per cent.	per cent.	per cent.
Coastal ... ..	42·64	6·24	0·86	5·29	55·04
Tableland ... ..	58·30	13·01	1·76	5·16	78·23
Western Slopes ... ..	78·08	7·11	1·06	3·75	89·99
Central Plains and Riverina	74·03	12·56	1·22	4·97	92·79
Western ... ..	24·32	0·18	0·63	72·06	97·20
New South Wales ...	48·86	6·11	0·99	32·07	88·03

\* See footnote, page 649.

More than 88 per cent. of the total area of the State is occupied in holdings of one acre and upwards used for agricultural or pastoral purposes. The highest proportion of alienation, 78.08 per cent. of the area of the division, has taken place in the Western Slopes, and the lowest, 24.32 per cent., in the Western Division. But taking the total area of holdings, the Western Division shows the largest proportion of its area—97.20 per cent.—under occupation. The proportions are high also in the Central Plains and Riverina, 92.79 per cent., and the Western Slopes, 89.99 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. The greater intensity of settlement in the more easterly districts necessitates the allocation of larger proportions of land for public purposes, and 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 is defined as 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.

Very few shires assess improved values, and particulars of improved capital value are obtained from the owners. In the table which follows, therefore, 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, 1940:—

TABLE 567.—Area and Value of Rural Holdings in Divisions, 1940.

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 ...	3,333	12,153	3.65	30,309	9.09	1,415
Hunter and Manning ...	4,099	9,252	2.26	25,608	6.25	840
Metropolitan ...	276	3,193	11.57	7,589	27.50	8
South Coast ...	1,796	4,642	2.58	12,134	6.76	500
Total ...	9,504	29,240	3.08	75,640	7.96	2,763
<i>Tablelands—</i>						
Northern ...	4,550	5,672	1.25	14,792	3.25	2,050
Central ...	6,298	9,983	1.59	32,221	5.12	1,436
Southern ...	4,221	5,834	1.38	17,205	4.08	1,665
Total ...	15,069	21,489	1.43	64,218	4.26	5,151
<i>Western Slopes—</i>						
North ...	6,897	11,022	1.60	28,137	4.08	1,439
Central ...	6,355	9,657	1.52	30,515	4.80	654
South ...	8,751	15,953	1.82	50,876	5.81	1,264
Total ...	22,003	36,632	1.66	109,528	4.98	3,357
<i>Plains—</i>						
North-central ...	5,728	6,616	1.16	15,759	2.75	2,071
Central ...	10,581	9,203	0.87	21,831	2.06	3,309
Riverina ...	14,335	21,855	1.52	54,699	3.82	2,385
Total ...	30,644	37,674	1.23	92,289	3.01	7,765
<i>Western Division</i> ...	19,531	1,992	0.10	4,823	0.25	58,528
<i>Whole State</i> ...	96,751	127,027	1.31	346,498	3.58	77,564

\* See footnote, page 649.

Particulars of the rainfall, productivity, and population of each of these divisions are shown in Table 568. 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, was shown on page 859 of the Official Year Book for 1937-38.

#### 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.

The following analysis of the State, according to natural divisions on the basis of Local Government areas, shows the rainfall, population, area, and production. A map showing these divisions is published as a frontispiece to this Year Book:—

TABLE 568.—Rainfall, Population, Area and Production, in Divisions. 1939-40.

Division.	Range of Average Annual Rainfall.	Popu-lation at 31st Dec. 1939. *	Total Area. †	Production (1939-40).				
				Wool.	Wheat.	Butter.	Minerals. ‡	Manu- factures. 
<i>Coastal—</i>	inches.	000	acres.	lb.	bushels.	lb.	£	£
North Coast ...	37-78	158	6,965	000	000	000	000	000
Hunter and Manning ...	22-60	321	8,396	8,267	38	24,382	4,578	10,011
Metropolitan ...	27-47	1,452	958	236	...	501	} 1,546	73,970
South Coast ...	28-60	121	5,968	4,296	...	9,625		
Total ...	...	2,052	22,287	12,871	38	101,845	6,141	90,342
<i>Tablelands—</i>								
Northern ...	29-39	56	8,069	30,078	169	1,624	293	235
Central ...	22-55	147	10,716	52,902	4,742	1,579	1,046	1,792
Southern ...	19-63	52	7,062	38,449	41	493	169	368
Total ...	...	255	25,847	121,429	4,952	3,696	1,508	2,395
<i>Western Slopes—</i>								
North ...	21-32	67	9,219	56,701	7,485	1,565	82	348
Central ...	18-28	67	7,723	42,117	20,402	916	7	303
South ...	18-38	122	11,230	68,221	18,320	7,573	87	752
Total ...	...	256	28,181	167,039	46,207	10,054	176	1,403
<i>Central Plains—</i>								
Northern ...	18-27	32	9,579	47,386	4,867	136	2	221
Central ...	15-22	29	14,811	57,908	4,623	148	38	110
Riverina ...	11-23	91	17,004	63,677	15,778	889	23	517
Total ...	...	152	41,394	168,971	25,268	1,173	63	848
<i>Western Division ...</i>	7-18	55	80,319	75,963	87	46	3,579	1,454
Whole State ...	...	2,770	198,028	546,273	76,552	116,814	11,467	96,442

\* Excluding aboriginals.

† Excluding area of harbours not included in local government areas.

‡ Calendar year, 1939.

|| Value added in process of manufacture.

Manufactories are not extensive outside the metropolitan, Newcastle, Port Kembla and Lithgow districts, except 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 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 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. Intermittent rainfall 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.

#### VALUE OF PRODUCTION OF RURAL INDUSTRIES.

Information regarding the value of production of rural and other industries, as published in the chapter "Production" of this Year Book, indicates the relative importance of the rural industries in the economic life of the community. Table 559, of that chapter, contains a comparison of the value of production of each rural industry at intervals since 1871.

A summary of the gross farm value of rural production in various years since 1901 is shown below. The net value since 1925-26 is shown also; this is estimated by deducting from the gross value such costs as fodder for live-stock, seed, fertilisers, etc., and power and water for irrigation.

TABLE 569.—Estimated Value of Production—Rural Industries, 1901 to 1939-40.

Year.	Gross Value.		Net Value.	
	Amount.	Per Head of Population.	Amount.	Per Head of Population.
	£ 000	£ s. d.	£ 000	£ s. d.
1901 ... ..	22,695	16 12 1	...	.....
1906 ... ..	31,735	21 7 6	...	.....
1911 ... ..	36,869	22 2 10	...	.....
1915-16 ... ..	51,505	27 4 0	...	.....
1920-21 ... ..	69,156	33 1 7	...	.....
1925-26 ... ..	66,933	28 17 0	60,952	26 5 5
1926-27 ... ..	79,308	33 7 9	72,447	30 10 0
1927-28 ... ..	72,169	29 13 3	66,076	27 3 3
1928-29 ... ..	74,594	30 0 6	68,079	27 8 1
1929-30 ... ..	56,162	22 5 11	49,043	19 9 5
1930-31 ... ..	42,202	16 11 8	37,751	14 16 8
1931-32 ... ..	45,403	17 13 8	41,617	16 4 2
1932-33 ... ..	50,309	19 8 4	45,408	17 10 6
1933-34 ... ..	60,677	23 4 4	55,826	21 7 3
1934-35 ... ..	51,977	19 14 7	46,886	17 15 11
1935-36 ... ..	64,549	24 6 0	58,404	21 19 8
1936-37 ... ..	78,314	29 4 3	71,172	26 11 0
1937-38 ... ..	71,800	26 10 1	62,679	23 2 9
1938-39 ... ..	59,712	21 16 10	50,161	18 6 11
1939-40 ... ..	72,130	26 2 1	65,059	23 10 11

Details regarding estimates of the value of production in each of the rural industries are shown in the following chapters.

#### 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 570.—Value of Rural Machinery, 1901 to 1940.

Season.	Agricultural.	Dairying.	Pastoral.*	Total Value.†
	£	£	£	£
1900-01	2,065,780	237,220	754,050	3,057,050
1910-11	3,414,620	534,740	1,483,080	5,432,440
1920-21	7,120,380	910,260	3,141,030	11,171,670
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	4,676,020	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
1938-39	11,516,668	1,275,622	4,205,752	16,998,042
1939-40	11,479,732	1,408,270	4,295,827	17,183,829

\* Includes in many cases farming implements used on pastoral holdings.

† Excludes machinery, etc., used for poultry, pig and bee-farming.

In 1939-40 the value of machinery used in holdings devoted to poultry, pigs and bees amounted to £334,163, as compared with £148,274 in 1931-32 and £300,692 in 1938-39.

There has been substantial increase in the mechanisation of the rural industries, and notably in agriculture. Information as to the number of tractors in use on farms at 30th June, 1930, and in certain later years, is shown on page 695 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. Although prices declined subsequently, the value of machinery used on rural holdings continued to increase and in 1939-40 it was greater than ever before. The value of dairying machinery increased between 1931-32 and 1934-35, declined in the three following years and increased again in each year since 1938.

The following table indicates the approximate value of rural holdings, and of machinery and live stock thereon, in each year since 1928:—

TABLE 571.—Value of Rural Holdings, Machinery and Stock, 1928 to 1940.

At 31st March.	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.
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
1939 ... ..	346,400	17,300	54,800	418,500	1 6	3 12
1940 ... ..	346,500	17,500	64,200	428,200	1 6	3 12

\* Number as at 30th June or 31st March at prevailing market values.

† 30th June.

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 over 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 is not ascertained.

The number of persons in their various capacities permanently engaged in farm work or rural holdings during the year ended 31st March, 1940, is shown below, together with the amount of wages paid to permanent and casual wage earners employed during that year.

TABLE 572.—Persons Permanently Engaged on Rural Holdings, and Wages Paid, 1939-40.

Capacity.	Males.	Females.	Total.
Persons Permanently Engaged on Rural Holdings—	No.	No.	No.
Owners, lessees, and share-farmers ... ..	67,443	1,298	68,741
Permanent employees receiving wages ... ..	40,484	1,018	41,502
Relatives not receiving wages ... ..	17,629	5,526	23,155
Total ... ..	125,556	7,842	133,398
Wages paid (including value of board and lodging)—	£	£	£
Permanent employees ... ..	6,405,872	85,182	6,491,054
Casual employees ... ..	3,609,976	2,706	3,612,682
Total wages paid ... ..	10,015,848	87,888	10,103,736

The majority of the relatives not receiving wages, 8,931 males and 4,241 females over the age of 14 years, in 1939-40, are employed in the coastal districts, where dairying is the principal rural pursuit.

In the following table information is shown as to the number of men and youths permanently engaged in each year since 1929; particulars of female employees are not included.

TABLE 573.—Males Permanently Engaged on Rural Holdings, and Wages Paid, 1929 to 1940.

Year ended 31st March.	Owners, Lessees, Share-farmers.	Permanent Employees Receiving Wages. †	Relatives not Receiving Wages.	Grand Total (Males).	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	26,874	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	18,347	126,051	6,426,594	3,669,940	10,096,534
1939 .....	68,009	40,777	17,555	126,341	6,302,125	3,607,419	9,909,544
1940 .....	67,443	40,484	17,629	125,556	6,405,872	3,609,976	10,015,848

\* Year ended 30th June. † Number of casual and seasonal employees is not known.

There was an increase in the numbers of male owners, lessees and share-farmers between 1930 and 1933, due partly to return of absentee owners to holdings and some substitution of share-farmers for paid employees. There has been a decrease of 3,336 since 1933, viz., 660 in share-farmers and 2,676 in owners and lessees.

Particulars regarding share-farmers are shown on page 659.

The number of unpaid relatives (excluding females) assisting on rural holdings increased from 17,495 in 1929 to 22,133 in 1932; then declined in each year to 16,347 in 1938. The number in the last two years was slightly higher than in 1929. The men permanently employed and receiving wages decreased from 34,234 in 1929 to 26,874 in 1932. Recovery after 1932 was rapid, and in 1938 such employees numbered 41,537. The number has since declined by 1,053.

The total amount of wages paid to permanent employees—males and females—during the year 1939-40 was £4,929,220, in addition to board and lodging, etc., valued at £1,561,834, or a total of £6,491,054, the average remuneration on the basis of these figures being £158 per annum to males and £83 per annum to females. 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 and seasonal employees amounted to £3,302,108 in addition to "keep," valued at £310,574, a total of £3,612,682. The amount of wages shown represents that paid by the landholder only and is in general exclusive of amounts paid to contractors engaged in rural work.

## 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 product. 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 1915-16, 1920-21, and each of the last eleven years:—

TABLE 574.—Share-farming, 1915-16 to 1939-40.

Season.	Holdings used for Share Farming.	Share-farmers.	Area Farmed on Shares		
			Cultivation.	Dairying.	Total.
	No.	No.	acres.	acres.	acres.
1915-16	2,474	4,781	1,297,269	83,668	1,380,937
1920-21	1,668	2,761	614,351	121,976	736,327
1925-26	2,493	3,667	645,395	226,362	871,757
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	777,272	2,136,489
1938-39	7,366	9,437	1,569,426	810,519	2,379,945
1939-40	6,624	8,459	1,425,636	798,243	2,223,879

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 an area farmed on shares exceeded one-fifth of the total area under crop in the State. Share-farming then decreased for a time and did not regain its former level until agricultural depression in the early years of the last decade made it impracticable for many farmers to maintain paid labour on their farms, and a considerable number of farm employees turned to share-farming as a means of livelihood. After 1932-33 there was a tendency to decline in this method of farming, but in 1938-39 when seasonal and market conditions had taken an unfavourable turn share-farming became a bigger factor in rural activities than ever before.

The area of land used for dairy farming on the shares principle increased steadily in each year from 1925-26 to 1938-39, but declined slightly in 1939-40.

In 1929-30 the system was used for agriculture exclusively on 2,382 holdings and for dairying only on 346 holdings. Corresponding numbers in 1939-40 were 4,025 and 377. 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 730 in 1929-30 and 2,222 in 1939-40.

Of the areas cultivated in 1939-40 on the shares-system 792,490 acres were in the Western Slopes Division and 482,312 acres were in the Central Plains and Riverina. There were 798,243 acres share-farmed for dairying, of which 730,909 acres, or 92 per cent., were in the Coastal Division.

#### PASTURE IMPROVEMENT.

##### *Sown Grasses.*

The stock carrying capacity of the pasture lands is being increased by cultivation of grasses and herbage both indigenous and imported. Such cultivation has been a major factor in increasing dairy production in the coastal belt, and in recent years the practice has been applied to pasture lands of the interior, coincident with a trend towards more diversified farming and fat lamb raising. The total area of land under sown grasses did not exceed 400,000 acres until 1901. It had risen to approximately 750,000 acres by 1910; 1,500,000 acres by 1920; 2,200,000 acres by 1930, and 3,300,000 acres in 1940. This area is considerable, but it represents little more than 2 per cent. of the land used for grazing and there is scope for further extension.



The following statement illustrates the increase in the area under sown grasses during the past twenty years in each division of the State:—

TABLE 575.—Area of Sown Grasses in Divisions, 1901 to 1940.

Year.	Coastal.	Tablelands.	Western Slopes.	Plains and Riverina.	Western Division.	New South Wales.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1901 ... ..	337,425	37,434	50,433	15,827	1,622	442,741
1911 ... ..	1,051,943	33,815	15,473	11,474	7,059	1,119,764
1921 ... ..	1,724,457	20,127	14,276	56,284	1,031	1,816,175
1931 ... ..	2,028,660	37,782	43,445	39,975	602	2,150,464
1936 ... ..	2,276,606	139,844	226,600	79,390	19	2,722,459
1937 ... ..	2,270,026	190,606	289,267	119,127	60	2,869,086
1938 ... ..	2,280,479	240,677	364,316	159,299	266	3,045,037
1939 ... ..	2,292,631	278,912	424,437	179,587	24,059	3,199,626
1940 ... ..	2,313,058	309,958	473,683	203,316	1,789	3,301,804

*Fertilised Pastures.*

Another means of increasing the capacity of the land for depasturing stock is the top dressing of pastures with fertiliser. In 1928-29 artificial manures were applied to 87,686 acres of pastures on 689 holdings. The agricultural depression checked progress in this form of pasture improvement until 1933-34, but there was a rapid increase in the course of the next three years. The area treated in 1937-38 was 875,730 acres—or ten times the area fertilised in 1928-29. Decreases in the area treated in 1938-39 and 1939-40 were due to drought, which rendered work of this kind of doubtful value, except in the safer rainfall regions, and to uncertainty regarding marketing conditions. Particulars of the use of artificial manures in the improvement of pastures in each season since 1928-29 are given hereunder:—

TABLE 576.—Fertilisers used on Pastures, 1928-29 to 1939-40.

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
1938-39 ... ..	5,377	823,439	758,462	103
1939-40 ... ..	4,850	650,134	609,290	105

The Commonwealth Government encouraged the practice of fertilising pastures by subsidy for the purchase of fertilisers (under conditions outlined at page 700) in each year from 1932-33 to 1939-40. The subsidy was discontinued in 1940-41.

The following table shows the area treated in each division in 1930-31 and the last five years:—

TABLE 577.—Pastures Treated with Fertilisers in Divisions, 1930-31, and 1935-36 to 1939-40.

Season.	Coastal.	Tablelands.	Western Slopes.	Plains and Riverina.	Western Division.	New South Wales.
<i>Area of Pastures treated with Artificial Fertilisers.</i>						
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1930-31 ... ..	6,221	4,154	5,140	3,659	80	19,254
1935-36 ... ..	29,568	89,491	174,796	53,954	3,400	351,209
1936-37 ... ..	36,442	251,357	295,407	94,588	85	677,879
1937-38 ... ..	44,969	344,111	365,484	121,131	35	875,730
1938-39 ... ..	47,660	307,540	368,413	99,776	50	823,439
1939-40 ... ..	55,859	301,185	235,269	57,610	211	650,134
<i>Quantity of Fertilisers used on Pastures.</i>						
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
1930-31 ... ..	8,696	3,370	3,975	4,862	40	20,943
1935-36 ... ..	37,823	99,993	152,542	42,546	1,820	334,724
1936-37 ... ..	45,602	235,592	264,691	72,743	242	618,870
1937-38 ... ..	56,581	328,793	332,529	99,581	115	817,599
1938-39 ... ..	63,782	298,631	312,698	83,326	25	758,462
1939-40 ... ..	77,192	275,684	205,183	51,009	222	609,290

#### CONSERVATION OF FODDER.

The conservation of fodder is beneficial to the maintenance of herds and flocks during winter months when the growth of grass is retarded and is a necessary safeguard against the periods of deficient rainfall which recur from time to time.

The production of hay and the quantity of silage made in each of the last five years are shown below; also particulars of stocks of hay and silage on farms as shown by farmers' returns as at 31st March in each year:—

TABLE 578.—Production and Stocks of Hay and Silage, 1936-40.

Year.	Production, Year ended 31st March.		Stocks on 31st March.	
	Hay.	Silage Made.	Hay.	Silage.
	tons.	tons.	tons.	tons.
1936 ... ..	837,386	109,731	744,930	206,190
1937 ... ..	917,499	113,542	719,961	199,549
1938 ... ..	825,309	109,628	496,809	173,636
1939 ... ..	1,181,264	124,496	744,550	144,493
1940 ... ..	965,678	173,220	987,332	227,800

At 31st March, 1940, hay was stored on 18,581 holdings and silage on 1,858 holdings. The quantities of fodder recorded on farmers' returns as having been fed to farm stock of all kinds in 1939-40 were as follows:—Hay, chaff, etc., 591,063 tons; wheat, 891,915 bags; oats (grain), 604,437

bags; maize, 617,303 bags; in addition to bran, pollard, oil cake, sheep nuts, licks, etc., valued at £917,439. These figures relate to large stock, sheep, pigs and poultry.

Much educative work has been done by the Department of Agriculture and farmers' organisations with a view to extending the practice of fodder conservation, and advice is freely available regarding methods of making ensilage and the construction of silos and ensilage pits.

The following table gives particulars of silage made in districts since 1921-22. Despite the adverse season the amount of silage made in 1938-39 was greater than in any preceding year, and there was further increase in 1939-40 when the quantity was four times the average annual quantity in the five years ended 1930-31.

TABLE 579.—Silage made, 1922 to 1940.

Period.	Farms on which Made.	Silage Made.	Value of Silage.	Silage made in Districts.				
				Coastal.	Table-lands.	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
1927-31 ...	447	42,937	75,612	19,270	4,030	15,064	4,320	253
1932-36 ...	927	77,375	107,257	46,509	6,226	17,760	5,750	1,130
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	...
1938-39 ...	1,476	124,496	180,144	75,682	10,328	25,848	12,638	...
1939-40 ...	1,743	173,220	232,692	52,815	16,329	59,433	43,553	1,090

## CONSERVATION OF THE SOIL.

In recent years increasing attention has been given to deterioration of certain agricultural and pastoral areas as a result of erosion of surface soils. 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 the productive capacity of the soil has been seriously reduced and in many instances appreciable areas have been rendered practically useless. In the Western Division of the State, which is devoted almost entirely to grazing, the destruction of fodder trees and shrubs has caused the desiccation 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.

Under the Soil Conservation Act assented to in October, 1938, a Soil Conservation Service has been established 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. (See page 882.)

After preliminary investigation a Soil Preservation Experimental Station has been established at Cowra to examine the effects of and methods of counteracting erosion in Cowra and the surrounding wheat lands. In the Hume, Snowy, Wyangala and Burrinjuck catchment areas, data is being collected in regard to run-off, and scientific and economic control of flood waters. In the Western Division, a vegetative survey has been commenced in relation to herbage, grasses and timber, and their influence on the stock carrying capacity of this large area.

#### 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.* The detailed descriptions there given, with modifications consequent upon growth of population, development at Port Kembla, revival of metal manufacturing at Lithgow, and more diversified farming in safe inland districts, give a general statement of the resources and enterprises of the various parts of New South Wales.

#### 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, 1940:—

TABLE 580.—Rural Holdings in Coastal Districts, 1940.

Division of Coast.	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.	
				Full rights of Conversion.	Limited rights of Conversion.			
	acres. 000	No. 000	acres. 000	acres. 000	acres. 000	acres. 000	acres. 000	
North ... ..	6,965	11,731	3,333	637	90	688	4,748	601
Hunter-Manning ... ..	8,396	9,159	4,098	530	65	245	4,938	493
Metropolitan ... ..	958	5,032	276	6	...	2	284	163
South ... ..	5,968	4,519	1,796	218	38	244	2,296	436
Total ... ..	22,287	30,441	9,503	1,391	193	1,179	12,266	1,693

\* See footnote, page 649.

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, 405 acres; Hunter and Manning, 539 acres; and South Coast 508 acres. The proportions of the total area of each division occupied in holdings as defined is 68 per cent. in the North Coast Division, 59 per cent. in that of Hunter and Manning, but only 38 per cent. on the South Coast.

Included in the coastal districts are 2,485 holdings, on which 3,166 share-farmers cultivated 47,724 acres and used 730,909 acres as dairy farms. Of the holdings with share-farmers, 2,060 were used for agriculture and dairying in combination, 121 for agriculture exclusively and 304 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 1939-40.

The following analysis shows the main purposes for which the holdings in the coastal districts were used in 1939-40 in comparison with 1929-30:—

TABLE 581.—Uses of Rural Holdings in Coastal Districts.

Principal Purpose for which Holdings were Used.*	1929-30.	1939-40.				
	All Coastal Divisions.	North Coast.	Hunter and Manning.	Metro-politan.	South Coast.	Total.
		Number of Holdings.				
Agriculture only ... ..	4,664	1,386	1,467	2,149	492	5,494
Dairying only* ... ..	12,346	6,412	4,240	611	1,946	13,209
Grazing only* ... ..	6,104	1,150	1,716	146	1,083	4,095
Agriculture and dairying* ... ..	2,473	1,958	479	79	303	2,819
Agriculture and grazing* ... ..	705	153	134	25	164	476
Dairying and grazing* ... ..	1,054	307	351	9	119	786
Agriculture, dairying, and grazing* ... ..	240	69	45	3	37	154
Poultry† ... ..	1,239	5	305	1,670	108	2,088
Bees, Pigs † ... ..	176	17	22	92	28	159
Unoccupied, or used mainly for other purposes ... ..	1,676	274	400	248	239	1,161
Total ... ..	30,677	11,731	9,159	5,032	4,519	30,441

\* See explanation, page 650. † See comments, pages 851 and 859.

The coastal district contains approximately 93 per cent. of the holdings used for dairying only in New South Wales, and the North Coast district contains nearly 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 grazing cattle. A pronounced reduction in the number of holdings devoted to grazing accompanied by an increase in the number of holdings applied to dairying occurred 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, activities being diverted to 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 as compared with 579 in 1929-30. By 1939-40 the number of such holdings had decreased to 1,386, and the number of holdings growing bananas was less by 608 than in 1934-35, due mainly to the elimination of unsuitable areas.

### 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, 1940:—

TABLE 582.—Rural Holdings on Tablelands—1940.

Division of Tableland.	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.
Northern ...	900	3,664	000	000	000	000	000	000
Central ...	8,069	7,305	4,550	1,496	216	338	6,600	580
Southern ...	10,716	7,305	6,298	1,076	143	218	7,735	2,036
	7,062	3,234	4,221	791	97	777	5,886	652
Total ...	25,847	14,203	15,069	3,363	456	1,333	20,221	3,268

\* See footnote, page 649.

While the proportion of land occupied in each division varies from 82 per cent. in the northern, and 83 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 717 share-farmers on 544 holdings, comprising 101,850 acres of cultivation and 22,512 acres of dairy farms. On the holdings with share-farmers, 480 were used for agricultural purposes only, 14 for dairying only and 50 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 1939-40.

The main purposes for which holdings were used in each division of the tablelands in 1929-30 and 1939-40 are shown in the following table:—

TABLE 583—Uses of Rural Holdings on Tablelands.

* Principal Purpose for which Holdings were used.	1929-30.	1939-40.			Total.
	All Tableland Divisions.	Northern Tableland.	Central Tableland.	Southern Tableland.	
NUMBER OF HOLDINGS.					
Agriculture only ... ..	1,564	223	1,148	59	1,430
Dairying only* ... ..	484	168	175	55	398
Grazing only* ... ..	8,701	1,961	2,757	2,680	7,398
Agriculture and Dairying* ... ..	310	157	249	25	431
Agriculture and Grazing* ... ..	2,651	804	2,350	255	3,409
Dairying and Grazing* ... ..	309	104	56	46	206
Agriculture, Dairying, and Grazing* ... ..	229	107	132	42	331
Poultry, Bees, Pigs, etc. ... ..	59	16	102	11	129
Unoccupied or used for other purposes ... ..	571	124	236	61	471
Total ... ..	14,878	3,664	7,305	3,234	14,203

\* See comments on page 650.

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 25 per cent. between 1929-30 and 1939-40 in the number of holdings devoted to two or more of the principal purposes. There was a temporary increase in dairying during the depression, and the number of holdings with registered dairies rose from 1,332 in 1929-30 to 1,967 in 1934-35. The number has since declined to 1,366.

#### 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, 1940, are shown below:—

TABLE 584.—Rural Holdings on Western Slopes—1940.

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.	
	acres.	No.	acres.	acres.	acres.	acres.	acres.	acres.
	000		000	000	000	000	000	000
North-Western	9,219	4,304	6,897	1,083	233	123	8,336	2,268
Central-Western	7,723	4,385	6,355	516	30	108	7,009	4,684
South-Western	11,239	8,026	8,751	403	36	825	10,015	5,467
Total	28,181	16,715	22,003	2,002	299	1,056	25,360	12,419

\* See footnote, page 649.

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 90 per cent. of the total area of the whole division. The area of land suitable for cultivation is considerable, constituting 40 per cent. of the total area of such land in the State. Of the land under occupation in the Slopes Division only 14 per cent. was under crop in 1939-40.

There were 2,997 share-farmers on 2,341 holdings on the Western Slopes in 1939-40, cultivating 792,490 acres and using 40,637 acres for dairying. Fifty-two of these holdings were devoted exclusively to dairying, 2,194 entirely to agriculture and 95 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 1939-40:—

TABLE 585.—Uses of Rural Holdings on Western Slopes.

*Principal Purpose for which Holdings were used.	1929-30.	1939-40.			Total.
	All Slopes Division	North-Western Slope.	Central-Western Slope.	South-Western Slope.	
NUMBER OF HOLDINGS.					
Agriculture only ... ..	1,649	298	350	857	1,505
Dairying only* ... ..	361	83	40	329	452
Grazing only* ... ..	5,572	1,381	588	1,859	3,828
Agriculture and Dairying* ... ..	310	159	69	185	413
Agriculture and Grazing* ... ..	7,933	2,089	3,106	3,736	8,931
Dairying and Grazing* ... ..	211	25	8	235	268
Agriculture, Dairying, and Grazing* ... ..	395	74	96	469	639
Poultry, Bees, Pigs, etc. ... ..	51	89	9	32	130
Unoccupied or used for other purposes ... ..	486	106	119	324	540
Total ... ..	16,968	4,304	4,385	8,026	16,715

\* See comments on page 650.

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, and on 10.6 per cent. in 1939-40.

The table reveals a pronounced movement toward mixed farming, particularly agricultural and grazing. Single purpose holdings were 24 per cent fewer in number in 1939-40 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 these 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. Railway facilities have been extended to many parts of these divisions, but are not so good as in the more easterly districts, and communication and transport in many districts is mostly by road. Artesian water underlies a considerable area on the north, and bores 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, 1940:—

TABLE 586.—Rural Holdings on Plains and Riverina, 1940.

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.
North ...	9,579	1,941	5,729	1,692	254	124	7,799	1,848
Central ...	14,811	2,491	10,580	2,458	163	688	13,889	3,653
Riverina ...	17,004	7,212	14,335	1,050	90	1,245	16,720	7,355
Total ...	41,394	11,644	30,644	5,200	507	2,057	38,408	12,856

\* See footnote, page 649.

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, 1940, there were 1,360 holdings in the Murrumbidgee Irrigation Area embracing 300,293 acres inclusive of certain attached lands outside the Irrigation Area. Seventy-nine per cent. of the area occupied in the Central Plains and Riverina Division has been alienated. The proportion alienated is 74 per cent. of the total area occupied in the northern districts and 77 per cent. in the Central Plains, and 86 per cent. in the Riverina, where the land is more productive.

The area of Crown lands occupied is considerable in all divisions.

Share-farming is not extensive in the north, but in the Riverina 757 holdings employed 976 share-farmers, who had 260,877 acres in cultivation and used 3,337 acres for dairying in 1939-40. Only 19 per cent. of the land in the Northern Plains is considered suitable for agriculture, but the proportions in the Central Plains and Riverina are 25 and 43 per cent. respectively.

The main purposes for which the holdings in the Central Plains and Riverina Divisions were used in 1939-40 in comparison with 1929-30 are shown in the following table:—

TABLE 587.—Uses of Rural Holdings on Plains and Riverina.

Principal Purpose for which Holdings were used.*	1929-30.	1939-40.			
	Plains & Riverina.	Northern Plains.	Central Plains.	Riverina.	Total.
		Number of Holdings.			
Agriculture only ... ..	2,013	79	85	1,464	1,628
Dairying only* ... ..	86	10	13	109	132
Grazing only*... ..	4,179	938	1,557	1,270	3,765
Agriculture and Dairying* ... ..	76	6	2	80	88
Agriculture and Grazing* ... ..	4,892	869	772	3,651	5,292
Dairying and Grazing* ... ..	30	4	6	34	44
Agriculture, Dairying, and Grazing* ... ..	169	2	7	299	308
Poultry, Bees, Pigs, etc. ... ..	2	2	3	13	18
Unoccupied or used for other purposes ... ..	311	31	46	292	369
Total ... ..	11,758	1,941	2,491	7,212	11,644

\* See comments on page 650.

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 3,898 holdings on which wheat for grain was grown in 1939-40.

Comparing figures for this division for 1939-40 with those for 1929-30, single purpose holdings declined in number by 12 per cent., and holdings used wholly or in part for grazing increased from 9,270 to 9,409 for agriculture from 7,150 to 7,316 and for dairying from 361 to 572. Holdings used for dairying in combination with other activities increased by approximately 12 per cent. between 1938-39 and 1939-40.

#### *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 relatively unproductive. 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 large areas 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. With the suspension of mining activities the population of these localities declined, though recently attempts have been made to work the low grade copper deposits. For the rest, the division possesses only two towns, Bourke and Cobar, with a population exceeding 1,500, four others exceeding 500, and about twenty smaller townships.

The total area returned as alienated land in the rural holdings in the Western Division as at 31st March, 1940, was 19,531,160 acres. The pronounced increase in the area of alienated land (from 2,143,625 acres at 31st March, 1935) 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 58,528,226 acres. Of the total area of land occupied, only 20,008 acres were under crop in 1939-40, although 1,107,759 acres of land were considered by the occupiers to be suitable for cultivation. The unimproved value of the alienated land was returned as 1,991,610, and the improved value as £4,822,950.

#### ADMINISTRATION.

The Department of Agriculture of New South Wales was created in 1890. It is under the control of the Minister for Agriculture, with a permanent Under Secretary and Director. The administrative functions of the Department extend to all rural industries, but not to forestry, which is administered by a separate Commission.

The Department of Agriculture administers policy and Acts of Parliament relative to rural industries, and fosters by scientific investigation and experiment and dissemination of information, improved methods of cultivation, possible new crops, means of combating pests, the use of fertilisers, irrigation, and the marketing and transport of produce. It promotes marketing schemes and fosters a community spirit among farmers.

For each branch of rural industry there is a scientific staff, and the various branches were reorganised in September, 1940, into seven divisions, as follows:—

*Plant Industry.*—Experiment farms, field investigations, agrostology, plant breeding and tobacco growing.

*Horticulture.*—Fruit development and viticulture.

*Animal Industry.*—Animal health and livestock production services, relating to sheep and wool, herds, pigs, poultry and bees.

*Dairying.*—All activities relating to dairy products.

*Science Services.*—Agricultural biology and chemistry, botany and entomology.

*Marketing.*—State Marketing Bureau and agricultural economics.

*Information and Extension Services.*—Publications, library, and a service to assist in co-ordinating instructional activities.

The Council for Scientific and Industrial Research, a Commonwealth organisation, is also active in the investigation of agricultural problems and the Commonwealth Departments of Commerce and of Trade and Customs, in co-operation with the States, exercise functions affecting oversea marketing of products and assistance to producers. Co-operative organisations of the farmers themselves are also instrumental in fostering and raising the efficiency of rural enterprise.

The Australian Agricultural Council, established in 1935, is a permanent organisation set up with a view to promoting uniformity of action between Commonwealth and States in relation to questions of marketing and agricultural problems. The Council consists of the Ministers in charge of agricultural administration in the States and the marketing administration of the Commonwealth; other State or Federal Ministers may be co-opted. 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 maintenance of high standards, 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 and co-ordination in agricultural research throughout the Commonwealth, and in the administration of quarantine in respect 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.

#### *Wartime Disposal of Rural Products.*

Wartime disposal of rural products is controlled mainly by the Commonwealth Government in terms of the National Security Act.

Arrangements have been made (as described in sections relating to individual products) to deal with wool, wheat, barley, meat, apples and pears, sugar, dairy products, dried fruits, eggs, etc. Steps have been taken, also, to meet problems of storage and transport, and the distribution of strategic reserves of foodstuffs, etc. Emergency finance has been arranged to assist farmers affected by curtailment of oversea markets.

## 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. Much more land was sold by this means 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 674.

*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  $4\frac{1}{2}$  per cent. on overdraft and long-term loans, with a concession of  $\frac{1}{4}$  per cent. to co-operative societies. In June, 1940, the rate was  $4\frac{3}{4}$  per cent., with a concession of  $\frac{1}{4}$  per cent. to co-operative societies.

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 588.—Rural Bank—Long Term Loans to Farmers, 1911 to 1940.

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	403
1915* ... ..	260	387,715	451	5,860	2,514,078	429
1921 ... ..	1,365	813,525	596	7,242	3,423,871	473
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	5,966,536	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	758
1937 ... ..	47	81,179	1,727	6,587	5,492,789	834
1938 ... ..	65	121,895	1,875	6,140	5,074,313	826
1939 ... ..	64	58,484	914	5,858	4,865,241	830
1940 ... ..	71	57,382	808	5,555	4,619,081	831

\* Government Savings Bank.

TABLE 589.—Rural Bank—Overdrafts to Farmers, 1922-1940.

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
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
1939 ... ..	545	596	847,380	10,170	10,570,803
1940... ..	550	433	980,070	10,094	10,930,752

*Advances to Settlers Agency.*

An account of the advances made to settlers as part of the unemployment relief policy was published on page 874 of the Year Book for 1937-38.

On 1st July, 1935, administration of these schemes came under the control of the Rural Bank, and the various activities mentioned were amalgamated, and are dealt with by the Advances to Settlers Agency of the Bank. When administration was transferred to the Agency, advances amounting to £1,002,542 had been approved and £900,997 had actually been advanced. Inclusive of these amounts advances approved at 30th June, 1940, amounted to £1,224,673 and those actually made to £1,138,131, of which £803,421 was then outstanding. Particulars for each year since 1934-35 are as follow:—

TABLE 590.—Advances by Advances to Settlers' Agency, 1933 to 1940.

Year ended 30th June.	Advances Approved.		Advances Actually Made.	Amount Outstanding at End of Year.
	Number.	Amount.		
1933-1935 †	5,329	£ 1,002,542	£ 900,997	£ 836,751
1936	499	80,766	101,924	970,953
1937	228	36,663	37,898	920,080
1938	203	36,014	30,125	856,378
1939	221	41,008	32,768	830,150
1940	166	27,680	34,419	803,421

† Taken over from Advances to Settlers' Co-ordination, Dairy Promotion, and Farmers' Relief Boards.

*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, to take over and collect all advances by the State for drought relief, seed wheat, and clearing land since 1915, and 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 its Rural Industries Agency.

A summary of the operations of the Rural Industries Branch and, subsequently, the Rural Industries Agency, is set out in the following table:—

TABLE 591.—Loans to Necessitous Farmers by Rural Industries Agency, 1919 to 1940.

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*	£ 105,066	£ 1,817,792	£ 92,848	£ †	£ 347,416	†
1922	159,443	24,639	80,517	12,239	4,812	433,930	†
1923	237,414	32,015	118,873	16,859	1,634	506,193	†
1924	121,120	28,444	192,134	38,166	4,392	481,065	3,478
1925	151,788	22,222	242,020	18,505	14,593	379,957	3,465
1926	85,959	14,662	165,869	17,975	2,285	294,449	2,579
1927	428,360	9,251	41,027	7,117	10,758	673,148	4,300
1928	396,493	29,595	401,416	31,193	850	669,813	3,687
1929	600,594	36,421	213,102	21,265	29,013	1,039,443	5,500
1930	664,202	57,783	395,531	51,419	4,992	1,309,486	5,200
1931	242,095	66,934	352,857	68,498	560	1,196,602	5,000
1932	233,571	78,771	212,329	65,886	25,635	1,204,494	4,300
1933	118,370	38,477	43,679	14,208	42,694	1,260,664	4,216
1934	52,771	60,806	67,659	14,455	88,486	1,203,741	4,250
1935	51,377	34,000	45,661	9,781	120,667	1,119,387	3,138
1936	58,873	31,651	54,206	14,229	89,450	1,051,909	2,578
1937	84,321	30,497	45,427	9,901	74,876	1,033,643	2,736
1938	103,331	32,155	45,769	6,746	64,306	1,054,937	2,894
1939	133,164	32,723	159,122	11,389	64,157	1,036,156	3,019
Total...	6,125,626	767,012	4,695,390	522,797	644,125	...	...

\* 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. Subsequently the scope of operations was 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 grasshopper pests, pig farmers who sustained the loss of their herds as the result of an outbreak of swine fever, etc. The term for repayment of advances to dairy-farmers for purchase of fodder (necessitated by prolonged drought) was extended in May, 1940, for two years, in the first of which no interest was charged and no repayment was required. These loans were mostly to dairy companies which purchased and distributed fodder to the farmers, from whom they drew supplies of cream, etc. Advances approved on these terms to 30th June, 1940, totalled £31,116.



Most of the advances, however, were made to wheat-farmers for purposes such as the purchase of fodder, seed wheat, fertiliser, tractor fuel, and household supplies. Formerly payment was made direct to suppliers, and cash advances were made only in exceptional circumstances. Since the Government Agency Department of the Rural Bank was charged with making the advances, cash payment has been 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, 1940, advances totalling £19,388 had been made, and the amounts actually provided were £15,658 for rams, £3,615 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. In recent years such assistance has been discontinued, but advances for essential requirements for fallowing are available to farmers who are in necessitous circumstances.

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, 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 in the form of grants 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. Particulars are given at page 681 of this Year Book.

Both the Federal and State Governments accorded financial assistance to wheat-growers in the seasons 1931-32 to 1935-36 and 1938-39, funds being provided partly by a tax on flour. Information concerning these schemes is shown in earlier editions of the Year Book.

To afford relief to farmers affected by drought in 1940, the Commonwealth appropriated for New South Wales an amount of £750,000 from loan funds. The money is to be repaid by the State Government in four equal instalments, commencing in the fourth year of the loan. The Commonwealth will pay the interest for the first year and half the interest subsequently. Advances to farmers will be made through the Rural Industries Agency. They will pay no interest for the first twelve months and not more than 1½ per cent. per annum thereafter, and will be required to redeem the loans on terms coincident with the State's obligation for repayment.

The Rural Industries Agency is distributing £320,000 granted by the Commonwealth for wheat farmers in New South Wales whose crops failed entirely or substantially in 1940-41. Payments are related to the quantity of wheat harvested up to seven bushels an acre.

*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 Guarantee 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, 1940, amounted to £290,280.

*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 682 and 767 to 776 of this Year Book.

As from 1st July, 1935, the Rural Bank, through its Irrigation Agency, became responsible for the administration of financial matters relating to the indebtedness of settlers on irrigation areas to the Crown, including advances and the collection of land payments, water rates and other charges. It also undertook collection of charges for water rates in domestic and stock water supply and irrigation districts, and for shallow bores sunk throughout the State. These were previously functions of the Water Conservation and Irrigation Commission and debts of this kind owing to the Commission as at 30th June, 1935, became debts owing to the bank.

## RURAL RECONSTRUCTION.

*Farmers' Relief Act, 1932-40.*

The Farmers' Relief Act, which came into operation on 17th February, 1933, provided means whereby farmers in case of necessity could obtain special assistance to restore their financial position. It provided means for the suspension of legal action in respect of the debts of farmers, and enables them to secure assistance from Government funds to carry on their activities. Protection in respect of debts was given by a Stay Order upon application being made by the individual farmer and approval being given by the Farmers' Relief Board. The term of a stay order was originally three years, but it has been extended, by amending legislation, to November, 1943, or six years from the date of granting, whichever be the later. The latest date for receipt of applications for Stay Orders has been extended to 30th June, 1943, in order that farmers whose difficulties are increased as a result of the war may obtain assistance.

The provisions of the Act were outlined and information regarding its administration was given in earlier editions of this Year Book. Assistance under its provisions is now limited to cases when investigation indicates that the farmer has reasonable prospects of success after the benefits of the Act are extended to him.

In 1935 the Commonwealth Government provided funds for the assistance of farmers through State agencies in the adjustment of their private debts and the Farmers' Relief Act of New South Wales was amended to authorise the Farmer's Relief Board to administer the Commonwealth assistance to any farmer when investigation indicates that thereby his farming may be placed on a sound basis.

In terms of the Rural Reconstruction Act passed in New South Wales, which came into operation on 22nd November, 1939, the Farmers' Relief Board was replaced by the Rural Reconstruction Board.

The Rural Reconstruction Board consists of a director and four other members. It is empowered to grant the benefits of debt adjustment without the issue of a Stay Order, and to issue a protection order should a creditor threaten adverse action while the affairs of an applicant for assistance are being investigated. The Board may make adjustments in debts to the Crown if deemed necessary for successful reconstruction of the farmer's affairs. Every case is treated on its merits after an official survey of the material and financial aspects of each farmer's business, including income-earning possibilities under average conditions, both of seasons and markets, to determine (a) the degree of adjustment necessary and warranted, and (b) the commitments which under average conditions could reasonably be met after providing for maintenance of the farmer and his dependants and meeting the costs of working the farm.

Where it appears desirable that Crown capital value or rent be reviewed, the Board may extend the time within which application for reappraisal may be made, and the Minister for Lands may order a fresh appraisal, although a reappraisal may have been made already under general provisions of the Crown Lands Acts. The Commissioners of the Rural Bank are empowered by the Act to write down a debt due to that Bank as part of a scheme of reconstruction.

Briefly, the position under the Farmers' Relief Act, as amended by the Rural Reconstruction Act is that the Board may:—Assist a farmer to rehabilitate and carry on his industry, including provision of means to obtain essential capital items such as power, plant and income-producing stock; advance money to discharge the private debts of a farmer on a composition basis, giving him the benefit of a low rate of interest to assist in his recovery of financial stability; adjust a farmer's Crown debts and commitments in a scheme of reconstruction adapted to and warranted by his circumstances; restrain individual creditors for a limited period by issue of a protection order; grant complete protection to a farmer against action by creditors by the issue of a stay order; and appoint Crown or Rural Bank officers to act as supervisors or agents without charge to the farmer.

The total number of applications received under the Act from inception up to 30th June, 1940, was 3,401. The applications were dealt with as under:—

Adjustments approved (with Stay Order, 711; without Stay Order, 45; payments made in 679 cases) .. ..	756
Reconstructed without adjustment .. .. .	202
Rejected for adjustment .. .. .	924
Under consideration for adjustment (551 with Stay Order, 503 without Stay Order) .. .. .	1,054
Withdrawn .. .. .	62
Rejected .. .. .	403

Particulars of the amounts involved in respect of the 679 cases in which adjustments were approved and paid are as follow:—

	£
Debts not adjusted in settlement .. .. .	1,659,716
Loans in settlement of debts adjusted .. .. .	1,779,734
Amounts written off .. .. .	893,840
Total debts prior to adjustment .. .. .	<u>4,333,290</u>

The debts of all settlers who made application for relief under the Act up to 30th June, 1940, totalled £15,940,055, comprising £3,791,185 due to Government authorities and £12,148,870 to private creditors, of which £10,325,615 was secured and £1,823,255 was unsecured.

Up to 30th June, 1940, the amount approved for advances to farmers under Stay Orders to carry on their business was £4,613,163, including £105,721 approved after removal of Stay Orders on adjustment of debts.

Six protection orders had been issued up to 30th June, 1941.

*Reconstruction in Marginal Wheat Areas.*

The Commonwealth Wheat Industry Assistance Act, 1938 (described at page 727 of the Official Year Book, 1937-38) provided for moneys to be made available to the States for the purposes, *inter alia*, of vacating farmers from marginal wheat areas and enabling the lands to be devoted to other uses in accordance with plans approved by the Federal Minister on the advice of the State Minister.

A plan to operate in New South Wales was approved in 1940. Under this plan farmers in marginal wheat areas who voluntarily vacate their lands may be granted up to £300, together with removal expenses in each case. To farmers who are to remain, advances on long terms may be made to enable them to acquire enough vacated land to increase their farms to home maintenance standard for new uses and to purchase the stock, plant and other requisites needed in changing the nature of their farming activities.

The plan is administered by the Rural Reconstruction Board. The Board has declared approximately 3,000,000 acres, embracing about 2,000 farms in the counties of Nicholson, Sturt, Dowling, Cooper and Gipps (between the Murrumbidgee and Lachlan Rivers) as Marginal Wheat Areas. Up to 30th April, 1941, the number of farms investigated was 395. Of these, 298 were vacated, 23 were declared to be living areas, one was supplemented to a living area, and 73 are to be provided with additional land.

Financial assistance approved under this scheme up to 30th April, 1941, amounted to £154,305, distributed as under:—

£80,682 to 298 vacated farmers; £72,603 to 47 farmers for purchase of additional areas; and £1,020 to 2 farmers for reconstruction of farming activities.

## SUMMARY OF INDEBTEDNESS TO THE CROWN.

The outstanding indebtedness of landholders to the Rural Bank and 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 in the Year Book for 1937-38, page 928. 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 1936-1937.

TABLE 592.—Indebtedness of Settlers to the Rural Bank and Certain Government Agencies in New South Wales.

Lending Agency.	Outstanding as at 30th June—					
	1925.	1935.	1937.	1938.	1939.	1940.
Rural Bank—Loans and Overdrafts	£ 8,552,592	£ 13,999,563	£ 14,499,322	£ 15,067,427	£ 15,436,045	£ 15,549,833
Closer Settlement Fund (including Returned Soldier Settlements)†	*	14,150,021	14,195,754	13,300,012	13,522,971	13,228,140
Irrigation Commission—						
Advances to Settlers † ...	2,141,648	863,161	1,487,502	1,563,265	1,606,453	1,652,350
Advances for Shallow Bores ...	134,195	247,336	253,128	241,827	251,633	266,045
Rural Industries Agency—						
Advances to Necessitous Farmers	481,065	1,203,741	1,051,909	1,036,278	1,054,938	1,036,156
Department of Lands—Wire Netting Advances ...	278,463	504,918	465,436	425,034	404,006	382,042
Unemployment Relief Council—						
Advances by A.S.C. Board, D.P. Board, and F.R. Board	...	836,751	920,080	856,378	830,150	803,421
Rural Reconstruction Agency§	...	588,685	968,310	1,651,143	2,254,368	2,523,270
Total of foregoing ...	*	32,394,176	33,841,441	34,141,414	35,360,564	35,441,257

\* 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 593.—Rates of Interest on Rural Loans, 1929 to 1940.

Date.	Rural Bank.	Government Agencies.*						Trading Banks Overdraft Rates.	Weighted Average Rate on Rural First Mortgages.†
	Overdrafts and Loans.	Advances to Settlers Agency.‡	Rural Industries Agency.	Irrigation Agency.		Rural Reconstruction Agency.			
				Advances to Settlers.	Bore Advances.	Carry-on Advances Account.	For Debt Adjustment.		
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 ...	4½	3	5½	6	5½	...	...	4½ to 5	5.0
April, 1935 ...	4½	3	4	4	4	4	...	4½ to 5	4.7
June, 1936 ...	4½	3	4	4	4	4	...	4½ to 5	4.9
June, 1937 ...	4½	3	4	4	4	4	...	4½ to 5	4.9
December, 1938...‡	4½	3	4	4	4	4	...	4½ to 5	5.1
December, 1939...‡	4½	3	4	4	4	4	...	4½ to 5	5.0
December, 1940...‡	4½	3	4	4	4	4	...	4½ to 5	5.0

\* 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 five years the yearly average rate on first mortgages on rural securities has ranged between 4.9 and 5.1 per cent. per annum.



## AGRICULTURE.

## DEVELOPMENT OF AGRICULTURE.

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, when the export trade in wheat commenced. The completion of the Burrinjuck Dam in 1913 and of other works connected with the Murrumbidgee Irrigation Area coupled with closer 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 expanded. But wheat-growing remains by far the most extensive agricultural activity.

The growth of cultivation since 1891 is shown in the following table:—

TABLE 594.—Area under Cultivation, 1891 to 1940.

Years ended 31st March—	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	1,018,554	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	6,599,048	4,665,362	3·04	2·15
1926-30	7,149,119	5,014,364	2·98	2·09
1931-35	8,424,349	6,012,593	3·25	2·33
1936-40	9,340,792	6,313,190	3·44	2·34
	<i>Area in each Year.</i>			
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
1939	10,243,664	7,044,038	3·73	2·57
1940	9,677,735	6,375,931	3·50	2·31

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 702 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 (3,301,804 acres in 1939-40) 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 988,746 acres in 1939-40) 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. (See page 661.)

Particulars obtained in 1940 indicate that the aggregate area, which, in the opinion of the occupiers, was suitable for cultivation after the removal of any standing timber, was 31,343,671 acres, out of a total area of 174,315,117 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 1939-40. The various divisions are shown on the map forming the frontispiece of this Year Book:—

TABLE 595.—Distribution of Agricultural and Pastoral Lands, 1939-40.

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.	Virgin 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	6,865	137	1,675	6	6	23	2,901	4,748	601	22.8
Hunter and Manning Metropolitan	8,396	125	446	11	8	25	4,324	4,939	493	25.3
South Coast	958	36	9	5	4	5	225	284	163	22.1
South Coast	5,968	59	183	8	5	21	2,019	2,295	436	13.5
Total ...	22,287	357	2,313	30	23	74	9,469	12,266	1,693	21.1
<b>Tableland—</b>										
Northern ...	8,069	122	34	15	12	28	6,389	6,600	580	21.0
Central ...	10,716	477	187	50	141	304	6,576	7,735	2,036	23.4
Southern ...	7,062	53	89	15	8	38	5,683	5,886	652	8.1
Total ...	25,847	652	310	80	161	370	18,648	20,221	3,268	19.9
<b>Western Slopes—</b>										
North ...	9,219	727	77	46	100	182	7,204	8,336	2,268	32.1
Central ...	7,723	1,225	117	81	459	742	4,385	7,009	4,684	26.2
South ...	11,239	1,385	280	88	773	1,154	6,336	10,016	5,467	25.3
Total ...	28,181	3,337	474	215	1,332	2,078	17,925	25,361	12,419	26.9
<b>Central Plains—</b>										
North ...	9,579	366	32	31	41	120	7,210	7,800	1,848	19.8
Central ...	14,811	345	8	43	138	273	13,082	13,889	3,653	9.4
Riverina ...	17,004	1,299	163	153	781	1,515	12,808	16,719	7,355	17.6
Total ...	41,394	2,010	203	227	660	1,908	33,100	38,408	12,856	15.6
Western ...	80,319	20	2	2	4	21	78,010	78,059	1,108	1.1
All Divisions	198,028	6,376	3,302	554	2,480	4,451	157,152	174,315	31,344	20.3

In addition to the area of land under crops in 1939-40 as shown above, 553,945 acres of new land were cleared and grubbed for ploughing, 2,479,894 acres were ploughed and worked during the year, and 4,450,807 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 1939-40 was 74,909, and areas of one acre or more in extent were cultivated on 53,251 holdings. Only 10,373 holdings were used mainly for agricultural purposes. In addition, 18,144 holdings were used for agricultural and pastoral pursuits, combined, 3,752 for agriculture with dairying, 1,433 for all three pursuits combined, and a limited amount of cultivation of a non-commercial character was conducted in connection with other activities. On 21,658 holdings there was no cultivation or less than an 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 596.—Number of Cultivated Holdings, 1906 to 1940.

Kind of Crop.	Number of Holdings upon which Crop was grown.						
	1905-06.	1915-16.	1925-26.	1935-36.†	1937-38.†	1938-39.†	1939-40.†
Wheat ... ..	19,049	22,453	17,074	17,220	18,563	19,768	19,023
Maize ... ..	17,475	14,869	15,196	17,727	17,674	17,215	16,579
Barley ... ..	1,755	2,538	1,916	1,328	1,337	1,620	1,779
Oats ... ..	10,740	13,723	16,851	20,627	21,992	23,434	23,120
Rice ... ..	...	...	...	304	319	313	314
Lucerne ... ..	...	...	7,033	10,825	10,085	9,504	8,668
Potatoes ... ..	8,552	4,643	3,679	4,093	3,592	3,147	3,600
Tobacco ... ..	98	97	111	89	58	41	37
Sugar-cane ... ..	1,113	694	955	823	844	861	838
Grapes ... ..	1,530	1,388	1,809	1,505	1,554	1,513	1,492
Orchards† — Citrus	2,385	5,787	5,758	3,997	3,897	3,734	3,672
Other ... ..	6,846	8,760	7,218	5,281	6,222	5,865	5,626
Bananas ... ..	...	...	214	1,745	1,697	1,501	1,509
Market Gardens ...	2,842	3,301	2,398	1,506	1,603	1,695	1,798
Number of Cultivated Holdings*	46,349	50,728	49,668	52,339†	53,609†	54,126†	53,251†

\* 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 8,197 in 1938-39 and 7,924 in 1939-40.

The number of farms on which wheat is sown is subject to seasonal fluctuations, and it has declined in the past twenty-five years, notwithstanding a large increase in the area devoted to this crop. Many small areas are cultivated 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, 1940, was 6,375,931 acres and 5,600 acres were double cropped,

so that the total area of the crops, as shown below, was 6,381,531 acres. Particulars as to the area and yield of the various crops are as follows:—

TABLE 597.—All Crops, Area and Production, 1939-40.

Name of Crop.	Area.	Production.	Average Yield Per Acre.
<b>Grain—</b>	acres.	bushels.	bushels.
Wheat ... ..	4,380,595	76,552,000	17·5
Maize ... ..	115,856	2,832,810	24·5
Barley (Malting) ... ..	13,871	306,720	22·1
„ (Feed) ... ..	10,402	159,090	15·3
Oats ... ..	405,262	6,903,990	17·0
Rye ... ..	12,196	193,890	15·9
Rice ... ..	24,120	1,857,650	77·0
<b>Hay—</b>		tons.	tons.
Wheaten ... ..	264,239	373,013	1·41
Barley ... ..	1,921	2,275	1·18
Oaten ... ..	349,266	460,369	1·32
Rye ... ..	1,215	2,038	1·68
Lucerne... ..	89,958	127,983	1·42
		£	
Green Fodder (Fed-off) ... ..	519,581	1,168,290	.....
<b>Root Crops—</b>		tons.	
Potatoes ... ..	19,232	40,531	2·11
Sweet Potatoes ... ..	475	1,722	3·63
Onions ... ..	241	695	2·88
Turnips ... ..	7,874	23,169	2·94
Other ... ..	488	1,899	.....
<b>Miscellaneous Crops—</b>		bushels.	bushels.
<b>Broom Millet—</b>			
Seed ... ..	3,543	7,170	2·0
Fibre ... ..		cwt.	cwt.
		14,451	4·08
Tobacco (Dried Leaf) ... ..	717	4,674	6·52
<b>Sugar Cane—</b>		tons.	tons.
Crushed... ..	10,488	274,548	26·18
Not Cut ... ..	10,229	.....	.....
		£	£ s.
Used as Plants ... ..	254	4,527	17 16
<b>Grapes—</b>		tons.	
Wine Varieties ... ..	7,506	14,701	†
Table Varieties ... ..	3,163	3,975	†
		cwt.	
Drying Varieties ... ..	5,366	8,072	†
		gallons.	
Wine Made ... ..	.....	2,090,490	.....
Young Vines For Wine ... ..	419	.....	.....
Other... ..	529	.....	.....
<b>Orchards—</b>		bushels.	
Productive .. ..	55,513	4,466,584	.....
Young Trees ... ..	14,077	.....	.....
<b>Bananas—</b>		cases.	cases.
Productive ... ..	11,838	1,034,174	87·36
Young Stools ... ..	2,618	.....	.....
<b>Pineapples—</b>		cases.	cases.
Productive ... ..	170	19,287	113·45
Young Plants ... ..	54	.....	.....
		£	£ s.
Market Gardens ... ..	7,841	450,025	57 8
		½-cases.	½-cases.
Tomatoes ... ..	2,552	644,281	252
		tons.	tons.
Pumpkins and Melons ... ..	5,373	11,017	2·05
		£	£ s.
Nurseries ... ..	870	130,291	149 15
Other Crops ... ..	21,619	.....	.....
<b>Total</b> ... ..	<b>6,381,531</b>	<b>.....</b>	<b>.....</b>

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 four per cent. of the total area under crop was used for one or other of the five leading crops in 1939-40.

A comparative statement of the area and production of the principal crops of New South Wales is shown below:—

TABLE 598.—Principal Crops, Area and Production, 1915-16 to 1939-40.

Crop.	1915-16.	1925-26.	1935-36.	1938-39.	1939-40.
<b>Wheat (grain)—</b>					
Area ... .. acres	*4,188,865	2,925,012	3,851,373	4,650,872	4,380,595
Total yield ... .. bush.	66,764,910	33,805,000	48,822,000	59,598,000	76,552,000
Average yield p.a. ... bush.	15.9	11.6	12.7	12.9	17.5
<b>Maize (grain)—</b>					
Area ... .. acres	154,130	120,955	119,849	152,201	115,856
Total yield ... .. bush.	3,773,600	3,278,350	3,324,780	2,405,020	2,832,810
Average yield p.a. ... bush.	24.5	27.1	27.7	23.8	24.5
<b>Oats (grain)—</b>					
Area ... .. acres	58,636	101,067	279,622	399,449	405,262
Total yield ... .. bush.	1,345,698	1,645,650	4,735,740	4,831,110	6,903,990
Average yield p.a. ... bush.	23.0	16.0	16.9	12.1	17.0
<b>Rice—</b>					
Area ... .. acres	...	1,556	21,705	23,533	24,120
Total yield ... .. bush.	...	61,098	2,163,520	2,774,987	1,857,650
Average yield p.a. ... bush.	...	39.3	99.7	117.9	77.0
<b>Hay†—</b>					
Area ... .. acres	1,108,919	750,605	658,810	1,068,975	706,509
Total yield ... .. tons	1,572,938	866,275	837,386	1,181,264	965,678
Average yield p.a. ... tons	1.42	1.15	1.27	1.11	1.36
<b>Green Feed Crops—</b>					
Area ... .. acres	163,945	479,464	610,401	573,569	512,581
Value of Fodder ... .. £	§	§	§	1,156,965	1,168,290
<b>Potatoes—</b>					
Area ... .. acres	19,589	22,731	22,743	16,866	19,232
Total yield ... .. tons	44,445	43,137	42,882	39,385	40,531
Average yield p.a. ... tons	2.27	1.90	2.76	2.34	2.11
<b>Sugar-cane—</b>					
Area cut ... .. acres	6,030	8,688	10,416	10,478	10,488
Total yield ... .. tons	157,748	297,335	280,472	336,701	274,548
Average yield p.a. ... tons	26.16	34.22	26.95	32.20	26.18
<b>Fruit—</b>					
Area ... .. acres	63,823	89,003	97,860	102,577	102,082
<b>Market Gardens—</b>					
Area ... .. acres	10,967	8,935	7,026	7,528	7,841
Total yield ... .. £	400,860	687,726	349,761	413,009	454,025
Average yield p.a. ... £	36.6	76.0	49.7	54.9	57.4
<b>All other Crops—</b>					
Area ... .. acres	26,843	35,445	55,876	73,379	89,875
<b>Total Area ‡</b> ... .. acres	5,800,747	4,543,541	5,735,611	7,449,357	6,381,531

\* The large area in 1915-16 was sown in response to a national appeal. † Mainly wheaten, caten, and lucerne. ‡ Including area double-cropped, § Not Available.

### 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 602.

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 599.—Value of Agricultural Production, 1935 to 1940.

Crop.	Gross Value at Place of Production.					Proportion per cent.				
	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£	£					
Wheat (grain) .. ..	*8,137,000	12,989,200	9,293,800	*6,095,040	†10,605,640	48·4	55·5	45·5	36·3	52·0
Maize .. ..	644,189	708,670	710,0·0	532,590	567,550	3·8	3·0	3·5	2·9	2·5
Barley .. ..	28,680	41,330	28,360	27,200	79,360	0·2	0·2	0·1	0·1	0·4
Oats .. ..	394,630	413,290	480,980	493,150	431,500	2·3	1·8	2·4	2·7	2·1
Elce .. ..	351,620	379,720	330,220	444,430	333,360	2·1	1·6	1·9	2·4	1·6
Hay and Straw .. ..	2,227,210	3,021,410	3,547,380	4,252,420	2,166,680	13·3	12·9	17·4	23·0	10·6
Green Food .. ..	1,179,050	1,280,920	1,258,710	1,156,970	1,168,290	7·0	5·5	6·2	6·3	5·7
Potatoes .. ..	394,580	404,160	212,020	422,570	343,620	2·3	1·7	1·9	2·3	2·6
Sugar-cane .. ..	384,820	410,010	489,240	482,520	447,830	2·3	1·8	2·4	2·6	2·7
Grapes .. ..	243,670	313,520	326,400	292,900	345,050	1·5	1·3	1·6	1·6	1·7
Wine, Brandy, etc. ..	95,810	110,110	116,170	80,420	88,470	0·6	0·5	0·6	0·4	0·4
Fruit—Citrus .. ..	584,660	653,180	659,950	823,300	886,770	3·5	2·8	3·2	4·5	4·3
Other .. ..	1,147,840	1,601,060	1,681,190	1,492,320	1,470,390	6·8	6·8	8·2	8·1	7·1
Market-gardens .. ..	349,260	382,200	393,220	413,110	450,030	2·1	1·6	1·9	2·2	2·2
Other Crops .. ..	629,970	706,700	836,410	849,980	868,460	3·8	3·0	4·1	4·6	4·1
Total .. ..	16,795,980	23,415,570	20,430,130	18,458,950	†20,391,940	100	100	100	100	100

\* Including Commonwealth Government bounty amounting to £564,368 in 1935-36, and in 1938-39, Commonwealth and State bounty £1,329,180.

† Subject to revision.

The value of agricultural production in New South Wales depends mainly on the wheat crops, the value of wheat (grain and hay) in 1939-40 being £11,272,400 or approximately 55 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 recorded since 1924-25 when it was £28,785,000. Wheat prices declined in 1937-38 and 1938-39 and over the two years the value of agricultural production showed a decrease of 21.1 per cent. The bountiful wheat harvest was the principal factor in the increase in 1939-40.

The values shown above represent estimated gross value as at place of production. They include, however, such items as fodder for stock (£1,826,000 in 1939-40) and seed (£630,000 in 1939-40) which are produced for use on the farm. They also include value of purchased materials such as fertilisers, £557,000; sprays, etc., £67,000; and water, £31,000. After deducting these, the net value of production was £17,231,000 in 1939-40.

*Value of Production per Acre.*

The following table shows the annual value of gross agricultural production and the average value per acre since 1887.

TABLE 600.—Agricultural Production per Acre, 1887 to 1940.

Years ended 31st March.	Average Annual Area Cultivated.	Average Annual Value of Production. (At Farm).	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
1939 ... ..	7,044,038	18,458,950†	2 12 5
1940 ... ..	6,375,931	20,391,940	3 4 0

† 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, 1922-26 and in 1936-37 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 601.—Farm Values of Crops per Acre.

Crop.	Average Values per Acre.						
	Ten Years ended 1913-14.	Five Years ended 1933-34.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat for Grain	1 17 1	1 12 2	2 2 3	3 5 3	2 1 8	1 8 10	2 8 5
Maize for Grain ..	4 6 11	4 10 5	5 7 6	6 1 11	5 14 6	4 7 2	4 7 7
Oats for Grain ...	2 4 9	1 6 7	1 8 3	1 15 1	1 17 9	1 4 8	1 1 3
Hay ...	3 8 9	3 0 7	3 7 6	4 0 9	4 13 4	3 19 6	3 1 2
Potatoes	11 2 5	8 11 0	17 8 0	16 4 6	9 18 5	25 1 1	28 5 4
Sugar-cane†	21 9 4	34 2 5	36 18 11	40 1 6	45 13 1	46 2 9	42 14 0
Vineyards†	16 12 4	23 2 5	23 19 8	28 5 5	29 10 9	23 15 11	27 0 9
Orchards†	10 17 9	23 10 11	24 7 2	28 1 8	27 3 9	29 14 5	31 3 2
Market-gardens ..	31 7 5	61 13 8	49 14 2	52 2 2	54 15 10	54 17 6	57 7 11

† 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, and acreage cropped per farm, should be taken into consideration.

*Gross and Net Values of Agricultural Production.*

In the absence of actual records of farm sales and purchases there is considerable difficulty in valuing net agricultural production. But the estimated values in each of the last eleven seasons are shown below:—

TABLE 602.—Agricultural Production—Gross and Net Values, 1929 to 1940.

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
1939	23,665	5,206	18,459	4,253	14,206	805	13,401
1940	26,152	5,760	20,392	2,456	17,936	705	17,231

\* 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 because of the difficulty in arriving at a reasonably reliable measurement of the amount of depreciation. The average annual amount of such depreciation since 1929 is estimated to have been in the vicinity of £1,000,000.

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 certain 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 599 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 £3,592,000 in 1939-40.

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 727.

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."

TABLE 603.—Wholesale Prices of Agricultural Products, 1931 to 1940. (Sydney.)

Commodity.	1931.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat (f.a.q.) .. bush.	0 2 5½	0 2 8½	0 3 2½	0 4 2½	0 5 0½	0 3 5½	0 2 0½	0 3 11
Flour (at Mill) .. ton	9 11 4*	9 5 7*	10 19 10*	10 17 10*	12 0 2	9 5 4*	12 6 1½	12 5 6*
Bran .. .. "	3 17 0	4 10 0	5 2 0	6 5 0	6 13 0	6 5 0	4 10 0	5 9 3
Pollard .. .. "	4 1 0	5 0 0	5 2 0	6 5 0	6 17 0	6 5 0	4 12 0	5 9 3
Oats .. .. bush.	0 2 7½	0 2 7	0 2 5½	0 2 4½	0 3 4½	0 3 10	0 2 9	0 2 9½
Maize .. .. "	0 3 7½	0 3 1½	0 4 2½	0 4 9½	0 5 6½	0 4 9½	0 4 4½	0 5 1½
Potatoes (local) .. ton	6 10 9	6 17 10	9 4 1	7 4 3	4 18 1	9 3 10	13 3 9	10 10 5
Onions .. .. "	7 0 7	10 6 4	9 14 7	13 17 7	11 9 6	10 5 2	16 11 4	8 6 3
Hay—								
Oaten .. .. "	5 19 0	7 2 0	7 15 2	7 7 1	8 19 8	9 16 2	7 14 1	5 2 8
Lucerne .. .. "	4 8 1	4 0 3	5 3 3	5 12 5	5 16 11	6 12 11	5 11 3	7 2 11
Chaff—								
Wheaten .. .. "	3 13 3	4 9 1	4 11 1	4 14 4	6 18 4	6 14 3	4 2 0	5 8 5

\* Includes Flour Tax, see page 727.

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 604.—Wholesale Price Index Number—Agricultural Produce, 1901 to 1940.

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	834	1915	1648	1929	1707
1902	1266	1916	1163	1930	1428
1903	1181	1917	1127	1931	1061
1904	789	1918	1377	1932	1137
1905	972	1919	1990	1933	1122
1906	929	1920	2430	1934	1114
1907	1003	1921	1750	1935	1279
1908	1343	1922	1638	1936	1299
1909	1134	1923	1720	1937	1487
1910	1012	1924	1475	1938	1523
1911	1000	1925	1680	1939	1351
1912	1339	1926	1892	1940	1371
1913	1069	1927	1767		
1914	1135	1928	1456		

From 1921 to 1929 agricultural prices were high and relatively stable, disregarding seasonal fluctuations. An unprecedented collapse in wheat prices in May, 1930, initiated a world-wide agricultural crisis. Agricultural prices fell rapidly (by 45 per cent. between July, 1929, and March, 1931) and remained depressed until improving wheat prices brought an upward trend in the middle of 1935. The rise continued and the index number reached 1759 in July, 1938. Since then the index has fluctuated about a level appreciably above that of the depression years, but (in 1940) about ten per cent. below the average in 1938. In March, 1941, the index number was 1380 and 9 per cent. below the average level of the year 1938.

#### 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 years 1929-30 and 1939-40. 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 605.—Agricultural Machinery, 1929-30 and 1939-40.

Division.	Area under Crop.		Value of Agricultural Machinery and Implements.		Aver. value of Machinery per acre of crop.	
	1929-30.	1939-40.	1929-30.	1939-40.	1929-30.	1939-40.
	Acres.	Acres.	£	£	£ s. d.	£ s. d.
Coastal ...	285,532	357,498	1,139,488	1,439,787	4 0 1	4 0 6
Tableland ...	443,714	651,868	1,165,960	1,472,835	2 12 7	2 5 2
Western Slopes ...	2,609,461	3,336,909	4,937,540	5,184,302	1 17 10	1 11 1
Central Plains and Riverina ...	2,144,606	2,009,648	3,653,248	3,298,224	1 14 1	1 12 9
Western ...	16,095	20,008	59,687	84,584	3 14 2	4 4 7
Total ...	5,499,408	6,375,931	10,955,923	11,479,732	1 19 10	1 16 0

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. While this is partly due to writing down of values, 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 increased rapidly to reach the record—£11,516,668 in 1938-39.

*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 has been collected as to the number of tractors on holdings annually since 1937. In March, 1940, there were 13,957 tractors on 12,648 holdings in the State, including 6,221 on 5,577 holdings in the Western Slopes division. The increase in 1939-40 was 1,031 tractors or 8 per cent. compared with 1,419 tractors (12 per cent.) in 1938-39 and 2,571 tractors (29 per cent.) in 1937-38. In 1940, the number of tractors on rural holdings suitable for hauling ascertained separately for the first time, was 9,922.

The increase in use of mechanical traction in rural activities is illustrated in the following statement:—

TABLE 606.—Tractors used on Farms, 1930 to 1940.

Division.	Tractors.				Number of Tractors Per 1,000 Holdings.			
	1930.	1938.	1939.	1940	1930.	1938.	1939.	1940.
	No.	No.	No.	No.	No.	No.	No.	No.
Coastal ... ..	447	1,182	1,442	1,807	15	38	47	59
Tableland ... ..	617	1,440	1,707	1,869	41	100	119	132
N.W. Slopes ... ..	731	1,674	1,836	1,891	166	390	427	440
C.W. Slopes ... ..	1,097	1,898	2,045	2,155	253	428	464	490
S.W. Slopes ... ..	1,109	1,790	2,040	2,175	135	224	252	272
N.W. Plains ... ..	212	583	628	680	112	300	326	358
C.W. Plains ... ..	304	422	465	530	122	170	187	212
Riverina ... ..	1,592	2,345	2,544	2,610	217	322	352	362
Western ... ..	133	173	219	240	71	91	115	126
Total ... ..	6,242	11,507	12,926	13,957	82	151	172	186

The increase in the area under crop between 1929-30 and 1939-40 was 15.9 per cent., and the increase in the number of tractors used on farms was 124 per cent. In 1940 there were tractors on 18.6 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 2.19 in 1940.

*Use of Tractors and Horses on Wheat Farms, 1939-40.*

Statistics showing the relative extent to which tractors and horses were used in sowing wheat were obtained (for the first time) in respect of the wheat crop of 1939-40. There were in New South Wales 17,106 wheat farms of which 8,479 were worked entirely by horses, 7,131 by tractors

exclusively and 1,496 on which both tractors and horses were used. Of 4,694,200 acres sown with wheat in 1939, 2,049,020 acres were worked by horses and 2,645,130 acres were worked by tractors. There were 107,236 horses used in wheat farming and farm-owned tractors on wheat farms numbered 7,259. The number of hired tractors used in wheat farming was not ascertained but is believed to be about 2,000.

The relative extent of the use of horses and tractors in the main wheat-growing sections of the State in 1939-40 is shown in the following summary:—

TABLE 607.—Tractors and Horses on Wheat Farms, 1939-40.

	Districts.*			
	Northern.	Central.	Southern.	Total.
<i>Holdings growing Wheat:—</i>	No.	No.	No.	No.
Worked entirely by tractors	2,333	2,317	2,448	7,098
Do. do. horses	942	2,750	4,716	8,408
Worked partly by tractors and partly by horses.	140	534	818	1,492
Total ... ..	3,415	5,601	7,982	16,998
<i>Area of Wheat sown:—</i>	acres.	acres.	acres.	acres.
Worked entirely by tractors	761,213	793,201	693,703	2,248,117
Do. do. horses...	106,490	552,553	1,062,097	1,721,140
Worked partly by tractors and partly by horses.	67,857	271,519	371,531	710,907
Total ... ..	935,560	1,617,273	2,127,331	4,680,164

\* Approximate; Coastal and Western Divisions are excluded.

The decrease in value of machinery used between 1929-30 and 1934-35 was proportionately greatest in relation to the larger crops, but even on farms where the area of wheat sown was less than 300 acres, 37 per cent. of the number and 40 per cent. of the area sown were worked entirely by tractors. Particulars relating the method of working and the areas sown with wheat in 1939-40 in the districts shown in the preceding table are as follow:—

TABLE 608.—Size of Wheat Crops and the Use of Tractors and Horses 1939-40. (Excluding Coastal and Western Divisions.)

	Areas Sown with Wheat.			
	Under 300 acres.	300 acres to 999 acres.	1,000 acres and over.	Total.
<i>Holdings growing wheat—</i>	No.	No.	No.	No.
Worked entirely by tractors	3,934	2,986	178	7,098
Do. do. by horses	6,246	2,139	23	8,408
Worked partly by tractors and partly by horses.	452	941	99	1,492
Total.....	10,632	6,066	300	16,998
<i>Area of wheat sown—</i>	acres.	acres.	acres.	acres.
Worked entirely by tractors	610,500	1,386,499	251,118	2,248,117
Do. do. by horses	824,978	866,903	29,259	1,721,140
Worked partly by tractors and partly by horses.	83,555	480,331	147,021	710,907
Total.....	1,519,033	2,733,733	427,398	4,680,164

PERSONS ENGAGED IN AGRICULTURE.

The following table provides a 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 but excludes casual employees.

TABLE 609.—Agricultural Labour and Machinery, 1914 to 1940.

Year.	Persons Per- manently En- gaged.*	Area under Crop.	Value of Machinery Used.	Year.	Persons Per- manently En- gaged.*	Area under Crop.	Value of Machinery Used.
	No.	acres.	£		No.	acres.	£
1913-14	59,813	4,568,841	5,029,938	1927-28	42,293	4,994,515	10,849,513
1914-15	58,020	4,808,627	5,159,959	1928-29	38,275	5,440,762	10,883,551
1915-16	56,904	5,794,835	5,362,027	1929-30	38,049	5,499,408	10,955,923
1916-17	52,758	5,163,030	5,449,657	1930-31	38,224	6,809,510	10,526,391
1917-18	48,386	4,460,701	5,615,995	1931-32	37,260	5,107,049	9,526,396
1918-19	43,823	3,890,844	5,696,916	1932-33	40,279	6,330,370	8,869,795
1919-20	47,392	3,770,155	6,128,753	1933-34	39,716	6,281,477	8,607,639
1920-21	48,896	4,464,342	7,120,381	1934-35	38,725	5,684,558	8,486,935
1921-22	47,268	4,445,848	7,884,713	1935-36	38,796	5,730,315	9,039,026
1922-23	48,154	4,694,088	8,536,164	1936-37	40,490	5,951,043	9,949,677
1923-24	46,823	4,808,046	8,799,353	1937-38	40,303	6,464,624	11,050,645
1924-25	46,278	4,911,148	9,427,730	1938-39	41,519	7,044,038	11,516,668
1925-26	43,365	4,541,423	9,588,318	1939-40	39,864	6,375,931	11,479,732
1926-27	41,650	4,595,711	9,837,193				

\* Landowners, members of their families and employees engaged principally in cultivating the soil.

The decrease in value of machinery used between 1929-30 and 1934-35 was apparently due to a writing down of values as well as to non-replacement of worn out machinery.

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 was only 37,260 in 1931-32. During the last eight years the number has fluctuated between 38,700 and 41,500.

The number of persons engaged permanently in agriculture in 1939-40 was about 33 per cent. less than in the years immediately preceding the war of 1914-18, although the area under crop was approximately 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 for horse-drawn vehicles and the extension of railway facilities have enabled the farmers to effect a considerable saving in labour. 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 casual employees. Data as to wages paid to casual employees, however, show that there was no marked substitution of casual for permanent labour.

Particulars of the numbers of persons permanently engaged and wages paid in rural industries are shown in Table 572.

#### 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 least advantage is gained in the heavier soils of 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 fertilized with this manure only was 64½ lb. per acre in 1939-40. The number of farms on which superphosphate was used on crops was 24,689 in 1939-40.

The following table shows the area of land under crop and the quantity of manure used on crops (excluding pasture grasses) during the year 1939-40:—

TABLE 610.—Manures used on Crops, 1939-40.

Division.	Area under Crop.	Total Area of Crops Manured.	Manures Used.	
			Natural.	Artificial.
	acres.	acres.	loads.	cwt.
Coastal ... ..	357,498	175,693	187,826	430,951
Tableland ... ..	651,868	326,360	19,055	239,360
Western Slopes ... ..	3,336,909	2,018,654	5,439	1,032,360
Central Plains ... ..	710,350	273,748	1,069	108,371
Riverina ... ..	1,299,298	1,110,641	9,088	673,504
Western ... ..	20,008	10,604	1,241	27,573
Whole State ... ..	6,375,931	3,915,700	223,718	2,512,119

The total area of crops treated with natural manures in New South Wales was relatively small, being only 33,356 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 1939-40 were 2,190,314 cwt. of superphosphate and 162,838 cwt. of bone-dust, in manuring 3,796,793 acres and 29,619 acres respectively. On 55,932 acres of crops 158,967 cwt. of other kinds of artificial fertilisers were used.

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 49 per cent. of the area sown was manured in 1939-40. 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 29 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 611.—Artificial Manures used in Various Districts.

Sections of the Tablelands, Slopes, and Plains.*	Total area under crop. (Excluding Pastures.)	Area treated with artificial fertilisers.	Artificial fertiliser used.	Proportion of area fertilised to area under crop.	Average amount of fertiliser used per acre.
1938-39.—	acres	acres.	cwt.	per cent.	cwt.
Northern ... ..	1,195,442	74,445	46,071	6·23	0·62
Central ... ..	2,213,077	1,509,407	743,618	68·20	0·49
Southern ... ..	3,255,725	2,925,701	1,718,726	89·86	0·59
1939-40.—					
Northern ... ..	1,214,825	73,254	47,686	6·03	0·65
Central ... ..	2,047,068	1,289,271	637,000	62·97	0·49
Southern ... ..	2,736,532	2,357,674	1,368,909	86·15	0·58

\* 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 612.—Area of Crops Manured, 1908 to 1940.

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	2,635,483	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	210,160	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
1938-39	7,044,038	4,706,463	227,951	2,972,927	66·81
1939-40	6,375,931	3,915,700	223,718	2,512,119	61·41

The quantity of superphosphate used on the areas sown with wheat was 1,898,837 cwt. in 1938-39, and 1,584,858 cwt. in 1939-40, an average of 56 lb. per acre manured for wheat.

Information regarding the use of artificial manures on pastures for each year since 1927-28 is shown in the chapter "Rural Industries." In 1939-40 an aggregate area of 650,134 acres on 4,850 holdings was treated with 609,290 cwt. of fertiliser.

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, the Commonwealth Government provided a subsidy of 15s. per ton of fertilisers used in lots of one ton or more during 1932-33. The rate of subsidy was 15s. per ton in the years 1934-35 and 1935-36. In later years the rate was 10s. per ton on quantities of not less than half a ton and not exceeding 20 tons (10 tons in 1938-39) used on any one farm. The principal uses to which fertiliser was applied under subsidy 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, £23,000 in 1934-35, £56,211 in 1935-36, £40,058 in 1936-37, £30,048 in 1937-38, £18,380 in 1938-39, and £427 in 1939-40.

The sale of artificial manures is regulated by the Fertilisers Act, 1934. 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 IN AGRICULTURE.

A brief statement as to share-farming in New South Wales and the development of this system of working the land is given at page 659 of this Year Book.

In 1939-40 there were 4,025 holdings on which share-farmers were engaged in agriculture exclusively (mainly wheat-growing), and another 2,222 holdings with share-farmers which were used for agriculture and dairying in combination (including dairy farms on which cultivation was confined to the production of fodder crops for dairy cattle). The area cultivated by share-farmers in 1939-40 was 1,425,636 acres (compared with 898,863 acres in 1929-30), representing 22.4 per cent. of the entire area cultivated in New South Wales. Of that area in 1939-40, 792,490 acres were in the Western Slopes Division and 482,310 acres in the Central Plains and Riverina.

DATES OF PLANTING AND HARVESTING.

The usual periods 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-January.
Maize ... ..	September-December ...	January-July.
Oats ... ..	March-May ... ..	October-December.
Barley ... ..	May ... ..	October-December.
Rice ... ..	October ... ..	April-May.
Potatoes—early	July-August ... ..	October-January.
„ late	November ... ..	February-August.
Sugar-cane ... ..	September ... ..	July-November.
Tobacco ... ..	November-December ...	March-April.
Broom Millet ... ..	September-November...	January-April.

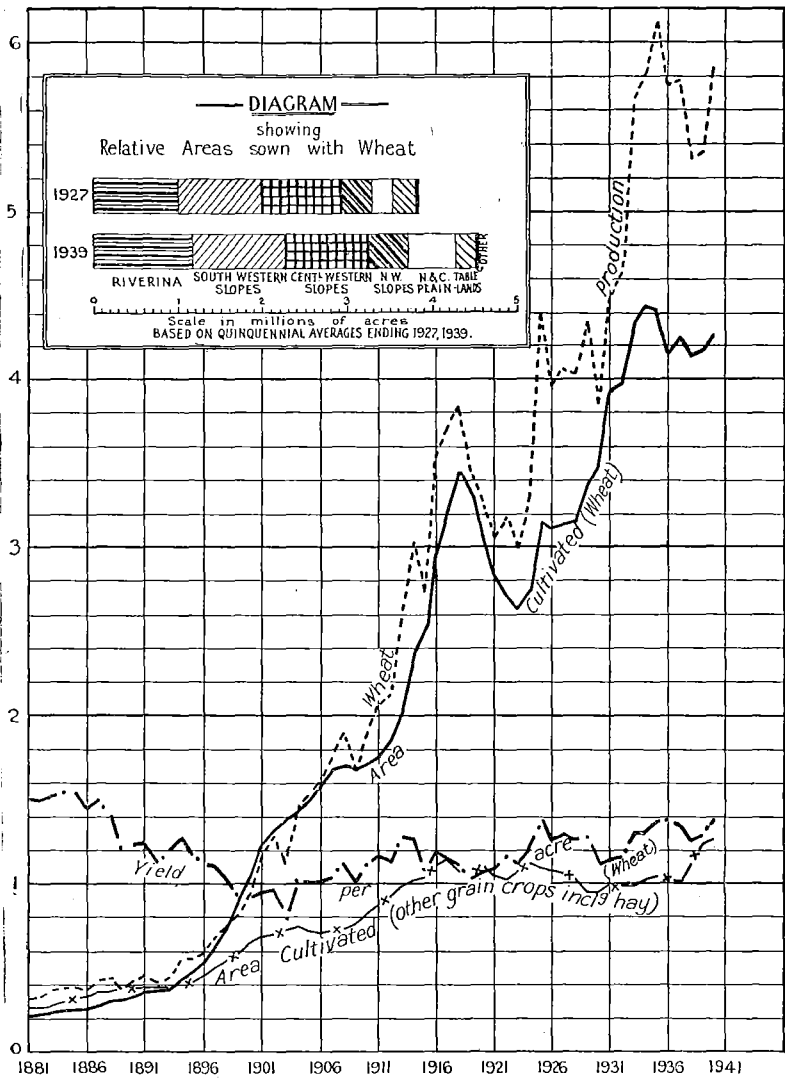
INDIVIDUAL CROPS.

WHEAT.

Wheat is the staple agricultural product of New South Wales. It is the principal product 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 1939-40 was 11,272,400, including £10,605,640 from grain and £666,760 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 July. Harvesting generally begins in November and may extend until February.

**WHEAT GROWING IN NEW SOUTH WALES.**  
Area, Production and Average Yield, 1881 to 1940.



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. Since the latter year there has been little change in the eastern and western limits of wheat growing in New South Wales, but

pastoral activities are replacing wheat farming on appreciable areas on the western fringe of the wheat belt between the Lachlan and Murrumbidgee Rivers.

*Development of Wheat Growing.*

Wheat growing as an industry in New South Wales has expanded steadily since 1890. The area sown first exceeded 1,000,000 acres in 1897-98 and 2,000,000 acres in 1904-05 and was doubled during the next ten years. It is estimated that an area of between 20,000,000 acres and 25,000,000 acres in the principal wheat districts is suitable for cultivation, and of this area 5,674,000 acres, of which 5,135,000 acres were harvested for grain, were actually sown with wheat in 1930-31.

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 613.—Wheat—Area, Production, and Exports, 1898 to 1941.

Season.	Area under Wheat.				Yield.		Average yield per acre.		Wheat and Hay exported in calendar 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	1,319,502	312,451	†	1,631,954	9,276	177	7.0	.67	437
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	312,358	†	1,704,428	14,809	287	10.6	.92	2,914
1902-03	1,279,760	320,588	†	1,600,348	11,585	76	1.2	.24	154
1903-04	1,561,111	286,702	†	1,847,813	27,334	452	17.5	1.58	9,772
1904-05	1,775,955	284,367	†	2,060,322	16,464	207	9.3	.73	5,661
1905-06	1,939,447	318,582	†	2,253,029	20,737	305	10.7	.97	5,338
1906-07	1,866,253	316,945	16,744	2,199,942	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	490,528	104,202	1,989,086	15,483	427	11.1	.87	4,866
1909-10	1,990,180	380,784	5,825	2,376,789	28,532	566	14.3	1.40	12,111
1910-11	2,128,826	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	11.0	1.10	20,088
1914-15	2,758,024	569,431	815,561	4,143,016	12,831	355	4.7	.62	785
1915-16	4,188,865	879,678	58,702	5,122,245	66,765	1,212	15.9	1.38	23,514
1916-17	3,806,604	693,605	68,101	4,498,310	36,598	814	9.6	1.28	21,262
1917-18	3,329,371	435,180	69,855	3,828,436	37,712	485	11.3	1.11	12,650
1918-19	2,409,669	613,544	204,161	3,227,374	18,325	517	7.6	.84	19,694
1919-20	1,474,174	716,770	877,506	3,068,540	4,388	355	3.0	.49	427
1920-21	3,127,377	520,555	15,429	3,663,352	55,025	822	17.8	1.58	41,746
1921-22	3,104,940	467,363	24,735	3,687,047	42,767	575	13.4	1.23	21,708
1922-23	2,942,857	593,134	350,963	3,892,009	28,668	640	9.7	1.09	8,904
1923-24	2,945,385	695,622	233,305	3,924,262	33,176	708	11.3	1.01	11,976
1924-25	3,550,073	383,479	21,647	3,969,201	59,767	537	16.8	1.33	38,741
1925-26	2,925,012	440,803	286,552	3,661,367	33,806	444	11.6	.99	16,951
1926-27	3,352,736	311,213	86,160	3,760,109	47,541	394	14.2	1.27	18,697
1927-28	3,029,950	369,060	622,355	4,022,205	27,042	343	8.9	.93	15,516
1928-29	4,030,683	375,270	19,605	4,484,958	49,257	390	12.0	.04	21,063
1929-30	3,974,064	331,071	48,914	4,404,049	34,407	311	8.7	.82	14,621
1930-31	5,134,960	520,993	17,992	5,673,945	65,877	678	12.8	1.30	44,122
1931-32	3,632,945	292,294	20,008	3,995,187	54,966	370	14.9	1.29	38,769
1932-33	4,803,943	290,556	24,585	5,119,034	73,870	399	16.4	1.56	40,779
1933-34	4,584,092	324,129	30,561	4,938,782	57,057	385	12.4	1.19	21,503
1934-35	3,892,793	271,272	26,017	4,190,087	43,078	342	12.5	1.26	30,471
1935-36	3,851,373	224,632	49,661	4,125,656	43,822	267	12.7	1.19	25,546
1936-37	3,932,864	293,354	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	26,300
1938-39	4,650,872	559,437	35,993	5,246,302	59,838	612	12.9	1.09	28,955
1939-40	4,330,595	264,239	35,852	4,680,686	70,552	373	17.5	1.41	
1940-41‡	4,288,790	360,330	73,950	4,723,070	24,441	261	6.7	0.73	

\* 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. † Preliminary.

† Information not available.

‡ Flour has been expressed at its equivalent in wheat.

|| Not available for publication.

Of the 44 harvests recorded in the foregoing table, average yields have been as follow: 3 under five bushels per acre, 10 between five and ten bushels per acre, 25 between ten and fifteen bushels per acre, and 6 over fifteen bushels per acre. The average annual area harvested for wheaten hay decreased heavily 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. Falling wheat prices and dry pastoral conditions rendered hay growing more profitable in 1938-39 and the area cut for hay was the largest since 1923-24. Reduced wheat sowings and favourable conditions for grain production, together with expectations of a stabilised price for wheat led to a marked decrease in the average cut for hay in 1939-40. From 1928-29 to 1930-31, and 1937-38 to 1939-40 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 the years 1932-33 to 1936-37.

After expansion during the Great War and contraction in the years 1917-18 to 1919-20, wheat growing tended to extend (with variations incidental to seasonal conditions) from 1920-21 to 1928-29. In response to a national appeal farmers sowed an area (5,134,960 acres) in 1930-31, more than half a million acres greater than the previous record area of 1915-16. During the depression wheat growing reached the peak of production, then decreased in reaction to low wheat prices. A recovery of wheat prices led to greater sowings in recent years, and in 1938-39 the area under wheat for grain (4,650,872 acres) was the highest since 1932-33. A fresh collapse in wheat values caused wheat sowings to decrease in 1939-40, and seasonal difficulties and war-time uncertainties led to further decrease in the following season.

#### *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. The average area harvested for grain and the average yield in each division for the period of ten years 1930-31 to 1939-40 are shown in the following summary:—

TABLE 614.—Wheat Area and Production—Averages, Ten Years 1931 to 1940.

District.	Northern.		Central.		Southern.		Total.	
	acres.	bus.	acres.	bus.	acres.	bus.	acres.	bus.
Coastal ... ..	*	*	*	*	*	*	2,500	35,195
Tableland ... ..	10,998	166,131	205,013	3,341,985	3,664	59,447	219,677	3,567,564
Slopes ... ..	424,618	6,510,402	930,985	12,931,961	1,061,033	15,799,977	2,416,633	35,242,343
Plains ... ..	211,776	2,896,587	313,559	2,745,613	1,168,505	15,617,181	1,693,840	21,259,382
Western Division	*	*	*	*	*	*	10,165	44,716
Total ... ..	647,392	9,573,120	1,449,557	19,019,566	2,233,202	31,476,603	4,342,900	60,149,200

\* Comparable divisions not available.

Although the proportions vary seasonally, approximately 52 per cent. of the area harvested for grain is in the southern districts, 33 per cent. in the central districts, and 15 per cent. in the northern districts. Thus the wheat belt is divided into three portions. 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 615.—Wheat Areas and Yields, 1931 to 1940.

Divisions	Area Harvested for Grain.		Yield of Grain.		Yield of Grain per Acre.							
	Average 1930-31 to 1939-40.	1939-40.	Average 1930-31 to 1939-40.	1939-40	Average 1930-31 to 1939-40.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	acres.	acres.	1,000 bus.	1,000 bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.
Coastal	2,591	3,768	35	38	13.6	11.9	14.0	7.1	15.0	15.1	16.3	10.1
†Northern	647,392	899,010	9,573	12,521	14.8	17.7	14.3	10.0	13.4	11.7	20.7	13.9
†Central	1,449,557	1,517,076	19,020	29,767	13.1	11.7	11.6	9.9	13.0	10.9	10.9	19.6
†Southern	2,233,202	1,951,276	31,477	34,139	14.1	11.6	12.7	15.2	14.8	13.6	11.1	17.5
Western	10,165	9,465	44	87	4.4	1.8	1.4	0.4	5.6	5.8	0.7	9.2
Total	4,342,907	4,380,595	60,149	76,552	13.8	12.4	12.5	12.7	14.0	12.3	12.9	17.5

† 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 substantial areas with rather uncertain rainfall were brought into cultivation in the western Riverina, and 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 ten seasons since 1930-31 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. In the northern districts the average yield has increased from 9.6 bushels per acre in the decennium ended 1923-24 to 14.8 bushels per acre in the ten-year period ended 1939-40.

*Rainfall Index in Wheat Districts.*

The following summary provides a monthly index of rainfall in the wheat districts of the State since 1927. 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 616.—Rainfall Index in Wheat Districts, 1927 to 1940.

Month.	Rainfall Index—New South Wales Wheat Districts. (Percentage of Normal).													
	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
January	111	197	20	44	69	13	143	169	117	184	154	74	38	24
February	22	411	148	36	37	99	7	310	104	207	37	81	221	18
March ...	38	162	99	48	270	180	53	35	24	131	105	9	287	21
April ...	71	137	141	67	204	181	86	117	199	67	41	75	280	227
May ...	60	54	33	82	312	43	74	4	28	48	56	68	48	36
June ...	39	76	36	111	227	72	65	72	33	107	63	83	115	17
July ...	53	119	27	103	90	87	127	163	115	203	31	94	60	33
August ...	69	27	111	124	50	129	50	137	68	96	113	141	216	36
September	63	100	95	43	91	141	152	71	114	53	83	30	48	116
October	153	88	79	234	46	57	102	255	116	52	109	139	140	11
November	135	32	102	95	123	112	150	218	27	15	73	54	201	52
December	57	19	118	248	97	69	176	66	68	215	73	9	26	129
	Average yield of wheat per acre.*													
Bushels	8·9	12·0	8·7	12·8	14·9	16·4	12·4	12·5	12·7	14·0	12·3	12·9	17·5	5·7†

\* 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 effect of rainfall on yield.

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 yield per acre from fallowed and stubble lands in the seasons 1939-40 and 1940-41:—

TABLE 617.—Rainfall Index and Average Yield in Various Wheat Districts, 1939 and 1940.

Month.	Rainfall Index 1939—Wheat Districts. Normal for each month=100.				Rainfall Index 1940—Wheat Districts. Normal for each month=100.				
	North-ern.	Central.	South-ern.	Total.	North-ern.	Central.	South-ern.	Total.	
January ...	...	102	63	14	38	24	24	24	24
February ...	...	12	139	298	221	87	5	9	18
March ...	...	191	164	359	287	111	15	5	21
April ...	...	137	186	348	280	122	209	255	227
May ...	...	37	42	53	48	13	32	43	36
June ...	...	81	74	140	115	22	14	16	17
July ...	...	64	48	64	60	9	24	42	33
August ...	...	146	187	242	216	38	37	35	36
September ...	...	16	26	63	48	91	145	108	116
October ...	...	78	140	153	140	42	10	6	11
November ...	...	62	178	239	201	56	51	52	52
December ...	...	43	28	22	26	132	160	115	129
Average yield of wheat per acre—	1939-40.				1940-41.*				
Fallowed land bus..	16·1	21·9	18·3	19·3	5·2	7·7	6·1	6·5	
Stubble land bus....	13·9	17·8	14·8	15·6	4·0	6·4	4·4	5·0	

\* Preliminary.

*Average Yield of Wheat.*

Viewed over a long period of years, the average yield of wheat in New South Wales has been subject to marked fluctuations by reason of the widely divergent nature of the seasons, but reference to Table 613 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. In the ten following seasons, however, the average annual yield did not once fall below 12 bushels per acre and attained the high average of approximately 17.5 bushels per acre in 1939-40. This sequence was broken in 1940-41 when winter rains failed and the average yield did not reach six bushels an acre.

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 in New South Wales were as follows:—

TABLE 618.—Wheat Yields, Decennial Averages, 1882 to 1940.

Period.	Average Yield per acre.	Period.	Average Yield per acre.
	bushels.		bushels.
1882-1891	13.30	1912-1921	11.62
1892-1901	10.02	1922-1931	12.02
1902-1911	11.04	1931-1940	13.85

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, on the average, rather higher than in most of the great exporting countries, but low compared with European yields under more intensive cultivation. Averages for the five years 1933-34 to 1937-38 and the seventeen years ended 1938 are shown below.

TABLE 619.—Average Wheat Yields in Principal Countries, 1922-38 and 1934-38.

Country.	Average Yield per acre.		Country.	Average Yield per acre.	
	1922-38	1934-38		1922-38	1934-38
Canada ... ..	bus. 14·7	bus. 9·9	Great Britain	bus.	bus.
United States ... ..	11·6	12·5	and Northern Ireland	33·4	34·4
Argentina ... ..	12·3	12·3	France ... ..	22·0	23·4
Australia ... ..	11·9	12·1	Italy ... ..	19·8	17·8
New South Wales ...	12·7	12·8	Rumania ... ..	13·9	14·6
Russia (U.S.S.R.) ...	10·3	13·1*	Hungary ... ..	19·9	20·6

\* 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 is intended that land should not be classed as fallow unless it has been cultivated by ploughing during the year preceding the sowing, but it is doubtful whether farmers' returns are 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 1939-40 in each of the divisions described on page 704:—

TABLE 620.—Wheat Yield from Fallowed and Unfallowed Land, 1939-40.

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 ...	214	548	3,006	1,440	5,184	31,521	6·7	9·5	10·5
Northern* ...	71,056	97,988	729,906	783,851	1,579,089	10,178,214	10·7	16·1	13·9
Central* ...	68,394	672,466	776,216	1,274,187	14,694,000	13,798,674	18·6	21·9	17·8
Southern* ...	57,952	1,426,861	466,463	1,057,662	26,168,733	6,912,585	18·3	18·3	14·8
Western ...	1,642	3,161	4,662	19,239	33,837	33,782	11·7	10·7	7·2
Total ...	199,258	2,201,024	1,980,313	3,116,379	42,480,843	30,954,777	15·6	19·3	15·6

\* 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 the 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 621.—Wheat Yields on Fallowed and Stubble Land, 1924 to 1940.

Year.	Northern Districts.*		Central Districts.*		Southern Districts.*		Whole State.	
	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.	Fallowed.	Stubble.
1923-24 ...	bushels. 8.3	bushels. 6.8	bushels. 10.4	bushels. 8.5	bushels. 15.3	bushels. 12.2	bushels. 14.1	bushels. 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 ...	16.1	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
1938-39 ...	23.1	20.6	13.0	9.5	12.3	8.3	13.0	12.6
1939-40 ...	16.1	13.9	21.9	17.8	18.3	14.8	19.3	15.6

\*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 sown for grain which failed entirely in New South Wales during each of the past ten seasons:—

TABLE 622.—Areas of Wheat Sown for Grain on Fallowed and Unfallowed Land, 1931 to 1940.

Season.	New Land.	Fallowed Land.	Remainder, Stubble Land.	Total.*	Proportion Fallowed to Total Area.
	acres.	acres.	acres.	acres.	per cent.
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
1938-39 ...	281,892	2,179,740	2,189,240	4,650,872	46.9
1939-40 ...	199,258	2,201,024	1,980,313	4,380,595	50.2

\* Approximate.

The ratio of fallowed land to the total sown for grain in 1939-40 was 10.9 per cent. in the northern districts, 44.3 per cent. in the central districts, and 73.1 per cent. in the southern areas.

On the average, about half the total area cropped for grain is fallowed land. More fallowed land was used in 1934-35 than in any previous season and the proportion sown on fallows, 57.6 per cent., was, with one exception, (58.9 per cent. in 1927-28) the highest on record. The proportion was high in the next two seasons, viz., 57.1 per cent. in 1935-36, and 53.9 per cent. in 1936-37. The percentage of fallowed land fell to 46.9 per cent. in 1938-39 when an increased proportion of new as well as stubble land was sown as a result of higher prices of wheat at the time of sowing. A normal proportion of the area sown in 1939-40 was fallowed.

*Varieties of Wheat Grown.*

Plant-breeding has been a continuous process since the time of Farrar (1845-1905) and new varieties of wheat have been introduced and subsequently replaced by 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 1939-40 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 varieties used in 1940-41—a season of severe drought—have not been compiled.

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 623.—Varieties of Wheat Grown, 1935 to 1940.

Variety.	Season.			Variety.	Season.		
	1934-35.	1938-39.	1939-40.		1934-35.	1938-39.	1939-40.
	acres.	acres.			acres.	acres.	
Apollo ... ..	...	...	858	Ghurka ... ..	29,179	67,284	63,660
Aussie ... ..	31,317	793	*	Gular ... ..	...	95,269	150,386
Baringa ... ..	38,400	266,499	109,095	Marshall's No. 3	74,585	*	*
Bena ... ..	71,659	*	*	Nabawa ... ..	1,135,719	747,749	420,846
Bencubbin ... ..	...	746,093	1,126,211	Penny ... ..	81,544	*	*
Bobin ... ..	449,313	146,285	129,524	Pusa No. 4	42,393	133,358	135,361
Canberra ... ..	24,947	*	*	Pusa No. 111	...	17,557	6,348
Canimbla ... ..	16,465	*	*	Rajah ... ..	21,705	*	*
Currawa ... ..	28,010	*	*	Rance ... ..	165,647	206,020	234,500
Dundee ... ..	111,679	816,233	615,187	Riverina ... ..	30,028	*	*
Duri ... ..	12,137	*	*	Totadgin ... ..	...	25,164	30,042
Federation ... ..	54,672	*	*	Turvey ... ..	62,927	*	*
Ford ... ..	513,399	994,110	839,826	Waratah ... ..	360,783	286,089	242,546
Free Gallipoli ... ..	202,640	*	*	Yandilla King ... ..	200,790	40,430	15,601
Geeralying ... ..	28,992	101,480	96,242	Other Varieties	336,668	430,187	378,958
				Total ... ..	4,125,598	5,120,600	4,625,191

\* Information not collected.

For sowing in 1941, fifteen principal varieties were recommended by the Department of Agriculture for specified zones of the wheat belt of New South Wales. Five of these varieties, viz.: Ford, Bencubbin, Dundee, Gular and Bordan, are suited for general cultivation over a wide area of the State. The varieties Eureka, Fedweb No. 1, Pusa No. 4 and Pusa No. III, are recommended for north-western wheatlands and the remaining grain varieties, Waratah, Apollo, Bobin and Ranee, are recommended for relatively small areas within specified zones. Baroota Wonder and New Zealand are essentially hay wheats and are not recommended for the production of grain.

Bencubbin has replaced Nabawa and Baringa as the best variety for growth 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 under dry ripening conditions. 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 with medium strong grain and a strong straw. Pusa No. 4, Pusa No. III and Gular mill into flour of the highest baking quality produced in New South Wales. These varieties are somewhat susceptible to disease and rather light in yield but command a premium above wheat of fair average quality.

Eureka is an early maturing wheat of medium height and strong straw. It is stem rust resistant and moderately resistant to flag smut and is ideal for the north-western portion of the State. A late maturing variety of short, strong straw, Fedweb No. 1 resists stem rust but is susceptible to flag smut. It produces grain of good quality and is adapted for cultivation in north-western parts of the wheat belt.

Bordan has characteristics somewhat similar to those of Ford. It is a mid-season variety of tall growth, medium strong straw, is moderately resistant to stem rust and flag smut, and under favourable spring ripening conditions usually outyields Ford by two or three bushels per acre. Its recommendation is limited to the better rainfall wheat areas within the western slopes zones and eastern Riverina.

The adoption of the newer varieties has led to an increased average yield per acre and the satisfactory harvests in recent years of low or exceptional rainfall were due largely to the development of drought and rust 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.

*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 624.—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.†
	No.	acres.	acres.	No.	No.	acres.	acres.
1900-01	20,149	1,362,752	92	*	*	*	*
1905-06	19,049	2,253,029	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
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	5,134,860	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	4,933,782	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
1938-39	19,768	5,246,302	265	2,118‡	17,650	4,650,872	264
1939-40	19,023	4,680,686	246	1,911‡	17,112	4,380,595	256

\* Not available.

† Excluding area cropped for hay.

‡ Areas with fed-off value less than 15s. per acre in 1929-1931, 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 1938 to 1940 have been classified as failed entirely and included in the third column of the table.

An 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; in 1938-39 more farmers grew wheat than in any season of the past two decades, but the average area devoted to wheat per holding decreased in 1939-40 as the price of wheat was falling.

The following table provides a summary of the areas of holdings on which wheat was grown for grain in the seasons 1938-39 and 1939-40 arranged in groups according to the area cropped for grain:—

TABLE 625.—Wheat Holdings in Area Series, 1938-39 and 1939-40.

Area cropped for Grain.	1938-39.				1939-40.			
	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	2,361	50,474	757,332	15·0	2,167	47,923	643,866	13·4
50-299	9,302	1,548,108	21,661,770	14·0	9,346	1,560,975	26,191,440	16·8
300-499	3,837	1,428,405	17,150,157	12·0	3,783	1,402,229	25,343,353	18·1
500-999	1,839	1,175,996	14,284,062	12·2	1,557	994,129	17,063,622	18·1
1,000-1,999	272	337,760	4,528,633	13·4	225	281,409	4,886,031	17·4
2,000-and over.	39	110,129	1,515,996	13·8	34	93,930	1,523,688	16·2
Total	17,650	4,650,872	59,898,000	12·9	17,112	4,380,595	76,552,000	17·5

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 1939-40 these numbered 2,167 or 12·7 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 9,346 or 54·6 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 5,599 and represented 32·7 per cent. of the total.

In all, areas of less than 30 acres in extent were sown with wheat for grain on 1,395 farms. The total number of areas under 100 acres in extent sown with wheat for grain was 3,935; from 100 to 199 acres, 3,938; from 200 to 299 acres, 3,640; from 300 to 399 acres, 2,403, and from 400 to 499 acres, 1,380; then the number diminished rapidly as the area increased. In 1939-40 there were 34 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 differences in the average yields in area series are not usually very pronounced, and are affected by such factors as rainfall and location. Generally 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 34 crops of 2,000 acres and over in extent in 1939-40 were distributed as follows:—In Riverina 6, North-Western Slopes 9, South-Western Slopes 5, Central-Western Slopes 5, North-Central Plains 7, Central Plains 1, and Central Tableland 1.

In 1938-39 the quantity of wheat harvested was less than 1,500 bushels on 6848 holdings, or nearly 39 per cent. of the holdings on which wheat was grown for grain. On 22 per cent. the harvest ranged between 1,500 and 3,000 bushels of wheat. With wheat at about 1s. 9½d. per bushel (as in 1938-39), 3,000 bushels would return the farmer about £260 gross at country railway. It is obvious that the majority of the farmers who harvested less than 3000 bushels, and probably many of the 4,043 growers who harvested between 3,000 and 6,000 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.

The distribution of the harvest in production series, by divisions, in 1939-40 (a year of abnormal production) was not ascertained. Particulars of the harvest of 1938-39 in the major sections of the wheat belt are as follow:—

TABLE 626.—Wheat Crops in Production Series, 1938-39.

Districts.	Number of Holdings on which Wheat Harvested was—					Total.
	Under 1,500 Bushels.	1,500 to 2,999 Bushels.	3,000 to 5,999 Bushels.	6,000 to 8,999 Bushels.	9,000 or more Bushels.	
Coastal ... ..	73	3	4	4	1	85
Northern ... ..	1,044	597	795	490	615	3,541
Central ... ..	2,252	1,280	1,291	458	371	5,652
Southern ... ..	3,441	2,029	1,953	566	345	8,334
Western... ..	38	.....	.....	.....	.....	38
Total—New South Wales ...	6,848	3,909	4,043	1,518	1,332	17,650
Production— Thousand bushels ... ..	4,037	8,496	16,889	10,918	19,558	59,898

*Wheat Growing in Conjunction with 'Grazing and Dairying.*

A special compilation of wheat statistics for the season 1932-23 was undertaken by the Bureau of Statistics and Economics 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.

*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 13,000,000 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 4,000,000 bushels to a little over 5,000,000 bushels. On the average, seed requirements may be estimated at 4,700,000 bushels and the total annual requirement at about 22,000,000 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. In ordinary circumstances 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. Normally these advantages are counteracted to some extent by the greater land haulage necessary from the interior to the coast of some of these countries, but under war conditions they are increased by the pressure on shipping space and the dangers of ocean transport. In recent years greatly increased production by many European countries, and the imposition of tariffs and import quotas, have diminished international trade in wheat.

For the duration of the war all wheat grown in Australia is to be handled in compulsory pools controlled by the Australian Wheat Board. It is the responsibility of the Board to find markets for the wheat at home and abroad. Contracts were made for the sale of large quantities of wheat to the British Government.

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 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 627.—Exports of Wheats and Flour Oversea and Interstate, 1929 to 1939 (New South Wales).

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.								
1929 ...	17,120	7,879	2,912	1,948	20,032	9,827	29,859	5,159
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	2,028	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
1939 ...	13,993	15,808	3,569	511	17,562	16,319	33,881	6,733

\* 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. After increasing year by year from 1930 to 1935 the quantity of flour exported contracted sharply in 1936, then increased, and in 1939 exceeded that of any earlier season, surpassing the record quantity of 1935 by 18.7 per cent.

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 628.—Flour Trade of New South Wales, 1933 to 1939.

Particulars.	Year ended 30th June.						
	1934.	1935.	1936.	1937.	1938.	1939.	1940.
Wheat gristed ...	24,033,438	27,041,903	25,276,714	22,137,426	22,413,017	26,427,132	27,825,530
Flour expressed in tons (2,000 lb.).							
Flour produced ...	495,779	555,173	523,281	464,408	476,881	547,112	578,466
Flour exported—							
Oversea* ...	209,055	273,071	231,067	187,351	202,210	293,726	†
Interstate† ...	33,375	31,699	24,568	24,962	25,028	17,120	†
Flour imported—							
Oversea ...	22	37	24	5	8	2	†
Interstate† ...	6,341	7,132	6,314	6,844	6,886	6,170	†

\* Including ships' stores.

† Approximate.

‡ Not available for publication.



The average quantity of flour consumed in New South Wales in the past seven years was approximately 260,000 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 five years ended 1938-39 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; later figures are not available for publication:—

TABLE 629.—Wheat Exports, Destination, 1929 to 1939.

Destination.	Quantity of wheat (grain) exported oversea from New South Wales. (Year ended 30th June).					
	1928-29.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	bushels.	bushels.	bushels.	bushels.	bushels.	bushels.
United Kingdom	6,633,858	7,093,840	14,222,126	10,264,723	11,541,512	4,526,230
Irish Free State	377,864	1,520,358	2,643,215	2,773,382	305,692	471,885
Belgium ...	405,161	250,185	1,547,918	...	58,800	...
Netherlands ...	435,778	...	46,666	1,243,407	...	...
France ...	312,576	...	...	...	1,845,305	...
Germany ...	385,545	...	...	345,827	...	...
Greece ...	545,538	...	...	...	...	574,877
Italy ...	1,523,346	...	1,129,113	4,577,513	332,065	66,947
Malta ...	443,203	54,160	22,396	...	67,200	...
Union Sth. Africa	97,543	...	...	...	...	9,875
India ...	2,295,186	...	...	5	...	299,760
China ...	619,035	3,869,807	3,197,511	760	...	6,475,123
Japan ...	2,722,358	2,452,377	173,988	519,065	29,867	221,598
New Zealand ...	231,302	7,875	177,798	66,723	80,177	1,663,441
Other Countries *	1,908,112	29,165	39,592	459,438	†2,054,797	‡721,084
Total	18,936,405	15,277,767	23,200,323	20,250,843	16,315,415	15,030,820

\* Including Chili and Peru, 746,720; Egypt, 445,077; and Sweden, 370,830. † Including Norway, 192,062; Portugal, 985,782 and U.S.S.R. (Russia), 891,897. ‡ Including Ceylon, 73,697 and U.S.S.R. (Russia), 611,730.

Usually shipments of wheat to the United Kingdom exceed 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 630.—Flour Exported—Destination, 1929 to 1939.

Destination.	Quantity of flour exported oversea from New South Wales. (Year ended 30th June.)					
	1928-29.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Equivalent in bushels of wheat.					
United Kingdom ...	527,362	1,430,494	1,744,931	2,050,909	2,224,200	1,588,483
New Zealand ...	78,569	21,078	19,258	23,488	26,749	21,797
Egypt ...	4,177,953	101,765	133,538	133,000	43,578	32,462
Sudan ...	125,049	267,492	380,026	227,993	278,955	253,793
Hong Kong ...	25,039	1,300,267	837,045	569,993	1,012,866	383,786
Malaya ...	1,066,298	1,391,760	1,319,212	1,493,474	1,446,012	1,615,493
Philippine Islands ...	356,902	1,018,637	1,425,481	1,304,929	939,109	1,244,474
China ...	2,832	26,220	31,683	54,683	450,091	5,035,464
Neth'lands E. Indies	1,176,480	1,471,752	1,455,793	1,225,959	1,234,237	1,614,053
Fiji ...	200,606	133,966	168,512	197,167	193,682	211,906
New Caledonia ...	195,079	165,238	167,740	152,548	165,339	179,436
Other Countries ...	861,433	5,750,642	3,288,814	1,459,943	1,580,576	1,890,917
<b>Total ...</b>	<b>8,793,602</b>	<b>13,079,311</b>	<b>10,972,033</b>	<b>8,894,086</b>	<b>9,595,394</b>	<b>14,072,064</b>

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, and the heavy shipments to China in 1938-39 reflected the disturbed state of that country due to war in China and a poor local harvest.

#### *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 superior or inferior classes of milling wheat from time to time, when occasion arose.

Wheat for export is marketed almost entirely 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 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.

The following comparison shows the standard adopted in New South Wales for each of the past ten seasons, and the date on which it was fixed in each year:—

TABLE 631.—Wheat, F.A.Q. Standard, 1932 to 1941 (N.S.W.).

Year.	Date Fixed.	Weight of Bushel of Wheat. f.a.q.*	Year.	Date Fixed.	Weight of Bushel of Wheat. f.a.q.*
		lb.			lb.
1931-32	27th Jan., 1932	61½	1936-37	5th Feb., 1937	62
1932-33	30th Jan., 1933	61¾	1937-38	3rd Feb., 1938	64
1933-34	16th Feb., 1934	59	1938-39	26th Jan., 1939	64½
1934-35	31st Jan., 1935	61¼	1939-40	26th Jan., 1940	63¼
1935-36	24th Jan., 1936	64	1940-41	24th Jan., 1941	62¾

\*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 chondrometer 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. A separate Australian pool was formed to handle "under quality" wheat grown in 1939-40. Wheat weighing from 54 lb. to 59 lb. (chondrometer measure) per bushel was received into this pool.

Wheat of excellent quality was produced in 1938-39 and the f.a.q. standard determined for that season (64½ lb. to the bushel) was higher than that fixed for any year since 1893-99. Although excessive rainfall throughout the season adversely affected quality in the southern section of the wheat belt in 1939, the f.a.q. standard (63¼ lb. to the bushel) was high again for 1939-40 wheat.

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.

#### 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, 1940, 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 23,523,000 bushels. No new plants were opened in 1939-40. The Newcastle elevator received 1,224,284 bushels in 1939-40.

The terminal elevators at 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 8,000 tons per day respectively.

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 Pymont, and both bagged and bulk cargoes are loaded at Glebe Island.

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, but some farmers utilise bulk waggons. For conveyance from the country stations to the terminal, special railway trucks are provided. 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 26.5 per cent. of the wheat received at rail in 1937-38 was in bags, but in 1938-39 the proportion rose to 40.1 per cent.

Under normal conditions 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.

Following the outbreak of war the Commonwealth Government acquired the whole of the stocks of wheat in Australia on 8th October, 1939, and vested its control in the Australian Wheat Board which is to control all wheat harvested during the war period.

The 1938-39 wheat acquired was administered as "No. 1 Pool" and the wheat remaining in the elevators was supplied only to the holder of an order from the Board, holders of the relevant warrants received advances from the proceeds of the sale of the acquired wheat.

The crop of 1939-40 was handled in two pools—No. 2 pool including all wheat of normal quality and No. 3 pool including wheat from certain southern districts which had been seriously affected by drought.

With inauguration of the No. 2 and No. 3 Pools in 1939-40, negotiable wheat warrants formerly issued by the Government Grain Elevators were replaced by a "Wheat Warrant and Claim for Compensation." This is a certificate from the Grain Elevators that the grower named therein has delivered the quantity set out, and was handed direct by the Elevators Branch to a licensed receiver nominated by the grower. Arrangements for the payment of advances against the wheat as approved by the Wheat Board then became the responsibility of the licensed receiver concerned.

The loan expenditure on the construction of grain elevators to 30th June, 1940, was £5,231,931. The system was first put into operation in 1920-21, and its development is shown in the following table:—

TABLE 632.—Grain Elevators—Wheat Received, 1921-1940.

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	16,613,000	23,877,542	2,123,344	26,000,886	47.6	59.0
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	64.3
1937-38	175	23,223,000	32,533,478	146,566	32,680,044	59.3	73.5
1938-39	175	23,323,000	27,590,664	307,776	27,898,440	46.6	59.9
1939-40	175	23,523,000	38,912,339	295,699	39,208,038	51.2	62.3

\* 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 ended November, was as follows—

	Bushels.		Bushels.
1930-31	15,246,970	1935-36	13,959,993
1931-32	16,319,494	1936-37	18,199,430
1932-33	24,286,105	1937-38	16,845,744
1933-34	9,832,179	1938-39	13,115,110
1934-35	11,719,395		

Particulars of handling charges for wheat received into elevators in the season 1938-39 were given at page 726 of the Official Year Book, 1938-39. Under the pooling system handling fees for wheat passing through the elevators are arranged with the Australian Wheat Board. The Board also pays rail freight charges incurred in transferring wheat from country to terminal elevators.

The financial operations in connection with the silos in the years ended 30th June, 1939 and 1940, were as follows:—

TABLE 633.—Grain Elevators: Receipts and Expenditure.

Receipts.			Expenditure.		
	1938-39.	1939-40.		1938-39.	1939-40.
	£	£		£	£
Handling and storage fees ... ..	380,305	428,260	Maintenance and working expenses ...	102,632	185,875
Sundry fees ... ..	6,406	9,276	Receipts returned ...	1,154	...
Sales of damaged grain ...	1,563	1,450	Rent, wheat stacking sites ... ..	3,000	3,000
Profit on sale of wheat ...	...	17,435	Loss of freight on bulk wheat ... ..	2,500	2,500
Rent, stacking sites ...	1,676	2,070	Railway freight ...	357,233	76,513
Railway freight repayments ... ..	376,092	79,114			
Other ... ..	82	144			
<b>Total ... ..</b>	<b>766,124</b>	<b>537,749</b>	<b>Total ... ..</b>	<b>466,519</b>	<b>267,888</b>

The amounts shown refer to cash received and expended in the periods covered. Excluding payments for railway freight, for which the silo management was agent only, the receipts in 1939-40 were £458,635, expenditure amounted to £191,375 and a cash balance of £267,260, representing net earnings, was available to meet interest charges, depreciation, etc. In 1938-39 the corresponding figures were: Receipts £390,032, expenditure £109,286, and the balance, £280,746.

#### 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 1938-39 and 1939-40. Adjustments are made in order to discriminate between old and new seasons' wheat and the totals are approximate:

TABLE 634.—Wheat Received at Rail—Monthly 1938-39 and 1939-40.

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.	thousand bushels.	thousand bushels.	Season.	thousand bushels.	thousand bushels.
To November 26	14,356	14,356	To November 25	6,740	6,740
December... 24	28,082	42,438	December... 23	34,440	41,180
January ... 21	2,946	45,384	January ... 20	17,303	58,483
February ... 18	713	46,097	February ... 17	2,587	61,070
March ... 18	276	46,373	March ... 16	428	61,498
April ... 15	204	46,577	April ... 13	271	61,769
May ... 13	369	46,946	May ... 11	...	61,769
June ... 10	402	47,348	June ... 8	112	61,881
July ... 8	329	47,677	July ... 6	332	62,213
August ... 5	232	47,909	August ... 3	317	62,530
September.. 2	254	48,163	August ... 31	326	62,856
September.. 30	264	48,427	September.. 28	93	62,949
October ... 28	343	48,770	October ... 26	10	62,959
November.. 11	130	48,900	November.. 9	1	62,960

\* Net after deducting withdrawals.

The proportion of railway receipts for the season delivered at railhead by mid-February was 94.8 per cent. in 1936-37, 98.0 per cent. in 1937-38, 94.3 per cent. in 1938-39, and 98.6 per cent. in 1939-40.

*Wheat Freights.*

In ordinary circumstances, 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 are 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. Under conditions of war most of the shipping is under Government control; the space available for wheat is limited and costs of ocean transport have increased considerably.

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 pre-war seasons were as follow:—

TABLE 635.—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	11¾	11¼	11½
1928-29 ...	13¾	13¾	13	12½	11	9½	8½	8	10¼
1929-30 ...	8¾	8¾	8½	7½	7½	8½	8½	9	9
1930-31 ...	10	10½	10½	10½	10	9½	9½	9½	9½
1931-32 ...	9¾	9¾	9½	9½	9¾	9	8½	7½	9
1932-33 ...	9	9½	9½	8¾	8	7¾	7½	7½	8
1933-34 ...	8½	8¾	8½	8½	7¾	7¾	8	8½	8½
1934-35 ...	9	8¾	8½	7½	7½	8	8	8½	8½
1935-36 ...	9½	9½	9½	9½	9½	9½	9½	9½	9½
1936-37 ...	—	10	12	12¾	13½	13½	14½	15	13½
1937-38 ...	15	15	13½	12	11½	10¾	10½	10½	11½
1938-39 ...	10½	10½	10½	10½	10½	10½	10	10	†

\* For entire cargoes shipped during month irrespective of date of arrangement of charter.  
 † Mean of monthly averages (unweighted). ‡ Not available.

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. The figures for the years 1865 and onward, published in the Year Book for 1919, show a gradual reduction in the value of wheat 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. Under the war-time compulsory pools, prices in local markets are determined by the Australian Wheat Board, and are subject to daily review.

TABLE 636.—Wheat Prices, 1911 to 1940.

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>3</sup> / <sub>4</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>3</sup> / <sub>4</sub>	4 5	3 10 <sup>1</sup> / <sub>2</sub>	3 2
1916	5 1 <sup>1</sup> / <sub>2</sub>	5 0 <sup>1</sup> / <sub>4</sub>	4 10	4 0	1931	2 1 <sup>1</sup> / <sub>2</sub>	2 1 <sup>1</sup> / <sub>2</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>1</sup> / <sub>2</sub> **
1920	8 5*	8 10 <sup>8</sup> / <sub>8</sub>	8 7 <sup>1</sup> / <sub>4</sub> <sup>8</sup> / <sub>8</sub>	7 6	1935	2 11 <sup>1</sup> / <sub>4</sub>	3 1	3 2 <sup>1</sup> / <sub>4</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>4</sub>	3 1 <sup>1</sup> / <sub>2</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 <sup>1</sup> / <sub>4</sub>	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 <sup>1</sup> / <sub>4</sub>	1939	2 5 <sup>1</sup> / <sub>2</sub>	2 4	2 7	1 9 <sup>1</sup> / <sub>2</sub> **
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	1940	3 9 <sup>1</sup> / <sub>2</sub>	3 9 <sup>1</sup> / <sub>2</sub>	3 11	2 9 <sup>1</sup> / <sub>4</sub> ††

\*Price officially fixed on trucks Sydney of bagged wheat for flour for home consumption, 1915-1921, and (of silo wheat) from 10th October onwards. 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>5</sup>/<sub>8</sub>d. in 1934-35, 2<sup>7</sup>/<sub>8</sub>d. in 1935-36, and 5<sup>8</sup>/<sub>8</sub>d. in 1938-39. †† On basis of advances see page 730—subject to revision.

The Sydney prices quoted up to 1936 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 1937 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.

Increased world production, the accumulation of large surplus stocks, and rapidly developing world-wide economic depression, carried the price of wheat gradually downwards during 1930. By the end of 1930 wheat was sold in Sydney at 2s. 2d. per bushel, which was the lowest level on record. Prices remained relatively depressed until early in 1935. Thereafter prices rose steadily as world surpluses were progressively reduced by a series of crop failures, and curtailment of the area cultivated with wheat in some



of the main exporting countries. For the seasons ended November, the average values per bushel (Sydney) were 3s. 2½d. in 1935, 4s. 2½d. in 1936 and 5s. 2d. in 1937. From an average of 5s. 5d. per bushel in March, 1937, prices declined as world stocks re-accumulated, receding slowly until March, 1938, and collapsing thereafter. The average price for 1937-38 was 3s. 6½d. per bushel and on 25th July, 1939, the record low quotation of 2s. 0½d. per bushel was recorded. The outbreak of the war and unfavourable crop prospects in North America and Argentina caused wheat prices to rise in the closing months of 1939 and in January, 1940, bulk wheat in Sydney was valued at 3s. 9½d. per bushel. Although world exportable wheat stocks have continued to increase and greatly exceed those at any time previously the price of wheat has been maintained, mainly because of direct or indirect control in the major wheat exporting countries. 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. As there is now no free market in Liverpool and particulars of shipping freight rates are unobtainable it is not possible to supply data for periods later than those shown below.

TABLE 637.—Wheat Prices, Monthly, 1937-38 and 1938-39.

Month.	Season 1937-38.					Season 1938-39.				
	Shippers buying quotes, Sydney	Average value declar'd to Customs, Sydney.	Average price c.i.f. Liverpool and Lond'n.	Average import value into United Kingdom.	Average rate of freight to United Kingdom.	Shippers buying quotes, Sydney.	Average value declar'd to Customs, Sydney.	Average price c.i.f. Liverpool and Lond'n.	Average import value into United Kingdom.	Average rate of freight to United Kingdom.
	*	*	†	†	†	*	*	†	†	†
December ...	s. d. 4 5½	s. d. 4 5	s. d. 4 7½	s. d. 5 1½	s. d. 1 3	s. d. 2 5½	s. d. 2 7½	s. d. 2 10½	s. d. 2 11½	s. d. 0 10½
January ...	4 5½	4 8	4 8½	4 9	1 1½	2 5½	2 6½	2 11½	2 10	0 10½
February ...	4 5½	4 6½	4 7½	4 10½	1 0	2 6½	2 6½	2 10½	2 10½	0 10½
March ...	4 1½	4 6½	4 5	4 7	0 11½	2 4	2 5½	2 8½	2 9½	0 10½
April ...	4 0½	4 3½	4 3	4 6	0 10½	2 4½	2 5½	2 10	2 8½	0 10½
May ...	3 11½	4 1	4 1	4 3½	0 10½	2 6½	2 10½	2 11½	2 9½	0 10
June ...	3 8½	3 9½	3 11½	4 1½	0 10½	2 5½	2 7½	2 9½	2 10½	0 10
July ...	3 8½	3 9½	3 11	4 0	0 10½	2 3½	2 7½	2 7½	2 10	0 10
August ...	3 2½	3 4½	3 6½	3 11	0 10½	2 3	2 11½	2 6	2 7½	†
September ...	2 10½	3 2½	3 4½	3 8	0 10½	2 9	1 11½	†	†	†
October ...	2 9½	3 1	3 2½	3 3½	0 10½	2 7½	2 11½	†	†	†
November ...	2 7	2 7½	2 11	3 0½	0 10½	2 9½	2 9½	†	†	†

Australian Currency. † Sterling. ‡ Comparable prices not available.

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, since when there has been no change in the rate.

#### *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. The money for these grants was obtained principally from a tax on flour used for local consumption. On account of a recovery in wheat prices no assistance was given in 1936-37 or 1937-38.

Wheat prices fell sharply in 1938 and it again became necessary to assist the farmers. In respect of the excise year ended 30th November, 1939, £1,042,281 (from proceeds of the flour tax) was distributed to wheat growers in New South Wales in proportion to the quantity of 1938-39 wheat sold or delivered for sale by each grower, at the rate of approximately 4½d. per bushed of wheat. In addition, an amount of £287,000, comprising £100,000 provided by the Commonwealth Government and £187,000 from moneys at credit of the (State) Flour Acquisition Act, 1931 Account, was distributed, giving growers whose crops failed entirely or yielded less than nine bushels per acre payments equivalent to 4s. per acre. The total amount distributed to growers in respect of the 1938-39 crop was £1,329,180, equivalent to 5.28d. per bushel of the quantity of 54,796,641 bushels sold or delivered for sale in New South Wales.

*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 were shown in periods up to July, 1939, at page 728 of the Year Book for 1937-38 and further details in the chapter Public Finance. Changes in the rate of the Commonwealth Flour Tax from July, 1939, to May, 1941, were as follow:—

TABLE 638.—Rates of Flour Tax, 1939 and 1940.

Date of Change.	Rate of Tax per 2,000 lb. net weight of Flour.	Date of Change.	Rate of Tax per 2,000 lb. net weight of Flour.
	£ s. d.		£ s. d.
16th June, 1939 ...	5 10 0	23rd December, 1939 ...	1 12 3
21st July, 1939 ...	6 0 0	10th February, 1940 ...	1 16 7
11th August, 1939 ...	6 2 9	17th February, 1940 ...	2 1 0
1st September, 1939 ...	5 14 9	27th February, 1940 ...	2 5 5
13th September, 1939 ...	5 2 9	22nd April, 1940 ...	1 15 5
25th October, 1939 ...	4 12 6	6th August, 1940 ...	1 18 5
22nd November, 1939 ...	4 2 3	30th September, 1940 ...	2 2 10
7th December, 1939 ...	3 5 3	23rd October, 1940 ...	2 8 10
8th December, 1939 ...	2 2 3		

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.

*Wheat Industry Stabilisation.*

In recent years recurrent low prices for wheat consequent upon the increase in world wheat production (discussed at page 732) have produced great difficulties in the industry. From time to time distress among wheat-growers in Australia had been relieved by annual appropriations, but for many years Australian Governments have recognised the necessity of a long-term plan to bring to wheat-growers a measure of security. An account of certain proposals made in 1935 was given at page 456 of the 1934-35 edition of this Year Book, and the scheme for stabilisation of the wheat industry under the Wheat Industry Assistance Act, 1938, and complementary State legislation was outlined at pages 726-728 of the Official Year Book, 1937-38.

Upon the outbreak of the war new difficulties arose in wheat marketing. The Commonwealth Government first took possession of all wheat stocks, the growing crop, and future wheat production during the war, and set up the Australian Wheat Board to exercise control on its behalf. Information regarding the Board's administration is given at a later page. The financial provisions of the Wheat Industry Assistance Act were suspended until six months after termination of the present war, and moneys which otherwise would have accrued to the Wheat Industry Stabilisation Fund and the Wheat Industry Special Account were made payable to the Commonwealth Bank of Australia in part repayment of amounts provided by the Bank for pool advances.

A scheme to stabilise the wheat industry was introduced by the Commonwealth Government in terms of the National Security (Wheat Industry Stabilisation) Regulations issued on 29th November, 1940, to be inaugurated in respect of the 1941-42 harvest. The State Governments undertook to co-operate in administering it.

The principal features of the plan are:—(i) There will be a guaranteed price of 3s. 10d. a bushel, f.o.b., ports, for bagged wheat (bulk wheat pro rata) in respect of an acquired crop of 140,000,000 bushels. All costs of receiving, handling, railage, storage and placing on shipboard will be found out of this price; (ii) a fund is created into which surplus market realisations will be paid in years of high price, to meet debits resulting from payments to the industry in years of low price. Surplus realisations over and above the amount of 3s. 10d. a bushel, f.o.b., ports, for bagged wheat (bulk wheat pro rata) will be shared equally between the Wheat Industry (War-time) Stabilisation Fund and the producers; (iii) all wheat harvested as grain will be marketed through the Australian Wheat Board; (iv) existing wheat farms will be registered and wheat-growers will be licensed to grow wheat on registered farms. Properties on which wheat was not grown formerly are ineligible for registration. Licensed growers are required to undertake that they will sow only the acreage allotted to them, and will comply with any other conditions imposed, and furnish returns as required to enable production costs to be investigated; and (v) directions may be given in years when a heavy crop is in prospect that wheat be cut for hay, and some financial provision is to be made in respect of such hay.

The plan is to be controlled by the Wheat Industry Stabilisation Board, consisting of three members appointed by the Minister for Commerce. Liaison with the Australian Wheat Board is maintained by appointment of the same person as Chairman of both Boards.

A marketable crop of 140,000,000 bushels, equivalent to a total crop of about 160,000,000 bushels, which was the aim of the scheme, was approximately the average Australian crop during the six seasons ended 1939-40. It provides for export an annual surplus of from 100,000,000 to 110,000,000 bushels, which is approximately the quantity suggested by Australia as one of the terms upon which the Commonwealth would be prepared to enter into an international agreement toward solution of the world wheat problem.

State Departments of Agriculture will recommend, when necessary, the acreage of wheat to be cut for hay. A proposal that a growers' advisory committee, representative of all States should be appointed, has been approved by the Minister. It was announced early in 1941 that growers might sow in 1941 an acreage equal to the average area sown in the preceding four years.

To give effect to the provisions indicated under (ii) above, a tax of 50 per cent. of the excess market realisation above 3s. 10d. a bushel (bagged wheat, f.o.r., ports) on all wheat harvested after 1st October, 1941, is levied under the Wheat Tax (War-time) Act, 1940.

*Wheat Pools.*

An account of the compulsory wheat pools of 1915-16 to 1920-21 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.

Particulars regarding proposals for compulsory wheat pools in New South Wales in the years 1928 to 1931, and of the operations of voluntary pools from 1921-22 to 1927-28 were given at page 725 of the Year Book for 1937-38 and at page 716 of the Year Book for 1933-34.

*Wheat Pools under the Australian Wheat Board, 1939, 1939-40, and 1940-41.*

Acting under the National Security Act, 1939, the Commonwealth Government took power to acquire and dispose of all wheat grown in Australia and to constitute compulsory pools for the unsold residue of the 1938-39 harvest and the entire harvest of subsequent seasons. Responsibility for the handling and marketing of all wheat in Australia was vested in the Australian Wheat Board.

The Board acts on behalf of the Commonwealth, and, subject to direction by the Minister for Commerce, it may—

- (a) purchase any wheat, wheat products or cornsacks;
- (b) sell or dispose of any wheat, wheat products or cornsacks acquired or purchased by the Commonwealth;
- (c) grist or arrange for the gristing of any wheat into flour and sell or otherwise dispose of that flour;
- (d) manage and control all matters connected with the handling, storage, protection, treatment, transfer or shipment of any wheat acquired by the Commonwealth or of any wheat or flour sold or disposed of by the Commonwealth or by the Board on behalf of the Commonwealth; and
- (e) do all matters which it is required by the regulations to do or which are necessary or convenient for giving effect to them.

It receives all moneys accruing from sales effected by it, and from appropriations by Parliament or borrowed for its use by the Commonwealth, and will use its funds in defraying all costs of administering the regulations, and making payments to the growers.

The Australian Wheat Board consists of a chairman (who represents the Commonwealth Government), two representatives of the wheatgrowers of Australia, two of wheat marketing pools, three of wheat merchants, one of bulk handling authorities, and one of the flour millers of Australia. The Board was empowered to appoint from its members an Executive Committee for the exercise of such of its powers and functions as it might (subject to the Minister's direction) determine. Provision was also made for the appointment of State Committees to comprise, in each State, two representatives of the State Government (one a senior railway officer and the other to act as Chairman of the Committee), a representative of the flour millers, a representative of either the wheat merchants or wheat marketing pools, a representative of the wheatgrowers and one other (in New South Wales a representative of the bulk handling authorities).

Wheatgrowers may deliver wheat for sale only to an authorised receiver licensed by the Board. In general the receivers are those persons or firms formerly engaged in handling the crop, so that the Board's activities occasion the least possible disturbance to the established system of wheat marketing. Certain wheat is excluded from the acquisition, *i.e.*, wheat stored on the farm by the grower for his own use (other than for gristing) and not for sale; up to 100 bushels to be gristed by or for the grower for his own use; and wheat sold, for use as seed wheat to another grower, or in cases approved by the Board, to an intermediary for subsequent sale as seed wheat.

Prices of wheat in local markets are determined by the Board and in practice millers pay for wheat gristed for home consumption at the price ruling on the Monday of each week. In general the prices are related to the export parity value of wheat. The Board alone is responsible for negotiating the sale of Australian wheat for export and it may enter into agreements with oversea agents to facilitate its operations abroad. All wheat of the 1938-39 harvest had been sold by the end of November, 1939, and contracts covering a considerable part of the 1939-40 crop were made.

The Wheat Acquisition regulations empower the Minister to arrange with the Commonwealth Bank for advances, repayment guaranteed by the Commonwealth Government, for use on its behalf by the Australian Wheat Board.

The final payment in No. 1 Pool (the residue of 1938-39 wheat) was made in April, 1941. Total payments in this pool were 2s. 9.908d. per bushel for bagged wheat and 2s. 7.908d. per bushel for bulk wheat, on trucks at ports. Very little of this wheat was in farmers' hands when it was acquired by the Commonwealth Government.

Advances made in respect of wheat of the 1939-40 harvest up to April, 1941, were equivalent to 3s. 5½d. a bushel for bagged wheat and 3s. 3½d. a bushel for bulk wheat at ports, less rail freight, giving a net return to farmers for bulk wheat at country sidings of approximately 2s. 10d. a bushel. The initial advance on No. 4 Pool (1940-41 wheat) was 3s. a bushel for bagged wheat and 2s. 10½d. a bushel for bulk wheat at ports, less rail freight (about 2s. 5d. a bushel, net, at country sidings for bulk wheat). A further distribution in respect of Nos. 2 and 3 Pools (1939-40) and No. 4 Pool (1940-41) is probable. The harvest of 1939-40 substantially exceeded early anticipations, and this created problems of storage, and there was a large surplus for export.

It is unlikely, in view of the need to make the maximum use of shipping space, that ships can be provided to move wheat in quantity from Australia to the United Kingdom. However, the Australian harvest of 1940-41 was so small that for the present problems of storage and disposal are not difficult.

#### *World Production of Wheat.*

Wheat is harvested generally between the months of May and August in the Northern Hemisphere and between November and February 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

1938-39, 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 639.—World Production of Wheat.

Country.	Annual Production of Wheat.						
	Average 1924-25 to 1928-29.	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
	Million Bushels.						
Europe—Exporting Countries* ...	345	456	335	386	470	440	555
Importing Countries ...	930	1,290	1,214	1,190	1,010	1,100	1,289
Total Europe ...	1,275	1,746	1,549	1,576	1,480	1,540	1,844
North America—Canada ...	422	282	276	282	229	180	350
U.S.A. ...	826	552	526	626	627	876	932
Other Countries ...	11	15	14	14	14	12	12
Total North America ...	1,259	849	816	922	870	1,068	1,294
South America—Argentina ...	249	286	241	141	249	185	336
Other Countries ...	47	59	49	57	41	47	61
Total South America ...	296	345	290	198	290	232	397
Africa—North ...	100	114	136	112	98	117	120
South ...	8	10	17	24	17	11	17
Total Africa ...	108	124	153	136	115	128	137
Asia—(Excluding U.S.S.R., China, Iran and Iraq.) ...	442	553	554	577	603	612	674
U.S.S.R. (Russia) ...	757	1,018	1,117	1,132	1,135	1,429	1,494‡
Oceania—Australia ...	144	177	133	144	152	187	155
New Zealand ...	7	9	7	9	7	6	6
Total Oceania ...	151	186	140	153	159	193	161
Total Exporting Countries (Excluding U.S.S.R.) ...	2,467	2,321	2,096	2,246	2,297	2,496	2,605
(Including U.S.S.R.) ...	3,224	3,339	3,213	3,285	3,432	3,925	4,099
Total Importing Countries ...	1,064	1,482	1,406	1,409	1,220	1,277	1,902
Grand total of World† (including U.S.S.R.) ...	4,288	4,821	4,619	4,694	4,652	5,202	6,001

\* Excluding U.S.S.R.

† China, Iran and Iraq are excluded.

‡ Approximate; quoted by the U.S.A. Dept. of Agriculture.

Since 1929 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 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 4,507,000,000 bushels (excluding Russia, China, Iran and Iraq) far surpassed that of any earlier season, and the harvest of 1939-40 (about 4,270 million bushels) was second only to that of the preceding year.

The following table, derived mainly from statistics of the International Institute of Agriculture, shows world production, trade and stocks of wheat in each year since 1926-27. 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 remarkable degree in 1938-39 and 1939-40 owing to the unprecedented harvest of 1938-39 and heavy production in the following season. Statistics for 1940-41 are incomplete as information for many countries in Europe has been withheld. It is believed the world harvest (with exclusions as below) was about 4,070 million bushels and world exportable end-of-season stocks of wheat on 31st July, 1941, may exceed 1,200 million bushels. In recording exportable end-of-season stocks no account is taken of changes in reserve supplies in importing countries.

TABLE 640.—World Production, Trade and Stocks of Wheat, 1927 to 1940.

Season ended 31st July.	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	447
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 ...	1,277	2,964	3,773	1,429†	696	714	524	192
1938-39†	1,902	2,605	4,507	1,494†	1,111	1,138	618	520
1939-40† ...	1,879	2,391	4,270	...	...	(1,324)	(600)	(710)

\* Excluding U.S.S.R., China, Iran and Iraq. † Subject to revision.

The foregoing table, particularly the last column showing exportable stocks of wheat as at 1st August, may be read closely in conjunction with the trend of prices as shown in Table 636.



*World Wheat Agreement.*

Information regarding past activities of the International Wheat Advisory Committee established as an outcome of the World Economic Conference held in London in July, 1933, and the operation of the International Wheat Agreement was given in earlier issues of this Year Book.

In January, 1939, the Wheat Advisory Committee 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. Finality regarding these proposals was not achieved and the outbreak of the European War in September, 1939, placed the question in suspense. However, steps have been taken in Canada, Argentina and the United States to curtail wheat growing, and these measures may open the way to post-war international co-operation in meeting the world problems of wheat.

MAIZE.

Until towards the close of 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 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. Since 1930-31 there has been a slight increase in cultivation of maize. The experience of maize-growing in New South Wales is illustrated in the graph published on page 735. The following comparison relates to maize-growing since 1906-07:—

TABLE 641.—Maize Area and Production, 1907 to 1940.

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	183,384	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
1932-36	114,406	3,060,320	26·8	489,330	4 5 10
Year—					
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
1938-39	122,201	2,905,020	23·8	532,592	4 7 2
1939-40	115,856	2,832,810	24·4	507,550	4 7 7

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 then increased as prices of maize improved. There was a substantial rise in price in 1936-37 and the average return per acre rose to 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. Adverse seasonal conditions caused the reduction in area sown in the following years.

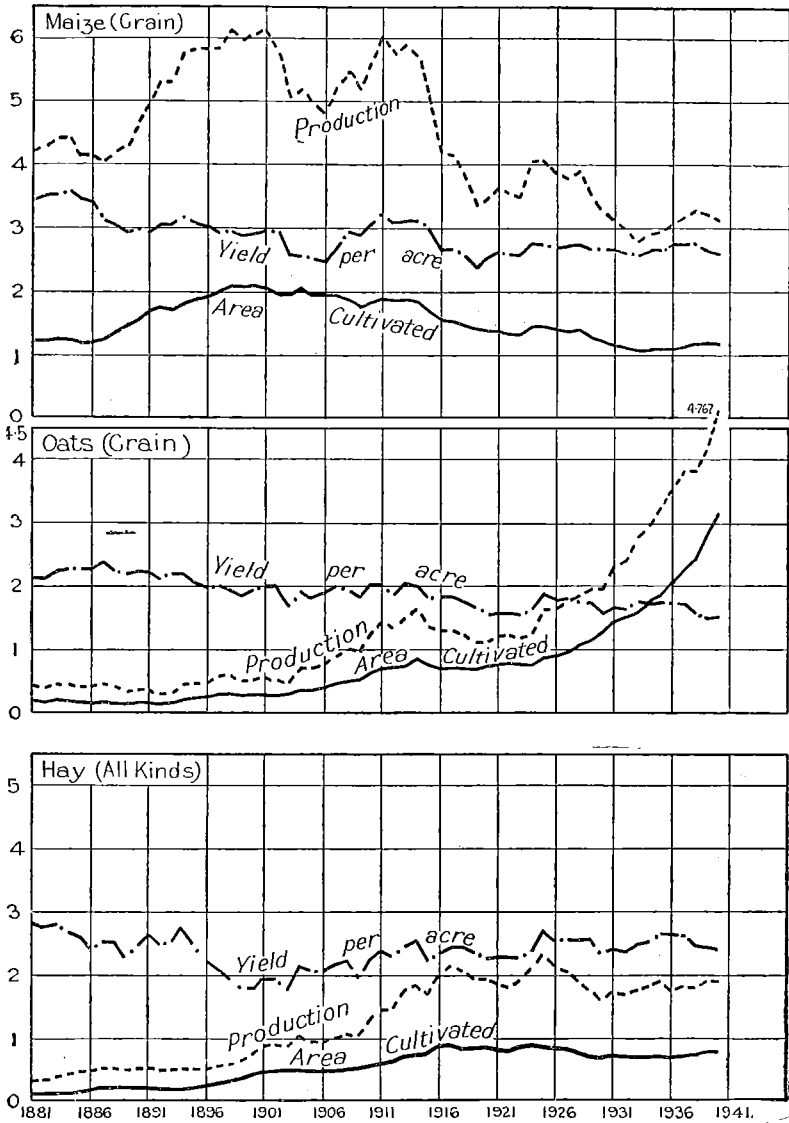
Maize is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted to its growth. Good results are also obtained on the northern tablelands. The following statement shows the area, production and average yield of maize grain in each division of New South Wales:—

TABLE 642.—Maize in Divisions, 1938-39 and 1939-40.

Division.	1938-39.			1939-40.		
	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 ... ..	49,319	1,380,735	28·0	50,066	1,549,854	31·0
Hunter and Manning ... ..	19,387	518,001	26·7	15,057	327,810	21·8
Metropolitan ... ..	1,224	39,933	32·6	482	7,857	16·3
South ... ..	9,523	342,891	36·0	6,656	200,091	30·1
Total ... ..	79,483	2,281,560	28·7	72,261	2,085,612	28·9
Tableland—						
Northern ... ..	27,290	463,608	17·0	28,800	528,861	18·4
Central ... ..	3,390	42,237	12·5	2,818	26,922	9·6
Southern ... ..	216	2,370	11·0	117	1,284	11·0
Total ... ..	30,896	508,215	16·4	31,735	557,067	17·7
Western Slopes ... ..	11,420	112,500	9·9	11,496	186,876	16·3
Central Plains, Riverina, and Western Division.	402	2,745	6·8	364	3,255	8·9
All Divisions ... ..	122,201	2,905,020	23·8	115,856	2,832,810	24·4

MAIZE, OATS AND HAY GROWING IN NEW SOUTH WALES.

Area, Production and Average Yield, 1881 to 1940.



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 cwt. 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 643.—Maize Production and Trade, 1924 to 1940.

Calendar Year.	Production.	Import.		Export.		Available for Consumption. † ‡
		Oversea.	Interstate. †	Oversea.	Interstate †	
	bus.	bus.	bus.	bus.	bus.	bus.
1924-28 Annual Av.	3,928,000	437,000	1,525,000	39,000	68,000	5,783,000
1929-33 ... ..	2,783,000	14,000	879,000	2,000	11,000	3,663,000
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
1939 ... ..	2,905,000	†	347,000	†	20,000	3,232,000
1940 ... ..	2,832,810	59,321	§	5,012	§	§

\* Subject to adjustment for carry over.

† Records of interstate movement are incomplete.

‡ Negligible.

§ Not available.

The annual requirements of maize are very variable, depending largely on the nature of the pastoral season, the price, and the quantity available. 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 large harvest of oats in 1938-39 was probably a factor in limiting imports of maize in that year.

The imports interstate are derived almost exclusively from Queensland and the imports oversea mostly from South Africa. A general duty of approximately 3s. 6d. 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 2s. 6d. 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. A special war duty increases existing customs and primage duty by 10 per cent.

## OATS.

There has been a marked increase in the cultivation of oats in New South Wales in recent years. The area (915,974 acres) in 1939-40 was exceeded only in 1938-39 when it was a record and 2½ times the average area in the five years ended 1929-30. Formerly the greater proportion of the oats grown was for hay but in 1939-40 the area sown comprised 405,262 acres for grain, 349,266 acres for hay and 161,446 acres for green feed. The expansion of oats growing since 1928-29 is illustrated by comparative particulars of areas sown as under:—

TABLE 644.—Kinds and Area of Oats Crops, 1929 to 1940.

Year.	For Grain.	For Hay.	For Green Feed.	Total.
	acres.	acres.	acres.	acres.
1928-29	126,743	214,137	62,687	403,567
1934-35	237,405	349,174	72,044	658,623
1935-36	279,622	328,866	102,392	710,880
1936-37	235,817	342,334	128,036	706,187
1937-38	255,144	312,337	203,592	771,073
1938-39	399,449	413,002	184,221	996,672
1939-40	405,262	349,266	161,446	915,974

The grant of assistance by the Commonwealth for artificial manuring, for which oats was an eligible crop, the revival of horse-breeding and increasing attention given to the raising of fat lambs have been factors in the recent expansion in the cultivation of oats. Considerable areas of oats are being grown as fodder for sheep, and with an improvement in quality as an outcome of plant breeding activities, part of the grain is sold to local mills to be treated for human consumption. A graph illustrating the production of oats in New South Wales over the last 60 years is published on page 735 of this volume.

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 oats thrive best in regions which experience a winter of some severity. Particulars of the area cultivated and production in each of five divisions in which approximately 90 per cent. of the oats produced in 1939-40 were grown are as follows:—

	Area.	Production.	Production per acre.
	acres.	bushels.	bushels.
Riverina ... ..	104,105	1,396,329	13·4
South-Western Slopes ...	135,763	2,226,348	16·4
Central-Western Slopes ...	72,955	1,603,053	22·0
Central Tableland ...	34,382	664,650	19·3
Central Plains ... ..	16,904	325,218	19·2

The following table gives statistics of the cultivation of oats for grain since 1906-07:—

TABLE 645.—Oats for Grain—Area and Production, 1907 to 1940.

Season.	Acres under Oats for Grain.	Production.		Farm Value of Oats for Grain.	
		Bushels.	Bushels per Acre.	Total.	Per Acre.
Average				£	£ s d.
1907-11	70,303	1,409,040	20·0	151,040	2 3 0
1917-21	73,000	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	140,972	2,301,560	16·3	283,440	2 0 3
1932-36	207,226	3,562,220	17·2	280,700	1 7 1
Year.					
1930-31	176,659	3,241,980	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
1938-39	399,449	4,831,110	12·1	493,180	1 4 8
1939-40	405,262	6,903,990	17·0	431,500	1 1 4

Particulars of oaten hay are shown in Table 650.

The oats harvest of 1939-40 was a record and 94 per cent. above the average in 1931-32 to 1935-36. The average yield—17 bushels per acre—was the best for seven years, but prices were low and the average farm value, £1 1s. 4d. per acre, was, with the exception of 1930-31, the lowest for many years. In comparison with the preceding year production was 43 per cent. greater but the aggregate value of the crop was 12½ per cent. lower.

Oats is harvested in December. 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 646.—Oats, Production and Trade, 1924 to 1940.

Calendar Year.	Production.	Import.		Export, Oversea and Interstate.	Available for Consumption.†
		Oversea.	Interstate.‡		
Annual Average—	bus.	bus.	bus.	bus.	bus.
1924-28 ... ..	1,850,000	215,000	445,000	36,000	2,474,000
1929-33 ... ..	2,799,000	3,000	253,000	149,000	2,907,000
Year.					
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	939,000	246,000	4,091,000
1939 ... ..	4,831,000	9,000	39,000	559,000	4,320,000
1940 ... ..	6,903,990	25,390	§	§	§

† Subject to adjustment for carry-over.

‡ Omitting considerable quantities imported interstate at Newcastle.

§ Not available for publication.

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. To these duties must be added the special war duty which increases them by 10 per cent. In the years 1926 to 1928 an appreciable part of the supply was obtained from abroad, mainly from New Zealand, but as local production increased large imports of oats were unnecessary between 1931 and 1936. There was a substantial importation interstate in 1938 when the harvest was reduced and droughty conditions prevailed in pastoral districts. In 1939 exports exceeded imports by 511,000 bushels, following a bountiful harvest.

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, and the production of malting barley has increased.

Barley was grown for grain on 1,779 holdings in 1939-40, 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 647.—Barley—Area and Production, 1901 to 1940.

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	1931-32	8,349	137,430	16.5
1910-11	7,082	82,005	11.6	1932-33	7,736	154,530	20.0
1915-16	6,369	114,846	18.0	1933-34	10,006	165,120	16.5
1920-21	5,969	123,290	20.7	1934-35	9,480	168,990	17.8
1925-26	6,614	105,150	15.9	1935-36	11,583	214,860	18.5
1926-27	5,629	100,260	17.8	1936-37	12,004	205,890	17.2
1927-28	5,600	65,850	11.8	1937-38	11,542	166,860	14.4
1928-29	5,024	80,910	16.1	1938-39	14,194	217,680	15.3
1929-30	7,947	113,850	14.3	1939-40	24,273	465,810	19.2
1930-31	11,526	188,610	16.4				

There was a sharp increase in area sown in 1939-40. The average yield during the last five years was 17.2 bushels per acre. Both the area sown for grain and the harvest in 1939-40 were greater than in any previous year, the area was 71 per cent. and the harvest 114 per cent. greater than in 1938-39.

Of the area cropped for grain in 1939-40, 13,871 acres yielded 306,720 bushels of malting barley, and 10,402 acres yielded 159,090 bushels of other barley. In addition, 1,921 acres were cropped for 2,275 tons of hay, and 9,865 acres were grown for green food.

*Australian Barley Board.*

In view of the difficulties of marketing under wartime conditions, the Commonwealth Government acquired the barley harvest of 1939-40 and appointed an Australian Barley Board and State advisory committees to handle and market all barley produced in Australia. Growers are required to deliver their barley to licensed receivers and prices for local sales are fixed by the Board.

Growers submit samples of their barley to a classification committee for determination of quality. Two receivers, one for malting barley and one for barley not suitable for malting, have been licensed in New South Wales.

The whole of the 294,000 bushels, comprising 271,000 bushels of two-row barley and 23,000 bushels of six-row barley, delivered to the Board in New South Wales in 1939-40 has been sold in conjunction with barley grown elsewhere in Australia. Payments up to the fourth advance made to growers, for barley at terminal ports, with cost of transport to be borne by growers, were as follow:—

Per bushel.	No. 1 Grade.	No. 2 Grade.	No. 3 Grade.	No. 4 Grade.
Two-row barley . . . .	3s. 3d.	2s. 7d.	2s. 3d.	2s. 1d.
Six-row barley . . . .	2s. 8d.	2s. 4d.	2s. 1d.	2s. 0d.

It is expected that, deliveries of 1939-40 barley being completed, a final payment will be made by May, 1941. Opening prices fixed for the 1940-41 season were 5s. 4d. per bushel for Chevalier and 4s. 7d. for Cape barley, on rail, Mittagong. These prices were the same as those for South Australian barley, on wharf, Sydney.

The Australian barley harvest of 1939-40 (11,615,000 bushels) was three million bushels greater than any previous crop. About 3,750,000 bushels were sold to buyers in Japan, New Zealand, the United Kingdom and Switzerland, and the local market absorbed large quantities for drought feeding of stock. The 1940-41 harvest is likely to be rather less than one-half that of the preceding season, and as supplies will barely suffice for local requirements difficulty in marketing is not likely to arise.

### 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.

Since the harvest of 1926-27 the average annual yield of paddy rice has varied from slightly less than 70 bushels up to 113 bushels per acre, mainly owing to seasonal causes. About 447,400 tons of rice, with a total farm value of £4,213,360 have been grown on these areas since commercial production began.



The rice harvest of 1938-39 (2,774,987 bushels) was the greatest ever produced, and the yield was 118 bushels per acre. In 1939-40 seasonal conditions were unfavourable, the area harvested was somewhat greater than in the previous season, but the average yield, 77 bushels per acre, was the lowest since 1931-32 and production declined by 33 per cent.

The progress of rice growing in years since 1925-26 was as follows:—

TABLE 648.—Rice-growing, 1926 to 1940.

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
1938-39 ...	313	23,533	2,774,987	444,430	117.96	18.9
1939-40 ...	314	24,120	1,857,650	333,360	77.00	13.8

\* 42 lb. per bushel.

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 the years 1925-26 to 1927-28. Rice grown in later seasons 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 10s. per ton (f.o.r. Leeton). An import duty of 3s. 4d. per cental on uncleaned rice and 6s. per cental on cleaned rice was imposed in 1926. In April, 1941, the general tariff rates were 8s. 4d. and 12s. 6d. respectively, plus 5 per cent. primage duty, and the amount at these rates was increased by 10 per cent. special war duty.

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 649.—Rice Exported Oversea, 1929 to 1939.

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	
1938-39	1,054,340	236,640	3,023	16,708	185,260	
1939-40	685,020	281,201	2,280	8,068	268,032	

\* 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 1938-39 the rice of local origin exported from New South Wales comprised 193,970 cwt. cleaned, 966 cwt. uncleaned, and 15,491 cwt. of rice meal and flour, and the total value was £146,796.

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 been more than sufficient for 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 proposal to increase the area in 1939-40 was rejected.

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. Formerly the greater part of the area cultivated for hay was sown with wheat, but in several recent years oats has been the most extensive hay crop. In 1939-40 the total area of hay crops was 706,599 acres, which is 11½ per cent. below the average area in the preceding five years. The yield per acre was high, particularly of wheaten and oaten hay, and production decreased only by 18 per cent., although the area under crops for hay was 35 per cent. smaller than in 1938-39. 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 650.—Hay—Area and Production, 1926 to 1940.

Kind of Hay.	Annual Average, 1926-30.*	Annual Average, 1931-35.	1937-38.	1938-39.	1939-40.
<b>Wheaten—</b>					
Area ... .. acres	377,463	339,837	348,339	559,437	264,239
Production ... .. tons	376,519	435,467	349,618	611,736	373,013
Yield p.a. ... .. tons	1.00	1.28	1.00	1.00	1.41
<b>Oaten—</b>					
Area ... .. acres	216,797	274,793	312,337	413,002	349,266
Production ... .. tons	243,460	347,934	317,814	430,824	460,369
Yield p.a. ... .. tons	1.12	1.27	1.01	1.04	1.32
<b>Lucerne—</b>					
Area ... .. acres	93,986	110,961	97,354	92,598	89,958
Production ... .. tons	174,405	181,894	156,135	135,315	127,983
Yield p.a. ... .. tons	1.86	1.64	1.60	1.46	1.42
<b>Other Kinds—</b>					
Area ... .. acres	1,296	1,705	1,532	3,888	3,136
Production ... .. tons	1,303	2,127	1,692	3,389	4,313
Yield p.a. ... .. tons	1.01	1.25	1.10	0.87	1.38
<b>Total Hay—</b>					
Area ... .. acres	689,542	727,296	759,562	1,068,925	706,599
Production ... .. tons	795,687	967,422	825,309	1,181,264	965,678
Yield p.a. ... .. tons	1.15	1.33	1.09	1.10	1.37

\* Years ended 30th June.

*Conservation of Fodder.*

At 31st March, 1940, hay was stored on 18,551 holdings, and the quantity held was 987,332 tons. Further information regarding the storage of hay and the conservation of fodder generally is given at page 662 of this Year Book.

## 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 Book, 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. During the past ten years sugar cane growing has expanded again, and the quantity of sugar-cane produced in 1937-38 was greater than ever before.

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, 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 964.

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 33.76 tons in 1937-38. An area of 10,488 acres of cane cut in 1939-40 produced 274,548 tons of sugar-cane, an average of 26.2 tons per acre. The production was 87,176 tons less than the record 361,724 tons in 1937-38.

The fluctuations of cane-growing in New South Wales are shown in the following table:—

TABLE 651.—Sugar-cane Area and Production, 1876 to 1940.

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	307,690	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	23-06	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
1938-39	10,458	10,772	21,230	336,701	32-20	482,520	46 2 9
1939-40	10,488	10,229	20,717	274,584	26-20	447,830	42 14 0

\* 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 is imposed on the importation of foreign sugar into Australia, and the prices of refined sugar are fixed on a uniform basis throughout Australia. The prices under the current agreement, which has been extended for five years as from September, 1941, are as follows:—£24 per ton for raw sugar to the grower, and £33 4s. per ton for refined sugar wholesale. The retail price of sugar is on the basis of 4d. per lb. in capital cities. 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

\* 71989—D

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. The position of Australia under the International Sugar Agreement was indicated at page 743 of the Year Book for 1937-38.

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.

In September, 1939, the British Government purchased the remaining Australian exportable surplus of raw sugar, totalling 290,000 tons. The price, £stg.7 10s. per ton, c.i.f., United Kingdom ports, plus the existing British tariff preference of £3 15s. per ton on Dominion sugar was equivalent to about £10 per ton, f.o.b. Australian mill, compared with the average return, £8 4s. 3d. on exports in the season 1937-38. Canada and New Zealand have agreed to buy 120,000 tons and 80,000 tons of sugar annually but other specific arrangements for disposal of the exportable surplus of sugar have not been concluded. Shipping difficulties and rationing of sugar in the United Kingdom render the outlook for sugar exports to that destination unpromising and no indication of likely purchases has been given by the British Ministry of Food.

#### TOBACCO.

Tobacco-growing began in New South Wales more than fifty years ago. Fluctuations in the area cultivated and in the production of tobacco are due mainly to climatic conditions. Leaf is grown mostly in the North-western Slopes Division on land with facilities for irrigation. Apart from limitations of climate, tobacco for commercial purposes can be produced only on the lighter sandy soils. An experiment station is maintained at Ashford to encourage the production of leaf on such soils.

Stimulated by increased tariff protection 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 1939-40 the quantity cured was 4,674 cwt., and the annual average for the ten years ended 1939-40 was 7,954 cwt.

The annual consumption of tobacco leaf in Australia is about 240,000 cwt. and only about one-fourth is produced locally. In order to reduce purchases from the United States which are a drain on dollar exchange resources, manufacturers of tobacco undertook, in June, 1940, to buy all the usable ripe yellow leaf Australian growers can produce in the next few years, and the prices to be paid for the tobacco were arranged by an agreement in March, 1941. The prices for the 1941 crop are to be 25 per cent. above those of 1939 and about 10 per cent. higher than in 1940, and are to be reviewed at the end of the selling season. A tobacco leaf appraisal scheme has been devised and all leaf is to be submitted to a tobacco board to be set up under the National Security Regulations.

Under the trade agreement with Southern Rhodesia announced on 26th March, 1941, the British preferential rate of duty, less 9d. a lb., will apply to tobacco leaf imported from that country for manufacture in Australia.

Since 1933 the Commonwealth Government has provided funds to assist the States and the Council for Scientific and Industrial Research to continue economic and scientific investigations into tobacco. Amounts of £13,750 in 1939-40 and £12,500 in 1940-41 were appropriated for this work by the Commonwealth Government and £1,250 in 1939-40 and £1,000 in 1940-41 were allocated 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 since 1916-17 are as follow:—

TABLE 652.—Tobacco-growing—Area and Production, 1917 to 1940.

Season.	Holdings Cultivating Tobacco.	Area Planted.	Production (Dried Leaf).	Production per acre Cultivated.	Value of Production (At Farm).	Average Value per acre Cultivated.
	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
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
1938-39 ...	41	629	3,550	5.64	38,220	60 15
1939-40 ...	37	717	4,674	6.52	40,050	55 17

\* 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, 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 5,411 acres were grown in 1939-40 for wine-making, 834 acres for table use, 1,879 acres for drying, and 459 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 3,270 acres of vines were devoted to this purpose and 128 acres to other purposes in 1939-40.

In the Hunter and Manning Division the area cultivated for grapes in 1939-40 was 1,449 acres for wine-making, 305 acres for table use, and 116 acres of young vines.

The total area on which grapes were grown has been constant at about 17,000 acres. Owing to war-time export marketing difficulties the planting of new vineyards is being discouraged. The following dissection shows that between 1920-21 and 1935-36 the greatest increase in area, relatively and absolutely, was in grapes of drying varieties.

TABLE 653.—Grapes, Area Grown for Various Purposes, 1921 to 1940.

Varieties of Grapes.	1920-21.*	1930-31.*	1935-36.†	1937-38.†	1938-39.†	1939-40.†
	acres.	acres.	acres.	acres.	acres.	acres.
Table ... ..	2,087	2,637	2,932	3,209	3,178	3,163
Drying ... ..	699	3,937	3,840	4,631	5,011	5,366
Wine ... ..	4,589	6,771	7,382	7,442	7,499	7,506
Total, bearing	7,375	13,345	14,154	15,282	15,688	16,035
Not bearing ...	3,408	1,269	514	703	647	419
{ Wine						
{ Other		749	490	965	644	529
Grand Total ... ..	10,783	15,363	15,158	16,950	16,979	16,983

\* Year ended 30th June. † Year ended 31st March.

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 654.—Grapes—Production, 1921 to 1940.

Production.	1920-21.*	1930-31.*	1935-36.†	1937-38.†	1938-39.†	1939-40.†
Table grapes ... cwt.	53,200	73,600	87,520	101,520	80,680	79,500
Dried grapes—						
Sultanas ... ..	3,396	43,304	76,112	112,917	89,129	122,412
Currants ... ..	2,469	8,506	17,281	23,094	24,783	29,189
Raisins & lexias ..	1,052	3,983	7,046	9,857	7,613	9,838
†Grapes used for wine,	113,880	235,040	327,020	379,520	332,260	294,020
Wine made ... gal.	674,188	1,335,882	2,567,812	2,690,315	2,501,747	2,090,490
Vigneron's Brandy and Spirit ... ..	8,536	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. § Included as wine. || Includes distilled and beverage wine.

The volume of output shows some variation in accordance with the effect of seasonal conditions on average yields. The most critical periods are during the budding and early growing season (September and October) and in February and March, when ripening, picking and drying are in progress. In 1939-40 more dried vine fruits were produced than in any preceding year, but the production of wine was about 29 per cent. below the record of 1936-37. Further information relating to the development of the dried vine fruits industry is published on page 762.

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. In 1938-39 grapes to the weight of 215,900 lb., valued at £3,385, were exported from New South Wales, as compared with 788,700 lb., valued at £14,107, in 1937-38. Special research into the problems of transport have been undertaken. The destinations of the exports in 1938-39 included, in order of importance, British Malaya, Canada, Hong Kong, Netherlands East Indies, Burma and India.

In 1938-39 oversea exports from New South Wales included 9,146 gallons of brandy valued at £5,573 and 128,648 gallons of wine valued at £30,487. The export trade in wine is assisted by a bounty payable by the Commonwealth Government on fortified wine exported oversea. Lack of shipping space hampered the export of wine in 1939-40 and the British authorities decided that for at least three months from 20th January, 1941, no licences would be issued for importation of wine into the United Kingdom. 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 from 1924-25 to 1933-34 were given at page 746 of the Year Book for 1937-38. Details for each of the six years ended 1939-40 are as follow:—

TABLE 655.—Bounty on Wine Exported, 1935 to 1940.

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.		gal.	£
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 1	1 Mar., 1938...	81,465	4,637
1938-39	1 0	1 Mar., 1939...	48,341*	2,587
1939-40	1 0	.....	38,341	1,917

\* 40,641 gallons at 1s. 1d. gallon and 7,700 gallons at 1s. gallon.

Provision has been made for payment of bounty at the rate of 1s. per gallon on fortified wine exported during the five years ended 30th April, 1945, under the Wine Export Bounty Act, 1939.

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 1939-40 the area of land on which fruit (including passion-fruit, berry fruits, nuts, grapes, bananas and pineapples) was grown was 102,174 acres (inclusive of 17,980 acres non-bearing) and the farm value of the production was £2,790,680, as compared with an area of 102,577 acres (inclusive of 17,567 acres non-bearing) and a farm value of £2,688,940 in 1938-39.

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 656.—Fruit and Vegetables—Acreage and Production  
1938-39 and 1939-40.

Kind of Crops	1938-39.			1939-40.		
	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 ...	4,672	23,416	823,300	4,313	23,077	886,770
Other† ...	9,676	33,310	863,440	9,764	32,436	842,850
Total	13,748	56,756	1,686,740	14,077	55,513	1,729,620
Vineyards ... ..	1,291	15,658	*373,320	948	16,035	433,520
Market Gardens ...	...	7,528	413,110	...	7,841	450,030
Separate Root Crops ...	...	21,538	519,010	...	28,310	636,340
Bananas ... ..	2,194	11,677	585,270	2,618	11,528	594,650
Minor Crops of Fruit and Vegetables ..	389	25,499	571,210	337	28,224	540,720
Grand Total ...	17,622	141,686	4,148,660	17,980	147,761	4,384,880

\* Includes value of wine and spirit made from grape juice.  
pineapples, and berry fruits.

† Excludes passion-fruit, bananas,

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.

Commercial market gardening is important in parts of the North Coast, Hunter and Manning and Central Tableland divisions, and elsewhere is conducted mainly near the larger urban centres. All orchards and nurseries outside the metropolitan area are required to be registered, and an annual charge of 1s. per acre 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 1939-40 were £5,323, advances totalling £5,010 were made, other expenditure amounted to £656 and an unexpended balance of £4,516 remained at 30th June, 1940.

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, 1940, approximately 2,446,469 cases of fresh fruit, including 282,889 pineapples and 116,122 of bananas, but excluding 36,696 trays of strawberries, 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 increased from 18,919 tons, valued at about £225,000 in 1938-39 to 20,428 tons of an approximate value of £290,000 in 1939-40. Fresh fruit (including citrus) to the value of £146,192 was exported overseas from New South Wales in 1938-39, in addition to preserved fruits and vegetables, pulp and juice valued at £218,179, and dried fruits valued at £119,505.

Good seasons generally produce a glut of stone fruits, for which apparently there is no system of efficient handling. The usual periods of fruit harvesting are in the Summer and early Autumn. Bananas are pulled and citrus fruits are picked throughout the year. Apples and pears ripen from December to May, peaches and plums from November to March, apricots from November to February and table grapes from January to April.

On account of the necessity of conserving shipping space for the transport of essential foodstuffs and materials it was not practicable to guarantee that fresh fruit from Australia will be transported to the United Kingdom. To meet the problems of disposal thereby created, the Commonwealth Government constituted compulsory pools (controlled by the Australian Apple and Pear Board) to handle and sell apples and pears (see page 756). In September, 1939, the British Government bought the unsold residue of the dried fruits crop of 1939 and agreed to absorb Australia's surplus dried fruits for the duration of the war (see page 763). Canned fruits have been taken by the United Kingdom and it is possible that the use of fresh fruit for canning or jam, fruit juices, etc., may be increased.

The extent of cultivation of each important class of fruit on holdings of one acre and upwards during the past season and in 1930-31 is shown in the following table:—

TABLE 657.—Fruit Trees, 1930-31 and 1939-40.

Fruit.	1930-31.				1939-40.			
	Number of Trees not yet Bearing.	Trees of Bearing Age.		Number of Trees not yet Bearing.	Trees of Bearing Age.		bushels.	
		Number.	Yield.		Number.	Yield.		
Oranges—								
Seville ... ..	4,905	33,872	bushels 38,727	8,987	25,189	37,862		
Washington Navel ... ..	158,380	551,616	746,916	115,528	653,983	895,412		
Valencia ... ..	234,560	719,441	854,073	176,226	793,867	874,933		
All other ... ..	34,176	391,251	407,069	10,423	154,879	136,900		
Total oranges	432,021	1,696,180	2,046,785	311,164	1,627,918	1,945,107		
Lemons ... ..	53,350	210,833	320,156	65,230	208,751	211,567		
Mandarins ... ..	100,184	589,839	532,568	19,541	307,905	180,598		
Other Citrus ... ..	14,919	27,942	36,219	15,817	37,584	62,513		
Apples ... ..	323,802	967,164	908,705	473,722	1,074,570	615,932		
Pears—								
Williams ... ..	23,240	159,640	172,009	37,617	125,946	133,793		
All other ... ..	22,374	141,972	141,961	38,331	155,073	142,464		
Peaches—								
Dessert and Drying ... ..	54,166	302,688	214,000	89,118	303,556	219,509		
Canning ... ..	55,685	171,127	209,998	103,032	177,858	298,350		
Nectarines ... ..	7,746	32,142	19,403	20,512	39,241	23,057		
Plums ... ..	37,559	207,631	148,246	22,814	190,388	100,961		
Prunes ... ..	21,616	272,553	197,998	15,177	219,572	206,157		
Figs ... ..	6,002	8,629	4,233	2,721	19,642	10,808		
Cherries ... ..	78,331	241,724	79,220	43,104	266,061	69,225		
Apricots ... ..	16,156	147,789	113,303	19,403	142,288	194,904		
Quinces ... ..	9,929	15,969	19,989	5,067	38,288	36,648		
Almonds ... ..	9,931	35,898	4,410	22,828	49,198	5,158		
Persimmons ... ..	757	9,149	5,920	795	11,450	7,058		
Passion Fruit ... ..	†73,369	†203,035	57,595	†78,612	†176,923	32,351		
‡All other ... ..	...	...	5,642	...	...	5,924		

† 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. This is illustrated by a

comparison of the figures relating to young trees as well as trees in bearing. Apples 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 Valencias.

### *Citrus Fruits.*

Particulars of citrus orchards are shown in the following statement:—

TABLE 658.—Citrus Fruits—Area and Production, 1901 to 1940.

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
1922-26 (Av.)	21,854	8,119	29,973	2,155,313	99	595,900	27 5 4
1927-31 "	26,140	7,019	33,159	2,677,548	102	826,450	31 12 4
1932-36 "	26,223	4,806	31,029	2,947,468	112	557,850	21 5 6
1930-31	27,161	6,303	33,464	2,935,728	108	515,160	18 19 4
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
1938-39	23,416	4,072	27,488	3,108,859	133	823,300	35 3 2
1939-40	23,077	4,313	27,390	2,405,785	104	886,770	38 8 6

The principal divisions for the cultivation of citrus fruits are as follow:—Hunter and Manning, 7,743 acres; Metropolitan, 6,460 acres; Riverina, 7,350 acres (including 5,934 acres within the Murrumbidgee Irrigation area) and Central Tableland, 3,796 acres. Of the last-named 3,668 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 1939-40 was 3,672, and of these the average area was 7.5 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 1939-40 the area under citrus fruits was about 13.2 per cent. smaller than in 1930-31 with the productive area reduced by about

15 per cent. Simultaneously the area under mandarins declined, and Navel and Valencias have, to an appreciable degree, replaced oranges of other varieties. Lemon growing has increased since 1935-36, and in 1939-40 there were more lemon trees than in any years since 1924-25.

The production of oranges and lemons has attained such proportions that the growers are obliged to seek overseas markets. During 1939-40 the oversea export of citrus fruit from New South Wales was valued at £87,884 compared with £90,754 in 1938-39. Formerly most of this export was to New Zealand. An embargo on the importation of all fresh fruits from Australia to New Zealand 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 met with some success, though prices secured in oversea markets were not 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.

Under a trade agreement with New Zealand concluded in March, 1937, Australian 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. The New Zealand Internal Marketing Department is the sole authorised importer of citrus fruits, and the fruit is sold on its behalf by wholesale merchants to the retailers. In 1938-39, 101,287 centials of oranges, valued at £73,325, were sent from New South Wales to New Zealand.

The Citrus Fruits Bounty Act of 1938 provided for a bounty on the export of oranges, lemons, grape-fruit and mandarins in the years 1938, 1939 and 1940. 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. The bounty in respect of citrus fruits (oranges) exported from New South Wales was £6,001 in 1937-38, £2,188 in 1938-39, and £1,191 in 1939-40.

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 307,905 in 1939-40.

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 659.—Non-Citrus Fruits—Area and Value—1901 to 1940.

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
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	8,359	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	7,598	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	809,360	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
1938-39	34,037	9,955	43,992	899,120	26 8 4
1939-40	33,003	10,012	43,015	869,140	26 6 8

§ 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 11,001 acres; 8,899 acres are situated in the South-Western Slopes and 8,678

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 660.—Non-Citrus Fruits—Number of Productive Trees, 1910 to 1940.

Season.	Apples.	Pears.	Peaches.	Plums.	Prunes.	Apricots.	Cherries.
Number of Trees of Productive Age.							
1910 ...	476,945	109,178	584,642*	110,791†	...	73,352	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
1938-39 ...	1,104,399	290,942	496,560	201,000	248,567	146,969	268,643
1939-40 ...	1,074,570	281,019	481,414	190,388	219,572	142,288	266,061

\* Including Nectarines.

† Including Prunes.

§ See footnote to preceding table.

The area under fruits other than citrus was greatest in 1936-37 and declined a little during the past three years. The main line of development since 1931 has been in the growing of apples. Prune-growing, which extended rapidly between 1920 and 1930, has decreased, and in 1939-40 the number of prune trees in production was 20 per cent. less than in 1930-31.

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. Selling of fruit by auction was inaugurated at the Sydney Municipal Fruit Markets on 12th November, 1940.

#### 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

615,932 bushels of apples in 1939-40, about 28 per cent. (174,684 bushels) were grown in the Central Tablelands division, 205,311 bushels in the South-Western Slopes, 84,316 bushels in the Northern Tableland, 68,259 bushels on the highlands of the South Coast, and 22,596 bushels in the Riverina, mostly 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, £1,404 in 1938-39, and £564 in 1939-40. The work undertaken includes instruction in packing and the reworking of apple and pear trees and scientific and cultural investigations.

#### *Marketing of Australian Apples and Pears.*

In a normal season about 12,500,000 cases of apples and pears are produced in Australia and 5,500,000 cases are exported, mainly to the United Kingdom.

In 1938 the Commonwealth enacted legislation for the organisation of the export trade in these fruits, and constituted the Australian Apple and Pear Board for the purpose. Particulars of the Board and its operations is published in the Official Year Book, 1938-39 at page 760. Upon the outbreak of war its plans had to be set aside, and the Board was appointed to act as agent for the Commonwealth in dealing with war-time problems in the apple and pear industry and in disposing of the 1940 crop which was acquired by the Commonwealth. Final particulars of the Board's operations in respect of the crop are not yet available, but up to 31st March, 1941, expenditure amounted to £2,994,258, including advances to growers of £1,421,043; presentation and marketing costs, £1,486,754; administrative expenses, £73,724, and publicity expenses, £12,737. Total proceeds from sales during the period had been £2,411,587. There was thus a loss of £582,671 on operations up to that date.

The Commonwealth initiated a new scheme for disposing of the 1941 crop in Australia, and the Australian Apple and Pear Marketing Board was appointed to administer it. This Board consists of a Chairman,



Deputy-Chairman, an Executive member and six other members representative, respectively, of the six States. The Board may delegate powers and functions to its Executive Committee, comprising the Chairman, Deputy-Chairman and the Executive member. It is assisted by an Apple and Pear Acquisition Committee in each State comprising the member of the Board representing interests in that State and such other members as the Minister may appoint.

All occupiers of orchards with not less than an acre used wholly or principally for growing apples or pears must register, and furnish returns of planting and production and other information required by the Board. The Board appoints persons and firms usually dealing in apples and pears as its agents to receive and sell the fruit on behalf of the Commonwealth. Growers have obligations for the proper care of the apples and pears, and may not dispose of them except to the agents of the Board. The Board may direct growers in the delivery of the fruit and in the destruction of fruit unfit for marketing.

By order made on 24th December, 1940, all apples and pears produced between 1st July, 1940, and 30th June, 1941, were acquired by the Commonwealth excepting those sold by retail before 7th January, 1941, those held for sale by retail in fruit shops, stalls or barrows and certain kinds of pears for canning, etc. When apples or pears have been disposed of as directed by the Board, growers become entitled to compensation. Rates of compensation varying according to variety and quality and range up to 5s. a case. In addition to these prices presentation costs are paid by the Apple and Pear Marketing Board. Realisations in the market may prove to be (as they were early in the season) above the rates fixed for compensation, and the difference will be used, in part, for compensation of growers of lower grade varieties which will not be marketed.

A vigorous advertising campaign to increase the consumption of apples and pears in Australia is being conducted. Efforts are being made to increase the use of apples for juice, cider, vinegar, dehydration, etc. A quantity of apples was purchased by the New South Wales Government for free distribution to hospitals, orphanages, etc., and needy persons. The Australian apple and pear crop of 1941 is estimated at about 11,000,000 cases and the marketing of the crop without export outlets is likely to be very difficult.

#### *Export of Apples and Pears.*

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, and the Netherlands East Indies.

TABLE 661.—Apples and Pears—Production and Oversea Export, 1910 to 1940 (N.S.W.)

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
1938-39 ...	936,766	12,962	44,812	21,773	338,467	8,332	15,270	10,050
1939-40 ...	615,932	‡	‡	‡	276,257	‡	‡	‡

\* Not available.

† Poor crops due to thrip ravages.

‡ Not available for publication.

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 this concession was unlikely to prejudice the position of Australian growers in the British market.

#### 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 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 number of holdings on which bananas were grown increased from 214 in 1925-26 to 1,750 in 1936-37 and has since declined to 1,509.

The industry has attained such proportions that the production exceeds local requirements, and plentiful supplies have seriously depressed prices. A Banana Marketing 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.

As a result of a poll of banana growers in September, 1938, a proclamation ordering the winding up of the Board and appointing the Director of Marketing as liquidator was issued on 18th September, 1939.

The land within New South Wales adapted for banana growing is of limited extent and further extension is unlikely. The area of new plantings and of worked-out plantations renewed in the last five seasons has maintained without increase the acreage of bananas in production. The production of 1,153,371 cases in 1937-38 was greater than in any preceding year.

The following table shows the area cultivated for and the production of bananas in certain years since 1922:—

TABLE 662.—Banana-growing, 1922 to 1940.

Year ended 31st March.	Holdings.	Area.			Production.	
		Bearing.	Not bearing.	Total.	Cases.	Farm value.
1922*	...	acres. 4,570	acres. 898	acres. 5,468	No. 433,533	£ 260,120
1925*	...	1,002	502	1,504	60,763	47,090
1930*	523	1,806	1,534	3,340	117,120	107,840
1931*	754	2,621	2,338	4,959	216,756	139,090
1932	1,123	4,733	2,394	7,127	343,427	181,730
1933	1,661	6,241	5,034	11,275	533,560	326,810
1934	2,295	8,643	8,795	17,438	691,627	340,050
1935	2,117	12,179	3,893	16,072	993,165	306,220
1936	1,745	11,856	1,173	13,029	1,004,868	331,180
1937	1,750	11,560	2,013	13,573	1,009,626	563,700
1938	1,697	11,965	2,749	14,714	1,153,371	740,080
1939	1,501	11,677	2,194	13,871	989,191	585,270
1940	1,509	11,838	2,618	14,456	1,034,174	594,650

\* Year ended 30th June.

The quantity of bananas imported oversea into New South Wales in 1939-40 was 223 centals valued at £208, all from Norfolk Island and bananas from this source are not subject to duty. The duty on bananas imported overseas 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. These duties are increased by 10 per cent. by the special war duty.

#### *Fruit and Vegetable Canning.*

The fruit-canning industry in New South Wales receives 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. The Queensland Sugar Board has made payments (£78,196 in 1939-40) 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 used. Amounts of £38,913, £41,983, £38,484, £37,228 and £45,060 were granted in New South Wales in successive years ended August, 1940. The amount in 1939-40 comprised domestic sugar rebate, £22,490, export sugar rebate, £18,287, and special export assistance, £4,283. The export of canned fruit is supervised by the Canned Fruit Control Board constituted under Federal legislation.

Particulars of the minimum prices for fresh fruit to be paid to producers by manufacturers, as fixed by the Fruit Industry Sugar Concession Committee in the seasons 1933 to 1940 are shown below. Where two prices are shown for any fruit, the first is for canning fruit and the second for fruit used for other purposes of manufacture. Where only one price is quoted it applies to all fruit purchased. Canning prices are at grower's railway station or country siding. For non-canning fruit, prices are delivered at metropolitan factory; if delivered at country factories the minimum prices are £1 per ton lower than those stated. Fruit rejected as unfit for canning but used otherwise in manufacture must be paid for at non-canning prices. Wherever practicable, manufacturers are expected to purchase directly from growers. On delivery of the fruit they are required to issue dockets indicating whether the fruit is accepted as canning or non-canning quality, the net weight and the actual purchase price per ton, pound or case. No fruit for which prices are fixed may be processed "on grower's account."

TABLE 663.—Minimum Prices of Fresh Fruit for Manufacture.

Kind of Fruit.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
	Prices per long ton (2,240 lbs.)							
Apricots ... ..	£ 12	£ 8	£ 12	£ 12	£ 12	£ 12	£ 12	£ 13
Peaches—Clingstone... ..	8	6	10	10	10	10	10	11
Clear Centres ... ..	12	7	11	12	10 <sup>3</sup> / <sub>4</sub>	11	9 <sup>1</sup> / <sub>2</sub>	12
Peaches—Clingstone... ..	7	5	8	8	7	7	6	9
Other... ..	12	7	10	11	9 <sup>1</sup> / <sub>4</sub>	10	8 <sup>1</sup> / <sub>2</sub>	11
Peaches—Frecstone ... ..	7	5	8	8	7	7	6	9
Pears—Bartlett ... ..	9	6	9	10	7	7	7	9 <sup>1</sup> / <sub>2</sub>
Pears—Keiffer ... ..	7	5	8	8	7	7	6	9
Plums ... ..	12	7	10	10	8	10	10	12
Quinces ... ..	10	7	8	8	6	8	8	10
	7	5	6	7	7	7	6	8
	7	5	7	7	7	7	6	8†

† Non-Canning, £7 per ton.

The British Government instituted a system of import control in respect of canned fruits in March, 1940, and imports of canned fruits have been severely restricted. However, the supply of canned fruits from Australia has continued. Approximately 1,050,000 cases comprising the exportable surplus of the 1940 pack were purchased by the British Ministry of Food and an agreement was made in April, 1941, to take over the exportable surplus of the 1941 pack, estimated at about 1,300,000 cases.

The following statement of the quantity and value of canned fruit produced in factories in New South Wales shows a great increase in fruit-preserving in recent years. In the five years ended 1938-39 the output of the canneries was 67.9 per cent. greater in quantity and 73.8 per cent. higher in value than in the preceding five years, and much greater than in any earlier period.

TABLE 664.—Quantity and Value of Fruit Canned, 1925-26 to 1939-40.

Year ended June.	Fruit Preserved.		Year ended June.	Fruit Preserved.	
	Quantity.	Value at Cannery.		Quantity.	Value at Cannery.
	lb.	£		lb.	£
1926 ... ..	11,325,850	264,794	1934 ... ..	17,653,693	329,477
1927 ... ..	8,261,091	182,436	1935 ... ..	21,446,194	392,891
1928 ... ..	13,922,386	242,537	1936 ... ..	25,208,208	512,793
1929 ... ..	14,213,747	258,037	1937 ... ..	28,394,451	438,172
1930 ... ..	17,133,226	271,360	1938 ... ..	26,947,628	465,968
1931 ... ..	15,812,219	253,205	1939 ... ..	28,387,122	507,032
1932 ... ..	7,609,691	136,776	1940 ... ..	24,182,682	517,299
1933 ... ..	19,447,512	342,099			

Vegetable canning and in some cases the growing of crops specifically for that purpose, has shown considerable development during the four years for which particulars are available. The principle kinds of vegetables canned are asparagus, beans, cauliflowers, peas and tomatoes. The quantity of vegetables canned in 1939-40 was 5,572,406 lb., valued at the canneries at £191,047, showing increases of 36 per cent. in quantity and 49 per cent. in value in comparison with production in 1936-37.

TABLE 665.—Quantity and Value of Vegetables Canned, 1936-37 to 1939-40.

Year ended June.	Vegetables Canned.		Year ended June.	Vegetables Canned.	
	Quantity.	Value at Cannery.		Quantity.	Value at Cannery.
	lb.	£		lb.	£
1937 ... ..	4,091,623	128,033	1939 ... ..	4,902,288	170,092
1938 ... ..	3,636,230	127,978	1940 ... ..	5,572,406	191,047

*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 orchard settlements in post-war years. The principal settlements where dried vine fruits are produced are the Murrumbidgee, 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 1925-26 and in each of the last ten seasons.

TABLE 666.—Dried Fruits, Production, 1926 to 1940.

Season.	Dried Fruit.						
	Apricots.	Grapes.*	Peaches.	Pears.	Prunes.	Other.	Total.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1925-26 ...	775	29,301	1,334	303	3,111	65	34,889
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
1938-39 ...	3,977	121,525	1,900	220	20,684	271	148,577
1939-40 ...	3,673	161,439	1,636	58	23,649	226	190,681

\* See Table 654 for details.

† Failure of crop.

Continued expansion in the production of dried vine fruits is associated with the greater area under vines and their greater maturity. 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. The area devoted to prune growing is declining, and the quantity of prunes dried in 1939-40 was 45 per cent. below the record of 1936-37. Possibly the decline was due in part to adverse seasonal conditions.

Local consumption represents only about 20 per cent. of the dried fruits produced in Australia. A system of orderly marketing to distribute equitably the local and the less profitable export markets amongst all Australian producers was arranged under complementary Commonwealth and State legislation. The Commonwealth law was invalidated, but the system continues on the basis of voluntary co-operation of producers and dealers. The Commonwealth Dried Fruits Control Board, established in 1924,

undertakes trade publicity, seeks market opportunities and generally controls the treatment and packing of dried fruits. Its work is financed by a levy on dried vine fruits exported. As from 1st March, 1940, the rates of levy were 4½d. per cwt. on sultanas and lexias and 3d. on currants.

On the outbreak of war the Board suspended publicity activities and arranged to accumulate part of its revenue for post-war trade advancement. The British Government acquired the unsold residue of the 1939 Australian pack of dried vine fruits and purchased the whole of the 1940 record pack not required for sale in other markets. Large quantities were exported to New Zealand and Canada in the same year. Dominion preference gives Australian dried vine fruits the dominant place in Canadian and New Zealand markets; in the United Kingdom, Australia enjoys a tariff preference of £10 10s. a ton for raisins and £2 a ton for currants.

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. The State law relating to control of the industry was revised by the Dried Fruits Act, 1939, which brought the legislation into conformity with similar legislation in other States, without materially affecting general arrangements for the organisation and control of the industry.

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. 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. 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 1936 to 1940 were:—

TABLE 667.—Dried Fruits—Marketing Quotas, 1936 to 1940.

Year.	Currants.	Sultanas.	Lexias.	Prunes.	Peaches.	Apricots.	Nectarines.	Pears.
	Quota for Intrastate Trade—Per cent. of Production.							
1936 ...	30	17	40	75	67½	70	60	55
1937 ...	19	17	47½	60	66¾	100	80	37½
1938 ...	15	13	45	65	57½	40	80	25
1939 ...	14	19	50	100	70	77½	75	40
1940 ...	15	14	45	100	95	90	100	50

*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 by the City Council at a cost of about £400,000, was opened in Sydney 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 1939-40 market garden produce was grown on 1,798 holdings, in areas of one acre or more, the total area being 7,841 acres and the farm value of production was £450,025. 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 668.—Vegetable-growing, 1938 to 1940.

Vegetables.	1937-38.		1938-39.		1939-40.	
	Area of Crop.	Production.	Area of Crop.	Production.	Area of Crop.	Production.
Potatoes—	acres.	tons.	acres.	tons.	acres.	tons.
Early (Summer) } Late (Winter) }	21,372	50,833	16,866	39,385	19,232	40,531
Sweet ... ..	391	1,719	420	1,671	475	1,722
Onions ... ..	162	356	105	316	241	695
Turnips ... ..	4,366	29,789	6,709	30,528	7,874	23,169
Other Root Crops ...	448	1,804	438	1,962	488	1,899
Pumpkins and Melons	4,738	13,882	5,153	12,654	5,373	11,017
Tomatoes ... ..	2,029	Half-cases. 602,975	2,144	Half-cases. 568,025	2,552	Half-cases. 644,281
Peas ... ..	11,760	£ 124,239	13,237	£ 139,509	15,969	£ 124,265
Beans ... ..	2,203	43,751	2,162	47,190	1,851	40,055
Cabbages ... ..	792	13,153	572	16,880	654	13,079
Cauliflowers ... ..	467	16,585	842	22,226	680	18,017
Asparagus ... ..	391	13,285	389	16,270	204	11,700
Other ... ..	88	3,223	76	2,267	143	3,174

*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 following years



up to 1936-37, when the area sown was 24,909 acres, but on account of unfavourable seasons the area under potatoes decreased to 16,866 acres in 1938-39. The area in 1939-40 was 19,232 acres.

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 later years was affected by adverse seasonal conditions. However, the estimated farm value of potatoes produced in 1939-40 (£543,620) was very high owing to a shortage in supplies in other States. Only a limited proportion of the area suitable for potato growing is so utilised, and marked irregularity of prices acts as a deterrent to material expansion. Potatoes are most extensively grown in the Tableland divisions and considerable areas are in cultivation in coastal areas, where approximately 25 per cent. of the potatoes produced in the five years ended 1939-40 were grown. The following statement provides a comparative summary of potato growing during the past thirty years:—

TABLE 669.—Potatoes—Area and Production, 1906 to 1940.

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
1931-36 ,, ...	20,151	45,712	2.27	224,960	11 3 3
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
1938-39 ...	16,866	39,385	2.34	420,570	24 18 9
1939-40 ...	19,232	40,531	2.11	543,620	28 5 4

The Potato Growers' Licensing Act, which came into operation on 1st July, 1940, provides for the licensing of all persons using an acre or more of land for the production of potatoes. The fees, at the rate of 10s. per annum, are to be expended for the benefit of the potato industry. It is intended to reconstitute the Potato Grower's Council of New South Wales. Pending the compilation of a roll of growers at the end of the first full year of licensing, funds have been made available from license fees to enable the existing Council to appoint a full-time secretary and a marketing officer for a period of six months.

#### 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. Further information regarding the law was given at page 768 of the Official Year Book, 1938-39.

In December, 1940, the number of agents registered was 282, of whom 228 were in the Metropolitan area, 16 in Newcastle, and 38 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 in 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 during 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 for 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 follow:—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 33,613 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 are 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 670.—Murrumbidgee Irrigation Areas, 1926 to 1940.

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.	£	£	£	£	£
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
1939	243,183	†	1,790,700	71,517	46,443	54,027	2,456
1940	261,000	†	1,831,900	80,618	48,686	55,274	802

\* 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 £9,914,694 as at 30th June, 1940, of which £9,713,352 was expended on Loan Account. This sum was reduced by £2,100,460 written off for various reasons, including £2,027,643 on account mainly 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, 6,806 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, 1940, was:—Murrumbidgee, 306,207 acres; Coomealla, 3,444 acres; Curlwaa, 9,490 acres; and Hay, 6,234 acres.

TABLE 671.—Irrigation Areas—Production, 1920-21 to 1939-40.

Particulars.	1920-21.	1930-31.	1938-39.	1939-40.			
				Murrumbidgee.	Hay.	Curlwaa and Coomealla.	Total.
Cultivated Holdings... No.	1,190	1,598	1,579	1,310	8	250	1,568
Area under—							
All Crops ... Acres	31,065	114,441	128,466	87,754	110	4,440	92,304
Grain ... .. "	2,860	75,269	78,940	55,486	...	1	55,487
Hay & Green Food .. "	16,085	16,032	23,459	10,749	110	70	10,929
Sown Grasses ... .. "	...	45	10,639	12,155	127	8	12,290
Grape Vines—							
Bearing ... .. "	1,253	6,301	8,737	5,816	...	3,272	9,088
Not yet Bearing... .. "	1,896	1,452	759	304	...	126	430
Orchards—							
Bearing ... .. "	4,154	10,507	12,021	10,764	...	878	11,642
Not yet Bearing ... .. "	4,414	4,079	3,692	3,547	...	87	3,634
Live Stock—							
Horses ... .. No.	5,264	6,131	6,482	6,046	195	356	6,597
Cattle—							
Dairy ... .. "	4,007	*2,416	*1,580	1,301	345	92	*1,738
Other ... .. "	5,463	3,163	4,221	3,846	240	178	4,264
Sheep ... .. "	16,927	76,609	147,071	203,044	2,760	636	206,440
Pigs ... .. "	2,564	1,889	1,065	1,939	88	22	2,049
Production—							
Wine ... .. gal.	64,000	904,402	2,245,183	1,723,011	...	...	1,723,011
Sultanas ... .. cwt.	2,923	33,250	68,668	4,767	...	86,796	91,565
Raisins and Lexias .. "	967	2,139	4,913	363	...	6,539	6,902
Currants ... .. "	2,188	5,862	21,651	789	...	26,167	26,956
Oranges—							
Washington Navel bush.	49,328	355,629	510,332	391,052	...	68,440	459,452
Valencia ... .. "	21,323	199,990	430,390	306,792	...	55,705	362,497
All other ... .. "	3,455	24,340	18,360	12,006	6	3,787	15,799
Lemons ... .. "	11,062	54,208	50,341	42,361	...	4,388	46,749
Peaches—							
Dessert & Drying .. "	40,433	45,995	57,325	36,345	...	13,684	50,029
Canning ... .. "	172,361	204,848	372,276	287,556	...	...	287,556
Nectarines ... .. "	3,751	4,944	7,646	3,723	1	606	4,330
Apricots ... .. "	58,136	86,079	127,397	156,469	2	9,580	166,051
Prunes ... .. "	10,829	86,698	60,591	73,413	...	245	73,658
Apples ... .. "	3,325	17,278	47,976	19,547	3	655	20,205
Butter ... .. lb.	40,761	374,121	198,084	352,134	515	2,167	354,816
Bacon and Ham ... .. "	11,413	116,500	3,320	1,140	...	100	1,240
Grain—Wheat ... bush.	24,648	503,664	710,295	417,432	...	...	417,423
Rice ... .. "	...	1,427,413	2,657,760	1,795,947	...	...	1,705,947
Oats ... .. "	9,207	68,247	152,847	99,345	...	...	99,345
Other ... .. "	9,171	4,386	1,059	12,171	...	6	12,177

\* 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 740.

Experiments undertaken at the Rice Research Station at Yanco have shown that linseed for the manufacture of oil, stock feed, etc., can be produced satisfactorily, but tests have indicated that the varieties so far tried are unsuitable, owing to dry atmospheric and other climatic conditions, for the production of linen or commercial fibre.

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. The number of sheep on the irrigation areas in 1939-40 surpassed the record in 1936-37 by 33,275 and was twice the number in 1934-35.

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 settlement, distinguishing the productive from those not yet bearing:—

TABLE 672.—Irrigation Areas—Fruit Trees, 1920-21 to 1939-40.

Fruit Trees.	1920-21.		1930-31.		1935-36.		1938-39.		1939-40.	
	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	...	1,111	2,258	1,455	2,191
Washington ...	60,810	70,314	228,445	65,529	245,770	29,684	237,773	17,465	235,455	19,332
Navel.										
Valencia ...	27,425	40,028	121,478	105,874	184,543	45,707	201,048	51,054	201,712	65,716
All other ...	3,134	5,443	14,429	4,476	16,978	2,111	9,372	1,290	7,380	735
Lemon ...	13,766	17,881	27,856	14,066	27,113	8,063	28,654	8,501	26,181	8,857
Mandarin ...	1,888	3,571	15,052	7,092	13,508	1,967	11,738	1,078	9,592	820
Peach—										
Dessert and ...	31,022	29,664	32,194	2,691	25,757	3,500	27,996	15,340	25,768	9,907
Drying.										
Canning ...	118,811	73,804	160,621	54,153	174,255	80,113	181,883	113,002	173,534	101,417
Nectarine ...	3,739	4,020	4,566	1,079	4,291	1,059	4,004	1,224	3,317	1,505
Apricot ...	51,624	37,901	101,087	6,201	93,948	7,699	89,338	11,013	85,812	11,553
Prune ...	14,832	62,353	107,402	4,974	92,667	2,482	78,683	6,690	74,766	6,300
Plum ...	8,475	6,812	8,696	823	6,402	1,838	5,929	1,378	6,123	1,055
Pear—										
Williams ...	10,908	15,596	12,932	2,075	13,935	4,961	13,499	18,734	16,005	19,322
Other ...	5,663	3,457	6,925	918	6,394	1,199	5,295	3,678	4,847	4,342
Apple ...	3,452	10,240	51,577	69,603	93,117	57,286	97,229	52,097	91,671	39,881
Fig ...	1,428	2,995	6,359	4,833	9,205	845	7,750	1,652	7,936	1,349
Almond ...	6,948	8,631	22,785	6,214	29,277	10,633	33,984	20,171	30,906	17,637

The orange is the fruit most extensively grown, and large quantities of peaches are produced, especially for canning, also apricots, prunes, pears and apples. 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 76.2 per cent. in 1939-40. There is a considerable area under grapes for wine, table and drying purposes.

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 1939-40 was 120,743 acres. The principal crops were as follow:—Rice, 24,120 acres; lucerne, 18,549 acres; wheat, 18,472 acres; oats, 15,666 acres; orchards, 15,515 acres; grapes, 11,254 acres; market gardens, 5,491 acres; and green food, 3,669 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.

#### *Namoi River Water Conservation Scheme.*

In December, 1937, the Government authorised the construction of a storage dam at Keepit on the Namoi River as a national work at an estimated cost of £1,340,000. The Keepit dam will be located about 26 miles east of Gunnedah upstream of the confluence with the Peel River. There are to be a diversion weir at Boggabri and extensive channel systems on either side of the Namoi River. The storage capacity of the dam will be about 345,000 acre-feet; it will be about 1,800 feet long and about 125 feet high above the river bed. Up to five million acres may be supplied with river water when the works are completed.

At 30th June, 1940, there were 160 men employed in preliminary work and £65,339 had been expended on the project.

### WORKS UNDER THE WATER ACT, 1912-1940.

#### *Irrigation Districts.*

The Water Act, 1912-1940, 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, 1940:—

TABLE 673.—Irrigation Districts.

District.	Supplied from—	Area Served.	Water Rights Attached.	Date of Constitution.
		acres.		
Wakool ... ..	Murray River ...	502,317	38,835	12 May, 1939*
Berriquin (Provisional) ...	do	605,113	55,750	9 Mar., 1934
Deniboota (Provisional) ...	do	303,064	23,935	16 Dec., 1938
Benerembah ... ..	Murrumbidgee River	121,744	12,030	23 Oct., 1936
Tabbita ... ..	do	6,316	650	16 Aug., 1935
Wah Wah (Provisional)...	do	571,214	3,755	16 Dec., 1938
Jemalong (Provisional) ...	Lachlan River ...	166,553	7,675	28 Sept., 1934
Wyldes Plains (Provisional)	do	48,937	780	28 June, 1935
Total Area ... ..		2,325,258	143,410	

\* Provisional District constituted 17th June, 1932.

Water is to be supplied to existing landholders for fodder crops or sown pastures, but not for commercial orchards, vineyards, or for rice. General resumption and subdivision for closer settlement of land within these districts is not contemplated.

During the year ended 30th June, 1940, water was supplied to all holdings within the Tabbita, Benerembah, Wah Wah and Wakool districts and to the eastern part of the Deniboota district. The works of the Berriquin district were in progress, and works for the Jemalong and Wyldes Plains and Deniboota districts were under construction in 1939-40 and those of the Wah Wah provisional district were completed.

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 branches from the Murray at Yarrawonga 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.

The cost of the Wakool district works was £507,000, of the Benerembah works, £41,929 and of the Tabbita works, £3,649. Up to 30th June, 1940, £1,206,800 had been expended upon construction of the Mulwala Canal and the Berriquin district works, and £162,900 on the Wyldes Plains and Jemalong projects. The Deniboota scheme, work on which commenced on 19th June, 1939, is estimated to cost £500,000; the amount expended to 30th June, 1940, was £120,220.



*Water Trusts.*

The Water Act, 1912-1940, 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 December, 1940, there were fourteen 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 3,108,488 acres as shown below:—

	Number of Trusts.	Area Benefited. Acres.
Murray River ... ..	5	339,015
Murrumbidgee River ... ..	2	1,164,630
Lachlan River ... ..	5	552,915
Darling River, Great Ana Branch ... ..	1	995,200
Other ... ..	3	56,728
Total ... ..	16	3,108,488

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 1939-40 applications for 359 new licenses and 270 for renewal of existing licenses for pumps, dams and other works were received, and 338 new licenses were issued. On 30th June, 1940, there were 2,666 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 250 applications for new or renewed permits for pumps, dams, races, etc., in 1939-40; permits in force at 30th June, 1940 were 122.

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. Authorities issued (new and renewal) numbered 10 in 1939-40, and authorities in force 32 on 30th June, 1940.

*Flood Control and Flood Irrigation.*

In December, 1940, the Water Act was amended to empower the Commission to constitute flood control and flood control and irrigation districts, where works may be constructed for the purposes of controlling or partly

controlling floods and supplying water for irrigation by flooding. Before constituting them particulars of the proposed districts, purpose, rates, and works must be published by the Commission and objections must be considered by the Land Board. Pending completion of the works the areas will be notified as provisional districts. Landholders within the districts deemed to be benefited by the works are to pay rates as levied by the Commission. Municipal or shire councils may be compensated for damage to any public road resulting from flooding caused by the operation of the works, and in certain circumstances landholders on whose land such works are constructed may claim compensation for the land used or in respect of severance resulting from the works.

#### ARTESIAN BORES.

The portion of the great Australian artesian basin which extends into New South Wales covers approximately 80,000 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, 1940, 784 artesian bores had been sunk; 486 were flowing, giving an approximate aggregate discharge of 66,584,954 gallons per day; 248 bores were yielding a pumping supply, the balance (50) were failures. The total depth bored was 1,187,518 feet.

The following statement shows the particulars of the Government and private bores in operation at 30th June, 1940:—

TABLE 674.—Artesian Bores, 1940.

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Trust Bores, etc. ...	138	52	190	407,406
For Country Towns Water Supply ... ..	3	1	4	6,533
For Improvement Leases ... ..	15	10	25	35,870
Total, Government Bores ..	156	63	219	449,809
Private Bores... ..	330	185	515	677,348

The average depth of successful Government bores is 2,054 feet, and of successful private bores 1,178 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 371,977 gallons per day. The largest outflow is at the Yerranbah bore, in the same district, which yields 1,084,747 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 140½ degrees Fah. at Thurloo 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 29,250,496 gallons per day, watering districts of an area of 5,005,753 acres by means of 3,316 miles of distributing channels. The average rating of the bore trusts is 1.80d. 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 continuously 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 33. During the year 1939-40 the Commission received 86 applications to have bores sunk and 67 bores were completed.

Up to the 30th June, 1940, the number of bores sunk by the Commission was 3,712, of which 626 were failures. The total depth of bores was 1,053,053 feet, the greatest depth of any bore being 2,318 feet. The aggregate charges for sinking amounted to £949,046, 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.

One thousand and eighty-nine licenses were issued up to the 30th June, 1940.

#### GROWTH OF ARTESIAN AND SHALLOW BORING.

The rapid development which has occurred in recent years in utilising the underground water resources of the State 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 3,764 at 30th June, 1940.

## PASTORAL INDUSTRY.

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THE climate, terrain and vegetation of New South Wales are pre-eminently suited for pastoral pursuits and it was natural, therefore, that the early economic progress of the State was closely identified with the development of the pastoral industry. Extensive agricultural and dairying industries have arisen in the past fifty years, but the pastoral industries remain, as formerly, the greatest of the primary industries, having contributed more than 40 per cent. of the total value of primary production during the last ten years.

Much is done to promote the welfare of the pastoral industries by the State Department of Agriculture and the Commonwealth Departments of Commerce, Trade and Customs. The Australian Agricultural Council (*see* page 672) is for the pastoral as for other rural industries, the co-ordinating and advisory agency for the activities of the Commonwealth and the several States. There are a number of strong private associations organised by graziers, stock-breeders, etc., and various boards have been set up under Commonwealth and State legislation to advance the interests of producers generally or in specific fields of pastoral enterprise, such as the Australian Wool Board, the Australian Meat Board, Pastures Protection Boards, and the Council for Scientific and Industrial Research.

Some indication of the geographical distribution of the pastoral lands of New South Wales is given in succeeding pages and in the chapter "Rural Industries." The area of holdings used for grazing is approximately 156,000,000 acres, representing about 90 per cent. of the area used for the principal forms of rural activity within the State. Sheep grazing is the outstanding pastoral pursuit and is the principal 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 in the hinterland. 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 oversea trade in remounts, but horse-breeding, which declined markedly in the third decade of this century, has shown relatively little change in the last ten years. 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 in conjunction with 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. From 1st December, 1935, to 30th June, 1940, importations to New South Wales under this scheme comprised 114 cattle, 73 sheep, 25 pigs and 1 milch goat. The subsidy paid amounted to £6,554.

During the year ended 30th June, 1940, applications were received in respect of the importation of 11 stud sheep only. The subsidy amounted to £220.

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 1921.

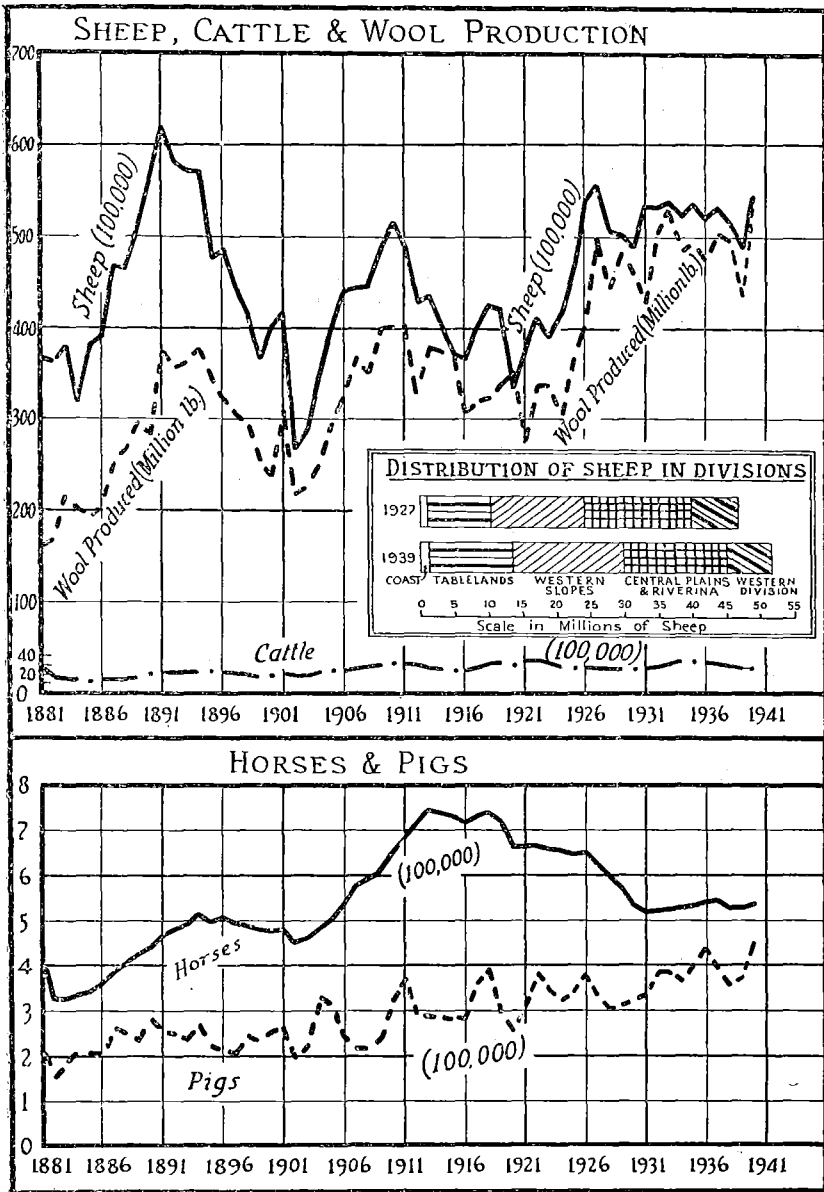
TABLE 675.—Live Stock in New South Wales, 1861 to 1940.

Year.*	Horses.	Cattle.	Sheep.	Pigs.
1861	233,220	2,271,923	5,615,054	146,091
1871	304,100	2,014,888	16,278,697	213,193
1881	398,677	2,597,348	36,591,946	213,916
1891	469,647	2,128,838	61,831,416	253,189
1901	586,716	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
1922	669,800	3,546,530	41,070,000	383,669
1923	660,031	3,251,180	38,760,000	340,853
1924	658,372	2,938,522	41,440,000	323,196
1925	647,503	2,876,254	47,100,000	339,669
1926	651,035	2,937,130	53,860,000	382,674
1927	623,392	2,818,653	55,930,000	332,921
1928	698,377	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	52,986,000	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
1939	531,355	2,811,884	48,877,000	377,344
1940	534,837	2,762,653	54,372,000	451,064

\*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.

LIVE STOCK AND PRODUCTION OF WOOL IN NEW SOUTH WALES.



The numbers at the side of the graphs 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.

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,<sup>c</sup> the following comparison is obtained (omitting pigs):—

TABLE 676.—Live Stock—Sheep Equivalent, 1861 to 1940.

Year.	Equivalent in Sheep of Live Stock grazed.	Year.	Equivalent in Sheep of Live Stock grazed.
1861	30,666,000	1932†	88,169,000
1871	39,469,000	1933†	90,399,000
1881	66,551,000	1934†	91,042,000
1891	87,816,000	1935†	93,504,000
1901	67,199,000	1936†	91,250,000
1911	87,662,000	1937†	91,506,000
1921*	78,134,000	1938†	87,045,000
1927*	90,350,000	1939†	82,309,000
1930*	80,930,000	1940†	87,347,000
1931*	87,016,000		

\* At 30th June, previous years at 31st December. † At 31st March.

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 1940. 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 82,309,000 at 31st March, 1939, compared with 91,506,000 two years previously. Sheep flocks were, however, rapidly built up in 1939-40 and the sheep equivalent of livestock grazed increased to 87,347,000. This figure compares with 88,317,000, the average for the previous ten years.

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, 1939, excepting where otherwise specified:—

TABLE 677.—Live Stock in each State of the Commonwealth, 31st December, 1939.

State.	Horses.	Cattle.	Sheep.	Pigs.
New South Wales (a) ... ..	534,837	2,762,653	54,372,472	451,064
Victoria (a) ... ..	326,217	1,787,597	18,251,870	297,655
Queensland ... ..	445,810	6,198,798	24,190,931	391,333
South Australia ... ..	190,013	351,013	9,940,570	119,660
Western Australia ... ..	138,211	810,170	9,574,232	147,916
Tasmania ... ..	29,605	252,484	2,677,120	44,941
Northern Territory ... ..	(b) 33,191	(b) 899,472	25,000	(b) 355
Australian Capital Territory ... ..	(c) 1,195	(c) 7,057	(a) 250,000	(c) 573
Total, Australia ... ..	1,699,079	13,069,244	119,282,195	1,453,497
Proportion per cent. in N.S.W....	31.5	21.1	45.6	31.0

(a) As at 31st March, 1940. (b) As at 31st Dec., 1938. (c) As at 31st March, 1939.

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 678.—Live Stock in Divisions, 1891 to 1940.

Division.	Number of Live Stock (000 omitted).						Number per square mile.			
	1891.	1901.	1911.	1921.†	1931.†	1940.§	1891.	1911.	1931.†	1940.§
<b>SHEEP—</b>										
Coastal Belt ... ..	1,483	1,097	1,559	1,048	1,150	1,266	42.5	44.0	33.3	36.4
Tableland ... ..	7,882	8,859	9,735	7,524	11,304	12,390	195.3	235.2	280.0	307.0
Western Slopes ... ..	10,860	11,672	12,167	9,743	17,270	16,558	286.8	275.2	392.4	376.0
C'1 Plains & Riverina ... ..	25,194	14,706	17,433	14,370	16,910	16,666	351.8	269.4	261.3	257.6
Western Division ... ..	16,408	5,523	7,936	5,065	6,723	7,483	130.6	63.2	53.6	59.6
Whole State ... ..	61,831	41,857	48,830	37,750	53,366	54,372	199.2	157.3	172.4	175.7
<b>CATTLE, DAIRYING—</b>										
Coastal Belt ... ..	197	284	653	674	901	958	5.6	18.7	25.9	27.5
Tableland ... ..	67	70	107	73	44	41	1.7	2.7	1.1	1.0
Western Slopes ... ..	37	40	78	59	51	57	1.0	2.1	1.1	1.3
C'1 Plains & Riverina ... ..	35	20	48	36	9	11	0.5	0.7	0.1	0.2
Western Division ... ..	7	4	9	2	1	2	0.1	0.1	0.0	0.0
Whole State ... ..	343*	418*	895	844	1,006†	1,069†	1.1	2.9	3.3	3.5
<b>CATTLE, OTHER—</b>										
Coastal Belt ... ..	640	667	915	1,009	736	670	18.3	20.2	21.1	19.5
Tableland ... ..	465	501	550	560	404	388	11.5	13.0	10.0	9.6
Western Slopes ... ..	247	306	422	441	397	352	6.5	11.1	9.0	8.0
C'1 Plains & Riverina ... ..	339	115	302	369	234	217	4.7	4.2	3.6	3.4
Western Division ... ..	94	41	110	132	63	58	0.7	0.9	0.5	0.5
Whole State ... ..	1,785	1,630	2,299	2,531	1,834	1,604	5.8	7.4	6.9	5.5
<b>HORSES—</b>										
Coastal Belt ... ..	163	161	207	203	144	150	4.7	5.9	4.1	4.3
Tableland ... ..	92	112	127	112	86	92	2.3	3.1	2.1	2.3
Western Slopes ... ..	76	111	180	108	159	153	2.0	4.8	3.6	3.5
C'1 Plains & Riverina ... ..	95	78	140	152	112	114	1.3	2.0	1.7	1.8
Western Division ... ..	44	25	35	28	23	26	0.4	0.3	0.2	0.2
Whole State ... ..	470	487	689	663	524	535	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 usually 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 1940 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 215 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 increase in number of sheep on the Tablelands and Western Slopes where the carrying capacity has been increased by pasture improvement and mixed farming. In 1940, the number of sheep per square mile on the Tablelands was 307 and on the Western Slopes 376. In 1911 the corresponding numbers were 235 and 275 respectively.

#### *Fertilised Pastures.*

The advantages of the top dressing of pastures with fertiliser have gained wider recognition in recent years. The progress made in improving pastures in this way is indicated at page 661 of this Year Book. In 1939-40 there were 4,850 holdings on which 650,134 acres of pasture land was dressed with 609,290 cwt. of artificial manures, equivalent to 105 lb. of fertiliser per acre treated. Particulars of the area treated and the quantity of fertiliser used in each major division of the State in 1939-40 and preceding years are given in Table 577.

#### *Sown Grasses.*

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 3,301,804 acres in 1940.

Statistical comparisons distinguishing the extent of the area under sown grasses in major divisions are shown in Table 575.

#### *Fodder Conservation.*

In the course of its development the pastoral industry suffered severely in recurrent periods of drought when pastures failed and fodder for the maintenance of stock was not available. Recently more attention has been given to the conservation of fodder and in consequence mortality of stock

in adverse seasons has been greatly reduced. At 31st March, 1940, stocks of hay (987,332 tons) and of silage (227,810 tons) were the greatest ever held on rural holdings. Further information regarding the conservation of fodder is given in Tables 578 and 579.

## SHEEP.

The following table shows the number of sheep at the end of each quinquennial period from 1861 to 1931, and at the end of each season since then. The figures illustrate the vicissitudes of sheep-breeding in New South Wales:—

TABLE 679.—Number of Sheep, 1861 to 1940.

Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.	Year.	Sheep.	Average Annual Rate of Increase.
*			*			*		
		Per cent.			Per cent.			Per cent.
1861	5,615,000	...	1901	41,857,000	(-) 2.8	1933†	53,698,000	(+) 1.3
1866	11,562,000	(+) 15.5	1906	44,132,000	(+) 1.1	1934†	52,104,000	(-) 3.0
1871	16,278,000	(+) 7.1	1911	48,830,000	(+) 2.0	1935†	53,327,000	(+) 2.4
1876	25,260,000	(+) 9.2	1916	36,490,000	(-) 5.6	1936†	51,936,000	(-) 2.6
1881	36,591,000	(+) 7.7	1921	37,750,000	(+) 0.7	1937†	53,166,000	(+) 2.4
1886	39,160,000	(+) 1.4	1926	53,860,000	(+) 7.4	1938†	51,563,000	(-) 3.0
1891	61,831,000	(+) 9.6	1931†	53,366,000	(-) 0.2	1939†	48,877,000	(-) 5.2
1896	48,318,000	(-) 4.8	1932†	52,986,000	(-) 0.7	1940†	54,372,000	(+) 11.2

\* At 31st December, 1861 to 1911; 30th June, 1916 to 1931; and at 31st March in 1932 and later years.  
(-) Denotes decrease. † Excluding Federal Capital Territory (approx. 246,000).

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. 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 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.

Between 1891 and 1901 there was 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 1940 there were many more sheep in the Tablelands and Western Slopes Divisions than in 1891, though considerably less in the Plains, Riverina and Western Division (see Table 678). The number of sheep in 1940 was greater than at any time since 1927, due to a rapid building up of flocks after an adverse season in 1938-39. Owing to the gradual extinction of the rabbit pest, provision of water storages and bores coupled with other pastoral improvements, the number of sheep in the State has been maintained in the vicinity of 50 million since 1926 and has, in fact, been slightly below that number in only two of the past fifteen years.

Returns supplied by landholders show the following approximate distribution of the flocks according to sex, also the number of lambs:—

TABLE 680.—Sheep—Sexes and Lambs, 1931 to 1940.

Year.	Rams.	Ewes.	Wethers.	Lambs (under 1 year).	Total.
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
1939	662,000	25,940,000	14,672,000	7,603,000	48,877,000
1940	676,000	27,260,000	13,542,000	12,885,000	54,372,000

\* 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 1930-31. Figures for the years 1915-16 to 1929 were published in earlier issues of the Official Year Book.

TABLE 681.—Sheep.—Lambing, Slaughter, Exports, Deaths, 1931 to 1940.

Season.	Lambs Marked.	Sheep and Lambs Slaughtered.	Excess of Imports (+) or Exports (—)	Estimated number of Deaths* (Balance).	Net Increase (+) or Decrease (—)	Sheep at end of year.
		Thousands (000) omitted.				30th June
1930-31	14,615	6,254	(—) 820	2,895	(+) 4,646	53,356
						31st Mch.
1931-32	14,332	6,880	(—) 647	3,800	(—) 380	52,986
1932-33	14,221	7,519	(—) 2,453	3,537	(+) 712	53,698
1933-34	10,737	7,164	(—) 1,433	3,734	(—) 1,594	52,104
1934-35	12,996	6,810	(—) 938	4,025	(+) 1,223	53,327
1935-36	11,338	6,037	(—) 1,391	5,301	(—) 1,391	51,936
1936-37	14,331	6,417	(—) 1,207	5,477	(+) 1,230	53,166
1937-38	13,045	6,850	(—) 2,332	5,466	(—) 1,603	51,563
1938-39	9,286	6,311	(+) 230	5,891	(—) 2,686	48,877
1939-40	15,674	6,887	(—) 44	3,248	(+) 5,495	54,372

\* The figures in this column represent a balance and are rough approximations.

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. During 1937-38 and 1938-39 severe drought conditions prevailed (see the index of rainfall, page 801) but while sheep mortality was heavier than in a normal season losses by death were less severe than poor lambing as a factor in the decrease in the number of sheep. The 1939-40 season was a period of remarkable recovery. Lambing was the highest on record. This, together with a considerable decrease in mortality, accounted for an increase of approximately five and a half million sheep during the season.

#### *Sheep Grazing and Wheat Farming.*

The extent to which sheep-grazing is conducted in conjunction with wheat-farming was shown in earlier issues. In 1935-36 there were in New South Wales, excluding the coastal divisions, 13,605 holdings on which wheat was grown and sheep numbering 13,381,878 were depastured

representing 26.4 per cent. of all sheep in the State. There is a definite trend toward mixed farming, particularly fat lamb raising in conjunction with agriculture, tending to increase the proportion of sheep depastured in the safer rainfall areas, and consequently, to modify the fluctuations in their number due to variability of the seasons.

#### *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, 8,987,000 sheep were moved from New South Wales to Victoria, and 2,927,000 from Victoria to New South Wales, leaving an excess of exports to Victoria of 6,060,000. In the same period 4,851,000 sheep were imported from Queensland to New South Wales, and 2,712,000 were exported from New South Wales to Queensland, leaving an excess of imports of 2,139,000 from Queensland to New South Wales. The excess of exports to other destinations during the same period was 553,000, chiefly to South Australia, and the total excess of exports of live sheep from New South Wales was 4,474,000, 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 1928-29 and later seasons:—

TABLE 682.—Sheep—Exports and Imports—Interstate, 1929 to 1940.

Year ended 30th June.	Sheep from New South Wales.				Sheep to New South Wales.				Excess of Exports.
	To Victoria.	To Queensland.	To South Australia and by Sea.	Total.	From Victoria.	From Queensland.	From South Australia and by Sea.	Total.	
1929 ...	000	000	000	000	000	000	000	000	000
1930 ...	2,180	723	173	3,076	717	532	33	1,282	1,794
1931 ...	2,744	631	112	3,487	715	661	36	1,412	2,075
1932 ...	1,808	371	136	2,405	640	926	14	1,580	825
1933 ...	2,176	240	315	2,731	520	1,338	6	1,864	867
1934 ...	3,085	430	312	3,833	286	718	17	1,021	2,812
1935 ...	2,077	356	82	2,545	744	584	62	1,390	1,155
1936 ...	1,499	324	94	1,917	413	646	9	1,068	849
1937 ...	2,012	472	86	2,570	601	628	27	1,256	1,314
1938 ...	1,877	665	127	2,669	478	712	20	1,210	1,459
1939 ...	2,207	745	350	3,302	469	541	10	1,026	2,276
1940 ...	1,054	446	34	1,534	919	1,339	66	2,324	790*
1940 ...	1,837	384	103	2,327	460	1,631	21	2,112	215

\* Excess of Imports.

#### *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.

Lambing results in recent years were as follow:—

TABLE 683—Lambing, 1930 to 1940.

Season.	Ewes Mated.	Lambs Marked.	Proportion of
			Lambs Marked to Ewes Mated.
			per cent.
1929-30 ... ..	19,050,000	10,950,000	57·5
1930-31* ... ..	...	...	...
1931-32 ... ..	20,602,000	14,332,000	69·1
1932-33 ... ..	21,040,800	14,221,200	67·6
1933-34 ... ..	17,963,300	10,737,500	59·8
1934-35 ... ..	20,648,500	12,996,300	62·9
1935-36 ... ..	19,131,800	11,337,500	59·3
1936-37 ... ..	21,260,360	14,330,749	67·4
1937-38 ... ..	20,481,236	13,044,552	63·7
1938-39 ... ..	17,670,718	9,285,741	52·6
1939-40 ... ..	22,231,510	15,674,227	70·5

\* 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. Dry conditions prevailed from April, 1937, to February, 1939, and an average lambing in 1937-38 was followed by a very poor lambing season in 1938-39 when the number of lambs marked in the State was 35·2 per cent. less, and in the central plains and western division 47·5 per cent. less than in 1936-37. Beneficial rains, particularly in March and April of 1939, provided favourable conditions under which to restore flocks depleted through droughty periods. As a result, in the 1939-40 season there were record numbers both of ewes mated and of lambs marked.

TABLE 684.—Lambing in Districts, 1939 and 1940.

District.	Year ended 31st March, 1939.			Year ended 31st March, 1940.		
	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.	Ewes Mated.	Lambs Marked.	Proportion of Lambs Marked to Ewes Mated.
	000	000	per cent.	000	000	per cent.
Coast ... ..	257	170	66·1	309	215	69·6
Tablelands—North ... ..	555	367	66·1	625	411	65·8
Central ... ..	1,648	1,024	62·2	1,931	1,369	70·9
South ... ..	1,044	667	63·9	1,157	834	72·1
Total ... ..	3,247	2,058	63·4	3,713	2,614	70·4
Western Slopes—North ... ..	1,901	1,195	62·9	2,041	1,399	68·5
Central ... ..	1,790	856	47·9	2,138	1,455	68·1
South ... ..	2,001	1,019	50·9	2,477	1,781	71·9
Total ... ..	5,692	3,070	53·9	6,656	4,635	69·6
Plains—North ... ..	1,949	1,174	60·2	2,152	1,470	68·3
Central ... ..	2,121	1,046	49·3	2,817	1,975	70·1
Riverina ... ..	2,338	956	40·9	3,204	2,311	72·1
Total ... ..	6,408	3,176	49·6	8,173	5,756	70·4
Western Division ... ..	2,067	812	39·3	3,381	2,454	72·6
Grand Total	17,671	9,286	52·6	22,232	15,674	70·5

*Breeds of Sheep.*

The principal breed of sheep in New South Wales is the merino. Since 1931-32 the proportion of merinos to total sheep has ranged between 81 and 85 per cent. 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, 1939, there were 1,006,809 stud sheep in the 314 registered flocks, comprising 126,229 rams, 565,831 ewes and 314,749 lambs. In that year 160,635 stud rams and 173,420 stud ewes were bred.

Sheep of other pure breeds are not numerous. British breeds of sheep, in numerical importance in 1940, were the Border Leicester 161,297, Romney Marsh 60,083, Dorset Horn 24,517, Southdown 23,718, and a small 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 511,859 in 1940, 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, (of which there were 40,909 in 1940) is 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, 1940, were 44,134,857 merino, 836,722 other pure breeds, 2,766,300 merino comebacks, and 6,634,593 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. A small quantity is picked from the carcasses of dead sheep on the holding. In normal times many sheep skins are exported overseas and interstate, and the quantity of wool on these is estimated and included in the total production.

At one time many sheep were washed before being shorn, but this practice was abandoned more than fifty years ago. 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 marketed as scoured wool, it is usual to take 2.18 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 1928-29:—

TABLE 685.—Wool—Quantity and Value, 1876 to 1940.

Average per Season.	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	1928-29	482,920	33,206	30,879
1881-1885 ..	188,763*	8,113	1929-30	459,970	20,123	18,099
1886-1890 ..	258,956*	8,955	1930-31	427,220	15,486	13,705
1891-1895 ..	362,726*	9,805	1931-32	501,648	17,349	15,233
1896-1900 ..	281,648*	8,597	1932-33	532,080	18,845	16,659
1901-1905 ...	260,517*	9,344	1933-34	484,390	31,889	29,951
1906-1910 ..	369,321*	14,958	1934-35	494,981	19,827	18,045
1911-1915 ...	357,256	15,468	1935-36	472,585	27,321	25,408
1916-1920 ...	328,065	18,507	1936-37	503,616	34,106	32,091
1921-1925 ...	323,635	24,272	1937-38	495,027	25,961	24,060
1926-1930 ...	457,712	30,648	1938-39	437,141	18,761	17,076
1931-1935 ...	488,064	20,679	1939-40	546,273	30,586	28,283
1936-1940 ...	490,928	27,347				

\* Excludes wool exported on skins.

Wool production expanded rapidly from 1876 to 1896 and declined during the next ten years under a succession of severe droughts. Substantial expansion occurred in the seven years 1906 to 1914, but recurrent droughts again diminished production until 1926. Since that year pastoral holdings have been improved and wool production, though subject to seasonal fluctuation, has been maintained at a far higher level than in any previous period. The wool production of 1938-39 (437,000,000 lb.) was lower than in any year since 1925-26 (except 1930-31 when it was 427,000,000 lb.), but this was followed by a bountiful year in 1939-40 when the wool production exceeded the record of 532,080,000 lb. established in 1932-33.



The value of the output (as at place of production) 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. Reduced production, due to drought, coincided with falling prices due to restricted competition in world markets in 1938-39, and the value of the wool produced was £17,076,000 or 47 per cent. less than in 1936-37. The value of the 1939-40 wool clip was £28,283,000 based on the average price of 13.4375d. per lb. paid by the British Government. (See page 792.) Available information discloses that the Commonwealth appraised price for 1940-41 production will slightly exceed that for New South Wales. This would indicate, then, that the 1940-41 clip, at the place of production, will realise in the vicinity of £26,250,000. The course of wool prices is shown in Table 692.

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 686.—Sheep Shorn and Wool Produced, 1921 to 1940.

Season.	Sheep shorn during year.	Average clip (greasy). †	Weight of Wool Produced (as in the grease).				Total production.
			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
Year—							
1925-26 ...	45,550	8.1	368,739	761	14,780	18,210	402,490
1926-27 ...	51,880	8.8	456,872	680	22,330	19,440	499,322
1927-28 ...	53,730	7.5	404,375	1,705	19,870	17,910	443,860
1928-29 ...	50,300	8.8	445,228	862	16,770	20,060	482,920
1929-30 ...	53,260	7.8	416,813	917	18,990	23,250	459,970
1930-31 ...	48,840	7.9	385,105	585	22,740	18,790	427,220
1931-32 ...	52,240	8.7	454,764	404	34,875	11,605	501,648
1932-33 ...	55,612	8.6	478,703	459	39,663	13,255	532,080
1933-34 ...	56,878	7.5	427,959	2,428	42,909	11,094	484,390
1934-35 ...	54,884	8.1	446,437	1,301	30,356	16,887	494,981
1935-36 ...	55,805	7.7	429,701	2,358	24,176	16,350	472,585
1936-37 ...	55,485	8.3	459,650	1,423	24,303	18,240	503,616
1937-38 ...	54,673	8.2	447,695	1,771	23,951	21,610	495,027
1938-39 ...	51,530	7.6	391,627	2,427	25,677	17,410	437,141
1939-40 ...	54,637	9.1	497,356	1,095	32,751	15,071	546,273

† Including Crutchings. Lambs shorn and lambs wool are included in the average.

The period of shearing is usually between May and November, but approximately 5 per cent. of 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 fifteen 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 687.—Average Clip, Sheep and Lambs, 1936-37 to 1939-40.

Division.	1936-37.†		1937-38.†		1938-39.†		1939-40.†	
	Sheep.	Lambs.	Sheep.	Lambs.	Sheep.	Lambs.	Sheep.	Lambs.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Tablelands—North ...	8·07	2·85	8·42	3·53	7·47	3·20	8·56	3·71
Central ...	8·77	2·21	8·45	2·18	7·49	2·06	9·38	2·55
South ...	8·72	1·37	8·64	1·55	7·97	1·16	9·80	1·51
Total—Tablelands...	8·57	1·97	8·49	2·04	7·63	1·82	9·28	2·26
Western Slopes—North ...	8·14	2·69	8·18	3·17	7·56	3·03	9·26	4·21
Central ...	9·14	2·56	8·53	2·62	7·35	2·49	10·01	3·05
South ...	8·78	2·48	8·53	2·31	7·25	2·09	9·96	2·89
Total—Western Slopes	8·65	2·55	8·40	2·61	7·39	2·51	9·72	3·24
Plains—North ...	8·28	3·35	9·13	4·31	8·26	3·77	10·05	4·32
Central ...	9·41	3·19	9·79	3·23	7·68	3·76	10·72	3·56
Riverina ...	9·25	2·62	9·26	2·55	7·54	2·26	10·26	2·85
Total—Plains ...	9·06	2·94	9·17	3·09	7·80	3·23	10·35	3·40
Western Division ...	10·52	3·26	10·16	3·65	9·45	3·58	10·41	3·47
New South Wales ...	8·90	2·73	8·88	2·74	7·84	2·78	9·88	3·19

† Shearing for year ended 31st March, exclusive of crutchings, which generally constitute between 2 and 3 per cent. of the total wool production.

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.

Since 1928-29 separate particulars have been recorded of the shearing of sheep and lambs. For the twelve seasons 1928-29 to 1939-40 the average weight of clip per sheep has been 8.8 lb., and for lambs 2.8 lb. The annual averages for sheep (exclusive of lambs) in respective districts according to terrain have been as follow:—

TABLE 688.—Average Clip per Sheep in Divisions 1928-29 to 1939-40 (excluding lambs).

Season.	Tablelands.	Western Slopes.	Plains.	Western Division.	Total. N.S.W.
	lb.	lb.	lb.	lb.	lb.
1928-29	9·2	9·1	9·4	9·5	9·3
1929-30	8·3	8·2	8·8	8·8	8·4
1930-31	8·0	7·8	8·5	9·4	8·2
1931-32	8·9	9·1	10·1	10·9	9·5
1932-33	8·8	9·0	9·7	10·7	9·4
1933-34	7·7	7·8	8·2	8·6	8·0
1934-35	8·5	8·3	9·2	10·4	8·9
1935-36	7·8	7·9	8·6	9·4	8·3
1936-37	8·6	8·7	9·1	10·5	9·0
1937-38	8·5	8·4	9·2	10·2	8·9
1938-39	7·6	7·4	7·8	9·5	7·8
1939-40	9·3	9·7	10·4	10·4	9·9
Average 12 years.	8·4	8·4	9·1	9·9	8·8

The foregoing averages are exclusive of crutchings which generally average between 2 and 3 per cent. of the total wool production.

*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, 1937-38 and 1938-39. 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 689.—World's Sheep and Wool Production.

Principal Countries.	Sheep.		Production of Greasy Wool.		
	Year.	Number.	1924.	1937-38.	1938-39.
		'000.	'000 lbs.	'000 lbs.	'000 lbs.
Australia ... ..	1938	110,000	776,900	1,023,000	982,400
New Zealand ... ..	1938	32,400	246,700	297,000	329,000
United States ... ..	1938	52,700	295,500	454,600	457,700
Canada ... ..	1938	3,400	15,200	19,000	18,800
Argentina... ..	1937	43,800	322,100	375,000	394,000
Uruguay ... ..	1937	17,900	97,000	116,000	114,000
Brazil ... ..	1937	12,900	26,000	37,500	43,200
Union of South Africa ... ..	1938	40,500	176,000	246,000	264,000
Algeria ... ..	1938	6,000	38,100	17,200	16,400
Soviet Union ... ..	1938	84,500	287,000	224,000	303,000
India, British ... ..	1938	50,000	99,200	100,000	100,000
China ... ..	1938	34,000	71,200	110,000	110,000
United Kingdom ... ..	1938	26,300	98,100	107,000	110,000
Spain ... ..	1938	19,000	79,800	60,000	60,000
France ... ..	1938	9,900	44,100	55,100	54,400
Germany ... ..	1938	4,800	53,100	43,300	44,500
Roumania ... ..	1938	12,600	60,000	42,900	48,500
Italy ... ..	1938	9,500	35,300	30,000	33,000
Yugoslavia ... ..	1938	10,100	26,700	31,500	35,500
Other ... ..	1938	173,400	340,000	437,900	471,600
World Total ... ..	...	753,700	3,188,000	3,827,000	3,990,000

Australia contains approximately 14.6 per cent. of the sheep and produces 25 per cent. of the wool of the world. 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. For the 1939-40 season, the weight of wool appraised at the Sydney centre and the appraised value has been shown.

TABLE 690.—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.	Fleece, etc.	Lambs.	Greasy.	Scoured.		
	lb. 000	£000	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	lb.	lb.
1921-22	313,886	14,755	73.2	26.8	95.7	4.3	90.7	9.3	330	240
1922-23	268,873	13,922	79.0	21.0	94.3	5.7	93.3	6.7	321	234
1923-24	224,719	21,445	83.9	16.1	96.6	3.4	92.6	7.4	318	228
1924-25	212,664	22,024	85.9	14.1	94.7	5.3	95.1	4.9	327	232
1925-26	345,685	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	94.0	5.1	94.1	5.9	322	208
1927-28	398,476	26,885	90.3	9.7	95.3	4.7	93.7	6.3	306	226
1928-29	356,696	25,113	88.6	11.4	98.0	4.0	95.9	4.1	313	236
1929-30	342,084	14,888	90.1	9.9	95.5	4.5	95.7	4.3	305	231
1930-31	331,476	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	303	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	387,581	15,359	90.3	9.7	95.2	4.8	93.7	6.3	307	230
1935-36	364,656	20,517	90.4	9.6	95.1	4.9	92.8	7.2	296	230
1936-37	388,181	25,980	91.1	8.9	95.3	4.7	94.6	5.4	300	235
1937-38	336,346	17,821	91.3	8.7	95.6	4.4	95.3	4.7	293	223
1938-39	357,049	15,078	90.9	9.1	97.0	3.0	94.9	5.1	302	233
1939-40	444,651	23,018	89.1	10.9	94.8	5.2	93.2	6.8	312	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. Part of the wool of New South Wales is sold at Albury (and in recent years at Newcastle). In addition a small quantity of wool was appraised at Goulburn in 1939-40. 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, but the carry over was 29,292 bales in June, 1937, 134,676 bales in June, 1938, and 63,192 bales in June, 1939. There was no carry over of unappraised wool at 30th June, 1940.

#### *British Government's Purchase of Wool Clip.*

The critical international situation led to postponement of the opening auction sales of 1939-40 in Sydney planned to commence on 28th August, 1939. Shortly after war was declared it was arranged that for its duration, and one season thereafter, the British Government would purchase the entire Australian wool clip. This purchase was analogous to the successful arrangements of the last war (see the Year Book for 1919, page 527). The arrangements provide for wool required for Australian manufacturers to be retained in Australia and for sufficient wool to be allocated to all scouring and carbonising works, in Australia, to employ them to capacity. The export of wool, wool tops, and waste except under licence, was prohibited on 12th September, 1939.

In negotiations regarding conditions of sale, the aim of the Commonwealth Government was to arrive at a price which, while not excessive to the British Government, would provide an economic price to the wool growers. Agreement was reached on the basis of an average price

of 10.75d. (sterling) per lb. (greasy) in store (equal to 13.4375d. Australian) plus 50 per cent. of the profit derived from the sale of wool for use outside the United Kingdom. The British Government also pays a sum not exceeding  $\frac{1}{2}$ d. per lb. to cover the costs of appraisement, storage and shipment. Storage in Australia is the responsibility of the Central Wool Committee, but ownership in the wool passes to the United Kingdom upon appraisement. Payment is made by the British Government irrespective of the quantity of wool shipped; that Government is responsible for shipping arrangements and will meet the cost and accept the risks of its transport oversea.

The Governments of the United Kingdom and Australia will consult annually as to the price to be paid for wool and it may be reviewed should a change in currency relationship or other conditions in either country necessitate it.

The machinery to implement the agreement in Australia is provided by Statutory Rules, 1939 (No. 108) made under the National Security Act, 1939 on 28th September, 1939, known as the National Security (Wool) Regulations. These constitute a Central Wool Committee, comprising a Chairman, an Executive Member, and eight other members including three wool growers, three wool selling brokers, a wool buyer and a woollen manufacturer, appointed by the Commonwealth Minister (for Commerce) to administer the regulations. There are State Wool Committees, appointed on the recommendation of the Central Committee which carry out, under direction of that Committee, all arrangements for the appraisement of wool. The members of each State Committee comprise two wool growers, three wool selling brokers, a wool buyer, a wool manufacturer and a wool scourer.

All persons owning or controlling wool must submit it for appraisement within the wool year. Each parcel of wool must be appraised by three appraisers (one to represent the selling broker on behalf of the grower and two to represent the Commonwealth) and the value so determined is final and without appeal. All appraisers are appointed by the Central Wool Committee and they, and all persons concerned in the handling, appraisement or shipment of wool, are required to make a declaration of secrecy.

The amount due to each grower depends upon the classification of the wool submitted according to a Table of Price Limits comprising 928 types and 608 sub-types drawn up by the Central Committee to govern the appraisements and so arranged that over the Commonwealth as a whole the aggregate value of the wool as appraised will, as nearly as may be ascertained, give an average price for the clip equal to the agreed average price. The growers are paid through the usual trade channels. For the 1939-40 season, 90 per cent. of the appraised value was paid within fourteen days of appraisement of the wool. The balance of 10 per cent. together with the amount necessary to make the average appraised price equal to the average agreed price was paid to the growers at the end of the season. In the light of this experience, retention money has been reduced to 5 per cent. for the 1940-41 season.

Proceeds from the sale of wool are paid to the Central Wool Committee to meet the costs of administration and of payments to growers. The disposal of moneys received from the British Government over and above the agreed purchase price and of any other surplus arising from the operation of the scheme is in the absolute discretion of the Central Wool Committee.

The following table gives details of appraisements at each of the New South Wales centres and in each State. Aibury is considered as a Victorian centre.

TABLE 691.—Wool Appraisements, Season 1939-40.

Centre.	Bales.	Weight.	Appraised Value.	Average Price per lb.
Sydney—	No.	lb.	£	d.
Greasy ... ..	1,300,839	407,102,692	21,374,162	12-60
Scoured ... ..	80,403	18,774,252	1,644,196	21-02
	.....	.....	23,018,358	12-42*
Goulburn—				
Greasy ... ..	16,033	4,541,041	271,268	14-34
Scoured ... ..	.....	6	.....	.....
	.....	.....	271,268	14-34*
Newcastle—				
Greasy ... ..	37,182	11,141,652	601,358	12-95
Scoured ... ..	170	34,773	2,326	16-05
	.....	.....	603,684	12-92*
Total New South Wales				
Greasy ... ..	1,354,054	422,785,385	22,246,788	12-63
Scoured ... ..	80,573	18,809,031	1,646,522	21-01
	.....	.....	23,893,310	12-45*
Total Victoria—				
Greasy ... ..	810,767	243,082,433	13,632,029	13-46
Scoured ... ..	41,768	10,216,560	860,092	20-20
	.....	.....	14,492,121	13-20*
Total Queensland—				
Greasy ... ..	608,285	194,672,776	9,984,110	12-31
Scoured ... ..	48,832	10,170,404	899,424	21-22
	.....	.....	10,883,534	12-15*
Total South Australia—				
Greasy ... ..	360,922	112,189,837	5,176,542	11-07
Scoured ... ..	20,177	4,402,003	374,001	20-39
	.....	.....	5,550,543	11-00*
Total Western Australia—				
Greasy ... ..	238,338	75,689,629	3,751,615	11-90
Scoured ... ..	8,627	1,714,016	135,325	18-95
	.....	.....	3,886,940	11-79*
Total Tasmania—				
Greasy ... ..	64,304	17,816,606	1,089,250	14-67
Scoured ... ..	2,368	516,767	46,581	21-63
	.....	.....	1,135,831	14-46*
Total Commonwealth—				
Greasy ... ..	3,436,670	1,066,236,666	55,880,334	12-58
Scoured ... ..	202,345	45,828,781	3,961,945	20-75
	.....	.....	59,842,279	12-4028*

\* On greasy basis.

The average appraised price for the Commonwealth was 12.4028d. per lb. (greasy), or 1.0347d. less than the purchase price payable by the Government of the United Kingdom. The difference between the appraised value

and the flat rate purchase value was £4,790,437. The Central Wool Committee, however, appropriated from interest earnings and other moneys the sum of £90,368 to bring the payment to £4,880,805, which is equivalent to 8½ per cent. of the appraised value. This sum was also distributed to suppliers of participating wools.

Various difficulties were experienced in negotiations for the purchase of the exportable surplus of Australian sheepskins. Pending a satisfactory conclusion, the industry functioned on normal lines, exports being subject to the issue of permits by the Commonwealth Government. The National Security (Sheepskin) Regulations were promulgated on 2nd May, 1940, and vested in the Central Wool Committee the control of all sheepskins in Australia available for export. To assist with administration a sheepskin sub-committee was appointed.

At the time of promulgation of these regulations, large quantities of sheepskins packed for export had accumulated. Arrangements were made with authorities in the United Kingdom to have these specially appraised and taken over at appraised prices. Upon completion of these special appraisements, ordinary appraisements commenced in the various centres and have continued at regular intervals. For the purpose of appraising sheepskins, a Table of Price Limits has been compiled by experts upon the wool content of such sheepskins, together with a classification of pelt values. Suppliers of skin wools are paid 100 per cent. of the appraised value on the due date and do not participate in further distribution.

Approximately 20,000,000 sheepskins produced annually within the Commonwealth are purchased by local fellmongers and export packing houses in competition. Fellmongers are required to submit wool taken from the sheepskins for appraisement in accordance with the Central Wool Committee's Wool Table of Limits, and are free to dispose of pelts to the best advantage.

At the desire of the wool authorities in the United Kingdom, the Central Wool Committee is making arrangements to fellmonger large quantities of appraised sheepskins taken over on account of the Government of the United Kingdom. The wool from such skins will be appraised on account of the Government of the United Kingdom but will not form part of the wool included in ordinary wool appraisements.

In the 1930-40 season, 376,329 sheepskins with a nett weight of 2,739,829 lb. were appraised in New South Wales. The value was £88,043.

Special facilities have been afforded local manufacturers to enable them to examine and purchase wool required for manufacture in Australia. In 1939-40 such wool was obtainable at appraised prices plus delivery charges and, as a condition to the authorisation to select wool, an amount of one farthing per lb. was charged to cover costs and contingencies. The average price, including contingency charge, for all wool purchased by Australian manufacturers for the season 1939-40 was 13.09d. per lb., or .35d. less than the flat rate value of the wool purchase.

The price to Australian manufacturers for the season 1940-1941 was fixed by the Central Wool Committee at appraised price plus 7½%, together with ordinary delivery charges.

Prior to the commencement of the present wool purchase arrangement, Australia was not a large exporter of manufactured woollen goods. Recently, however, many enquiries have been and are still being received by Australian

manufacturers for the supply of worsted, woollen and knitted goods, and large orders have been received by the Department of Supply and Development on account of the Government of India for military needs.

It consequently became necessary for the Central Wool Committee, in the interests of the Australian wool grower and of the Imperial Government purchase arrangement, to fix a basis of price for wool for manufacture for export as distinguished from that for manufacture for Australian domestic consumption.

The increase fixed by the Central Wool Committee was 25% of the present basic price, which, as above stated, is appraised price plus  $7\frac{1}{2}\%$ . In fixing the increase, the Central Wool Committee took into consideration the United Kingdom Government's export prices for Australian wool and export prices of Australian wool tops as determined by the Central Wool Committee.

This will apply to all wool used in the manufacture of goods for export from the Commonwealth. However, on manufactured goods exported on Empire Government military account, the Central Wool Committee will allow a military discount of  $2\frac{1}{2}\%$  on the clean cost of the wool used in the manufacture of such goods.

In respect of wool purchased by Australian manufacturers for the manufacture of goods for domestic consumption, or for manufactured goods to be delivered to the Department of Supply and Development for export on Empire Government military account, manufacturers do not pay the increase of 25% provided the Central Wool Committee is satisfied that the goods have been distributed for domestic consumption or have been delivered to the Department of Supply and Development for export on Empire Government military account. Wool required by manufacturers for the manufacture of goods for export on civilian account, or other than Empire Government military account is sold at the increased rates.

#### *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, 1940, the capital funds in the hands of the Trust amounted to £66,860. 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, 1940, an amount of £2,000 was expended on research, making a total research expenditure of £23,047 since the inception of the Trust.

As a memorial to the late Chairman of the Trust the fund was named the "George Aitken Pastoral Research Trust" in July, 1940.



*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 1939-40 under the Wool Tax Act, 1936, was £84,399, of which £35,174 was paid in New South Wales. The Board's income was £86,575 and expenditure amounted to £65,776 including £39,105 on the overseas Secretariat, £11,621 in grants for pastoral research projects, and £8,982 for wool display and publicity in Australia.

Similar provision for publicity and research was 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. 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, 1940 (including the cost of transfer of funds to London) amounted to £39,105 Australian currency, compared with £38,866 in 1938-39.

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 four years of its administration the Australian Wool Board allocated the sum of £56,496 for scientific pastoral research, the investigations including sheep diseases, nutrition, external parasites, fertility, poison plants, pasture management, agrostology and wool investigations.

## 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 then falling until the 1939-40 season when the British Government arranged to purchase the entire Australian wool clip for the duration of the war and one year thereafter. 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 692.—Prices of Wool, Sydney, 1876 to 1941.

Average Export Value of Greasy Wool l.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	8 $\frac{1}{8}$	1899*	7 $\frac{1}{8}$	1914	9 $\frac{1}{8}$	1929	16·5
1877	10 $\frac{3}{8}$	1889	8 $\frac{3}{4}$	1900*	11 $\frac{7}{8}$	1915	8 $\frac{3}{8}$	1930	10·5
1878	10 $\frac{1}{8}$	1890	8	1901	5 $\frac{3}{8}$	1916	10 $\frac{1}{2}$	1931	8·7
1879	9 $\frac{7}{8}$	1891	7	1902	6 $\frac{1}{8}$	1917	14 $\frac{3}{8}$ †	1932	8·3
1880	10 $\frac{1}{2}$	1892	7 $\frac{1}{8}$	1903	8	1918	14 $\frac{3}{8}$ †	1933	8·5
1881	10 $\frac{1}{2}$	1893	6 $\frac{3}{8}$	1904	8 $\frac{1}{8}$	1919	15†	1934	15·8
1882	10 $\frac{3}{8}$	1894	5 $\frac{7}{8}$	1905	8 $\frac{3}{8}$	1920	15 $\frac{3}{8}$ †	1935	9·7
1883	10 $\frac{3}{8}$	1895	6 $\frac{3}{8}$	1906	9	1921	12 $\frac{1}{2}$	1936	14·0
1884	10 $\frac{1}{2}$	1896	7 $\frac{1}{8}$	1907	9 $\frac{1}{4}$	1922	12 $\frac{1}{2}$	1937	16·4
1885	8 $\frac{3}{4}$	1897	7	1908	9	1923	17 $\frac{1}{2}$	1938	12·7
1886	8	1898	7 $\frac{1}{2}$	1909	7 $\frac{3}{4}$	1924	23 $\frac{1}{2}$	1939	10·3
1887	8			1910	9 $\frac{1}{8}$	1925	25 $\frac{1}{2}$	1940	13·4†
				1911	8 $\frac{1}{2}$	1926	16 $\frac{1}{8}$	1941	13·2†§
				1912	8 $\frac{3}{8}$	1927	17·0		
				1913	9 $\frac{3}{8}$	1928	19·5		

† 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.

‡ Based upon the agreed price for sale of the clip to the British Government. Share of profits on sales outside United Kingdom to be added.

§ Preliminary subject to revision.

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 12 $\frac{3}{8}$ d.; in 1924-25, 23 $\frac{3}{8}$ d.; and in 1925-26, 16 $\frac{3}{8}$ d. In 1940, the appraised price of wool for New South Wales and for the Commonwealth were practically the same. It would appear, however, that the New South Wales appraised price in 1941 will be slightly below the Commonwealth average. 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 692.

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 693.—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	11.5	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

Note: Comparative prices for New South Wales wool were on the basis of approximately 13.4d. per lb. in 1939-40, and 13.2d. per lb. in 1940-41. See preceding table and note.

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 797. 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 rise 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 from 1936-37 to 1938-39 is attributed mainly to the uncertain outlook in international affairs and the degree of economic recession experienced in 1937-38.

In the months of July and August, 1939, the average price of greasy wool in Sydney (10.9d. per lb.) was a little above the average for 1938-39 and 10 per cent. above the average for May, 1939. In September, 1939, the British Government purchased the entire clip of Australia for 1939-40 at an average price of 13.4375d. per lb. (Australian currency). This price was continued for the season 1940-41. This is on Australian average price. The average for New South Wales may vary above or below this price according to variations in the average quality of the New South Wales clip relative to the Australian clip.

*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.

*Destination of Wool Shipped.*

The following statement shows the destination of the overseas shipments of wool (excluding wool on skins) from New South Wales. The figures relate to the cargoes actually entered for export during the periods specified. Figures for 1939-40 are not available for publication.

TABLE 694.—Export of Wool from New South Wales, 1921 to 1939.

Destination.	Oversea Exports of Wool(000 omitted).								
	Greasy.			Scoured.			Tops.		
	1920-21.	1930-31.	1938-39.	1920-21.	1930-31.	1938-39.	1920-21.	1930-31.	1938-39.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
United Kingdom ...	80,322	76,084	109,569	18,164	6,123	10,405	422	...	277
Canada ...	127	...	692	60	141	873	287	779	1,284
Austria ...	734	...	...	293	...	12	...	...	...
Belgium ...	12,144	37,834	50,459	3,362	3,174	2,502	...	...	...
France ...	19,208	73,053	77,649	974	4,054	5,907	...	...	...
Germany ...	5,174	59,353	15,722	185	2,279	687	...	...	...
Italy ...	6,243	15,326	9,614	12	325	19	...	...	...
Japan ...	6,179	99,389	26,280	70	1,057	688	2,466	30	...
Netherlands ...	722	247	6,291	6	25	42	...	...	...
Russia ...	...	...	12	...	...	...	...	...	...
United States ...	15,236	10,343	9,522	3,217	54	99	1,344	35	7
Other Countries ...	3,007	1,973	11,945	68	140	1,366	761	...	2,610
Total ...	140,091	334,602	317,755	26,411	17,372	22,600	5,280	844	4,178

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.

TABLE 695.—Oversea Export of Wool, Greasy Equivalent, and Countries of Destination, 1921 to 1939:

Destination.	Quantity of Wool Exported from N.S.W. (as in the grease).				Proportion of Total.			
	1920-21.	1928-29.	1937-38.	1938-39.	1920-21.	1928-29.	1937-38.	1938-39.
	000 lb.	000 lb.	000 lb.	000 lb.	Per cent.	Per cent.	Per cent.	Per cent.
United Kingdom	120,591	87,270	119,750	132,856	55.4	22.8	34.8	35.3
Canada ... ..	879	871	5,886	5,394	.4	.2	1.7	1.4
Austria ... ..	1,369	...	2,141	26	.6	...	.6	.0
Belgium ... ..	19,428	59,650	46,185	55,913	8.9	15.6	13.5	14.9
France ... ..	21,313	82,418	66,668	90,526	9.8	21.6	19.4	24.0
Germany ... ..	5,575	56,798	28,597	17,220	2.6	14.8	8.4	4.6
Italy ... ..	6,269	15,922	14,163	9,655	2.9	4.2	4.1	2.6
Japan ... ..	11,674	63,768	26,038	27,780	5.4	16.7	7.6	7.4
Netherlands ...	735	49	3,129	6,382	.3	.1	.9	1.7
United States ...	25,118	6,893	1,277	9,754	11.5	1.8	.4	2.6
Other Countries	4,803	8,527	29,447	20,625	2.2	2.2	8.6	5.5
Total ...	217,754	382,166	343,281	376,131	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 696.—Index of Rainfall in Sheep Districts, 1927 to 1940.

Month and Season.	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.	1939-40.
<i>Spring—</i>														
Sept.	117	59	96	79	46	82	166	161	88	142	61	73	37	41.
Oct.	43	133	71	83	207	46	63	131	271	128	46	96	148	121
No.	14	152	40	100	83	119	117	208	168	31	14	97	77	143
<i>Summer—</i>														
Dec.	137	85	27	86	166	135	54	142	76	92	200	65	9	35
Jan.	118	140	23	75	55	17	126	136	115	173	122	85	69	30
Feb.	19	362	145	43	37	91	17	274	87	161	70	72	149	34
<i>Autumn—</i>														
March	59	157	72	64	255	152	44	22	21	146	124	17	251	46
April	101	128	151	68	210	157	86	106	143	55	33	67	214	204
May	46	45	23	90	280	57	86	15	28	69	42	119	53	33
<i>Winter—</i>														
June	48	94	40	154	193	59	69	74	30	84	71	72	104	17
July	35	123	20	119	94	85	150	165	103	197	36	99	71	21
Aug.	56	19	102	121	43	101	51	130	59	98	113	151	200	36
<i>Spring</i>	59	115	69	87	112	82	115	167	176	100	40	89	87	103
<i>Summer</i>	91	106	65	69	86	81	66	184	93	142	131	74	76	33
<i>Autumn</i>	69	110	82	74	243	122	72	48	64	90	66	63	173	94
<i>Winter</i>	46	79	57	131	110	82	90	125	64	126	71	107	125	25
Year ended August.	66	125	68	90	139	92	86	131	99	115	77	85	115	64
Average Clip per Sheep (lb.)														
(Season following)	7.5	8.8	7.8	7.9	8.7	8.6	7.5	8.1	7.7	8.3	8.2	7.6	9.1	...

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. This influence is illustrated in the reference of 1931-32 and 1936-37. Although rainfall over the whole season, in each of those years was below average, moderate rains fell in summer and autumn and the average weight of fleece shorn in the next succeeding years was relatively high.

Bounteous rains in the summer and autumn of 1927-28, 1930-31, 1933-34, 1935-36 and 1938-39 also preceded seasons in which a high average clip per sheep was obtained. The reverse effect can be seen in 1929-30 and 1932-33 when good spring and winter rains were insufficient to offset the effects of dry conditions at other periods of the year. The low average weight per fleece in 1938-39 was the result of two years of drought relieved only in the autumn of 1939. The average clip per sheep in 1930-40 established a record and was consequent upon substantial rainfall in the late summer and early winter of 1938-39.

#### 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.

From 1930 to 1935, however, renewed interest was 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, a much reduced net import from other States and drought in 1937-39 caused a decline during the five years ended 1939-40.

The following table shows the total number of cattle in the State, including dairy cattle, at various dates:—

TABLE 697.—Total Number of Cattle in New South Wales, 1861 to 1940.

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1906	2,549,944	1932†	2,993,586
1866	1,771,809	1911	3,194,236	1933†	3,141,174
1871	2,014,888	1916	2,405,770	1934†	3,361,771
1876	3,131,013	1921*	3,375,267	1935†	3,482,831
1881	2,597,348	1927*	2,818,653	1936†	3,388,538
1886	1,367,844	1928*	2,848,654	1937†	3,288,169
1891	2,128,838	1929*	2,784,615	1938†	3,019,581
1896	2,226,163	1930*	2,686,132	1939†	2,811,884
1901	2,047,454	1931*	2,840,473	1940†	2,762,653

\* At 30th June.

† At 31st March.

Particulars of cattle according to sex and age at 31st March, 1940, and in certain earlier years for which comparable data are available, are shown below:—

TABLE 698.—Cattle According to Sex, 1931 to 1940.

As at 31st March.	Bulls over 1 year.	Cows and Heifers.			Bullocks and Steers.	Calves under 1 year.	Grand Total.
		In Registered Dairies.	Other.	Total.			
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
1939	49,463	1,068,906	782,053	1,850,959	473,658	437,804	2,811,884
1940	49,361	1,068,999	774,394	1,843,393	386,787	483,112	2,762,653

\* At 30th June.

There was a substantial decrease in herds prior to 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 was attributable largely to the development of a market for vealers, which 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 1940 there was a general decrease in the number of cattle due principally to heavy slaughterings, a substantial decrease in net imports from other States, and unfavourable seasons in the dairying districts in 1937-38 and 1938-39.

#### 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; between 1929-30 and 1935-36 calf slaughtering increased by 172 per cent. and the number of calves at the end of the year by 25 per cent. The number of calves slaughtered has continued at a high level but as the result of adverse pastoral and dairying conditions in 1937-38 and 1938-39 there were fewer

calves on 31st March, 1939 than at the end of any year since 1927-28. The number of calves surviving at 31st March, 1940, showed an increase of 45,308 on the number at the same date in 1939.

TABLE 699.—Calves Slaughtered and Number at end of Year, 1921 to 1940.

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	1929	161,994	455,529	1935	370,739	615,593
„ 1926-30	158,153	444,747	1930	163,195	458,210	1936	443,761	573,716
„ 1931-35	233,744	549,542	1931	154,684	469,690	1937	486,231	517,928
1926	173,806	458,936	1932	163,934	530,073	1938	457,854	482,441
1927	146,947	429,405	*1933	208,895	567,880	1939	458,613	437,804
1928	144,850	421,654	1934	270,466	564,473	1940	441,043	483,112

\* Year ended 31st March.

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 next table shows the number of live cattle (so far as recorded) passing into and out of New South Wales during each of the last nine 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 700.—Interstate Movements of Cattle, 1926 to 1940.

Year ended 30th June.	From New South Wales.				To New South Wales.			
	To Victoria.	To Queensland.	To South Australia and by Sea.	Total.	From Victoria.	From Queensland.	From South Australia and by Sea.	Total.
Av. 1926-30	122,542	23,032	19,207	164,781	36,689	248,028	1,192	285,909
Av. 1931-35	105,368	13,522	14,630	133,520	34,991	233,269	1,533	269,793
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
1938-39	60,323	29,277	11,135	100,735	32,607	191,119	3,918	227,644
1939-40	125,432	26,256	18,561	170,249	20,785	237,242	2,378	260,405



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 707,597 cattle, and an excess of exports to Victoria amounting to 233,321. The total net gain to New South Wales from all sources was 421,302.

#### *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 701.—Increase and Decrease of Cattle, 1929 to 1940.

Year.	Net Imports of Cattle.	Calves reared (surviving at 31st March).	Cattle and Calves died from Disease, Drought, etc.	Cattle Slaughtered (excluding Calves).	Cattle at end of Year.
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
1938-39	126,909	437,804	140,478	676,786	2,811,884
1939-40	90,156	483,112	69,279	681,425	2,762,653

\* At 30th June.

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, and of tractors on farms (see page 695). A slight increase was recorded for the period 1932 to 1937. The sharp decline in 1938 was attributable to a period of drought. During 1939 and 1940 however, there has been a small increase.

The following table shows the number of horses in New South Wales at the end of the quinquennial periods from 1861 to 1916, and annually from 1916:—

TABLE 702.—Horses in New South Wales, 1861 to 1940.

Year.	Horses.	At 30th June.	Horses.	At 31st March.	Horses.
1861	233,220	1917	733,791	1929*	567,371
1866	274,437	1918	742,247	1930*	534,945
1871	304,100	1919	722,723	1931*	524,512
1876	366,703	1920	662,264	1932	524,751
1881	398,577	1921	663,178	1933	528,943
1886	361,663	1922	669,800	1934	532,028
1891	469,647	1923	660,031	1935	534,853
1896	510,636	1924	653,372	1936	542,862
1901	486,716	1925	647,503	1937	545,829
1906	537,762	1926	651,035	1938	528,625
1911	689,004	1927	623,392	1939	531,355
1916	719,542	1928*	598,377	1940	534,837

\* At 30th June.

The types of horses in New South Wales as at 31st March, 1940, were as follow:—

Broken: Draught, 228,713; Van horses, 31,285; Saddle horses, 141,521; and Ponies 14 hands and under, 43,687.

Unbroken, over one year: 60,617.

Foals under one year: 29,014.

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:—8,728 in 1936, 9,778 in 1937; 6,518 in 1938, 9,467 in 1939, and 6,843 in 1940. The recorded number of horses which died from disease, drought, etc., on rural holdings was 21,813 in 1935-36, 21,662 in 1936-37, 29,836 in 1937-38, 28,624 in 1938-39, and 15,882 in 1939-40.

#### *Horse Breeding.*

Horse breeding declined after 1913 as a corollary to the development of motor traction and transport. From 79,620 in 1913 the number of foals reared declined to 40,015 in 1919. The severe drought of 1919-20 caused a sudden decrease, 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. The number declined owing to unfavourable seasonal conditions in 1937-38, 1938-39 and 1939-40.

The "Horse Breeding Act, 1940" aims at improving the class of horse being bred. The area covered by the Western Division of the State is outside the scope of the Act, and thoroughbred horses registered in the Australian Stud Book are exempted from its provisions. The main object of the Act is to ensure the eventual registration of all other stallions. Such registration can only be obtained after a veterinary officer of the Department of Agriculture, upon examination of the stallion, has certified that the animal conforms to an approved standard. It will be regarded as

an offence for any person to advertise or otherwise indicate that an unregistered stallion is available for breeding purposes. Such matters as sales, leases for a period in excess of six months and deaths of stallions must now be reported to the Chief Veterinary Surgeon.

The following table shows the number of foals recorded at the end of certain years since 1909:—

TABLE 703.—Foals, 1909 to 1940.

Year *	Foals reared (surviving at end of year).	Year*	Foals reared (Surviving at end of year).	Year*	Foals reared (Surviving at end of year).	Year *	Foals reared (Surviving at end of year.)
Av.							
1909-13	73,182	1921	20,065	1928	22,922	1935	40,839
1915	60,337	1922	29,685	1929	19,991	1936	43,092
1916	41,818	1923	28,616	1930	16,716	1937	43,526
1917	49,087	1924	24,307	1931	16,370	1938	39,510
1918	46,832	1925	39,415	1932	22,559	1939	29,282
1919	40,015	1926	36,521	1933	28,925	1940	29,014
1920	24,755	1927	28,282	1934	34,238		

\*At 31st December, 1909 to 1919; 30th June, 1920 to 1931; and 31st March from 1932 onwards.

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 675 of this chapter, and in the chapter relating to dairying.

The recorded number of goats in New South Wales at 31st March, 1939, was 16,542, including 1,794 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, 1940 was only 277, 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 1940 being 201 donkeys and 24 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 certain classes of fat stock in the metropolitan saleyards at Flemington during the years 1938 to 1940. The averages stated are the mean of the monthly prices

in each calendar year, and the monthly prices are the averages for all stock sold each sale day during the month. Prices of certain types of pigs are given in Table 744. Monthly prices of these and other classes and grades of fat stock are published in the Statistical Register.

TABLE 704.—Average Prices of Fat Stock, 1938 to 1940.

Stock.	1938.	1939.	1940.
Cattle—	£ s.	£ s.	£ s.
Bullocks,—Prime Medium ...	12 2	11 3	14 6
Cows and Heifers—Prime			
Heavy ... ..	9 7	8 16	11 17
Sheep and Lambs—	s. d.	s. d.	s. d.
Merino Wethers—Prime ...	19 4	17 3	19 0
Merino Ewes—Prime ...	15 6	14 5	14 4
Lambs and Suckers—Prime			
Heavy ... ..	21 0*	20 11	23 6

\*Prime.

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.

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. Cattle were in light supply owing to drought and prices were higher in 1938 than in any year since 1929. As pastures improved and supplies increased, prices eased in 1939 until late in the year when the British meat contract was arranged and cattle prices firmed.

Monthly variations in the prices of typical grades of live stock are shown below:—

TABLE 705.—Monthly Prices of Live Stock, 1938 to 1940.

Month.	Bullocks. Prime Medium Weight.			Merino Sheep. Prime Wethers.			Lambs and Suckers. Prime Heavy.		
	1938.	1939.	1940.	1938.	1939.	1940.	1938. *	1939.	1940.
	£ s.	£ s.	£ s.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January ...	12 1	11 2	13 4	17 8	14 3	18 0	20 1	20 10	22 7
February ...	11 3	11 5	12 17	18 10	15 5	20 0	21 3	21 5	23 6
March ...	11 1	12 0	13 5	17 9	19 8	20 0	20 11	23 6	23 6
April ...	11 1	11 1	14 3	18 0	18 6	22 8	21 1	21 2	27 9
May ...	11 0	10 13	13 19	19 6	17 8	23 0	22 3	19 5	25 10
June ...	11 8	10 9	12 7	24 0	18 3	19 10	24 6	18 6	23 5
July ...	12 1	10 3	13 9	26 5	18 5	17 7	23 11	19 3	22 10
August ...	14 7	10 4	14 14	26 4	14 9	18 6	23 5	18 1	23 0
September ...	14 17	10 19	14 16	20 0	18 3	18 10	23 0	21 8	22 10
October ...	13 8	11 14	16 0	16 5	18 6	18 2	18 7	22 11	22 6
November ...	11 15	11 15	15 17	13 7	16 11	14 4	16 10	22 1	22 0
December ...	10 19	12 7	16 16	13 4	16 2	16 4	16 10	22 1	22 8
Average for year ...	12 2	11 3	14 6	19 4	17 3	19 0	21 0	20 11	23 6

\*Prime.

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 six 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 706.—Slaughtering, 1901 to 1939-40.

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	4,868	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	138	42	440	251
June, 1916† ...	1,192	5,279	470	5,755	306	217	64	587	278
" 1921 ...	926	3,788	337	4,125	275	136	55	466	296
" 1926 ...	1,077	3,625	809	4,434	307	218	130	754	348
" 1931 ...	1,078	4,272	1,364	5,636	312	246	154	712	421
March, 1936 ...	1,132	4,551	2,300	6,800	323	218	292	833	488
Year ended—									
March, 1935 ...	1,186	4,437	2,373	6,810	349	251	371	971	505
" 1936 ...	1,124	3,773	2,304	6,077	360	283	444	1,096	596
" 1937 ...	1,118	3,837	2,580	6,417	372	328	456	1,186	614
" 1938 ...	1,076	4,183	2,677	6,860	387	377	458	1,222	537
" 1939 ...	1,012	3,852	2,400	6,312	336	341	450	1,136	553
" 1940 ...	980	4,103	2,784	6,887	365	316	441	1,122	542

\* Includes a small number of bulls. † 4½ years.

In 1932-33 there was renewed activity in the export of mutton and lamb (principally the latter). The number of cattle slaughtered has increased steadily 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 was a gradual increase in the number of pigs slaughtered, until pig production was affected by adverse seasons in 1937-39.

The following summary shows the distribution of slaughtering operations in New South Wales in the year ended 31st March, 1939. 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 707.—Slaughtering, 1939-40.

District and Establishments.	Sheep.	Lambs.	Cattle.			Pigs.
			Bullocks.	Cows.	Calves.	
State Abattoirs (Sydney) ...	1,349,040	1,545,797	106,142	84,708	89,985	145,786
Other Abattoirs (Country) ...	983,719	1,036,268	89,657	61,206	68,774	62,560
Total Abattoirs ...	2,332,759	2,582,065	195,799	145,914	158,759	208,346
Country Slaughter-houses ...	831,215	136,446	161,139	165,431	279,469	326,522
Stations and Farms ...	939,236	64,967	8,086	5,056	2,815	7,491
Grand Total ...	4,103,210	2,783,478	365,024	316,401	441,043	542,359

In recent years, there has been a decided increase in country killing for purposes of export and for metropolitan consumption.

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 708.—Stock Slaughtering at the State (Metropolitan) Abattoirs, 1931 to 1940.

Year ended 31st March.	Cattle.	Calves.	Sheep.	Lambs.	Pigs.
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	83,916	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
1939 ... ..	190,764	123,138	1,323,226	1,293,157	153,825
1940 ... ..	190,850	89,985	1,349,040	1,545,797	145,786

\* Year ended 30th June.

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, 1937:—

TABLE 709.—Wholesale Prices of Meat, Sydney, Monthly 1937 to 1940.

Month.	Beef (Ox) per lb.								Mutton and Lamb, per lb.							
	1937.		1938.		1939.		1940.		1937.		1938.		1939.		1940.	
	F.	H.	F.	H.	F.	H.	F.	H.	M.	L.	M.	L.	M.	L.	M.	L.
January ...	d. 2.4	d. 4.5	d. 2.8	d. 5.7	d. 3.2	d. 5.9	d. 3.3	d. 5.5	d. 3.9	d. 6.5	d. 3.6	d. 6.3	d. 3.3	d. 6.4	d. 3.3	d. 6.7
February ...	2.5	4.3	2.8	5.6	3.1	5.7	3.4	5.4	3.3	6.0	3.9	6.3	3.2	6.6	3.5	6.9
March ...	2.5	4.1	3.0	5.5	3.3	6.1	3.4	6.2	3.5	6.1	3.2	5.9	4.0	7.4	3.5	6.9
April ...	2.3	3.9	3.3	5.6	3.1	5.9	3.7	6.2	3.5	6.1	3.5	6.0	3.4	7.0	4.2	8.6
May ...	2.2	3.7	2.9	5.0	3.0	5.5	3.9	6.2	3.2	6.0	3.6	6.2	3.3	6.3	4.0	7.8
June ...	2.3	3.7	3.4	5.5	3.1	5.3	3.9	6.1	4.0	6.7	4.7	7.3	2.9	6.0	3.6	6.9
July ...	2.5	3.9	3.7	5.9	3.1	5.3	4.0	6.0	4.1	6.9	5.0	7.7	3.1	6.4	3.4	6.3
August ...	2.6	4.5	4.1	6.5	3.1	5.2	4.0	6.4	4.3	7.2	4.9	7.2	2.9	6.0	3.7	6.6
September ...	2.9	5.4	4.1	6.9	3.2	5.1	3.9	6.7	4.9	7.2	4.0	6.9	3.2	6.3	3.7	6.4
October ...	3.0	5.9	3.6	6.2	3.1	5.1	4.4	7.2	4.3	6.0	3.1	6.5	3.2	6.4	4.2	6.7
November ...	2.9	5.9	3.3	6.0	3.3	5.3	4.2	7.1	3.8	5.9	3.2	5.9	3.5	5.9	3.2	6.3
December ...	2.7	5.4	3.1	5.4	3.3	5.8	4.6	7.3	3.8	6.5	3.1	6.0	3.3	5.2	3.6	6.3
Average ...	2.6	4.6	3.3	5.8	3.2	5.5	3.9	6.4	3.9	6.4	3.8	6.5	3.3	6.3	3.6	6.9

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 certain later years are shown in the following table:—

TABLE 710.—Wholesale Prices of Meat, Sydney and London. 1911 to 1940.

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	6.3	6.5	7.5
1926 ...	2.3	5.1	4.0	6.2	4.9	4.6
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
1939 ...	3.2	5.5	3.3	6.3	4.0*	3.4*
1940 ...	3.9	6.4	3.6	6.9	†	†

\*Average for eight months. † See page 817.

## 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 711.—Meat Works 1931 to 1940.

Year.	Carcasses 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).	£	£
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	86,555
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	39,238	7,825	5,299	194,082	35,368
1938-39	173,214	1,882,927	4,312	6,928	3,378	124,251	52,850
1939-40	343,339	2,854,381	3,831	10,153	7,199	282,969	63,442

Included in the meat and sundries treated in meat preserving works in 1939-40 were 6,691,026 lb. of beef, 1,814,482 lb. of mutton, and 1,647,482 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 the 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 1938-39 amounted to 524,000 cwt., including about 76,000 cwt. from New South Wales. The shipment of meat in chilled condition was suspended in 1939 for the duration of the war.

The surplus 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. Details, for 1939-40, have been withheld from publication under National Security Regulations. Ships' stores amounting annually to several millions of pounds in weight, are not included in the table:—

TABLE 712.—Export of Frozen or Chilled Meat, 1891 to 1939.  
(from New South Wales.)

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	502,389
1901	115,050	351,516	466,566	541,625	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
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	1,395,162	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
1938-39	105,360	401,643	807,003	1,310,130	2,326,403	78,107	1,460,780
1939-40	‡	‡	‡	‡	‡	281,274	‡

\* Not available. † Total of foregoing with addition of Bacon and Ham, Pork, Fresh and Smoked Meat. Veal is not included. ‡ Not available for publication.

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 1938-39 the corresponding numbers were, respectively, 272,501 and 1,060,507. Particulars of quantity of meat exported in 1939-40 are not available for publication.

#### 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 and lamb the charge is  $\frac{1}{4}$ d. per carcase or for each 45 lb. weight of part carcasses. Pork carries a charge of 1d. per carcase and for each 100 lb. of portions of carcasses, and bacon and ham of 1d. per 100 lb. or portion thereof. 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, 1940, amounted to £20,243, of which £5,076 was paid in New South Wales. The total income for the year was £21,681, expenditure amounted to £16,722, and at 30th June, 1940, the unexpended funds of the Board amounted to £45,783. The Board assists the Council of Scientific and Industrial Research financially in its research in matters related to meat export, and in 1939-40 expended £1,226 in research contributions.

#### *Exports of Meat to Great Britain.*

In 1933 the British Government began to take special 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. An outline of the arrangements governing supplies of meat to the British market in the years 1933 and 1934 was given at page 800 of the Year Book for 1937-38.

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.

Upon the outbreak of war the British Government agreed to absorb a considerable quantity of the Australian exportable surplus of meat. Particulars of the contract entered into for the purchase of meat by the British Government are given at a later page.

*British Government Purchase of Meat.*

As the meat export trade of Australia was already highly organised and under statutory control through the Australian Meat Board, the negotiations with regard to meat required by the British Government were greatly facilitated, and no major change in the existing arrangements was required to ensure the efficient conduct of export operations under the contract. The National Security (Meat Export) Regulations made on 1st December, 1939, extended the existing requirement of a license for export by providing that meat or edible offal may not be exported to any person in the United Kingdom other than the Minister of Food.

The initial contract made with the Government of Great Britain covered the period from 1st October, 1939, to 30th September, 1940. It was in respect of a total of 240,000 tons of meat, and the United Kingdom agreed to use its best endeavours to lift any additional quantities available for export. Canned meat was not included in the original agreement, but later, substantial contracts for the supply of canned corned beef have been placed with Australian canners by the United Kingdom Government. The agreement resulted in stabilized prices, on the basis of a fair margin of profit, at a time when prices generally were trending downward. It also ensured the marketing of increased quantities when restriction on some classes was pending. The point of sale is on shipboard, Australian port. Prices are fixed in sterling and do not cover costs of storage and expenses incurred from store to shipboard. In the event of undue delay due to lack of shipping space, the British Government has undertaken to consider making payment toward the additional costs of storage and making payments on account in accordance with arrangements to be agreed with the Commonwealth Government. Losses by fire or other damage fall upon the seller until the meat is aboard ship for export, after which all risks devolve upon the buyer.

Bills of lading and shipping specifications are handed to agents in Australia nominated by the Minister of Food, and payment is made by the British Government, as to 90 per cent., on shipment, and as to the balance, within twenty-eight days of arrival, or in the case of a steamer being lost, of the estimated due date of arrival. On arrival in the United Kingdom 10 per cent. of each parcel is weighed, and the whole parcel judged according to the result, with an allowable variation of not more than 1 per cent. of the declared weight. A larger proportion may be weighed as a check should the Commonwealth representative so require in any case of claim by the Ministry of Food's surveyor.

The schedule of prices agreed upon covers the various kinds and grades of meat. For the main lines prices represented a higher return than in 1938-39. All meat is being shipped frozen, but prices for first quality frozen beef are based on chilled beef values.

The contract was received for 1940-41, with prices practically the same as for the previous period. The quantity covered in the 1940-41 agreement is 249,000 tons, including 225,000 tons of beef and veal, mutton and lamb, and porker pork, and 24,000 tons of baconers.

Advice has since been received from the Imperial Government, however, that difficulty is being experienced in providing insulated ships to carry the full quantity of meat available in Australia for export under the contract with the United Kingdom. It has consequently become necessary to place restrictions on the acceptance for export of certain classes of meat in order to avoid the probability of large quantities of meat being held in store.

Exports to the United Kingdom under the contracts for 1939-40 and 1940-41 should reach a value of about £12,000,000 Australian currency. All meat exported from Australia (other than bacon and hams and canned meats) was valued at £11,044,451 in 1937-38 and £10,465,000 in 1938-39. Prices for the principal types of meat in the season ended 30th September, 1941, are:—

TABLE 713.—British Government Meat Contract—Prices f.o.b. Australia (1940-41).

Kind and Class of Meat.	1st Quality.		2nd Quality.	
	Pence per lb. Sterling.	Pence per lb. Aust. Currency.*	Pence per lb. Sterling.	Pence per lb. Aust. Currency.*
<i>Lamb</i> —28 lb. and under .....	5 $\frac{13}{16}$	7.27	5 $\frac{11}{16}$	7.11
29 lb. to 36 lb. ....	5 $\frac{9}{16}$	6.95	5 $\frac{1}{4}$	6.41
37 lb. to 42 lb. ....	5 $\frac{7}{16}$	6.80	4 $\frac{3}{4}$	5.94
<i>Mutton</i> — <i>Wethers and/or Maiden Ewe</i> —				
40 lb. and under .....	2 $\frac{13}{16}$	3.52	...	...
41 lb. and over .....	2 $\frac{5}{8}$	3.28	...	...
<i>Beef</i> — <i>Ox and Heifer</i> —				
Hinds .....	4 $\frac{3}{8}$	5.23	3 $\frac{7}{16}$	4.30
Crops .....	2 $\frac{5}{8}$	3.28	2 $\frac{9}{16}$	3.20
<i>Pork</i> — <i>Baconer or Porker Carcasses</i> .....	6	7.50	5 $\frac{1}{4}$	7.19

\* Equivalent of sterling price converted at £stg. 100 = £A.125.

Interruption of supplies of pig meat from certain European countries has opened opportunities for increased exports of pork to the United Kingdom from Australia. In New South Wales a Pig Expert has been appointed, and a Pig Production Sub-committee has been created to co-ordinate the work of various organisations interested in the industry and to promote expansion on approved lines.

#### *Meat Imports of the United Kingdom.*

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. Particulars for the full calendar year 1939 are not available.

TABLE 714.—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. All meat in the United Kingdom was requisitioned and prices were brought under control by the British Ministry of Food on 10th September, 1939. The prices applicable to Australian meat then fixed were 6½d. per lb. for beef hinds and 3¾d. for beef fores, chilled, or frozen of chiller quality. For lamb and mutton prices ranged according to grade and weight for lamb from 6d. to 7¾d. per lb., for wether mutton from 4½d. to 5¾d. per lb. and for ewe mutton from 3½d. to 4½d. per lb.

TABLE 715.—Prices of Australian Frozen Meat, London, 1913 to 1939.

Month.	Frozen Beef (Hinds) per lb.						Frozen Mutton per lb.					
	1913.	1928.	1936.	1937.	1938.	1939†	1913.	1928.	1936.	1937.	1938.	1939.
January ...	d. 3½	d. 47	d. 37	d. 4	d. 4¾	d. 4½	d. 4½	d. 5½	d. 3¾	d. 4½	d. 4½	d. 3
February ...	3½	47	4½	4½	4½	4½	4	5½	4	4½	4½	2½
March ...	3½	5	4½	4½	5	4	3¾	5½	4½	3¾	4	2½
April ...	3¾	47	4½	4½	*	3¾	4	*	4½	4	37	3½
May ...	3½	5½	4½	*	*	3¾	3¾	*	4½	4	37	3½
June ...	3½	6	4	*	*	3¾	4	*	4½	4½	37	3½
July ...	4	6½	3¾	4½	*	4	4	*	4½	37	37	3½
August ...	4	6	3¾	4½	*	4½	4	*	4	4	37	4
September ...	4	5½	37	4½	*	4	4	*	4½	4	37	†
October ...	4½	5	37	4½	4½	†	4	5½	4½	4½	37	†
November ...	4½	5	37	4½	4½	†	4	4¾	4½	4	37	†
December ...	4½	4¾	4	4½	4½	†	4½	4¾	4½	4½	37	†
Annual Average	4	5¾	4	4½	4¾	†	4	5½	4½	4	3¾	†

\* No quotation. † See preceding paragraph.

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. During the war, in order to utilize available shipping space to the maximum, all meat is being shipped frozen. Average prices paid in London (in English currency) for Australian frozen and chilled beef are indicated below:—

TABLE 716.—Prices of Australian Beef in London, 1937 to 1939.

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.
1937 Chilled Crops ...	3	3½	3½	3½	4½	3½	3½	3½	3½	3½	3½	3½	3½
Chilled Hinds ...	4½	5	4½	4½	5½	5½	4½	5½	5½	5½	5½	5½	5
Frozen Hinds ...	4	4½	4½	4½	...	...	4½	4½	4½	4½	4½	4½	4½
1938 Chilled Crops ...	3½	4	4	3½	3½	3½	3	3	3½	3½	3½	3½	3½
Chilled Hinds ...	5½	5½	5½	4½	4½	5	5	4½	5½	5½	5½	5½	5½
Frozen Hinds ...	4½	4½	5	...	...	...	...	...	...	4½	4½	4½	4½
1939 Chilled Crops ...	3½	3½	3½	2½	3½	2½	3½	3½	...	...	...	...	3½*
Chilled Hinds ...	5½	5½	4½	4½	4½	4½	5	5½	...	...	...	...	3½*
Frozen Hinds ...	4½	4½	4	3½	3½	3½	4	4½	...	...	...	...	4*

\* Average for eight months, see page 817.

The average wholesale prices per pound obtained in each of the past ten years for Scottish and frozen mutton sold in London were:—

TABLE 717.—Wholesale Prices of Mutton in London, 1930 to 1939.

Year.	Best Scottish.	New Zealand.	Australian.	Argentine.	Year.	Best Scottish.	New Zealand.	Australian.	Argentine.
	d.	d.	d.	d.		d.	d.	d.	d.
1930	12½	5½	4½	4½	1935	10	4½	3½	4
1931	10½	4½	3½	4	1936	9½	4½	4½	4½
1932	*	3½	3	3½	1937	10½	5½	4	4½
1933	*	4	3½	3½	1938	8½	5	3½	4½
1934	10½	5	4½	4½	1939†	9½	4½	3½	3½

\* Not available.

† Average for eight months, see page 817.

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 718.—Export of Pastoral Products, 1901 to 1940.

Products.	Oversea Exports.					
	1901.	1911.	1920-21.	1930-31.	1938-39.	1939-40.
<b>Skins and Hides—</b>						
Cattle ... .. No.	91,084	263,306	219,070	520,917	1,251,277	484,143
Horse ... .. No.	472	1,392	140	3,618	...	...
Rabbit and Hare ... lb.	*	5,795,839	3,387,480	4,679,429	1,661,935	3,718,616
Sheep ... .. No.	*	2,410,543	1,399,388	3,302,037	2,991,855	†
Other ... .. £	184,522	296,672	690,662	179,819	174,412	‡
Bonedust ... .. cwt.	66,473	116,733	59,670	6	38	54
Bones ... .. cwt.	3,207	6,807	11,152	5,646	6,983	5,151
Furs (not on the skin) ... £	767	117	...	...	...	...
Glue-pieces and Sinevs ... cwt.	12,862	20,580	46,735	3,106	84‡	37
Glycerine and Lanoline ... lb.	*	138,347	1,135	96,628	214,129	†
Hair (other than human) ... lb.	165,562	255,819	92,165	86,206	27,444	79,109
Hoofs ... .. cwt.	2,215	3,733	3,159	2,885	4,303	3,539
Horns ... .. £	12,532	13,475	14,548	4,325	3,982‡	3,249
Lard and Refined Animal Fats lb.	13,633	227,000	2,191,819	186,991	1,454,993	6,423,667
Leather ... .. £	374,541	334,996	524,078	258,178	329,982‡	707,172
Sausage-casings ... .. £	2,567	52,562	99,653	128,861	104,268	90,604
Tallow (unrefined) ... .. cwt.	305,227	612,911	233,891	227,993	169,376	295,878
Total Value of above-mentioned minor Pastoral Products exported ... .. £	1,223,728	2,486,492	3,385,838	2,149,714	2,223,041	2,114,024‡

\*Not available. †Not available for publication; the total shown is exclusive of these items. ‡Revised.

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 719.—Value of Pastoral Exports, 1921 to 1940.

Commodity.	Average, 1921-25.	1931-32.	1936-37.	1938-39.	1939-40.
Wool ... ..	£ 20,851,506	£ 13,896,532	£ 27,631,888	£ 17,221,246	£ †
Meat ... ..	1,200,785	1,569,240	1,928,926	1,460,780	†
Live stock... ..	69,903	54,609	64,476	70,502	95,620
Other* ... ..	4,163,053	1,676,092	3,889,683	2,223,041	†
<b>Total ... ..</b>	<b>26,276,247</b>	<b>17,196,473</b>	<b>33,514,973</b>	<b>20,975,569</b>	<b>†</b>
Proportion of total exports oversea†	per cent. 54·7	per cent. 55·8	per cent. 64·7	per cent. 55·8	per cent. †

\* Items listed in previous table. † Excluding bullion and specie. ‡ Not available for publication.

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 720.—Value of Pastoral Production, 1901 to 1939-40.

Year.	Estimated Annual Farm Value of Pastoral Production (000 omitted).							Per head of Population.
	Sheep.			Cattle.		Horses.	Total.	
	Wool.	Slaughtered.	Exported.	Slaughtered.	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	13,099	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	20,951	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
1938-39	17,076	3,537	97	4,495	(-) 586	175	24,894	9 2 1
1939-40	28,283	3,317	(-) 1	4,598	(-) 822	175	35,550	12 17 4

(-) Denotes excess of imports.

It is estimated that the value of the principal materials used in the pastoral industry was £988,000 in 1939-40 and the depreciation on machinery, £210,000.

#### 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, 1940, receipts under the Act were £7,018, including £5,643 collected as rates, and £6,952 was expended; for 1939 the corresponding figures were £7,909, £5,504 and £7,419 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, 1940 was £5,017.

### 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.

In the past ten years the rabbit pest has been brought under control by landholders in many parts of the State. The damage caused by 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 721.—Rabbits and Hares—Oversea Exports, 1901 to 1940.

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	5,177,364	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	876,804
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
1936-37	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
1938-39	324,362	27,531	1,661,935	197,707	225,238
1939-40	695,474	52,759	3,718,616	491,440	544,199

\* 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 1939-40, materials were supplied to the value of £6,825, including 152 miles of wire netting, 21 tons of fencing wire and 9 tons of barbed wire. Repayments during the year amounted to £42,418. A sum of £574,000 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 £1,429,830 at 30th June, 1940. The amount outstanding in respect of the advances was £382,042 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. No advances have been made since the financial year 1930-31. The wire-netting was supplied to the settlers at such prices and upon such terms as prescribed by regulation. The total advances to New South Wales under this Act to 30th June, 1940, amounted to £54,318, and the repayments amounted to £32,485.

## 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 62 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, 1940, the number of standing registrations was approximately 76,000. Brands for large stock may be used on either cattle or horses.

Sheep brands, of which the registrations are approximately 44,000, 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. In 1936-37 ephemeral fever (three days' sickness) affected the dairy herds in New South Wales for the first time. Infection has been less widespread and the disease less virulent in subsequent years, but it is recognised that unless research provides a method of control there will be, as in other countries where it is present, an annual recrudescence of the disease. Although ephemeral fever rarely causes mortality it has a marked effect upon milk production. 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 pleuro-pneumonia 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. In 1940 there were ten trainees pursuing courses in Veterinary Science at the University, and five graduate veterinarians were appointed as Inspectors of Stock in Pastures Protection districts.

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. This work is supervised by the Chief Veterinary Surgeon and is subsidised by the Milk Board at the rate of £1,250 per annum. As a result 33,057 animals were tested under the supervision of veterinary officers of the Department of Agriculture in 1939-40 and 600 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. The Australian Dairy Cattle Research Council is meeting the salary and incidental expenses of a veterinary research officer of the Glenfield research station engaged in investigations regarding contagious abortion in dairy cattle and paid the sum of £1,040 in that connection in 1939-40. 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.*

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 reduced the occurrence of tick fever to isolated instances.

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 enabled the lifting of the quarantine in further areas but in 1938-39 part of these areas were found to be re-infested and were again quarantined. The work 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 five years to 1939-40 being £54,450, £48,350, £44,450, £44,450 and £44,450. In addition the Commonwealth Government made a further grant of £25,000 in 1937-38 and 1938-39 and £15,000 in 1939-40 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 1939-40 receipts collected under the Act amounted to £20,331 and disbursements to £16,092 of which £15,092 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, 1940 there were registered 222 veterinary surgeons.

## DAIRYING, POULTRY, Etc.

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The nature of the soil, the mild climate, and abundant rainfall in the coastal portions of the State are most suitable for the maintenance of dairy herds. Natural pasture is generally available throughout the year, hand-feeding is necessary only in very dry seasons, and dairy cattle do not require housing to maintain production during winter months.

Commercial 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 Sydney and neighbouring towns. The development of dairying as a national industry was slow until, toward the end of the 19th century, 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 inland districts of the State rainfall is not sufficient for extensive dairying except in certain special districts or where there are fodder reserves to supplement feeding in winter months and periods of drought. In these districts dairy-farming is undertaken mainly to supply local needs, and a number of well-equipped factories have been established in proximity to inland towns. Dairying is conducted also on the Murrumbidgee irrigation area.

In the coastal division 13,209 holdings were used exclusively for dairying in 1939-40 and 3,759 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 1,001 holdings used solely for dairying and 2,735 for dairying in combination with other rural pursuits. The extent to which dairying was conducted with wheat farming in 1932-33 and 1935-36 was shown in Table 638 of the Year Book for 1937-38.

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 and 892,000 acres in the South Coast 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. However, where the soil is suitable and cultivation is practicable, the laying down of introduced grasses substantially increases the carrying capacity of land and the milk yield per cow. 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 extent of fodder conservation of this type is indicated in Table 579. The area of land devoted to sown grasses in March, 1940, amounted to 3,301,804 acres, of which 2,313,058 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 576.

#### 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, 1915-1940; 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 that registration is opposed to the best interests of the dairying industry in New South Wales. An amending Act of 1940 makes provision for regulating the manufacture or preparation of margarine.

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 exercises supervision over the quality of butter produced, and may order structural improvements in factory premises. He also organises and controls herd recording units.

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 recent years approximately 90 per cent of the butter produced in factories 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, and the Dairy Produce Export Control Act, 1924-38. 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 for 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, a word registered by the factory may be added to the approved design.

During the year ended June, 1939, Federal officers examined 527,010 boxes of New South Wales butter for oversea export from Sydney and Newcastle. Of these 410,348 boxes, or 77.9 per cent., were classed as choicest, 65,565 as first quality, 42,766 boxes as second quality, and 6,232 boxes as pastry butter; 2,099 boxes were prohibited from export. Particulars of quantity examined for export in 1939-40 are not available for publication, but the proportion of choicest is shown below.

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 722.—Export Butter Graded as Choicest.

State.	1926-27.	1930-31.	1937-38.	1938-39.	1939-40.
New South Wales (Boxes, 56 lb.)	382,485	629,869	505,846	410,348	*
Percentage of total... ..	60.6	87.0	81.7	77.9	85.60
Victoria (Boxes, 56 lb.)	734,345	1,133,075	918,998	772,753	*
Percentage of total... ..	79.8	37.5	63.2	60.5	52.39
Queensland (Boxes, 56 lb.)	486,122	1,240,966	939,267	1,126,423	*
Percentage of total... ..	54.5	61.4	61.4	57.5	49.81
South Australia (Boxes, 56 lb.)	35,686	50,795	9,320	5,249	*
Percentage of total... ..	63.6	15.6	4.9	3.3	4.24
Tasmania (Boxes, 56 lb.)	22,598	74,121	36,932	31,657	*
Percentage of total... ..	78.0	21.3	52.5	46.2	39.04
Western Australia (Boxes, 56 lb.)	Nil.	Nil.	4,766	3,894	*
Percentage of total... ..			7.0	5.1	1.95

\* Not available for publication.

## DAIRYING ORGANISATIONS.

The Australian Agricultural Council, the Standing Committee on Agriculture, and State advisory boards include dairying problems within their functions. 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 672 of this volume.

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.

*Australian Dairy Produce Board.*

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. By this means the Board enforces regulation of shipments and disposal of butter oversea. 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 was to remain at the rate of 8s. 4.82d. per cwt. 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  $\frac{1}{10}$  d. on cheese exported in 1936-37, and  $\frac{1}{16}$  d. and  $\frac{1}{32}$  d. respectively in 1937-38. Subsequent alterations to the rates have been—August, 1939,  $\frac{1}{20}$  d. and  $\frac{1}{40}$  d. respectively; November, 1939,  $\frac{1}{8}$  d. and  $\frac{1}{12}$  d. respectively; and August, 1940,  $\frac{1}{20}$  d. and  $\frac{1}{40}$  d. respectively. A considerable proportion of the Board's income is expended in advertising Australian butter in the United Kingdom and the East. The Board contributes to the funds of State Committees for Pasture Improvement and the Australian Dairy Cattle Research Association and co-operates in the work of the Australian Committee on Animal Production.

*The Australian Equalisation Scheme.*

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. Information regarding the functioning of this scheme is given in earlier editions of this Year Book.

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 Commonwealth 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 by means of quotas. By this means the proceeds of sales of butter are equalised as between factories, the "quota" representing in effect the proportion of output upon which the local price

is paid to each factory. The Committee fixes prices for equalisation purposes and equalises returns to factories through an Equalisation Fund. 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 of the past five years are shown in the following statement:—

TABLE 723.—Butter and Cheese for Local Consumption—Quotas.

Month.	Butter.					Cheese.				
	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
July ...	87½	87	87½	61	73	95	85	82	66½	51
August ...	71	82	65	54	61	76	71	56	47½	41
September ...	51	57	48	42	54	52	52	40	37	39
October ...	35	39	36	34	42	41	41	33½	29	33
November ...	32	34	33½	32	37	40	37	29	26	30
December ...	38	32	31	32	39	44	38	28	28	31
January ...	39	35	35	32	36	50	40	29	32	36
February ...	38	36	43	36	37	50	45	33½	43	46
March ...	41	40	50	40	44	53	53	36	46	50
April ...	49	56	54	47	53	69	59	49	50	58
May ...	66	72	57	50	57	82	70	66½	50	63
June ...	81	93	60	69	...	89	83	66½	55	...

The quota is determined in such a way as to leave available for the local market the quantity that can be sold at the price fixed for local consumption. This price is uniform in all participating States. The quota varies from month to month and from year to year as production varies. The requirements of butter for home consumption show little variation from month to month.

#### 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, Guerneys; 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 three schools attended by 56 students in 1940.

#### HERD RECORDING.

The practice of herd recording enables the farmers to ascertain the productivity of individual cows, to cull unprofitable animals, and to retain the progeny of those of higher grade.

For the recording of pure-bred stock registered in the various herd societies, there is a scheme conducted by the Department of Agriculture which is intended to determine the production of milk and butter fat of each cow in the herd in a period of 24 hours. Each cow is recorded once per month, at intervals as near as possible to 30 days, and the production is multiplied by 30 to give the yield for the month. The official standards for 273 days, comprising 8 periods of 30 days and 1 period of 33 days, are according to the age of the cow, as follows:—Under 2½ years, 230 lb. butter fat; 2½ and under 3 years, 250 lb.; 3 and under 3½ years, 270 lb.; 3½ and under 4 years, 290 lb.; 4 and under 4½ years, 310 lb.; 4½ and under 5 years, 330 lb.; mature cows, 350 lb. An official production certificate is issued for each cow reaching the official standard.

The fees for recording are—For pure-bred cattle, a herd entry fee of £2, together with a fee of 10s. per cow for each lactation period. For cows recorded under the second division of the scheme, £3 5s. is charged for any number of cows up to 20; 2s. 9d. for each additional cow up to 40; 2s. 6d. for each additional cow up to 60; 2s. for each additional cow up to 80; and 1s. 6d. for every cow over 80.

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 1938 and 1939 there was an appreciable increase, but a decrease followed in 1940. This was due in part to the policy of the Department of Agriculture in making the scheme more compact and partly to the effects of drought. The number of cows tested in each of the last six years was:—

TABLE 724—Dairy Cows Tested, 1935 to 1940.

Year ended September.	Pure-Bred Cows Tested.		Grade Cows Tested.	Total Cows Tested.
	For Certified Recording.	For Uncertified Records.		
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
1939	1,767	1,860	43,426	47,053
1940	1,923	1,467	37,155	40,545

## 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 1929 is shown below:—

TABLE 725.—Milking Cows, 1929 to 1940.

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.	
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
1939	691,105	195,806	41,048	140,947	98,340	706,784
1940	659,404	223,638	46,721	139,236	97,237	703,557

\* 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 109,245 in 1939-40, 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 1926 and in each of the last ten years are as follows:—

TABLE 726.—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	980,400	52,929	79,142	14,130	1,128,228
1938	518,617	970,567	47,066	65,413	10,461	1,094,915
1939	516,880	961,802	42,099	54,539	9,085	1,068,906
1940	525,062	958,308	41,306	57,008	10,931	1,068,999

\* 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 an increase from 18,838 in 1928-29 to 22,911 in 1933-34 and a subsequent decline to 20,704 in 1939-40. However, the number of holdings engaged in dairying in 1939-40 was approximately 8 per cent. greater than in 1929-30:—

TABLE 727.—Holdings used for Dairying, 1929 to 1940.

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	3,406	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
1939	14,129	3,660	1,331	1,489	20,609
1940	14,210	3,752	1,309	1,433	20,704

† 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 holdings engaged in dairying operations are single purpose farms.

## 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.

The number of butter factories in New South Wales has decreased from 126 in 1921, to 108 in 1929 and 94 in 1940. Over this period there has been a tendency towards concentration of manufacture of butter into fewer and better equipped factories. Between 1929 and 1940 the number of employees in butter factories increased from 1,021 to 1,208 while the total horse power of machinery installed increased from 9,799 to 21,732. In 1940 cheese was produced in 33 factories, bacon and ham in 24 and condensed milk and other milk products in 10 factories.

## 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 728.—Index of Rainfall in Dairying Districts, 1929 to 1940.

Month.	Average Production of Butter in Factories †	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
	mil. lb.											
July ... ..	5.0	61	61	76	77	197	207	93	43	87	98	46
August ... ..	5.3	92	93	54	55	20	128	44	42	130	147	102
September ...	7.0	90	30	50	230	180	156	196	77	21	53	77
October ... ..	10.1	240	113	51	93	170	95	102	55	173	102	208
November ...	12.1	82	41	131	110	161	105	45	23	275	78	87
December ...	12.3	49	89	181	42	160	116	93	179	110	18	49
January ... ..	12.9	103	48	28	148	97	92	88	99	172	91	58
February ... ..	12.1	68	181	59	31	198	130	79	139	133	13	47
March ... ..	12.2	148	123	43	52	51	97	128	199	84	248	104
April ... ..	10.3	132	215	94	164	198	70	58	63	105	107	88
May ... ..	7.9	174	74	93	56	180	58	94	11	205	53	39
June ... ..	5.8	351	47	47	178	55	28	48	187	50	32	58
	113.0	132	93	76	103	139	107	89	93	129	87	80

## Average Production of Commercial Butter per Cow—lb.\*

Estimate for Season	161.4	168.4	170.3	169.3	181.6	183.1	156.7	147.8	164.0	153.8	174.0
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\* See Table 730. † Five years ended 1940.

The index of rainfall 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 735.



## DAIRY PRODUCTION.

The following statement shows the estimated yield of milk in each division of the State during the year ended the 31st March, 1940, also the production of butter, cheese and bacon—the figures for these three items being factory production during the year ended 30th June, 1940, and the farm production during the year ended three months earlier:—

TABLE 729.—Milk, Butter, Cheese and Bacon Production, 1939-40.

Division.	Estimated Yield of Milk.	Butter Made.	Cheese Made.	Bacon and Ham Made.
<b>Coastal—</b>	gallons.	lb.	lb.	lb.
North Coast ... ..	139,280,724	*67,337,610	1,055,501	5,340,771
Hunter and Manning ... ..	61,182,447	24,381,814	801,960	1,950,577
Metropolitan ... ..	17,631,831	500,680	27,424	15,494,854
South Coast ... ..	43,232,957	9,624,929	4,917,275	603,950
<b>Total</b> ... ..	<b>261,327,959</b>	<b>101,845,033</b>	<b>6,802,160</b>	<b>23,390,152</b>
<b>Tableland—</b>				
Northern ... ..	5,967,156	1,623,695	230	345,330
Central ... ..	7,216,145	1,579,434	100	77,391
Southern ... ..	2,909,929	492,788	300	17,090
<b>Total</b> ... ..	<b>16,093,230</b>	<b>3,695,917</b>	<b>630</b>	<b>439,811</b>
<b>Western Slopes—</b>				
North ... ..	5,524,229	1,564,734	...	33,351
Central ... ..	3,318,747	916,036	80	35,187
South ... ..	19,141,787	†7,572,932	...	1,065,210
<b>Total</b> ... ..	<b>27,984,763</b>	<b>10,053,702</b>	<b>80</b>	<b>1,133,748</b>
<b>Plains—</b>				
North Central ... ..	1,213,878	135,546	100	7,218
Central ... ..	1,318,299	148,263	...	6,815
Riverina ... ..	5,765,203	889,271	540	58,617
<b>Total</b> ... ..	<b>8,297,380</b>	<b>1,173,080</b>	<b>640</b>	<b>72,650</b>
<b>Western Division</b> ... ..	<b>1,005,695</b>	<b>45,960</b>	<b>...</b>	<b>1,339</b>
<b>Total</b> ... ..	<b>‡314,709,027</b>	<b>116,813,692</b>	<b>6,803,510</b>	<b>‡25,037,700</b>

\* Includes 258,253 lb. made from Queensland cream. † Includes 617,493 lb. from Victorian cream.

‡ Includes 4,134,253 gallons sent to interstate factories as cream.

§ Includes 4,110,036 lb. made from green bacon produced outside the State.

This statement shows that dairying activities are mainly conducted in the coastal division and are relatively inextensive in the remainder of the State. In this area about 90 per cent of the cows in registered dairies are depastured, and approximately 83 per cent. of the total output of milk, 87 per cent. of the butter, and practically the whole of the cheese are produced. Fifty-seven 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. Dairying in inland districts is relatively inextensive and, after a temporary expansion from 1931 to 1934, has declined. 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 over 93 per cent. of the output is produced.

A graph on page 842 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 Sydney 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 is not accurately recorded, but is estimated 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 in Table 730. 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 in New South Wales, and covers a period of years since 1925-26:—

TABLE 730.—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 Produisible from Milk of Cows in Registered Dairies used for other Purposes.	Total Commercial Butter Produced or Produisible 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 per Year.				Thousand lb.			lb.
1926-30	762,404	758,363	96,200	1,162	23,834	121,196	159·8
1931-35 Year.	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	944,906	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
1938-39	886,911	896,212	105,537	1,054	31,251	137,842	153·8
1939-40	883,042	884,977	121,658	935	31,446	154,039	174·0

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 728. 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 produced in New South Wales and used for various purposes in each of the last five years:—

TABLE 731.—Uses of Milk, 1936 to 1940.

Purpose for which Milk was used.	Year ended 31st March.				
	1936.	1937.	1938.	1939.	1940.
	Gallons (000 omitted).				
Butter making—					
On farms ... ..	17,646	16,794	14,197	14,315	13,729
In N.S.W. factories ... ..	248,082	219,525	230,540	211,250	214,162
In other States ... ..	3,704	3,426	2,699	3,125	4,134
Total used for butter .....	269,432	239,745	247,436	228,690	232,025
Cheese making—					
On farms ... ..	306	283	309	302	172
In factories ... ..	7,265	7,308	7,710	7,413	6,721
Total used for Cheese .....	7,571	7,591	8,019	7,715	6,893
Sweet cream, ice cream, condensing, etc. ... ..	8,053	8,382	9,151	9,645	11,887
Pasteurised for metropolitan and Newcastle markets ... ..	21,442	22,866	24,442	26,457 <sup>a</sup>	26,433 <sup>a</sup>
Balance sold as raw milk and used otherwise... ..	38,848	39,033	38,960	38,877 <sup>b</sup>	37,471 <sup>b</sup>
Total milk (produced in N.S.W.)... ..	345,346	317,617	328,008	311,384	314,709

(a) Excludes and (b) includes approximately 11 million gallons of raw milk produced and sold for local consumption in the metropolises and Newcastle.

The milk used in 1939-40 for making butter represented 73.7 per cent. of the estimated total production; 2.2 per cent. was used for cheese; 3.8 per cent. for condensed milk, cream, ice-cream, etc.; and the balance—20.3 per cent.—was consumed as fresh milk or used otherwise. The quantity pasteurised for the Sydney and Newcastle markets was 32.7 per cent. greater in 1939-40 than in 1927-28.

An estimate of the quantity of fresh milk used for human consumption in the metropolitan district is shown in the chapter relating to "Food and Prices," page 573 of this Year Book.

## BUTTER.

The production and consumption of butter in New South Wales and the net export of butter from New South Wales in recent years were as follows:—

TABLE 732.—Butter Production, Consumption and Export (New South Wales.)

Year ended 30th June.	Butter Produced.	Butter Consumed in N.S.W.	Net Export of Butter from N.S.W.	Year ended 30th June.	Butter Produced.	Butter Consumed in N.S.W.	Net Export of Butter from N.S.W.
	million lb.				million lb.		
1935	146.1	88.3	59.0	1938	120.9	93.7	25.6
1936	125.2	91.8	30.5	1939	118.8	93.0	20.6
1937	109.8	92.0	16.8	1940	116.8	95.0	*

\* Not available for publication.

The difference between total consumption plus net export and quantity of butter produced represents changes in stocks as at 30th June.

The following statement shows the quantity of butter made annually in New South Wales at intervals since 1901. The figures include the butter made in factories from cream produced in other States, the quantity in 1939-40 being 875,746 lb.

TABLE 733.—Butter Production, 1901 to 1940.

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	1932	5,399†	118,448	123,847
1906*	4,637	54,304	58,941	1933	5,306†	123,625	128,931
1911*	4,632	78,573	83,205	1934	5,660†	143,208	148,868
1916	4,254	55,374	59,632	1935	5,948†	140,158	146,106
1921	4,388	79,880	84,268	1936	6,046†	119,123	125,169
1926	5,270	101,698	106,968	1937	5,856†	103,975	109,831
1929	4,511	91,733	96,244	1938	4,952†	115,930	120,882
1930	4,208	100,814	105,022	1939	4,980†	113,841	118,821
1931	4,910	109,292	114,202	1940	4,794†	112,020	116,814

\* Calendar year.

† Year ended 31st March.

The high level of production reached in 1933-34 and 1934-35 may be attributed mainly to the bountiful seasons (See Table 728), but also in part to a temporary expansion of dairying in the hinterland (See Table 726) and to farmers' efforts to offset low prices by increasing production (See Table 738). Omitting the two years mentioned it would appear that the annual average production of butter has been increased by approximately 20 per cent. in the past ten years as compared with the ten years ended 1930.

*External Trade and Local Consumption of Butter.*

Latest particulars available for publication of the external trade in butter to and from New South Wales are summarised in the following statement (the particulars of the interstate movement are approximations):—

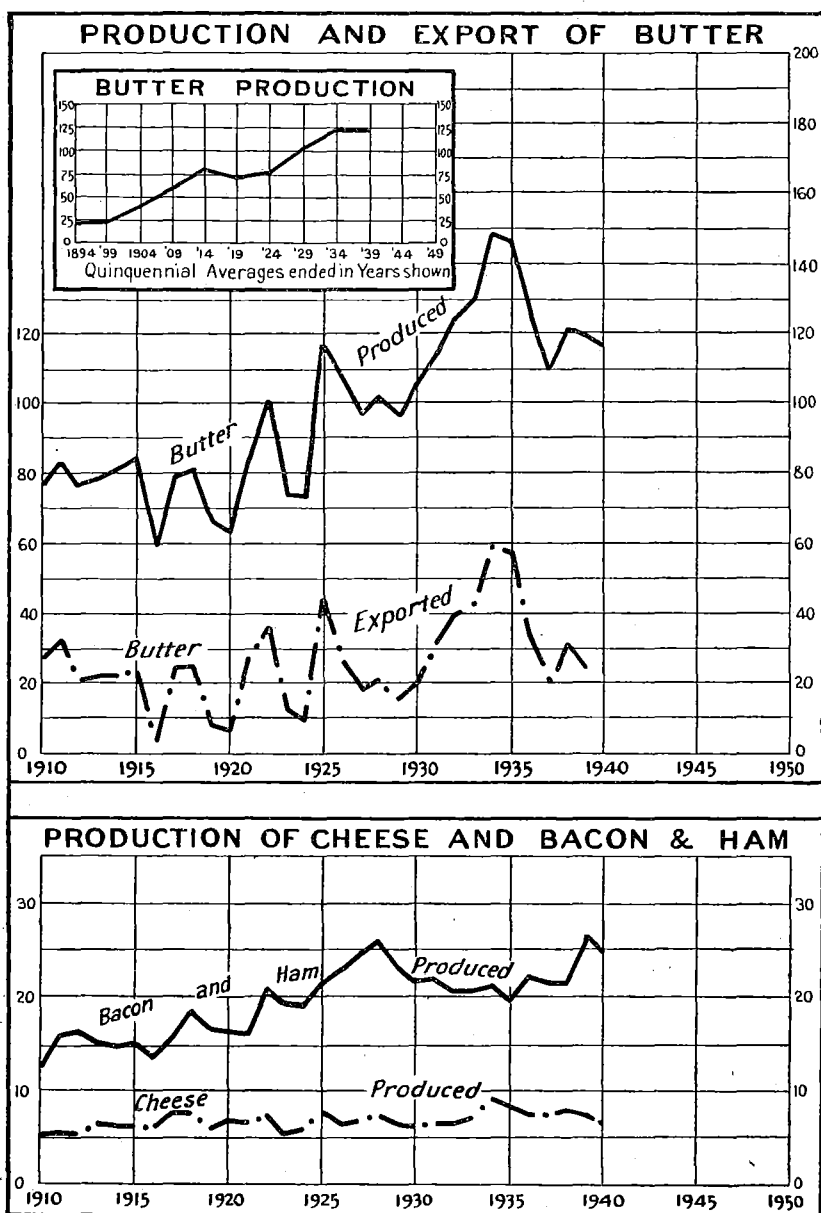
TABLE 734.—Interstate and Oversea Trade in Butter, 1935 to 1939.  
(New South Wales.)

Particulars.	1934-1935.	1935-36.	1936-37.	1937-38.	1938-39.
Imports:—	lb.	lb.	lb.	lb.	lb.
Interstate ... ..	2,961,300	5,550,100	5,808,488	9,753,548	6,674,492
Oversea ... ..	930	3,612	17	1,674	200
Total Imports	2,962,230	5,553,712	5,808,505	9,755,222	6,674,692
Exports:—					
Interstate* ... ..	3,974,100	2,814,400	1,836,744	3,584,716	2,852,324
Oversea—					
Australian produce ...	57,672,403	32,818,757	20,365,765	31,372,658	23,966,498
Ships' Stores—					
Australian produce ...	356,514	458,892	421,021	384,573	424,702
Total Exports ... ..	62,003,017	36,092,049	22,623,530	35,341,947	27,243,524
Net Export ... ..	59,040,787	30,538,337	16,815,025	25,586,725	20,568,832

\* Includes butter sent to Queensland for shipment oversea.

The annual consumption of butter in New South Wales is shown in Table 501 on page 572 of this Year Book. It increased from 88,354,000 lb. in 1934-35 to 93,680,000 lb. in 1937-38, and decreased to 93,050,000 lb. in 1938-39. In 1939-40 there was an increase to 95,000,000 lb.. The average annual consumption per head of population was 33.8 lb in 1934-35; 34.6 lb. in 1935-36; 34.3 lb. in 1936-37; 34.6 lb. in 1937-38; 34.0 lb. in 1938-39 and 34.3 lb. in 1939-40.

## Dairy Production in New South Wales, 1910 to 1939-40.



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 overseas from New South Wales in each month since July, 1936. 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 735.—Production and Exports of Butter Monthly, 1936-37 to 1939-40.  
(New South Wales.)

Month.	Quantity of Butter Produced in Factories.*					Quantity of Butter Exported Oversea (Australian Produce).		
	1936-37.	1937-38.	1938-39.	1939-40.	1940-41.	1936-37.	1937-38.	1938-39. †
	Thousand lb.							
July ...	4,990	4,160	4,437	6,585	5,047	982	325	661
August ...	5,569	4,842	4,887	6,355	5,042	310	231	309
September ...	6,841	7,029	6,915	7,335	6,453	450	351	518
October ...	9,206	9,315	10,842	10,165	7,938	1,194	1,459	1,671
November ...	8,336	13,340	12,589	13,456	8,185	1,582	3,047	4,299
December ...	7,917	15,168	11,423	13,822	11,365	920	4,687	4,095
January ...	13,263	14,592	9,707	12,629	14,453	1,282	5,086	2,528
February ...	11,881	14,020	10,826	10,602	12,786	3,071	5,511	1,009
March ...	13,363	12,411	12,137	9,562	11,743	4,210	5,270	1,843
April ...	10,373	9,088	11,880	9,165	8,682	3,187	3,600	695
May ...	7,415	6,693	10,456	7,286		2,417	1,001	3,238
June ...	4,821	5,272	7,742	5,058		761	806	3,154
Total ..	103,975	115,930	113,841	112,020		20,366	31,374	23,966

\* Compiled from monthly returns of the Division of Dairying, Department of Agriculture.

† Later figures of exports are not available for publication.

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 usually attaining a maximum between January and March and decreases during the winter, reaching a minimum usually in July.

The principal sources from which butter was imported into the United Kingdom during the period 1929 to 1939 are shown below:—

TABLE 736.—Imports of Butter into the United Kingdom, 1929 to 1939.

Year ended June.	Imports of Butter into the United Kingdom from—						
	Australia.	New Zealand.	Denmark.	Argentina.	Nether- lands.	Other Countries.	Total Imports.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.
1929	43,116	64,636	105,162	17,034	6,761	80,766	317,475
1930	41,158	65,496	111,925	15,706	5,117	84,260	323,682
1931	62,357	87,491	118,149	21,358	4,380	66,525	360,260
1932	80,947	102,955	125,698	19,504	3,148	80,057	412,309
1933	97,401	114,429	131,748	13,573	7,458	74,218	438,827
1934	94,304	137,105	129,944	6,030	10,351	102,693	480,427
1935	114,472	125,499	111,506	4,771	16,730	96,349	469,327
1936	87,541	136,002	106,996	4,164	29,311	109,396	473,410
1937	71,110	144,642	113,785	8,907	39,454	107,024	484,922
1938	83,845	139,671	112,860	3,268	35,142	100,270	475,056
1939	90,239	125,162	111,794	4,890	40,950	98,484	471,569

*Prices of Butter.*

Since May, 1934 the wholesale price of butter for local consumption has been fixed under the "equalisation" agreement referred to on an earlier page. The price so fixed was 140s. per cwt. in May, 1934, increased to 149s. 4d. on 29th June, 1937, and to 158s. 8d. on 8th June, 1938, at which price it still remained in March, 1941. In addition there has been a customary box charge of 2s. 6d. per cwt.

The average monthly Sydney parity (f.o.b.) of the top prices prevailing for Australian butter in London markets since July, 1931, is shown below, together with the annual average, weighted in accordance with quantities exported monthly from New South Wales.

TABLE 737.—Export Parity Prices of Butter in Sydney.

Month.	Sydney Parity of Average Top Price London, for Choicest Australian Butter per cwt. (Australian Currency).									
	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40.	
	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.
July ... ..	127	112	86	73	96	126	126	135	127	
August ... ..	127	112	98	80	103	132	130	132	124	
September ... ..	125	117	114	76	123	120	134	130	134	
October ... ..	134	110	109	72	131	111	158	124	137	
November ... ..	126	98	88	79	112	120	147	115	137	
December ... ..	115	92	73	75	97	108	124	119	137	
January ... ..	109	87	67	88	103	103	122	134	137	
February ... ..	115	80	69	94	102	94	124	132	137	
March ... ..	117	77	74	78	91	107	131	128	137	
April ... ..	116	70	73	79	95	116	140	126	137	
May ... ..	106	82	79	83	103	118	143	119	137	
June ... ..	108	84	79	92	118	120	135	126	137	
Annual Average ...	117	90	78	82	104	111	131	123	136	

From October, 1939, to June, 1941, the contract price paid by the British Government comparable with the above prices was 132s. 7d. per cwt.

In 1938-39 approximately 95 per cent. of Australian butter exported was shipped to the United Kingdom and 96 per cent. of this butter was sold on a consignment basis, the balance being sold c.i.f. and e., United Kingdom.



Following the outbreak of war in 1939 the British Government contracted to purchase the total exportable surplus of Australian butter available to 30th June, 1940. The contract has been renewed for a further period of twelve months. Under the terms of the new agreement, the United Kingdom has undertaken to purchase 100,000 tons of butter. Should the Australian surplus exceed that amount, consideration will be given to the purchase of the balance. Prices and conditions are the same as previously and are detailed below. The price stated is f.o.b. Australian port.

	Sterling.		Australian Currency.	
	per cwt. s. d.		per cwt. s. d.	
Choicest ... ..	109	9	137	2½
First Grade ... ..	108	6	135	7½
Second Grade ... ..	104	11	131	1¾
Pastry ... ..	102	0	127	6

Payment is made to Australian sellers as follows: 90 per cent. on shipment and 10 per cent. within 28 days of arrival in U.K. or, if vessel is lost, estimated date of arrival.

*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 oversea, as well as the prices realised in home and oversea markets.

The average prices paid to dairy farmers for cream supplied to butter factories in New South Wales in recent years are shown below, the averages being stated as per pound of commercial butter:—

TABLE 738.—Cream for Butter—Average Prices paid to Dairy Farmers, 1924 to 1940.

Year.	Average Price to Suppliers.	Year.	Average Price to Suppliers.	Year.	Average Price to Suppliers.
	d.		d.		d.
1923-24 ...	16·6	1929-30 ...	15·8	1935-36 ...	11·4
1924-25 ...	13·0	1930-31 ...	12·6	1936-37 ...	12·2
1925-26 ...	15·8	1931-32 ...	11·2	1937-38 ...	13·0*
1926-27 ...	16·2	1932-33 ...	9·4	1938-39 ...	13·0*
1927-28 ...	16·0	1933-34 ...	8·4	1939-40 ...	13·6*
1928-29 ...	17·1	1934-35 ...	9·4		

\* See footnote to Table 739.

The foregoing averages are calculated from records of all factories in New South Wales.

Each month the dairy farmer is paid for his cream at a price estimated to be slightly less than the probable proceeds from sales of butter, 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. The half-yearly adjustments on this account have varied from  $\frac{1}{2}$ d. to  $1\frac{1}{2}$ d. per pound in recent years, and they have been included in the following comparison of monthly prices paid to suppliers of cream to the principal North Coast factories:—

TABLE 739.—Cream for Butter—Monthly Prices Paid to Dairy-farmers, 1933 to 1940 (North Coast Factories, N.S.W.).

Month.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38. *	1938-39. *	1939-40. *	1940-41. *
Pence per lb. of commercial butter (including deferred pay).								
July ...	11 $\frac{1}{2}$	10 $\frac{5}{8}$	12 $\frac{3}{4}$	14 $\frac{3}{8}$	13 $\frac{7}{8}$	14 $\frac{5}{16}$	13 $\frac{1}{4}$	14
August ...	11 $\frac{1}{2}$	11 $\frac{1}{8}$	12 $\frac{3}{4}$	14 $\frac{1}{8}$	13 $\frac{7}{8}$	14 $\frac{5}{16}$	12 $\frac{3}{4}$	13 $\frac{3}{4}$
September ...	11 $\frac{5}{8}$	10 $\frac{1}{8}$	12 $\frac{1}{2}$	12 $\frac{7}{8}$	13 $\frac{3}{8}$	13 $\frac{1}{16}$	13	13 $\frac{3}{4}$
October ...	9 $\frac{5}{8}$	9 $\frac{1}{2}$	12	12 $\frac{3}{8}$	13 $\frac{7}{8}$	12 $\frac{5}{16}$	12 $\frac{3}{4}$	13 $\frac{3}{8}$
November ...	8 $\frac{1}{2}$	8 $\frac{5}{8}$	10 $\frac{3}{4}$	12 $\frac{7}{8}$	11 $\frac{1}{2}$	11 $\frac{13}{16}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$
December ...	7 $\frac{5}{8}$	8 $\frac{5}{8}$	9 $\frac{1}{2}$	12 $\frac{1}{8}$	11 $\frac{1}{2}$	11 $\frac{9}{16}$	12 $\frac{3}{4}$	13 $\frac{1}{2}$
January ...	7 $\frac{5}{8}$	10	10 $\frac{1}{2}$	11	12 $\frac{3}{8}$	13 $\frac{5}{16}$	14 $\frac{1}{4}$	...
February ...	7 $\frac{3}{8}$	9 $\frac{1}{4}$	11	11	12 $\frac{7}{8}$	13 $\frac{9}{16}$	14 $\frac{3}{8}$	...
March ...	8 $\frac{1}{2}$	9 $\frac{1}{4}$	11	12	13 $\frac{7}{8}$	13 $\frac{9}{16}$	14 $\frac{3}{8}$	...
April ...	9 $\frac{1}{2}$	10	11 $\frac{3}{4}$	12 $\frac{1}{2}$	14 $\frac{5}{8}$	13 $\frac{5}{16}$	14 $\frac{1}{2}$	...
May ...	10 $\frac{3}{8}$	11	13	13 $\frac{1}{4}$	15 $\frac{1}{8}$	13 $\frac{1}{16}$	14 $\frac{3}{4}$	...
June ...	10 $\frac{3}{8}$	12 $\frac{1}{2}$	14	13 $\frac{1}{2}$	16 $\frac{1}{8}$	13 $\frac{9}{16}$	15	...

\* Cost of carting cream to factory (about  $\frac{3}{4}$ d. per lb.) met by factories.

From July, 1937, charges for transporting cream to the factories (equal to about  $\frac{3}{4}$ d. per lb.) have been met by the factories. Previously the suppliers met this cost.

#### CHEESE.

Although favourable conditions exist in New South Wales for the production of cheese the industry has shown little or no expansion in the past twenty years. This is said to be due to the fact that production of cheese is relatively unprofitable as compared with other dairying pursuits. 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 842 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 740.—Cheese—Production, Imports and Exports, 1901 to 1940.

Year ended 30th June.	Production.			Import.		Export.
	In Factories.	On Farms.	Total.	Oversea.	Interstate 	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	6,163,295	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	208,382	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
1939	7,193,022	292,885	7,485,907	83,702	3,858,000	294,472
1940	6,634,079	169,431	6,803,510	§	§	§

\*Calendar year. † Not available. ‡ Excluding imports by rail. § Including ships' stores—  
Australasian produce only. || Approximate Interstate imports by sea and railways.  
§ Not available for publication.

The average annual consumption of cheese in New South Wales is approximately 11,000,000lb., or 4 lb. per head of population.

#### CONDENSED MILK.

In 1939-40 there were seven factories for the manufacture of condensed, concentrated and powdered milk in New South Wales. The quantities made in each of the past four years were as follows:—

	1936-37.	1937-38.	1938-1939.	1939-40.
	lb.	lb.	lb.	lb.
Concentrated milk ... ..	1,449,271	1,785,955	2,332,097	3,325,800
Condensed milk ... ..	4,856,537	3,819,862	3,815,546	6,286,287
Powdered milk ... ..	1,526,709	1,951,200	2,551,748	2,497,436

In making these and other milk products such as sterilised cream and malted milk, 6,892,927 gallons of milk and 946 tons of sugar were used in 1939-40, and the value of the products was £583,911.

## PIGS.

The number of pigs in New South Wales at 31st March, 1940, was 451,064, including 347,046 under one year old and 104,018 one year and over; the latter are mainly breeding stock. Comparative figures over a period of years are shown below:—

TABLE 741.—Pigs in New South Wales, 1900 to 1940.

Mean of Five Years ended—	Number of Pigs.	At 31st March.	Number of Pigs.
1900 (Dec.)	233,186	1933	388,273
1905 „	264,357	1934	367,116
1910 „	246,964	1935	397,535
1916 (June)	304,140	1936	436,944
1921 „	322,146	1937	390,780
1926 „	354,015	1938	356,765
1931 „	320,835	1939	377,344
1936 (March)	395,143	1940	451,064

Pig breeding in New South Wales is usually carried on in association with dairying. The numbers in the State have fluctuated over the past ten years, and in 1940 exceeded the previous highest total in 1936 by 14,120. 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 for periods of five years ended 1935 and 1940 is shown below:—

TABLE 742.—Pigs—Annual Increase or Decrease, 1931 to 1940.

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.
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
1934 ... ..	(—) 21,157	461,205	1939 ... ..	(+) 20,579	552,939
1935 ... ..	(+) 30,419	505,059	1940 ... ..	(+) 77,720	542,359
Total ... ..	(+) 74,036	2,261,958	Total ... ..	(+) 57,529	2,841,647

\* Year ended 30th June.

The average annual number of pigs slaughtered has increased as follow:—

Five years ended.	Average annual number of pigs slaughtered.
1925	315,617
1930	417,742
1935	452,392
1940	568,329

The following statement shows the number of pigs in divisions of the State in various years since 1921:—

TABLE 743.—Pigs in Divisions, 1921 to 1940.

Division.	1921. June.	1926. June.	1931. June.	1938. March.	1939. March.	1940. March.
North Coast ... ..	117,220	174,396	152,243	166,882	176,394	191,360
Hunter and Manning ... ..	49,424	70,670	64,287	76,918	81,860	81,935
Metropolitan ... ..	20,863	20,182	16,924	17,906	18,627	24,339
South Coast ... ..	21,396	34,922	26,958	30,127	31,279	34,695
Total, Coastal ... ..	208,903	300,170	260,412	291,833	308,160	332,329
Tablelands ... ..	29,700	26,366	20,553	21,173	21,842	28,092
Western Slopes ... ..	39,599	36,537	35,503	29,919	31,218	59,975
Other ... ..	28,051	19,601	17,863	13,840	16,124	30,668
Total, New South Wales ... ..	306,253	382,674	334,331	356,765	377,344	451,064

Sixty per cent. of the pigs at 31st March, 1940, were in the North Coast and Hunter and Manning Divisions.

*Prices of Pigs, 1938 to 1940.*

The average prices of certain representative classes of pigs in the metropolitan saleyards at Flemington during each of the past three years are shown below. The averages have been compiled from returns supplied by a number of firms engaged in the sale of livestock.

TABLE 744.—Average Prices of Pigs, Sydney, 1938 to 1940.

Month.	Heavy and Medium Weights.					
	Baconers.			Porkers.		
	1938.	1939.	1940.	1938.	1939.	1940.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January ...	68 10	73 1	76 8	45 11	46 1	48 10
February ...	68 0	72 8	77 4	45 8	47 2	48 4
March ...	67 3	73 5	76 7	44 3	47 5	47 9
April ...	69 5	73 1	76 6	46 0	48 2	47 6
May ...	70 10	71 8	78 1	46 6	45 6	47 6
June ...	72 2	73 0	78 0	48 0	46 1	48 0
July ...	73 8	74 7	79 0	49 3	47 5	48 3
August ...	75 1	77 0	80 9	50 6	49 9	49 5
September ...	75 11	81 0	82 2	50 10	49 9	48 9
October ...	72 11	83 1	82 7	49 5	52 2	50 10
November ...	72 1	84 0	81 10	47 4	51 6	49 0
December ...	68 4	81 10	81 6	43 4	50 10	51 1
Average ...	71 3	76 6	79 3	47 3	48 6	48 10

*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 745.—Bacon and Ham, Production 1901 to 1940.

Year ended 30th June.	Production of Bacon and Ham.			Net Import of Bacon and Ham Interstate. §
	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	1,409,483	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	8,936,788
1938	20,795,580	579,111‡	21,374,691	8,063,076
1939	21,721,914	431,442‡	22,153,356	8,381,652
1940	20,510,621	417,043‡	20,927,664	†

\*Calendar year.

† Not available.

‡ Year ended 31st March.

§ Approximate.

|| Excludes 4,265,331 lb. in 1939, and 4,110,036 lb. in 1940, cured from green bacon imported interstate.

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 overseas exports of pig products (pork, bacon and ham) from New South Wales in 1938-39 totalled 11,339 cwt. (including 9,008 cwt. of pork) as compared with 15,518 cwt. in 1937-38. Corresponding figures for 1939-40 are not available for publication.

*Lard.*

Statistics showing the total production of lard are not available. During the year ended 30th June, 1940, the quantity extracted in factories amounted to 582,043 lb., valued at £13,186, 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, 1940, the overseas exports of lard and refined animal fats amounted to 6,423,667 lb., valued at £80,092 and imports from overseas countries to 21,646 lb., valued at £1,033.

## EXPORTS OF DAIRY PRODUCTS.

The following table shows the overseas exports of the principal dairy products from New South Wales, inclusive of ships' stores, at intervals since 1891. The particulars for 1891 and 1901 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 746.—Oversea Exports of Butter, Cheese, Milk and Bacon (from N.S.W.) 1891 to 1940.

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
1901*	8,700	379,342	191	4,359	196	2,525	96	3,007
1911*	33,044	1,518,993	141	3,723	1,127	17,471	618	17,561
1921	28,429	3,458,280	807	49,813	11,576	691,122	1,357	132,075
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	58,028	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
1939	24,391	1,382,876	294	12,121	2,979	247,806	464	28,268
1940	†	†	850	32,214	6,020	282,860	1,373	92,885

\* Calendar year. † Australian produce only. ‡ Not available for publication.

The values of other dairy and farmyard products exported overseas in 1939-40 were as follows:—Frozen pork, £79,757; frozen poultry, £37,563; eggs, £195,858; live pigs and poultry, £3,369.

In 1939-40, 2,521,269 lb. of frozen pork was exported overseas from New South Wales as compared with 1,008,918 lb. in 1933-39.

### 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, 1940, showed that there were 2,307 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 some farms utilised mainly for agriculture, dairying or grazing, carry large numbers of poultry. The returns showed that at 31st March, 1940 there were 3,072 holdings, carrying poultry for commercial purposes to the extent of 150 head or more. Of these, 1,899 were in the county of Cumberland and 661 in other coastal districts.

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.

Complete statistics of poultry production are not available, but a general estimate based on recorded production indicates that the farm value of production during 1939-40 was approximately 3,497,582.

The numbers of poultry enumerated in returns supplied annually under the Census Act are shown below for each year from 1935, when action was taken to obtain a more comprehensive record than was previously available. 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 complete records of all small poultry keepers, it is probable that the number of poultry in the State is much greater than the figures shown in the table:—

TABLE 747.—Poultry in New South Wales, 1935 to 1940.

As at 31st March	Fowls, Chickens, etc.	Ducks, etc.	Geese, etc.	Turkeys, etc.	Guinea Fowl, and other.
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
1939	5,066,000	180,000	25,000	209,000	10,000
1940	5,474,000	202,000	23,000	213,000	9,500

The numbers shown above include poultry recorded on holdings with less than 150 stock—2,827,302 fowls, chickens, etc., in 1940—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 748.—Commercial Poultry Farms, 1931 to 1940.

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 Purposes. (Head.)
		Chickens under six months old.	Other Fowls.			
* 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
1939	2,853	208,801	2,065,672	20,042	†2,445,420	1,078,458
1940	3,072	210,879	2,436,169	22,487	†3,118,623	1,077,119

\* Year ended 30th June.

† Includes Hatcheries.

The considerable increase in chickens hatched for sale as day-olds during 1938-39 and 1939-40 was due in part to a record demand, but also (and mainly) to the inclusion of complete records of certain hatcheries not formerly recorded.



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 dozen per hen per year. It is generally accepted that a fair average egg production on well-managed commercial poultry farms is twelve dozen per hen per year.

Returns received from commercial poultry farms disclosed that 1,097,119 head of poultry were consumed or sold for consumption during 1939-40. The Table Bird Council of New South Wales, established in November, 1936, is endeavouring to expand the market for table poultry.

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. An annual report in bulletin form, giving particulars and tabulated results of these competitions, is issued by the Department of Agriculture. 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. A Government Poultry Expert and staff 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.

Calculations 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 6s. 3d. per bird in 1939-40. As the feeding costs in this competition are based upon Sydney market prices plus freight and cartage, they are indicative of the average costs of feeding on commercial poultry farms. In successive years ending in March the feeding costs per hen per annum were as follow:—

TABLE 749.—Cost of Feeding Fowls, 1929—1941.

Year ended March.	Cost of feeding per hen.	Year ended March.	Cost of feeding per hen.	Year ended March.	Cost of feeding per hen.
	s. d.		s. d.		s. d.
1928-29 ...	8 7	1933-34 ...	6 3	1938-39 ...	7 0
1929-30 ...	9 10	1934-35 ...	5 9	1939-40 ...	6 3
1930-31 ...	7 3	1935-36 ...	7 2	1940-41 ...	7 3
1931-32 ...	5 9	1936-37 ...	8 8		
1932-33 ...	7 0	1937-38 ...	9 6		

The course of prices of wheat, maize, bran and pollard is indicated in Table 603.

*Prices of Eggs.*

The average monthly wholesale prices of new-laid hen eggs per dozen in Sydney since January, 1933, are shown in the following table, together with the average price in each year weighted in accordance with the seasonal expectation of laying:—

TABLE 750.—Wholesale Prices of Eggs, 1933 to 1940.

Month.	Weight.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
		d.	d.	d.	d.	d.	d.	d.	d.
January ...	13	13·8	12·0	12·0	14·8	15·2	17·6	18·3	15·2
February ...	11	16·0	14·2	12·6	17·0	18·5	18·8	22·5	18·1
March ...	7	16·2	16·4	14·8	19·1	21·0	20·7	17·3	19·1
April ...	6	22·1	18·8	19·8	20·6	21·0	24·0	20·1	21·6
May ...	4	20·1	20·2	20·8	21·0	21·0	24·0	21·0	23·8
June ...	6	18·2	17·5	18·4	18·0	21·0	23·5	20·3	21·0
July ...	10	15·9	14·9	15·7	16·8	20·3	18·0	15·0	16·3
August ...	16	12·8	13·1	13·3	14·0	15·8	15·9	12·7	14·3
September ...	19	10·7	12·0	12·0	14·0	14·0	13·9	12·0	14·0
October ...	19	8·6	12·0	12·0	14·0	14·0	13·0	12·0	14·0
November ...	17	8·7	12·0	12·0	15·0	14·0	13·7	12·0	14·7
December ...	16	10·1	12·0	12·6	15·0	15·5	14·8	14·0	15·0
Estimated weighted average price for year ...	144	12·7	13·5	13·5	15·6	16·4	16·5	15·1	15·9

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. This area includes extensive districts centring on Sydney and Newcastle. 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 as exempt producers.

During the year 1940, proposals to extend the activities of the Board to cover the whole of New South Wales were submitted to a poll of producers outside the present Board area. The voting for and against was equal and as the Act provides for a majority decision, the proposal was defeated.

A summary relating to recent pools is shown below:—

TABLE 751.—Egg Marketing Board, 1932 to 1940.

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 ...	<i>b</i>	11,933	<i>b</i>	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
1938-39 ...	6,973	13,453	20,426	10,161,377	15.51	3,292,050	12.41	4.99
1939-40 ...	8,729	14,723	23,452	10,992,101	14.21	3,735,600	12.51	1.83

(a) Sydney basis—including exchange premiums. (b) Not available.

\* Up to and including 1938-39 costs embraced cases, packing materials, storage, cartage, wharfage, freight, and marine insurance. In 1939-40, costs of freight and marine insurance were excluded as, in terms of the British Government contract, purchase was made on a f.o.b. basis.

Of the total of 23,451,693 dozen eggs disposed of under the Board's administration in 1939-40, 19,716,093 dozen (inclusive of sales by producer agents) were sold in Australia.

Local sales by the Board in 1939-40 realised £651,086 or an average price of 14.21d. per dozen, as compared with £656,735 and 15.51d. per dozen in 1938-39. These included eggs of all grades, whereas only first-grade eggs were exported.

Export sales in 1939-40 realised £223,179, or 14.34d. per dozen, of which £28,479, or 1.83d. per dozen (see foot note to table above), represented cost of export, and producers were paid £191,549, or 12.31d. per dozen in respect of eggs exported. Particulars for 1938-39 were:—Export sales, £238,698, or 17.40d. per dozen; transshipping and marketing costs, £63,425, or 4.99d. per dozen; and payments to producers, £195,971 or 14.29d. per dozen.

In 1939-40 the Board handled 14,727,700 dozen eggs of all grades, as compared with 13,453,000 dozen in 1938-39, and producers received approximately £844,000 or an average of 13.75d. per dozen in 1939-40, and £873,000 equal to 15.57d. per dozen in 1938-39.

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.; 1938-39, 15.57d. and in 1939-40, 13.75d.

Consignors to the Board contributed to the 1939-40 pool at the rate of 2d. per dozen to 30th June, 1939 and thereafter to 1st June, 1940, at the rate of 1d. per dozen. Commission charge on the gross advance was increased from 5 per cent. to 6½ per cent. as from 4th September, 1939. Producer agency contributions during the 1939-40 pool were at the rate of 2d. per dozen to 30th June, 1939, and thereafter 1d. per dozen to the close of the pool year, 1st June, 1940.

*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.

Prices obtained for Australian eggs in London in recent seasons are shown in the appended table:—

TABLE 752.—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

*British Government Purchase of Eggs.*

In October, 1939 the British Government contracted to purchase the Australian exportable surplus of eggs for 1939-40. In terms of regulations made under the National Security Act, 1939 on 8th November, 1939 the Commonwealth Government was empowered to expropriate eggs (rights in which thereupon established claims to compensation) and to buy eggs, use and sell, export or otherwise dispose of eggs acquired or purchased. Eggs could not be exported except under license from the Minister for Commerce, and all eggs exported were to be consigned to the British Ministry of Food.

An Egg Supervision Committee of four members (including the Chairman of the Egg Marketing Board of New South Wales) was appointed under the Regulations to facilitate performance of any contract made for the sale and export of eggs to the United Kingdom, and generally, to manage and control, on behalf of the Commonwealth, the handling, storage, protection, treatment and shipment of eggs. The Committee is required so to regulate exports that the retention of sufficient eggs for domestic consumption is ensured.

The contract covered all eggs packed for export up to 31st December, 1939 and included eggs requisitioned in the United Kingdom since the outbreak of war and prior to signing of the contract. The quantity was stated as 900,000 long hundred (9 million dozen) and subject to shipping space being available, any further exportable quantity was to be accepted on the terms arranged for the quantity specified. The sale was effected f.o.b., Australian port. Payment was to be made as to 85 per cent. on shipment, and as to the remaining 15 per cent., within 28 days of arrival, or due date of arrival should any vessel be lost. The eggs were subject to inspection upon arrival and deductions were to be made for inferior quality and breakages. Responsibility for storage rested with the Commonwealth Government up to the time and point of shipment, but the British Government agreed, should prolonged storage occur owing to lack of shipping space, to make payment toward the additional costs incurred, and also on account in accordance with arrangements to be agreed upon by the two Governments.

The British Government assumed all risks of fire or other damage from the lading of eggs at the initial port of shipment.

A further contract was entered into in respect of the period 1st July to 31st December, 1940. The period of shipment was later extended to include the months of January and February. The agreement stipulated the purchase of 412,000 cases of eggs, with an understanding that more would be accepted, if available. The quantity specified has been considerably exceeded. It is estimated that the value of eggs exported under the terms of this agreement should approximate £1,118,000 as against £600,000 realised by the original contract.

The prices fixed for eggs were:—

Per Long Hundred.	Sterling.		Australian Currency.	
	s.	d.	s.	d.
13½ lb. and 14 lb. packs* ... ..	7	11·07	9	10·83
15 lb. and 16 lb. packs ... ..	9	9·50	12	2·87
17 lb. and 18 lb. packs ... ..	9	10·60	12	4·25

\* For New South Wales 14 lb. pack afloat or packed before 27th September, 1939, the British Government agreed to pay 8s. 6·85d. sterling (10s. 8·56d. A.C.) per long hundred.

#### *Establishment of Egg Processing Industry.*

Because of difficulties of shipping, the curtailment of exports of eggs in shell is contemplated. The British Ministry of Food is, therefore, anxious to receive large quantities of eggs, from Australia, in pulped and dried form. The British Government, it is understood, is prepared to meet additional costs of processing eggs, and to expedite the establishment of the industry on a large scale, has offered to make the services of an expert available.

*Oversea Exports, Eggs and Poultry.*

The following table shows the recent trend of the oversea export trade in poultry and eggs:—

TABLE 753.—Oversea Exports of Eggs and Poultry, 1930 to 1940.  
(from New South Wales.)

Year ended 30th June.	Eggs in Shell.		Frozen Poultry.		Total Value.
	Quantity.	Value.	Quantity.	Value.	
	doz.	£	pairs.	£	£
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	263,595	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
1939	3,427,702	205,759	19,294	18,295	224,054
1940	3,789,747	195,458	49,019	37,563	233,021

Particulars as to the interstate imports of eggs into Sydney by rail and by sea in the years ended 30th June, 1938 to 1940, collected by the Chief of the Division of Marketing are summarised below:—

TABLE 754.—Interstate Imports of Eggs, 1938 to 1940.

State Whence Imported.	1937-38.		1938-39.		1939-40.	
	In Shell.	Pulp.	In Shell.	Pulp.	In Shell.	Pulp.
	doz.	cwt.	doz.	cwt.	doz.	cwt.
Victoria ... ..	401,940	1,403	395,580	5,464	12,630	1,786
Queensland ... ..	308,490	...	340,020	...	352,620	...
South Australia ... ..	698,580	11,527	461,340	9,110	140,580	13,081
Western Australia ... ..	...	...	...	...	...	...
Total ... ..	1,409,010	12,930	1,196,940	14,574	505,830	14,867

One cwt. of egg pulp is equivalent to approximately 93½ dozen eggs.

## BEE-KEEPING.

The bee-keeping industry is inextensive, 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 1939-40 returns were obtained from 2,523 holdings on which bee hives were kept. The particulars recorded in each of the last eleven years are shown below:—

TABLE 755.—Bee Hives and Honey Production, 1930 to 1940.

Season.	Bee Hives.			Honey.	Average Yield of Honey per Productive Hive.	Beeswax.
	Productive.	Un-productive.	Total.			
	No.	No.	No.	lb.	lb.	lb.
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	11,251	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
1938-39	60,346	25,895	86,241	2,723,719	45·1	43,780
1939-40	59,670	22,779	82,449	2,477,381	41·5	42,393

† 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 1938-39 the quantity of honey exported overseas from New South Wales was 429,068 lb., valued at £8,570.

The estimated value of the production from bees was £42,500 in 1938-39 and £42,000 in 1939-40. The quantity of honey and beeswax produced in each division in those years was as follows:—

TABLE 756.—Honey and Beeswax produced, 1938-39 and 1939-40.

Division.	1938-39.		1939-40.	
	Honey.	Beeswax.	Honey.	Beeswax.
	lb.	lb.	lb.	lb.
Coastal ... ..	1,417,171	23,799	763,353	15,739
Tableland ... ..	804,147	11,626	836,279	13,447
Western Slopes ... ..	450,503	7,673	785,249	12,143
Central Plains, Riverina, and Western Division.	51,898	682	92,500	1,064
Total ... ..	2,723,719	43,780	2,477,381	42,393

## VALUE OF DAIRY AND FARMYARD PRODUCTION.

The farm value of production in the dairying and farmyard industries in 1939-40 amounted to £16,188,000 and has only been exceeded in one year (1938-39), since 1920-21. The dairying industry yielded £11,245,000; pigs, £1,403; poultry, £3,498,000; and bees, £42,000. The farm value of production at intervals since 1911 was as follows:—

TABLE 757.—Value of Dairy and Farmyard Production, 1911 to 1940.

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	12,089
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	16,111
1938-39	6,489	223	3,177	1,224	1,350	3,853	43	16,359
1939-40	6,666	203	3,173	1,203	1,403	3,498	42	16,188

\* 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 758.—Prices of Dairy and Farmyard Products, 1934 to 1940.

Dairy and Poultry Farm Produce.	1934.	1935.	1936.	1937.	1938.	1939.	1940.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Milk ... .. gal.	1 5	1 5	1 5	1 5	1 5·2	1 5·2	1 5·2
Butter ... .. lb.	1 2·1	1 3	1 3	1 3·5	1 4·5	1 5	1 5
Cheese ... .. "	0 7·8	0 9·3	0 9·7	0 10	0 10·6	0 11	0 10·9
Hams ... .. "	1 1·8	1 1·9	1 1·7	1 3·9	1 5·4	1 3·9	1 4·2
Bacon (sides) ... "	0 9·7	0 9·3	0 9·4	0 11·7	1 0·4	0 11·7	1 0·6
Eggs (new laid) doz.	1 2·6	1 2·7	1 4·6	1 5·6	1 6·1	1 4·4	1 5·3
<b>Poultry—</b>							
<b>Fowls—</b>							
(Cockerels) ... pr.	6 1	6 4	6 9	7 4	7 9	6 5	6 5
<b>Drakes—</b>							
(Muscovy) ... "	8 7	8 7	9 4	10 6	10 6	9 9	9 9
<b>Ducks—</b>							
(Muscovy) ... "	5 7	5 6	5 7	6 4	6 10	6 5	6 4
Geese ... .. "	8 0	7 2	7 5	9 6	9 4	8 5	8 4
Turkeys (cocks) "	22 2	22 3	25 6	29 6	29 4	28 1	25 0
<b>Bee produce—</b>							
Honey ... .. lb.	0 4·6	0 3·6	0 3·7	0 3·7	0 3·9	0 4·1	0 5·3
Wax ... .. "	1 6·7	1 7	1 5	1 4·5	1 4·6	1 4·9	1 7·8

The weighted average of 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 759.—Prices of Dairy and Farmyard Products—Index Numbers 1901 to 1940.

Year.	Index Number.	Year.	Index Number.	Year.	Index Number.
1901	963	1929	1,842	1935	1,292
1906	953	1930	1,571	1936	1,316
1911	1,000	1931	1,386	1937	1,404
1916	1,380	1932	1,295	1938	1,488
1921	2,020	1933	1,172	1939	1,476
1926	1,760	1934	1,245	1940	1,504

A rapid fall in export prices of butter and other dairy products, and a consequent fall in local prices, caused the index number to fall by 36 per cent. between 1929 and 1933. Prices both local and oversea rose in each of the next five years and in 1938 and 1939 were approximately 27 per cent. higher than in 1933, though still 20 per cent. below the average for 1929.

## FORESTRY.

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### *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 thirty different kinds of good commercial value, including such renowned constructional woods as ironbark, tallow-wood, spotted gum, blackbutt, red mahogany, and turpentine. In other timbers there are about twenty-five commercial varieties, including such valuable timbers as cedar, beech, brushbox, hoop pine, coachwood, native cypress 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, 1940, a total area of 5,243,570 acres of Crown lands had been dedicated permanently, including 4,292,195 acres as State forests and 951,375 acres as National forests (38) and 1,352,386 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 45,980 acres.

Particulars relating to the State forests and plantations and timber reserves as at the end of each of the last ten years are shown below:—

TABLE 760.—State Forests, 1931 to 1940.

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
1939*	724	5,193,164	43,764	421	1,378,075
1940*	727	5,243,570	45,980	422	1,352,386

\* 30th June.

† I includes eight National forests with an area of 734,032 acres in each of the years 1937 to 1939; thirty-eight with an area of 951,375 acres in 1940.

#### *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.*

The economic development and perpetuation of the native timber industry is the dominant feature of forest policy. Management surveys are being undertaken to ascertain the silvicultural potentialities of the forests, and as the surveys are completed a 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 protection and management, and the economic utilization 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 761.—Sawmills—Output of Timber, 1931 to 1940.

Year ended 30th June.	Mills Operated.	Average Number of Persons Employed.	Output of Sawn Timber.				Total.
			Native.		Imported.		
			Soft- wood.	Hard- wood.	Soft- wood.	Hard- wood.	
	No.	No.	Thousand super. feet.				
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	48,518	119,524	120,345	627	289,014
1939	435	4,981	49,840	129,510	101,051	768	281,169
1940	447	4,915	63,201	129,273	75,291	696	268,461

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 192,474,000 super. feet in 1939-40. During the same period there was a marked increase in the quantity of imported softwoods treated as a result of the demand arising from very active conditions in the building industry, which stimulated the importation of lumber, particularly from Canada.

The following table shows the annual gross consumption of native and imported timbers as estimated by the Forestry Commission:—

TABLE 762.—Consumption of Timber, 1925 to 1940.

Year ended 30th June.	Estimated Gross Consumption of Timber.					
	Native.				Imported from Overseas.	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
1939	8,202	28,137	10,911	47,250	17,000	64,250
1940	8,616	29,336	17,902	55,854		

\* Yearly average. † Calendar Year. ‡ Six months ended 30th June.  
§ Not available. || Not available for publication.

The estimated consumption of native timbers, other than fuel, 37,952,000 cubic feet, in 1939-40 exceeded the estimates for any previous year. The estimate for 1938-39 was 36,339,000 cubic feet.

*Value of Production from Forestry.*

The value of forestry production as at the place of production in New South Wales was greater in 1939-40 than in any previous year. Particulars at intervals since the year 1901 are as shown below:—

TABLE 763.—Value of Forestry Production, 1901 to 1940.

Year ended 30th June.	Value.	Year ended 30th June.	Value.
	£		£
1901*	554,000	1933	1,476,000
1906*	1,008,000	1934	1,737,000
1911*	998,000	1935	1,922,000
1916	1,045,000	1936	2,014,000
1921	1,656,000	1937	2,096,000
1926	1,885,000	1938	2,179,000
1931	1,131,000	1939	2,261,000
1932	1,158,000	1940	2,347,000

\* Calendar Year.

*Imports and Exports of Timber.*

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 has been due mainly to the demand for softwoods, the great bulk of which was drawn from New Zealand, the United States of America, Canada, Norway, and Sweden.

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 764.—Oversea Imports and Exports of Timber, 1901 to 1939.

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	23,398	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	23,481	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
1938-39	199,123	780,944	45,109	826,053	27,251	382,584	39,053	421,637

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, 28,701,219 super. feet in 1937-38, and 23,082,342 super. feet in 1938-39. Details for 1939-40 are not available for publication.

### 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 765.—State Forestry Revenue, 1911 to 1940.

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	1934	£ 42,017	£ 123,997	£ 166,014
1916*	8,701	59,406	68,107	1935	45,568	142,903	188,471
1921*	76,141	114,601	190,742	1936†	16,865	70,809	87,674
1926*	42,984	181,223	224,207	1937*	45,642	161,128	206,770
1931	35,742	52,806	88,548	1938*	50,963	150,453	201,416
1932	32,832	71,842	104,674	1939*	51,510	172,756	224,266
1933	38,841	100,370	139,211	1940*	52,282	192,711	244,993

\* Year ended 30th June

† Six months ended 30th June.

Included in the total for the year ended 30th June, 1940, are sales of converted and confiscated material £13,507, and rents for occupation permits, forest leases, etc., £24,779.

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, 1938, to 1940 is shown below:—

TABLE 766.—Expenditure by Forestry Commission, 1938 to 1940.

Particulars.	1937-38.	1938-39.	1939-40.
	£	£	£
Demarcation ... ..	7,387	6,983	7,318
Forest Roads and Fire-breaks ... ..	22,642	25,222	33,284
Silvicultural Work ... ..	54,806	53,049	54,700
Permanent Improvements ... ..	9,024	18,998	14,913
Conversion Work ... ..	5,075	5,633	4,306
Administrative, Research, and Other ... ..	85,740	140,470	76,565
	184,674	250,355	191,086
Unemployment Relief (State loans and Commonwealth grants) ... ..	206,215	226,443	261,138
Total ... ..	390,889	476,798	452,224

The moneys for the relief of unemployment have been expended for the most part in afforestation and the improvement and protection of the forests. The Commonwealth grant, which amounted to £60,000 in 1936-37 and £12,500 in 1937-38, has not been renewed.

*Charcoal Manufacture and the Development of Producer Gas Units.*

Following the outbreak of war in September, 1939, there was an urgent necessity to provide substitutes for liquid fuel. The Forestry Commission began research into the production of charcoal from New South Wales hardwoods, to determine those species most satisfactory for use in producer gas units. As a result of these investigations, high grade screened and tar-free charcoal is being manufactured in modern steel kilns from approved species of timber, and is giving efficient service.

During 1940, investigational work was directed to the development of efficient and economical gas producer units. The Commission acts as the testing authority to determine the efficiency of all gas producer units manufactured. Units are required by law to be tested and certified as fully efficient before being offered for sale to the public.

Restrictions were placed upon the use of liquid fuels, viz., motor spirit and diesel oil as from 1st October, 1940, when a system of rationing was introduced. Some of the allowances under the rationing scales were reduced as from 1st April and 1st June; and further reductions are to be made as from 1st July and 1st August, 1941.



## FISHERIES.

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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 1940 was 2,866, and licenses were issued in respect of 2,011 boats. Licenses were issued to 19 fish agents, 422 oyster vendors, and 28 salesmen. Fish agents pay an annual license fee of £10, salesmen and wholesale fish dealers pay £1, and fishermen and oyster vendors pay 10s. 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 tons 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, 1940, there were 4,490 leases, embracing 914,357 yards of foreshores, and off-shore areas totalling 3,834 acres; and 945 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 the lease 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 1940 applications for oyster leases numbered 376, representing 61,950 yards of foreshore and 344 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 767.—Production of Fish, 1927 to 1940.

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	26,531,591	42,106	995,460
1938 ... ..	14,145,583	15,236,835	29,382,418	44,521	1,580,580
1939 ... ..	13,340,940	17,502,445	30,843,385	40,681	1,069,050
1940 ... ..	9,897,810	17,428,600	27,326,410	43,324	993,480

\* 3 bushels.

Most of the recorded production is marketed in the metropolitan and Newcastle districts. In 1940 approximately 36 per cent. of the supply was obtained by deep sea trawling. Production by inshore fishermen declined by 28 per cent. between 1928 and 1930, but since then has increased steadily and in 1940 was 27 per cent. greater than in 1928.

*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 1939 and 1940 from each of the principal fishing grounds of the State are indicated below:—

	1939. lb.	1940. lb.
Wallis Lake and Manning River ... ..	1,285,795	1,357,580
Clarence River ... ..	1,503,198	1,816,500
Tuggerah Lakes and Terrigal Haven ... ..	1,236,742	1,421,140
Camden Haven ... ..	572,792	746,130
Macleay River ... ..	592,235	763,980
Port Stephens ... ..	625,118	1,089,620
Lake Macquarie ... ..	445,550	660,240
Tweed River ... ..	959,157	751,380
Other ... ..	1,284,919	1,935,010
<b>Total—North Coast ... ..</b>	<b>8,505,506</b>	<b>10,541,580</b>
Hawkesbury River ... ..	221,305	398,300
Botany Bay and George's River ... ..	263,498	291,600
Port Jackson and Parramatta River ... ..	215,512	297,310
Port Hacking ... ..	144,638	167,300
<b>Total—Metropolitan ... ..</b>	<b>844,953</b>	<b>1,154,510</b>
Shoalhaven and Crookhaven Rivers ... ..	204,365	342,370
Lake Illawarra ... ..	414,768	274,750
St. George's Basin and Sussex Inlet ... ..	383,058	529,620
Eden ... ..	260,470	431,760
Ulladulla ... ..	362,460	350,490
Merimbula ... ..	421,452	875,700
Wagonga River ... ..	1,881,670	415,940
Wonboyn River ... ..	1,754,340	340,480
Other ... ..	675,220	1,791,650
<b>Total—South Coast ... ..</b>	<b>6,357,803</b>	<b>5,352,760</b>
Coastal—Undefined ... ..	1,400,173	99,820
Inland Waters ... ..	394,010	279,930
<b>Grand Total ... ..</b>	<b>17,502,445</b>	<b>17,428,600</b>

Included above were 3,113,616 lb. of fish sold locally at fishing centres. 1,114,400 lb. consigned from the North Coast to Brisbane, and 1,523,520 lb. from the South Coast to Victoria. The quantity of fish marketed in Sydney and Newcastle (including trawled fish) was 20,821,434 lb.

*Crayfish.*—The number of marine crayfish (*Palinurus*) obtained during 1940 was 116,520. Of these 106,836 were consigned for sale to Sydney and Newcastle. The principal source of supply was the northern crayfish grounds, from Newcastle to Port Macquarie, where 82,560, or nearly 71 per cent. of the catch, were secured.

*Prawns.*—A quantity of approximately 993,480 lb. of marine prawns (*Penaeus*) was obtained during 1940 and 16,924 lb. were condemned.

*Crabs.*—About 4,417 dozens of crabs were obtained in 1940. The catch included several species of swimming crabs, notably the Blue (*Lupa*) and the Mangrove (*Scylla*).

*Oysters.*—During the year 1940 the oyster production of the State amounted to 43,324 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, 1939, was valued at £643,006, including 12,692,306 lb. of tinned fish valued at £451,444 in 1938-39. The value of fish exported overseas, principally to New Guinea, the Pacific Islands and New Zealand, was £25,606, including tinned fish to the value of £23,474. 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, 1939, was approximately £508,000, including fresh fish, £387,000; oysters, crayfish, prawns, etc., £121,000.

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 768.—Value of Fisheries Production, 1921 to 1939.

Year ended 30th June.	Value. (000 omitted.)	Year ended 31st Dec.	Value. (000 omitted.)
	£		£
1921	491	1934	536
1926	553	1935	583
1929	775	1936	650
1931	635	1937	548
1932	591	1938	620
1933	544	1939	508
1934	536		

#### 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, and in recent years canning factories have been in operation at Narooma and Eden on the South Coast.

## 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 1940 was 1,126,250, as compared with 829,600 in 1939.

## LAND LEGISLATION AND SETTLEMENT.

### AREA OF NEW SOUTH WALES.

THE area of New South Wales, including Lord Howe Island (5 square miles) but excluding the Australian Capital Territory (939 square miles) is estimated at 309,433 square miles, or 198,037,120 acres, being about 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 State is 195,068,040 acres, or about 304,793 square miles.

### 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.

### *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.

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\*Further particulars of Local Land Boards, and of the Land and Valuation Court, are published in the chapter "Law Courts" of this Year Book.

The Eastern Division, with an area of 60,661,926 acres (exclusive of 601,600 acres of Commonwealth territory), embraces the coastal and table-lands districts of the State.

The Central Division, with an area of 57,055,846 acres, extends over most of the Western Slopes and Central Plains of the hinterland. Land in this division is devoted mainly to pastoral pursuits, but in it about 3,000,000 acres are cultivated for wheat in a normal season. It includes approximately two-thirds of the wheat lands of the State.

The Western Division contains 80,319,348 acres of country of low annual rainfall, and is mainly in sparse pastoral occupation. 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.

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.

#### 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, 1940, distinguishing lands in the Western Division from the remainder of the State:—

TABLE 769.—Areas of Land Tenures, 1940.

Manner of Disposal.*	Area.				
	Eastern and Central Divisions.	Western Division.	Whole State.		
	acres.	acres.	acres.		
(1) Alienated... ..	66,213,463	2,036,250	49,283,510		
(2) In course of alienation ... ..			18,986,203		
(3) Virtually alienated ... ..			1,666,070	1,667,198	
(4) Alienable Leases (long term and perpetual) ... ..			26,472,129	93,870	26,566,008
(5) Long term leases with limited rights of alienation... ..			1,453,847	98,754	1,552,601
Total under foregoing tenures ... ..	95,805,518	2,230,002	98,035,520		
(6) Other long term leases ... ..	.....	76,048,172†	76,048,172		
(7) Short leases and temporary tenures ... ..	3,892,674	595,238	4,487,912		
(8) Forest leases or permits within dedicated State forests ... ..	2,215,924	.....	2,215,924		
(9) Mining leases and permits ... ..	182,279	6,807	189,086		
(10) Neither alienated nor leased (includes reserves, dedicated State forest not under occupation, roads, stock routes, etc.) ... ..	15,621,377	539,120	16,160,506		
Total Area... ..	117,717,772	80,319,348	198,037,120		

\* Tenures included in (3) to (9) are indicated in table on page 850.

† Includes Perpetual Leases held under the Western Lands Act, 46,016,811 acres.



Particulars of the areas under, and the conditions attaching to, each of these tenures are given on later pages.

The Eastern and Central land divisions embrace practically the whole of the lands in the State which receive an average rainfall of 15 inches or more, and the rainfall in the Western Division ranges from that average down to 8 inches in the extreme north-west. This circumstance places 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 has been estimated that the area of land in the State unfit for occupation of any sort does not exceed 5,000,000 acres.

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 770.—Area of Alienated Land—1861 to 1940.

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	1935	2,412,798	45,698,269
1871*	...	8,630,604	1926	2,329,217	42,323,857	1936	2,413,598	46,204,453
1881*	...	19,615,299	1931	2,406,035	44,074,823	1937	2,413,898	46,736,844
1891*	...	23,682,516	1932	2,406,898	44,362,013	1938	2,436,790	47,438,450
1901*	...	26,407,376	1933	2,407,198	44,682,820	1939	2,513,165	48,303,359
1911	† 605,641	36,234,256	1934	2,411,998	45,136,328	1940	2,687,616	49,263,510

\*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.

The following table shows the areas of land alienated in New South Wales by each of the principal methods up to 30th June, 1940, and the area re-acquired for purposes of irrigation and closer settlement:—

TABLE 771.—Alienated Land—Classification, 1940.

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 .. .. .	11,595,621
Sold by Improvement and Special Purchases .. ..	2,877,269
Sold by Conditional Purchase since 1862 (deeds issued)	29,256,702
Granted under Volunteer Land Regulations of 1867 ..	172,198
Dedicated for public and religious purposes since 1862	261,442
Sold under Closer Settlement Acts (acquired and Crown Lands) .. .. .	69,626
Suburban Holding Purchase .. .. .	12,503
Soldiers' Group Purchase .. .. .	1,760
Returned Soldiers' Special Purchases (deeds issued) ..	5,842
Week-end Lease Purchases (deeds issued) .. ..	507
Town Lands Lease Purchases (deeds issued) .. ..	34
Irrigation Farm purchases .. .. .	335
Sold by all other form of sale .. .. .	550,708
Total .. .. .	51,951,126*
Less—	acres.
Freehold land purchased for Closer Settlement .. .. .	2,290,565
Freehold land purchased for Irrigation Settlements .. .. .	223,600
Lands alienated in Australian Capital Territory prior to its transfer to the Commonwealth .. .. .	173,451
Lands absolutely alienated as at 30th June, 1940 ..	49,263,510

\*Inclusive of area alienated within Australian Capital Territory prior to 1911.

In addition, 1,667,198 acres held under Homestead Selection and Homestead Grant are, to all intents and purposes, 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 following statement shows the areas in course of alienation by each of the principal methods as at 30th June, 1940:—

TABLE 772.—Land in Process of Alienation, 1940.

Manner of Disposal.	Area.
	acres.
Conditional Purchases (deeds not issued) .. .. .	15,515,643
Closer Settlement Act Tenures .. .. .	50,030
Settlement Purchases .. .. .	2,873,261
Soldiers' Group Purchases .. .. .	410,345
Suburban Holding Purchases .. .. .	9,202
Returned Soldiers' Special Holding Purchases .. .. .	5,567
Town Lands Lease Purchases .. .. .	1
Week-end Lease Purchases .. .. .	31
Irrigation Land Purchases .. .. .	122,123
Total area in course of alienation at 30th June, 1940	18,936,203

Settlement purchases are lands made available under the closer settlement policy inaugurated in 1904. These, with certain adjacent Crown lands, were made available for purchase on easy terms in home maintenance areas for settlers of small means. Information respecting the disposal of land under the Closer Settlement and Returned Soldiers' Settlement Act is published on pages 900 to 909.

*Area Leased at 30th June, 1940.*

The total area of Crown land in New South Wales held under lease, occupation license and permissive occupancy, was 113,626,901 acres at 30th June, 1940, inclusive of 33,403,792 acres under the Crown Lands Act, 77,571,833 acres under the Western Lands Act, 2,201,794 acres under the

Forestry Act, 189,086 acres under the Mining Act and 260,396 acres under the control of the Water Conservation and Irrigation Commission. The area under each tenure is shown below:—

TABLE 773.—Crown Lands Leases, 1940.

Tenure.	Area.	Tenure.	Area.
Virtually Alienated—	acres.		acres.
Homestead Selections and Homestead Grants ...	1,667,198	Other Long Term Leases—	
Alienable Leases (Long Term and Perpetual)—		Western Lands Leases—	
Homestead Farms ...	4,502,923	Perpetual ... ..	45,948,087
Suburban Holdings ...	53,843	Other ... ..	31,000,085
Settlement Leases* ...	2,808,237	Total ... ..	76,948,172
Crown Leases* ...	7,188,885		
Conditional Purchase Leases* ...	175,619		
Conditional Leases* ...	11,661,970	Short Term Leases and Temporary Tenures—	
Returned Soldiers' Special Holdings ... ..	15,146	Snow Leases ... ..	439,767
Week-end Leases ... ..	211	Annual Leases ... ..	534,130
Town Lands Leases ... ..	60	Occupation Licenses ... ..	962,929
Irrigation Farm Leases (Irrigation Areas)	140,670	Preferential Occupation Licenses ... ..	491,282
Non-Irrigable Leases (do.)	15,146	Permissive Occupancies ...	1,958,522
Town Lands Leases (do.)	338	Irrigation Area Leases† ...	101,282
Thirty Year Leases (do.)	2,960	Total ... ..	4,487,912
Total ... ..	26,566,008		
Long Term Leases with limited right of Alienation—		Forest Leases and Occupation Permits ... ..	2,215,024†
Improvement Leases ...	100,925	Mining Leases and Permits ... ..	189,086
Scrub Leases ... ..	116,096	Grand Total ... ..	113,626,904
Inferior Lands Leases ...	25,513		
Church and School Lands Leases ... ..	11		
Conditional Leases (brought under Western Lands Act)	98,754		
Prickly-pear Leases ... ..	179,573		
Residential Leases ... ..	3,547		
Special Leases ... ..	1,028,182		
Total ... ..	1,552,601		

\* New leases mainly perpetual; old leases convertible to perpetual leases. † Includes 22,794 acres outside Irrigation areas, but under the control of the Water Conservation and Irrigation Commission. ‡ Includes 14,130 acres of State Forests under tenure of the Crown Lands Act, but administered by the Forestry 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 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 898.

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, 1940, was 16,988,304 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 on page 880.

The following is a classification of reserves according to the principal purpose for which reserved:—

TABLE 774.—Reserves—Areas, 1940.

Classification.	Area.
	acres.
Travelling Stock .. .. .	5,220,414
Water and Camping .. .. .	847,915
Mining .. .. .	1,232,311
Forest .. .. .	2,142,400
Temporary Commons .. .. .	266,629
Railway .. .. .	40,635
Recreation and Parks .. .. .	306,846
Pending Classification and Survey .. .. .	3,743,483
From Conditional Purchase, within Goldfields .. .. .	447,209
Other .. .. .	2,740,462
<b>Total .. .. .</b>	<b>16,988,304</b>

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. Moreover, the figures do not indicate the total extent of land used for the purposes specified in the table. For instance, the forest lands under the control of the Forestry Commission of New South Wales include national forests and dedicated State forests as well as forest or timber reserves—a total area of nearly 6,600,000 acres. Portions of the forest lands have been leased to graziers and others.

Of the total area of reserves, 12,063,171 acres, or 71 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.

A Catchment Areas Protection Board has been constituted under provisions of the Soil Conservation Act, 1938, for the protection and conservation of the principal catchment areas of the State. It is comprised of seven members in which are included the Minister of Mines and Forests (chairman), the Director of the Soil Conservation Service (deputy-chairman), and representatives of the departments of Lands, Agriculture, Works and Local Government, and of the Water Conservation and Irrigation Commission and the Forestry Commission.

All applications involving the disposal of lands within the Burrinjuck, Hume, Wyangala and Snowy River catchment areas are reviewed by the Board and the disposition of Crown lands within these areas is not permitted except with the approval of the Board and under such conditions as it may impose.

The Board also conducts special investigations in connection with the prevention and mitigation of soil erosion and considers generally the disposal of lands, effected under the Crown Lands Consolidation Act, 1913, in country subject to erosion.

The Board's activities are being extended to include Warragamba, Keepit and Burrendong Catchment Areas.

#### 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:—

TABLE 775.—Principal Land Act Tenures, N.S.W.

Non-Residential Tenures.	Tenures involving Residential Conditions.
Methods of Absolute Alienation.	
Auction sale.	Conditional purchase.
After-auction purchase.	Settlement purchase.
Special non-competitive sales.	Returned soldiers' special holding purchase.
Conditional purchase (40 to 320 acres).	Improvement purchase on goldfields.
Exchange.	Soldiers' Group purchase.
Irrigation farm purchase.	Suburban holding purchases.
Town lands lease purchases.	
Week-end lease purchases.	
Leases Carrying Statutory Rights of Entire Alienation.*	
Special conditional purchase lease (up to 1,920 acres). †	Homestead selection and homestead grant. †
Town lands lease. †	Homestead farm †
Thirty-year lease.	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. §	Settlement lease. †
Scrub lease. §	Suburban holding. †
Inferior lands lease. §	Residential lease.
Special lease (for certain purposes). §	Returned soldiers' special holding.
Week-end lease. †	
Prickly-pear lease.	
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.	
Short leases (Irrigation Act).	

\* 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. Condi-

tional 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.

#### FINANCIAL RELIEF TO SETTLERS.

Following the general decline in prices for primary products from 1930 onwards, the problem of keeping existing settlers on the land gave rise to a number of special measures of relief, the more important of which were as follows:—

*Re-appraisal of Capital Values and Rentals.* In 1931 a general right to obtain a re-appraisal of capital values and rentals was extended to Crown settlers. Approximately 21,500 applications were received and capital values of holdings were reduced by £6,317,000 and annual rentals by £64,192.

*Reduction in Interest and Rentals by 22½ per cent.* In 1932 statutory provision was made for the automatic writing down of interest on debts incurred for the purchase of land or improvements from the Crown by 22½ per cent, and for a similar reduction in respect of rentals. Originally the reduction was for three years, but in 1935 and again in 1938 the period was extended and the concession is now operative until the end of 1941. The estimated saving to settlers over the nine years 1933-1941 is £2,400,000.

*Reduction in Interest to a Maximum Rate of 4 per cent.* Interest rates on debts to the Crown were reduced in 1932 to a maximum rate of 4 per cent. per annum and this concession relieved Crown tenants of liability in respect of interest to the extent of approximately £153,000 per annum.

*Relief to Settlers adversely affected by Flood, Fire, Drought, Storm or Tempest,* was introduced into the law in 1932 and comprises the postponement of instalments payable in respect of any purchase of land or Crown improvements, the postponement, waiver or remission of interest on such debts, or of the annual rent of any lease and the revaluations of improvements in course of purchase from the Crown where they have become depreciated in value owing to flood, fire, etc. Approximately 8,100 applications have been lodged and dealt with, involving waivers and remissions to the extent of £241,670. Amounts postponed are included in the figure of £4,910,050, mentioned in the following paragraph.

*Postponement and Funding of Arrears of Crown Payments.* The problem created by large accumulations of arrears of Crown dues was met by amendments of the Crown Lands Acts in 1932 and 1935 providing for the postponement or funding over lengthy periods free of interest unless the Minister otherwise directs. Overdue payments which have been dealt with approximate £4,910,050.



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.

All unoccupied Crown Lands in the Eastern and Central divisions of the State are available for conditional purchase except those reserved from sale or within a population area, city, town, or village, or those which have been specially set apart for other classes of holdings. Lands held under annual lease or occupation license are also available for conditional purchase if not reserved from sale.

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.

An account of various other conditions relative to this tenure was published on page 895 of the Year Book for 1937-38.

*Number and Area of Conditional Purchases and Conditional Leases.*

Transactions in respect of original and additional conditional purchases from 1862 to 30th June, 1940 were as follows:—

TABLE 776.—Conditional Purchases—1862 to 1940.

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.
1862-1930 ... ..	175,970	23,741,974	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	710,213	52,428	17,645,860	17,838	11,720,572
1939 ... ..	3,205	924,929	49,689	16,760,067	17,787	11,729,690
1940 ... ..	2,924	946,646	46,658	15,515,643	17,637	11,661,970
<b>Total (as at 30th June, 1940)</b>	<b>228,276</b>	<b>29,256,702</b>	<b>46,658</b>	<b>15,515,643</b>	<b>17,637</b>	<b>11,661,970</b>

The total area alienated and in course of alienation by conditional purchase as at 30th June, 1940, was 44,772,345 acres. In addition, there were 5,206,814 acres of associated conditional leases almost wholly convertible into conditional purchases, and 6,455,156 acres under perpetual conditional lease. 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 tenure of homestead selection was established in 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. A homestead grant is issued upon compliance with certain residential and improvement conditions for a term of five years. The 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 land has been made available for original homestead selections, such tenure having been replaced by that of homestead farm. In recent years, however, considerable areas of improvement lease, scrub lease and special lease have been converted to homestead selection. Since 1908, 2,215,017 acres of homestead selections and grants have been converted into conditional purchase and conditional lease. At 30th June, 1940, the area remaining under homestead selection and grants was 1,667,198 acres.

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 42 cases of conversion of this kind covering 195,450 acres.

#### *Auction Sales and After-auction Purchases.*

Auction sales of Crown lands 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 46,507 acres in the last twenty-three 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.

Only 115 acres were sold by auction during 1939-40 in 291 lots, realising £49,911. Ninety-four acres were sold as after-auction purchases in 242 lots, realising £7,186.

#### *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. Alienation by this means has never been extensive. During 1939-40 twenty-four acres were sold in fifty-one lots for the sum of £1,332.

#### *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 1939-40 was £18,158 in respect of 4,627 acres of land, including £17,252 for 4,275 acres of alienated roads; £304 for purchase of 318 acres of residential leases; and £602 for 34 acres otherwise acquired.

#### *Area Alienated by Crown Land Sales.*

Particulars of areas disposed of under the three preceding headings, in ten-year periods, since 1900, are as follow:—

TABLE 777.—Crown Land Sales—1900 to 1940.

Period ended 30th June.	Auction Sales.	After-auction Sales.	Improvement Purchases.	Special Sales.	Total.
	acres.	acres.	acres.	acres.	acres.
1900-09* ..	341,758	25,805	1,123	9,599	378,285
1910-19 ...	37,295	9,703	510	19,719	67,227
1920-29 ...	16,771	4,755	281	21,918	43,725
1930-39 ..	2,376	1,307	152	33,513	37,348
1938-39 ...	282	122	28	2,791	3,223
1939-40 ...	115	94	24	4,627	4,860

\* Includes Calendar Years from 1900 to 1904.

#### *Exchange of Land between the Crown and Private Owners.*

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.

During 1939-40 twenty-six applications were dealt with; four were refused or withdrawn and twenty-two, covering 4,117 acres, were completed; twenty-four new applications were received during the year.

#### *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.

Practically all of the principal leases may be converted under specified conditions to freehold tenures, wholly or in part, viz., 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, besides minor tenures such as 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, 1940, extension had been granted in respect of 7,007 conditional leases, 64 conditional purchase leases, 1,488 Crown leases, and 855 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, 1940, were 7,741 conditional leases, 6,455,156 acres; 72 conditional purchase leases, 74,682 acres; 2,319 Crown leases, 4,092,156 acres; and 844 settlement leases, 2,135,878 acres.

There were 26,662 perpetual leases of all forms covering an aggregate area of 65,170,218 acres at 30th June, 1940. In these were included 2,784 perpetual leases with a total area of 46,016,811 acres held under the Western Lands Act.

*Conditional Leases.*

This tenure was introduced by the Act of 1834. 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), 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. 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 is determined by the Land Board 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.

Gazetted conditional leases (other than perpetual leases) in existence at 30th June, 1940, numbered 9,896, embracing 5,206,814 acres, at an annual rental of £68,107.

Perpetual conditional leases in existence at 30th June, 1940, numbered 7,741 with an aggregate area of 6,455,156 acres and annual rental of £99,467. During the year 1939-40 twenty-two new perpetual conditional leases were confirmed with a total area of 7,741 acres.

Thirty-three new conditional leases in respect of 13,520 acres were created by conversion, and 122 conditional leases for 58,690 acres were converted to other tenures.

*Conditional Purchase Leases.*

This 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. Under the Amending Act of 1932 the term may be extended to perpetuity without affecting other conversion rights hitherto obtaining, provided the leases are not included in certain reserves required for public purposes. Conversion to the tenures of conditional purchase and homestead farm is permitted, the total area so converted being 526,813 acres. The annual rent is  $2\frac{1}{2}$  per cent. of the capital value, which is fixed upon notification, subject to review only within five years of confirmation of the lease.

The leases current at 30th June, 1940, numbered 232 with an area of 175,619 acres, the annual rent amounting to £4,278. Of these, 72 were perpetual leases with an aggregate area of 74,682 acres and annual rental of £1,300.

*Crown Leases.*

Crown leases were constituted under the Crown Lands Amendment Act, 1912.

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  $1\frac{1}{4}$  per cent. of the capital value and both rent and capital value are subject to re-appraisal within five years of the confirmation of the lease on application by the lessee. 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. 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. 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, 1,719,297 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 778.—Crown Leases, Ordinary—1912 to 1940.

Year ended 30th June.	Applications Confirmed.		Leases current at 30th June.		
	No.	Area.	No.	Area.	Rent.
		acres.		acres.	£
1912-1930 ...	6,564	8,263,048	3,979	5,531,875	46,200
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
1939 ...	11	37,290	2,773	3,351,572	21,067
1940 ...	3	2,337	2,615	3,096,729	19,404

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. Three applications for ordinary Crown leases in respect of 2,337 acres were confirmed during 1939-40, and at 30th June, 1940, there were in existence 2,615 Crown leases (other than perpetual) with an aggregate area of 3,096,729 acres and annual rental of £19,404.

During the year ended 30th June, 1940, there were 101 applications for perpetual Crown leases. Applications confirmed numbered 94 with an aggregate area of 114,641 acres, the annual rental of which amounted to £615. At 30th June, 1940, there were current 2,319 perpetual Crown leases with an aggregate area of 4,092,156 acres and annual rental of £29,745.

#### *Settlement Leases.*

This tenure was created in 1895. It is described on pages 903 and 904 of the Year Book for 1937-38.

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. Not more than 1,280 acres may be converted into homestead grant.

Between 1909 and 30th June, 1940, a total area of 5,726,004 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, 1940, there were in existence 279 ordinary settlement leases, comprising 672,359 acres, at an annual rental of £7,523, and 844 perpetual settlement leases with an aggregate area of 2,135,878 acres, and annual rental of £27,345.

*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, 1940, the total area of improvement leases which had been let was 11,627,484 acres, of which only 100,925 acres remained current. Conditions attaching to improvement leases are described on page 904 of the Year Book for 1937-38.

Under conversion provisions operative since 1919, a total area of 1,133,296 acres has been converted from improvement lease to other tenures.

Under the Closer Settlement Act, 1907, improvement leases suitable for Closer Settlement may be resumed with compensation. To 30th June, 1940, a total area of 806,217 acres had been withdrawn in this way, £200,802 being paid as compensation to lessees.

Three improvement leases with a total area of 3,781 acres, were converted into homestead selections. At 30th June, 1940, there remained current 33 improvement leases and leases under improvement conditions, with an area of 100,925 acres and rental of £541.

*18th Section and Pastoral Leases.*

There were no pastoral leases in existence at 30th June, 1940. The tenure was described in previous issues of the Year Book.

*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 and the annual rental of the holding are 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 to be commenced within six months of the confirmation of the lease is attached to every homestead farm. In special cases residence may be allowed anywhere within reasonable working distance, and residence during 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 conditions.

Particulars relating to applications for homestead farms and conversions from other tenures during the last nine years are shown below:—

TABLE 779.—Homestead Farms—1932 to 1940.

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	38,354	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
1939	26	9,503	51	81,537	9	5,390	89	114,647	4,416	4,458,360
1940	32	16,174	65	88,067	7	3,860	48	63,538	4,472	4,502,923

The total area of homestead farms confirmed to 30th June, 1940, was 5,559,149 acres, and after adjustments of area by reason of conversion, forfeiture, etc., there remained in existence 4,502,923 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 or prickly pear lease, under certain conditions, may convert such holding into a homestead farm. The area of homestead farms so created to 30th June, 1940, was 1,058,085 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; 1,207,370 acres of homestead farms had been converted into other tenures prior to 30th June, 1940. 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.*

At 30th June, 1940, there were in existence 24 scrub leases, with an area of 116,096 acres, and rental of £315; and 4 inferior lands leases, embracing 25,513 acres, at a rental of £71.

#### *Special Leases.*

The number of special leases granted during 1939-40 was 1,039, with a total area of 113,454 acres, and 364 leases, representing 53,848 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, 9,458 special leases, with an area of 1,028,182 acres and rental of £47,424, were current at 30th June, 1940. Under the Crown Lands Act of 1908 an area of 1,739,951 acres of special lease have been converted to other tenures.



*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, 1940, the number of prickly pear leases was 151, and the area so leased was 179,573 acres, at a total annual rental of £1,169. Under certain conditions a prickly pear lease may be converted to a homestead selection, and 7 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. Seven conversions have been made to homestead farms involving 21,438 acres, and one to Crown lease for 690 acres.

*Suburban Holdings.*

The tenure of suburban holding, introduced in 1912, is a lease in perpetuity with fixed conditions as to residence and 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.

The number of confirmations and purchases of suburban holdings since the introduction of the tenure were as under:—

TABLE 780.—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.
		acres.		acres.	£		acres.
1912-1935 ...							
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
1938 ...	92	818	2,793	54,450	5,830	513	10,711
1939 ...	81	586	2,792	53,304	5,858	482	9,977
1940 ...	79	618	2,823	53,843	5,799	445	9,202

To 30th June, 1940, deeds of purchase had been issued in respect of 767 suburban holding purchases, embracing 12,503 acres.

*Residential Leases.*

The holder of a "miner's right" within a gold or mineral field may obtain a residential lease. There were 448 residential leases, embracing 3,547 acres at a rental of £908, current at 30th June, 1940.

*Week-end Leases.*

This tenure, created by the Crown Lands Amendment Act, 1916, is a lease in perpetuity. Conditions attaching to these leases were explained on page 908 of the Year Book for 1937-38.

At 30th June, 1940, week-end leases current numbered 170, of an area of 211 acres, and annual rental £164. In addition 82 lease of 507 acres had been made freehold and approval to purchase had been granted in the case of 102 leases embracing 601 acres.

There were in existence at 30th June, 1940, 9 week-end purchases, with an aggregate area of 31 acres; also the area of completed week-end lease purchases at this date was 507 acres.

*Leases of Town Lands.*

This tenure was described on page 909 of the Year Book for 1937-38.

No town lands leases are now being made available. Up to 30th June, 1940, approval to purchase had been given for 115 lots, embracing 37 acres. On 30th June, 1940, there were 156 leases, containing 60 acres, the annual rental being £109.

## 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.

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. Six permits embracing approximately 50 acres were issued in 1939-40. 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, 1940, was 2,201,794 acres under the Forestry Acts, besides 14,130 acres under the Crown Lands Act administered by the Forestry Commission.

*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, 1940, there were 105 leases current, embracing 439,767 acres with an annual rental of £9,031.

*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, 1940, was 1,736, embracing 534,130 acres, with an annual rent of £4,570, inclusive of 15 annual leases comprising 14,577 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, 1940, the land held as mineral and auriferous leases, exclusive of leases to mine on private lands, had decreased in area to 188,364 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. At 30th June, 1940, there were 3 such authorities, area 722 acres and rent £68.

*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, 1940, 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, 1940, by 228 ordinary licenses for 781,790 acres, rental £1,919, and 160 preferential licenses, representing 341,493 acres, and rent £2,119. 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 11 preferential occupation licenses in respect of 149,784 acres at an annual rental of £606, and 39 ordinary occupation licenses, with an aggregate area of 181,139 acres and annual rental of £109.

#### *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, 1940, was 10,654, comprising 1,764,538 acres, with a rental of £27,480.

There were also 184 permissive occupancies in the Western Division at this date in respect of 193,984 acres, held at an annual rental of £436.

#### 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.

Holders 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 1939-40.

TABLE 781.—Conversion of Tenures, 1939-40.

Tenure of Holding Converted.	New Tenure Confirmed.														Total Holdings Converted		
	Conditional Lease.		Conditional Purchase.		Conditional Purchase and Associated Conditional Lease.		Conditional Purchase Lease.		Crown Lease.		Homestead Farm.		Homestead Selection				
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	
Conditional Lease ...	...	acres. ...	118	48,782	...	acres. ...	...	...	...	...	acres. ...	4	9,908	...	acres. ...	122	acres. 58,690
Conditional Purchase ...	...	...	...	...	...	...	...	...	...	...	...	44	75,611	...	...	44	75,611
Conditional Purchase Lease ...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	2	1
Crown Lease ...	9	4,824	13	19,686	3	11,679	...	...	...	...	...	6	16,747	...	...	25	36,189
Homestead Farm ...	...	...	8	5,088	...	...	...	...	...	...	...	...	...	...	...	14	21,835
Homestead Selection or Grant ...	...	...	1	19	...	...	...	...	...	...	...	...	...	...	...	1	19
Improvement Lease ...	...	...	...	...	...	...	...	...	...	...	...	...	3	3,781	3	3,781	
Settlement Lease ...	...	...	2	2,394	...	...	...	...	...	...	...	...	...	2	2,394	2	2,394
Special Lease ...	24	8,696	293	18,773	1	368	1	3,465	18	11,146	25	10,335	2	1,065	364	53,848	
<b>Total</b> ...	<b>33</b>	<b>13,520</b>	<b>437</b>	<b>94,743</b>	<b>4</b>	<b>12,047</b>	<b>1</b>	<b>3,465</b>	<b>24</b>	<b>27,893</b>	<b>73</b>	<b>95,854</b>	<b>5</b>	<b>4,846</b>	<b>577</b>	<b>252,368</b>	

Particulars of the number and area of new tenures obtained by conversion during each of the past ten years are shown below:—

TABLE 782.—Conversion of Tenures—1931 to 1940.

Year ended 30th June.	New Tenure Confirmed.												Total Confirmations.	
	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.
1931	833	296,254	54	141,962	28	13,457	44	181,682	6†	12,838	4	6,206	969	651,799*
1932	360	88,075	17	22,657	15	12,759	36	106,191	38†	11,121	11	19,428	442	260,231
1933	275	68,645	5	11,060	10	6,009	13	95,673	7†	32,011	9	20,093	319	173,491
1934	397	97,822	6	10,195	19	12,893	13	32,233	10†	31,291	16	38,354	461	222,788*
1935	612	111,352	7	9,093	20	9,926	15	30,427	22†	85,172	33	44,978	609	290,948
1936	460	102,444	10	26,843	28	29,269	12	13,767	34†	81,281	116	170,237	660	423,841
1937	562	129,521	9	19,719	29	14,222	18	51,926	54†	131,749	142	272,698	814	621,835
1938	546	134,720	3	6,993	13	15,975	8	6,961	15†	32,052	73	87,283	658	283,984
1939	509	94,478	12	26,691	29	30,005	11	31,538	7†	18,538	52	81,537	620	282,787
1940	437	94,743	4	12,047	34	16,985	5	4,846	24†	27,893	73	95,854	577	252,368

\* Including non-residential conditional purchases. † Settlement Leases. ‡ Crown Leases.

§ 1 Settlement Lease of 128 acres and 2 Crown Leases of 10,963 acres.

¶ Includes 3 Settlement Leases of 1,188 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 purchase 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 80,319,348 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. Administrative 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 conditional purchase in special cases, 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.

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, 1940, 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 837,604 acres of Crown land. Of this area 6,412,111 acres were allotted to 718 applicants, 42 of them being for new or original holdings, totalling 399,104 acres and the balance as additions to existing holdings. The maximum withdrawal areas defined up to 30th June, 1940, 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 area on the carrying capacity determined by the local land board.

Holdings under the Western Lands Act as at 30th June, 1940, were classified as follow:—

TABLE 783.—Holdings under the Western Lands Act.

Class of Holding.	Holdings.	Area.	Annual Rental.
Western Lands Leases—	No.	Acres.	£
Perpetual ... ..	2,733	45,948,087	60,996
Ordinary ... ..	1,504	30,919,766	55,891
Conditional Leases—			
Perpetual ... ..	51	68,724	306
Ordinary ... ..	23	30,030	180
Occupation Licenses ... ..	39	181,139	109
Preferential Occupation Licenses ... ..	11	149,784	606
Permissive Occupancy ... ..	184	193,984	436
Leases being issued ... ..	23	80,319	*
Total... ..	4,568	77,571,833	118,524

\* Rental to be determined by the Local Land Boards.

In addition, there were 2,033,228 acres of land alienated, or in course of alienation; 206,022 acres of unoccupied lands of low grade; 334,078 acres of unalienated Crown lands, beds of rivers, commonages, etc., and 124,187 acres of land still under the Crown Lands Acts yielding annual rentals amounting to £804.

#### 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. Action has been taken to clear all Crown lands of the pest. 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.

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 10 feet wide free of pear. 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, 1940, was 259,339 acres, while many thousands of acres were treated by landowners when required to do so by the Commission. In addition, 50,956 acres of Crown lands were treated.

The total expenditure during the year ended 30th June, 1940, amounted to £17,276, and there was a credit balance of £3,042 at the close of the year. Particulars of prickly pear leases are given on page 893.

#### CLOSER SETTLEMENT.

The circumstances leading to the adoption in 1906 of what is known as the "Closer Settlement Policy" are described on page 680 of the Year Book for 1928-29. Reference to the subject is contained in previous Year Books.



The Closer Settlement Acts provide that the Governor may purchase by agreement, or failing such agreement, may resume with compensation any privately owned land provided (a) that the land is reported by the Closer Settlement Advisory Board to be suitable for closer settlement and (b) that such purchase or resumption is approved by Parliament.

In the case of resumption of an estate, other than in a provisional district constituted under the provisions of the Water Act, 1912-1940, the owner may retain portion of the estate valued at not more than £20,000, exclusive of buildings. In determining the area to be retained land held by the owner in the same district or elsewhere is taken into account. The area, situation and boundaries of the land to be retained are determined by the Minister for Lands on the recommendation of the Closer Settlement Advisory Board. If the owner is dissatisfied with such determination he may waive his right of retainer.

Prior to the resumption of a private estate, the Governor notifies by proclamation his intention to consider the advisableness of acquiring such land for the purposes of closer settlement. Provision was also made in the Closer Settlement (Amendment) Act, 1907, for the proclamation of estates within 15 miles of an authorised railway, and by an amendment effected in 1937 for the proclamation of estates within domestic and stock water supply and irrigation districts.

During the currency of these proclamations the land affected may not be so disposed as to defeat the power of the Governor to resume such land for the purposes of closer settlement.

In the case of the purchase or resumption of a proclaimed estate within a radius of 15 miles of an authorised railway or within a district constituted under part VI of the Water Act, 1912-1940, any enhancement of the value of the land which has accrued or may accrue by reason of the construction of such railway and of public works in such districts is reserved to the Crown.

Proclamations now remain in force until cancelled and may be amended by the Government in respect of the whole or any part of the land affected. Prior to the amendment in 1937 of the Closer Settlement (Amendment) Act of 1907, proclamations remained in force for twelve months only unless renewed.

Proclamations in force at 30th June, 1940, were in respect of 379 estates with an aggregate area of 3,264,981 acres. Of these, two estates with an aggregate area of 48,727 acres, were proclaimed under section 4 of the Closer Settlement (Amendment) Act, 1907; 217 with an aggregate area of 2,301,514 acres under section 5 of the Closer Settlement (Amendment) Act, 1907, *i.e.*, estates within 15 miles of an authorised railway; and 160 with an aggregate area of 914,740 acres under section 5 of the Closer Settlement (Amendment) Act, 1907, as amended, *i.e.*, estates within domestic and stock water supply and irrigation districts.

All the proclaimed estates within 15 miles of authorised railways referred to above were notified prior to the amendment in 1937 of the Closer Settlement (Amendment) Act, 1907, and the restriction against disposition is no longer in force. Any enhanced value or value which may accrue as a consequence of the construction of the railway, however, is still reserved to the Crown.

At any time after a proclamation of intention to consider the advisableness of acquiring an estate, the power of resumption may be suspended for a term not exceeding two years, if an agreement be made that the land shall be subdivided for closer settlement by the owner. 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.

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. Between 1913 and 1921 an area of 806,217 acres comprised in 70 long term leases was acquired in this way at a cost of £200,802, and was disposed in 784 farms held as homestead farms, homestead selections, special leases and Crown leases. There have been no transactions of this nature since 1921.

The total area acquired to 30th June, 1940, under the ordinary provisions of the Closer Settlement Acts was 1,390,636 acres at an aggregate purchase price of £5,626,586. This area, originally consisting of 78 estates, was divided into 3,303 farms. No estates were acquired under these provisions during the year ended 30th June, 1940.

A summary of closer settlement operations is given on page 904.

#### *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 land held by the same family if it be within a 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 to 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, 1938, 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 have been payable in respect of the settlement purchase, if the advance had not 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.

Settlement purchases subject to this special condition were set apart during 1939-40 at Munderoo West (1 farm) and at Barooga (15 farms).

#### *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, 1940, 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 1939-40.

#### Summary of Closer Settlement Operations.

Exclusive of irrigation projects, 1,854 estates and leases have been acquired by the Government for purposes of closer settlement of civilians and returned soldiers. These estates embraced 4,145,032 acres, for which the purchase price was £15,107,573, and there were added 205,740 acres of adjacent Crown lands. The total number of farms made available was 9,109.

The following table provides a summary of the various operations to 30th June, 1940, 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 784.—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	90,164	} 44,478	{ 506,855 293,195	686 376	} 309,072	1,331,018
Crown Lands Act (s. 197)*	23	34,682					
Closer Settlement Act—							
Promotion Provisions...	1,653	1,823,333	12,542	8,480,135	3,960	1,835,185	8,345,788
Ordinary Provisions ...	78	1,390,636	114,424	5,626,586	3,303	1,555,543	6,115,468
Resumption of Long Leases† ... ..	70	806,217	34,301	200,802	784	539,141	765,254
Total ... ..	1,854	4,145,032	205,740	15,107,573	9,109	4,239,541	16,557,478

\* 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, 1940, is shown below. The figures include a number of small blocks made available as town lots, etc., and not as farms.

TABLE 785.—Disposal of Closer Settlement Lands.

Manner of Disposal.	Blocks.	Area.	Capital Value.
	No.	acres.	£
Holdings alienated or in course of alienation by settlement purchase, group purchase, auction, tender, etc. ... ..	9,039	4,178,016	14,139,354
Holdings which have reverted to the Crown and await disposal ... ..	183	50,528	248,667
Unallotted farms (including provisionally allotted, under cultural system, or never allotted) ... ..	78	1,244	19,042
Areas retained for roads ... ..	...	34,016	109,331
Areas appropriated for railway purposes ... ..	...	1,773	7,383
Areas retained for reserves ... ..	...	42,786	90,528
Vacant lands, remnant areas, etc. ... ..	...	24,573	79,407
Total ... ..	9,300	4,332,936	14,693,712

The amount paid in respect of principal and interest during the year ended 30th June, 1940, was £942,422, making the total to that date £12,492,376.

The total amount owing by settlers for land and advances was £12,990,676 made up as follows:—Principal £10,380,755, interest £610,521, postponed interest £1,864,228, funded interest £112,784, insurance £3,767, and rent £18,621.

#### *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, all had been finalised by the local land board at 30th June, 1939, the aggregate capital value being reduced by £2,113,936 or 16.9 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 Bank's valuation in addition to any difference between that valuation and the purchase price. 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, 1940, and have reported upon 236 proposals by owners to subdivide under the scheme, or to dispose of their estates for Closer Settlement purposes. These proposals were in respect of an aggregate area of 1,300,347 acres. Of the offers to subdivide there were adverse reports in 174 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.

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 902.

#### SETTLEMENT OF RETURNED SOLDIERS.

To 30th June, 1940, farms had been allotted by the Department of Lands to 9,704 returned soldiers, and there remained 4,622 returned soldiers settlers on an area of 6,849,914 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	.. .. .	3,195,873
Developmental works	.. .. .	1,915,423

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, only interest being charged during the first five years; in the case of stock and implements the period is ten years with only interest charged during the first year. Interest may not exceed 3½ 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, 1940, was £3,195,873. During the year repayments on account of advances amounted to £44,880, bringing the total repayments including interest to £2,535,110.

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, 1940:—

TABLE 786.—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, and the Commission ceased to make advances to



irrigation settlers as from 1st July, 1935, when this function devolved upon the Irrigation Agency of the Rural Bank.

#### RURAL BANK OF NEW SOUTH WALES—CLOSER SETTLEMENT AGENCY.

The Closer Settlement Agency was established on 23rd December, 1936, as a branch of the Rural Bank of New South Wales, in terms of the Rural Bank (Agency) Amendment Act, 1936. The Agency administers two schemes—the Voluntary Subdivision Scheme and the Government Acquisition Scheme—to which reference is made below.

##### *Voluntary Subdivision Scheme.*

Purchasers who acquired farms in approved estates which were voluntarily subdivided may obtain from the funds of the Closer Settlement Agency of the Rural Bank a loan 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. Up to 30th June, 1940, advances had been made to 21 settlers in respect of 24 farms with an aggregate area of 15,182 acres. The total amount involved was £80,335, of which £71,885 represented Bank funds and £8,450 agency funds.

##### *Government Acquisition Scheme.*

Under the Government Acquisition Scheme advances are made by the Closer Settlement Agency in conjunction with the Bank proper to settlers who have been allotted holdings in estates acquired by the Government for closer settlement. These advances are used to liquidate the balance of purchase money owing to the Crown in respect of such holdings. Up to 30th June, 1940, advances had been made to 100 settlers in respect of 100 farms containing 82,573 acres. The total amount involved was £397,315, of which £253,985 represented Bank funds and £143,330 agency funds.

#### 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 309,662 acres are held under various tenures. Approximately 74 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 35,450 acres and the two smaller settlements at Hay and Curlwaa 6,806 and 10,550 acres respectively. All are under the control of the Water Conservation and Irrigation Commission.

A description of the tenures of lands in the Irrigation Areas of Murrumbidgee, Coomealla, Hay and Curlwaa, is given on pages 924 to 926 of the Official Year Book for 1937-38, and an account of provisions for special concessions and relief to necessitous settlers is contained on page 928 of the same Year Book.

*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, 1940:—

TABLE 787.—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.	acres.
Irrigation Farm Purchases ...	10	204	3	66	...	...	...	...	13	270
Irrigated Purchase Lots ...	...	...	...	...	...	...	1	10	1	10
Non-irrigable Purchases ...	9	19	1	2	...	...	...	...	10	21
Town Land Purchases...	45	33	5	1	...	...	...	...	50	34
Total ...	64	256	9	69	...	...	1	10	74	335
<i>In Process of Alienation.</i>										
Irrigation Farm Purchases ...	398	108,610	143	2,810	7	139	...	...	548	111,559
Non-irrigable Purchases ...	55	10,484	1	1	...	...	...	...	56	10,485
Town Land Purchases...	279	76	17	3	...	...	...	...	296	79
Total ...	732	119,170	161	2,814	7	139	...	...	900	122,123
<i>Held under Perpetual Lease.</i>										
Irrigation Farm Leases ...	1,534	140,591	10	79	...	...	...	...	1,544	140,670
Non-irrigable Leases ...	109	15,146	...	...	...	...	...	...	109	15,146
Town Land Leases ...	1,337	338	2	...	...	...	...	...	1,339	338
Total ...	2,980	156,075	12	79	...	...	...	...	2,992	156,154
<i>Other Occupation.</i>										
<i>Leases—</i>										
Held under Irrigation Act ...	378	30,327	37	31,462	...	...	...	...	415	61,789
Short Leases ...	...	...	...	...	90	7,026	75	5,137	165	12,163
Thirty-year Leases ...	...	...	...	...	163	1,938	107	1,022	270	2,960
<i>Permissive Occupancy—</i>										
Farming Land ...	10	3,636	...	...	...	...	14	12	24	3,048
Non-irrigable Land not used for farming ...	33	103	...	...	12	348	15	53	60	504
Town Lands ...	20	46	39	38	...	...	...	...	59	84
Other ...	16	49	79	251	...	...	...	...	95	300
Total ...	457	34,161	155	31,751	265	9,312	211	6,224	1,088	81,448
Unoccupied Land ...	...	72,090	...	737	...	1,099	...	572	...	74,498
Grand Total ...	...	381,752	...	35,450	...	10,550	...	6,806	...	434,558

The total area of alienated land acquired by the Crown for water conservation and irrigation purposes was 223,600 acres on 30th June, 1940.

*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, 1940, land of this nature was comprised in 121 holdings with an aggregate area of 22,794 acres held under miscellaneous leases and permissive occupancies.

*Rural Bank of New South Wales—Irrigation Agency.*

An Irrigation Agency established as an agency in the Government Agency 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 £97,047 were made during the year ended 30th June, 1940.

The Act also provided that certain moneys owing to the Water Conservation and Irrigation Commission on 1st July, 1935, became moneys 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, Lands Acquisition (Defence) Act, and War Service Homes Act. 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 788.—Land Resumption and Purchases—1936 to 1940.

Year ended 30th June.	Resumptions and Purchases.			Crown Lands Appropriated.			Gifts.			Total.		
	a.	r.	p.	a.	r.	p.	a	r.	p.	a.	r.	p.
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	44,097	3	14	984	1	19	7	1	31	45,089	2	24
1939	132,732	0	7	2,955	0	11	3	1	14	135,690	1	32
1940	22,133	2	32	439	0	36	3	1	13	22,576	1	1

The purposes of resumptions, appropriations, and purchases during 1939-40 were:—

TABLE 789.—Land Resumptions and Purchases, 1939-40.

Purpose.	Area.	Purpose.	Area.
	a. r. p.		a. r. p.
Defence ... ..	4,540 0 20	Municipal—	
Drainage ... ..	.....	Aviation ... ..	75 2 7
Postal ... ..	506 2 38	Recreation ... ..	72 1 11
Public Recreation ... ..	725 3 38	Roads ... ..	1,589 0 21
Public Schools ... ..	165 0 12	Sewerage ... ..	320 1 7
Railways ... ..	443 0 25	Sports Grounds ... ..	95 2 35
Roads ... ..	885 2 9	Town Hall ... ..	.....
Reservations ... ..	20 2 0	Water Supply ... ..	239 1 1
State Forests ... ..	10,309 1 30	Other Municipal ... ..	34 3 0
Town Site ... ..	889 1 29	Other Purposes ... ..	19 2 19
Water Conservation and Irrigation ... ..	1,643 2 19	Total ... ..	22,576 1 1

Land resumptions, purchases, and gifts in quinquennial periods from the year 1904-05, inclusive, and for the year ended 30th June, 1940, were as follow:—

TABLE 790.—Land Resumptions and Purchases—1905 to 1940.

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
1935-39	195,016 2 30	38 1 1	195,054 3 31
1939-40	22,572 3 28	3 1 13	22,576 1 1

The total area of land dealt with in this way between 1890 and June, 1940, was approximately 809,879 acres, including about 301,674 acres for water conservation and irrigation projects, 58,831 acres for defence, 60,987 acres for railways and tramways, 33,845 acres for town water supplies, and 223,600 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.

## 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 manufactures involving complex processes 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 in 1914 and adverse seasonal conditions caused a temporary set-back but recovery was rapid in consequence of the demand for products for war purposes, curtailment of imports, and an increase in the spending power of the people by reason of the circulation of war moneys and the returns received from high-priced exports.

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 severe 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.

When war broke out in September, 1939, demand was made upon the manufacturing industries for large supplies of materials and equipment for modern warfare and for other essential goods hitherto imported from abroad. These are needed not only for Australian consumption, but also for use in other countries seeking supplies for war needs or as substitutes for imports from sources no longer available to them. Consequently manufacturing activity is expanding into production of all classes of munitions, aircraft, ships, many new kinds of machinery and metal manufactures, textiles, etc.

#### *Tariff Protection and Bounties.*

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. It was 25 per cent. in 1938-39 and 23.8 per cent. in 1939-40. The customs revenue (excluding primage) was 32.8 per cent. of the value of dutiable goods in 1928-29 and 45.2 per cent. in 1931-32. In the following years it decreased to 36.6 per cent. in 1935-36. It represented 39.5 per cent. in 1938-39 and 37.6 per cent. in 1939-40.

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.

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 three years ended June, 1940, viz.:-

Wire netting manufactured from materials produced in Australia—  
9s. 7d. per ton.

Traction engines.—According to capacity, £40-£90 per tractor.

Radiator assemblies manufactured in Australia for original equipment of motor vehicles—10s. each.

Sulphur from Australian pyrites and other sulphide ores and concentrates—36s. per ton.

Fortified wine—Payable on export—1s. 2d. per gallon as from 1st March, 1937, and reduced to 1s. 1d. per gallon as from 1st March, 1938, and 1s. per gallon as from 1st March, 1939.

The amounts paid to producers in New South Wales during three years ended 30th June, 1940, are shown below:—

TABLE 791.—Bounties Paid in New South Wales.

Product.	1937-38.		1938-39.		1939-40.	
	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	13,088	£ 6,271	11,362	£ 5,444	8,517	£ 4,081
Traction Engines ... ..No.	275	13,620	227	11,223	197	8,497
Motor Radiator Assemblies ... ..No.	...	...	...	...	3,700	1,850
Sulphur ... ..ton	5,318	9,572	10,069	18,125	*	*
Fortified Wine ... ..gal.	81,465	4,637	48,341	2,587	38,341	1,917

\* Not available for publication.

Particulars of bounties on gold and on wheat are shown in the chapters relating to mining and agriculture respectively.

SCIENTIFIC RESEARCH AND STANDARDISATION.

The Commonwealth Council of Scientific and Industrial Research conducts scientific researches in connection with primary and secondary industries, fixes standards for scientific apparatus and machinery and materials used in industry, and maintains 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.

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.

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 makers, farriers nor abattoirs.

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 an exception has been made in regard to electricity plants generating power solely for use in the factory with which they are associated. These are now treated as part of the factory and no longer as individual electricity stations. 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 in 1930-31 by about £6,000,000 and the value of the output by approximately £7,500,000, as compared with the preceding year.

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 later years.

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).  
Bolling 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 Sailing.  
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).  
 " " (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 Wickeware, 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.  
 Planos, Piano-players, Organs.  
 Other.

## CLASS XV.—MISCELLANEOUS PRODUCTS.

Linoileum, 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 792.—Factories in New South Wales, 1901 to 1940.

Year.	Establishments.	Employees.*	Total Horsepower of Engines installed. (a)	Value of Land, Buildings and Plant.	Salaries and Wages.	Value of Materials and Fuel used.	Value of Output.	Value of Production. (b)
	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	139,211	491,576	59,544	25,619	94,713	137,841	43,128
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
1938-39 ...	9,464	228,781	1,791,814	120,047	44,606	128,153	218,419	90,266
1939-40 ...	9,458	236,974	1,929,308	123,741	47,693	142,826	239,268	96,442
	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	368
1937-38 ...	...	24.7	186.1	12,278	194	577	956	379
1938-39 ...	...	24.2	189.3	12,685	202	560	955	395
1939-40 ...	...	25.0	204.0	13,083	208	603	1,010	407

\*Average number during whole year (see page 927). † Estimated. (a) Excluding Electric Motors used in Electric Generating Stations. (b) Value added to materials by process of manufacture (see page 916).

The increase in the number of establishments included above as factories since 1920-21 has been due partly to a more extensive use of electrically driven machinery of small horse-power in bakeries, bootmaking, and boot-repairing workshops, motor garages, etc., which 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; this was surpassed in 1936-37 and there was a substantial rise in each of the following years.

The number of factories increased by nearly 13 per cent. between 1928-29 and 1939-40; the number of employees and value of output by 31 per cent.; the wages bill by nearly 24 per cent.

#### GOVERNMENT FACTORIES AND WORKSHOPS.

The foregoing statement includes particulars of a number of factories and workshops under Government control in New South Wales.

The Government establishments include railway and tramway workshops, electric light and power works, printing works, manufacture of by-products at abattoirs, dock yards, 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.

The statistics of these are on a similar basis to those of other establishments except that 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 1939-40 separately from those conducted by private enterprise:—

TABLE 793.—Government and Private Factories in N.S.W., 1939-40.

Particulars.	Government Workshops, etc.	Other Establishments.	Total.	
Number of Establishments* ... ..	72	9,386	9,458	
Average Number of Employees.†	Male ... ..	16,757	157,420	174,177
	Female ... ..	469	64,706	65,175
	Total ... ..	17,226	222,126	239,352
Salaries and Wages paid to Employees.†	Male ... ..	£ 4,471,384	36,336,582	40,807,966
	Female ... ..	£ 57,536	6,827,049	6,884,585
	Total ... ..	£ 4,528,920	43,163,631	47,692,551
Capital Value of Land, Buildings, and Fixtures	£ 5,756,564	53,182,586	58,939,150	
Value of Plant and Machinery ... ..	£ 7,951,304	56,850,280	64,801,584	
Value of Materials and Fuel used ... ..	£ 3,897,018	138,928,970	142,825,988	
Total Value of Output ... ..	£ 10,207,535	229,060,530	239,268,065	
Value of Production ... ..	£ 6,310,517	90,131,560	96,442,077	

\* Each railway workshop is counted as a separate establishment. † Excluding drawings of working proprietors. ‡ Average number during period of operation (see page 927).

**FACTORIES.**

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**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 1939-40 according to the class of industry. For an explanation of the terms used, e.g., value of output, value of production, see page 916.

TABLE 794.—Factories—Classes of Industry, 1939-40.

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.				
<b>NEW SOUTH WALES.</b>								
Treatment of Non-metalliferous					£(000)	£(000)	£(000)	£(000)
Mine and Quarry Products...	195	4,242	72	4,314	1,102	3,256	5,556	2,300
Bricks, Pottery, Glass ...	206	7,613	458	8,071	1,750	1,645	4,618	2,973
Chemicals, Paint, Oil, Grease ...	308	5,770	2,928	8,698	1,841	9,517	16,403	6,886
Industrial Metals, Machines, Conveyances ...	2,677	81,374	5,467	86,841	20,345	53,592	87,923	34,331
Precious Metals, Jewellery ...	85	811	180	991	170	192	476	284
Textiles and Textile Goods (not dress) ...	175	6,455	10,393	16,848	2,423	7,115	11,478	4,363
Skins, Leather (not clothing or footwear) ...	216	3,806	1,041	4,847	940	3,588	5,177	1,589
Clothing ...	1,585	8,446	24,176	32,622	4,135	7,194	13,804	6,610
Food, Drink, Tobacco ...	1,701	19,257	9,987	29,244	5,825	36,710	53,593	16,883
Wood Working, Basket Ware ...	863	9,633	352	9,985	1,991	5,142	8,491	3,349
Furniture, Bedding ...	342	4,525	1,218	5,743	1,100	2,123	3,815	1,692
Paper, Printing ...	678	11,833	5,637	17,470	3,619	6,293	13,211	6,918
Rubber ...	101	2,377	1,206	3,583	779	2,428	3,448	1,020
Musical Instruments ...	12	196	86	282	55	51	136	85
Miscellaneous Products ...	173	2,744	1,489	4,233	657	1,212	2,507	1,295
Heat, Light, Power ...	141	3,177	25	3,202	961	2,768	8,632	5,864
<b>Total ...</b>	<b>9,458</b>	<b>172,259</b>	<b>64,716</b>	<b>236,974</b>	<b>47,693</b>	<b>142,326</b>	<b>239,268</b>	<b>96,442</b>
<b>METROPOLITAN DISTRICT.</b>								
Treatment of Non-metalliferous								
Mine and Quarry Products...	105	1,778	43	1,821	426	775	1,479	704
Bricks, Pottery, Glass ...	96	5,969	436	6,405	1,402	1,405	3,789	2,384
Chemicals, Paint, Oil, Grease ...	283	5,193	2,900	8,093	1,696	8,955	15,478	6,523
Industrial Metals, Machines, Conveyances ...	1,592	57,247	4,602	61,849	13,990	24,010	45,136	21,126
Precious Metals, Jewellery ...	83	803	178	981	170	191	473	282
Textiles and Textile Goods (not dress) ...	161	5,476	9,258	14,734	2,125	6,411	10,225	3,814
Skins, Leather (not clothing or footwear) ...	182	3,615	1,024	4,639	904	3,458	4,979	1,521
Clothing ...	1,314	7,799	23,257	31,056	3,982	7,012	13,319	6,307
Food, Drink, Tobacco ...	802	13,086	9,037	22,123	4,309	24,054	37,665	13,611
Wood Working, Basket Ware ...	347	5,188	220	5,358	1,135	3,168	5,083	1,915
Furniture, Bedding ...	304	4,333	1,187	5,520	1,061	2,060	3,689	1,629
Paper, Printing ...	476	10,363	5,402	15,765	3,266	6,049	12,418	6,369
Rubber ...	42	2,209	1,194	3,403	756	2,367	3,330	963
Musical Instruments ...	12	196	86	282	55	52	136	84
Miscellaneous Products ...	165	2,712	1,490	4,202	653	1,204	2,492	1,288
Heat, Light, Power ...	10	1,923	11	1,934	569	1,934	6,435	4,501
<b>Total ...</b>	<b>5,974</b>	<b>127,840</b>	<b>60,325</b>	<b>188,165</b>	<b>36,499</b>	<b>93,105</b>	<b>166,126</b>	<b>73,021</b>

\* Average during the whole year (see page 927).

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, output and 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 53 per cent. of the total value of factory production, and the four groups—printing, chemicals, paints, etc., clothing and heat, light and power—contribute in almost equal proportions 27 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 1939-40 in the divisions of the State are shown below:—

TABLE 795.—Factories and Employees in Classes and Statistical Divisions, 1939-40.

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 ...	96	283	1,592	161	182	1,314	802	347	304	476	10	407	5,974
Balance of ...	13	2	37	5	11	14	40	16	1	9	...	6	154
North Coast ...	6	1	124	...	...	19	123	111	9	20	10	22	445
Hunter and Manning ...	20	10	197	3	5	78	172	115	17	34	16	36	703
South Coast ...	7	2	88	...	2	24	105	60	...	18	18	23	347
Tablelands—													
Northern ...	3	2	51	2	1	12	41	29	2	8	7	6	164
Central ...	16	2	101	1	1	38	96	30	4	18	14	20	341
Southern ...	5	2	51	...	1	12	24	16	...	9	7	11	138
Western Slopes—													
North ...	6	1	50	3	...	10	37	21	...	8	8	5	149
Central ...	5	1	70	...	1	14	39	12	...	11	12	10	175
South ...	18	1	118	...	1	26	76	32	3	26	10	16	327
Plains—													
Northern ...	2	...	31	...	2	4	22	24	2	7	5	1	100
Central ...	2	...	35	...	2	3	16	14	...	8	5	...	85
Riverina ...	6	...	96	...	3	13	65	26	...	17	11	3	240
Western Division ...	1	1	36	...	4	4	43	10	...	9	8	...	116
Total ...	206	308	2,677	175	216	1,585	1,701	863	342	678	141	566	9,468
AVERAGE NUMBER OF EMPLOYEES.*													
Cumberland—													
Metropolis ...	6,503	8,115	62,005	14,809	4,702	31,345	22,291	5,468	5,539	15,793	1,934	10,805	189,309
Balance of ...	440	30	671	1,274	115	37	411	102	1	50	...	118	3,247
North Coast ...	143	5	753	...	...	73	1,620	1,370	41	203	56	97	4,361
Hunter and Manning ...	532	401	12,700	9	28	906	1,836	1,425	153	489	407	921	19,807
South Coast ...	212	128	5,749	...	12	80	666	481	...	115	218	681	8,322
Tablelands—													
Northern ...	25	2	260	...	6	79	162	138	4	50	36	30	792
Central ...	106	5	1,834	395	5	102	578	134	13	181	158	725	4,236
Southern ...	32	49	496	119	12	129	118	75	...	56	42	60	1,188
Western Slopes—													
North ...	44	12	299	...	...	25	264	125	...	86	50	28	933
Central ...	33	3	304	...	5	21	246	88	...	55	61	29	845
South ...	106	5	723	325	0	97	594	327	11	170	39	75	2,478
Plains—													
Northern ...	6	...	174	...	10	5	97	274	9	33	38	1	647
Central ...	6	...	143	...	15	9	43	130	...	24	20	...	390
Riverina ...	29	...	417	...	14	23	848	153	...	77	59	6	1,631
Western Division ...	2	7	587	...	26	22	227	86	...	114	95	...	1,166
Total ...	8,219	8,762	87,115	16,931	4,956	32,938	30,001	10,376	5,771	17,496	3,213	13,574	239,352

\* Average number during period of operation (see page 927).

Approximately 63 per cent. of the factories 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 1939-40 is indicated in the following table:—

TABLE 796.—Factory Statistics in Divisions, 1939-40.

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 ... ..	5,974	189,309	45,787	38,962	36,499	93,105	166,126	73,021
Balance of Cumberland ...	154	3,247	667	757	581	1,265	2,214	949
North Coast ... ..	445	4,361	1,298	1,947	808	6,125	7,684	1,559
Hunter and Manning... ..	703	19,807	4,357	9,026	5,095	20,836	30,847	10,011
South Coast ... ..	347	8,322	2,346	8,392	1,979	12,189	16,992	4,803
Northern Tableland ... ..	162	792	236	208	122	291	526	235
Central Tableland ... ..	342	4,236	1,440	1,989	910	1,413	3,205	1,792
Southern Tableland ... ..	139	1,188	361	443	205	338	705	367
North-western Slope ... ..	146	933	258	281	171	514	862	348
Central-western Slope ... ..	175	845	296	255	139	418	721	303
South-western Slope ... ..	330	2,478	759	557	411	1,533	2,285	752
Northern Plain ... ..	100	647	129	141	121	227	448	221
Central Plain ... ..	85	390	80	84	61	77	187	110
Riverina ... ..	240	1,631	571	366	292	877	1,394	517
Western Division ... ..	116	1,166	354	1,394	299	3,618	5,072	1,454
Total ... ..	9,458	239,352	58,939	64,802	47,693	142,826	239,268	96,442

\* Average number during period of operation (see page 927).

The foregoing statement illustrates the preponderance of the metropolitan factories in comparison with those of other districts. Approximately 79 per cent. of the employees work in the metropolitan district, where the capital value of factory premises and equipment represents nearly 78 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 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 797.—Value of Factory Premises, Machinery, etc., 1901 to 1939-40.

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
1928-29	8,465	51,375,003	51,365,710	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	50,277,092	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
1938-39	9,464	57,353,625	62,692,956	6,060	6,624
1939-40	9,458	58,939,150	64,801,584	6,232	6,852

\* Excluding a number of small country establishments.

The premises owned by the occupiers in 1939-40 were valued at £43,167,985, and rented premises (on the basis described above) at £15,771,165, 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 Table 797 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 in existing factories. So far as these are recorded in annual statistical returns they are shown in the following comparison for the past seven years:—

TABLE 798.—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 ... ..	957,808	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
1939 ... ..	2,475,380	9,052,938	11,528,318
1940 ... ..	2,524,316	6,283,092	8,807,408

The above expenditure does not represent entirely new investment, but was derived partly from depreciation reserves. The amount recorded as written off for depreciation of premises, plant and machinery, £5,553,009 in 1939-40, was probably a record in New South Wales. The principal industries in which there were additions and replacements of plant and machinery during the last four years were, as follows:—

TABLE 799.—Cost of Additions and Replacements of Plant and Machinery.

Industry.	1936-37.	1937-38.	1938-39.	1939-40.
	£	£	£	£
Iron and steel works, metals, machinery, etc. ... ..	1,970,929	2,493,665	3,714,615	2,125,550
Works treating mine and quarry products (mainly coke works)	126,371	1,903,646	665,225	222,719
Heat, light and power works (mainly electricity) ... ..	586,396	1,458,702	1,923,835	1,489,179
Factories making food and drink	578,069	822,722	1,080,413	806,374
Factories engaged in paper-making, printing, etc. ... ..	310,030	837,190	338,841	464,485
All other ... ..	1,030,347	1,070,033	1,330,009	1,174,785
Total... ..	4,602,142	8,585,958	9,052,938	6,283,092

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 800.—Size of Factories in New South Wales.

Establishments employing on the average—	1920-21.		1928-29.		1931-32.		1939-40.	
	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	1,446	2,865
4 employees ...			391	1,564	376	1,504	464	1,856
5 to 10 employees			1,425	10,047	1,177	8,150	1,473	10,382
11 " 20 " ...			881	12,872	682	10,069	947	14,046
21 " 50 " ...			808	25,862	584	18,482	924	29,890
51 " 100 " ...			321	21,999	193	13,286	375	26,445
101 and upwards ...		232	71,028	160	50,198	345	103,825	
Total ...			5,298	145,829	4,576	104,412	5,974	189,309
<b>REMAINDER OF STATE.</b>								
Under 4 employees	} a	} a	1,226	2,540	1,473	2,802	1,386	3,011
4 employees ...			391	1,564	308	1,232	489	1,956
5 to 10 employees			962	6,509	662	4,369	984	6,709
11 " 20 " ...			340	4,857	190	2,681	333	4,719
21 " 50 " ...			155	4,769	108	3,207	187	5,786
51 " 100 " ...			34	2,332	34	2,397	46	3,203
101 and upwards ...		59	16,742	46	11,152	59	24,659	
Total ...			3,167	39,313	2,821	27,840	3,484	50,043
<b>NEW SOUTH WALES.</b>								
Under 4 employees	1,006	2,256	2,466	4,997	2,877	5,525	2,832	5,876
4 employees ...	500	2,000	782	3,128	684	2,736	953	3,812
5 to 10 employees	1,936	13,462	2,387	16,556	1,839	12,519	2,457	17,091
11 " 20 " ...	1,064	15,469	1,221	17,729	872	12,750	1,280	18,765
21 " 50 " ...	820	26,006	963	30,631	692	21,689	1,111	35,676
51 " 100 " ...	265	18,061	355	24,331	227	15,683	421	29,648
101 and upwards ...	246	67,757	291	87,770	206	61,350	404	128,484
Total ...	5,837	145,011	8,465	185,142	7,397	132,252	9,458	239,352

† Number during period of operation (see page 927), 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, and these 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 607 with 1,080 employees in 1939-40. The works for motor vehicles and accessories in the respective years numbered 283 with 3,090 employees, and 1,307 with 10,403 employees. The establishments with less than 4 employees in 1939-40 included 564 with 791 persons engaged in boot repair-ing, and 587 motor vehicle works with 1,292 employees.

In the metropolitan district the proportion of establishments employing less than five hands was 32 per cent., five to twenty employees 41 per cent. and more than twenty employees 27 per cent. in 1939-40. In the country districts more than half the factories were small, employing less than five persons, and there were only 8 per cent. with more than twenty employees.

The trend in certain industries towards concentration of manufacture in larger establishments is discussed in the 1938-39 issue of the Year Book at page 943.

RELATIVE GROWTH OF FACTORY EMPLOYMENT.

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 below).

TABLE 801.—Relative Growth of Factory Employment in N.S.W.

Period ended—	Increase in Factory Employees.		Increase in Population— Average Annual Rate.
	Number.	Average Annual Rate.	
		per cent.	per cent.
Dec. 1906 (5 years) ... ..	11,584	3.5	1.7
Dec. 1911 (5 years) ... ..	31,003	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 1940 (4 years) ... ..	43,774	5.2	1.0

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 239,352 in 1939-40 and the equivalent average over the full year was 236,974.

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 802.—Factory Employees (N.S.W.), 1928-29 to 1939-40.

Class of Industry.	Persons engaged, including Working Proprietors.					
	1928-29.	1931-32.	1935-36.	1937-38.	1938-39.	1939-40.
Treatment of Non-metalliferous Mine and Quarry Products ... ..	4,060	1,638	3,303	4,438	4,529	4,314
Bricks, Pottery, Glass ... ..	6,674	2,391	6,623	7,845	8,312	8,071
Chemicals, Paint, Oil, Grease ... ..	6,137	5,135	6,615	7,948	8,187	8,608
Industrial Metals, Machines, Conveyances	62,090	38,981	66,277	81,472	82,452	86,841
Precious Metals, Jewellery ... ..	775	476	845	1,043	979	907
Textiles and Textile Goods (not Dress)	8,894	9,989	13,645	14,744	15,089	16,848
Skins, Leather (not Clothing or Footwear)	3,246	3,278	4,079	4,140	4,306	4,847
Clothing ... ..	28,473	19,669	28,577	31,392	32,079	32,622
Food, Drink, Tobacco ... ..	22,490	20,054	24,489	27,582	28,514	29,244
Woodworking, Basketware ... ..	8,864	3,838	8,738	9,894	9,995	9,985
Furniture, Bedding ... ..	5,737	2,527	5,582	6,512	6,140	5,743
Paper, Printing ... ..	13,932	11,331	14,969	16,876	17,290	17,470
Rubber ... ..	2,775	1,786	2,634	3,454	3,538	3,583
Musical Instruments ... ..	1,257	540	283	265	286	282
Miscellaneous Products ... ..	1,504	1,826	3,363	4,071	3,981	4,233
Heat, Light, Power ... ..	3,848*	2,896	3,178	3,176	3,164	3,202
Total, Average over whole Year ... ..	180,756	126,355	193,200	224,861	228,781	236,974

\*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. As the world economic depression developed, a general decline occurred until 1932. Within the next four years the number of employees regained pre-depression level and there has since been considerable expansion.

The foregoing classification follows the grouping observed uniformly in Australian statistics. The following summary shows the trend of employment in each of the principal groups of manufactures from 1928-29 to 1939-40:—

TABLE 803.—Factory Employees (N.S.W.) 1928-29 to 1939-40.

## Summary.

Industry.	Persons engaged, including Working Proprietors.				
	1928-29.	1931-32.	1935-36.	1938-39.	1939-40.
Metal Trades ... ..	62,000	38,981	66,277	82,452	86,841
Bricks, etc., Glass, etc., Sawmills; etc., Furniture, etc. ... ..	21,275	8,756	20,948	24,471	23,799
Clothing (including Footwear) ... ..	28,473	19,669	28,577	32,079	32,622
Textiles (not dress) ... ..	8,894	9,989	13,645	15,089	16,848
Food, Drink, Tobacco ... ..	22,490	20,054	24,489	28,514	29,244
Paper, Printing, etc. ... ..	13,932	11,331	14,969	17,290	17,470
Other ... ..	23,602	17,575	24,300	23,970	30,150
Total ... ..	180,756	126,355	193,200	223,781	236,974

This comparison indicates the relative severity of the depression on the principal classes of manufacturing in 1931-32, the subsequent recovery to 1935-36 and the expansion to 1939-40. The increase in employees between 1928-29 and 1939-40 was 89 per cent. in textile factories, 40 per cent. in metal trades, 30 per cent. in food, etc., 15 per cent. in clothing, and 12 per cent. in the bricks, sawmills and furnishing group.

Nature of Employment.

Approximately 6.7 per cent. of the persons engaged in manufacturing industries during the year 1939-40 were working proprietors or managers or overseers, 84.1 per cent. were actually employed in the different processes of manufacture, or in the sorting and packing of finished articles. Engine-drivers, etc., represented 1.3 per cent., clerical workers 6.9 per cent., carters, messengers, and others 1 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 1939-40.

TABLE 804.—Factory Employment, Occupations, 1939-40.

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 ...	381	262	147	3,608	...	39	...	4,437
Bricks, Pottery, Glass ...	417	396	86	6,914	317	80	...	8,219
Chemicals, Paint, Oil, Grease ...	643	1,331	119	4,378	2,151	139	1	8,762
Industrial, Metals, Machines, Conveyances ...	5,271	6,463	955	71,024	3,017	384	1	87,115
Precious Metals, Jewellery ...	123	62	...	665	132	16	4	1,002
Textiles and Textile Goods (not dress) ...	513	605	52	5,735	9,953	43	30	16,931
Skins, Leather (not Clothing or Footwear) ...	374	185	65	3,376	924	30	2	4,956
Clothing ...	2,121	902	27	6,503	23,086	196	103	32,938
Food, Drink, Tobacco ...	2,442	2,886	716	14,750	8,575	632	...	30,001
Woodworking, Basketware ...	1,157	611	269	8,073	82	177	7	10,376
Furniture, Bedding ...	490	232	3	3,939	1,014	34	9	5,771
Paper, Printing ...	1,304	1,638	8	9,632	4,647	266	1	17,496
Rubber ...	177	335	18	1,889	1,094	73	...	3,556
Musical Instruments ...	26	42	2	160	46	6	...	282
Miscellaneous Products ...	294	268	13	2,349	1,291	34	18	4,267
Heat, Light, Power ...	382	167	627	2,003	...	34	...	3,213
<b>Total ...</b>	<b>16,115</b>	<b>16,435</b>	<b>3,107</b>	<b>144,998</b>	<b>56,329</b>	<b>2,192</b>	<b>176</b>	<b>239,852</b>
<b>Males ...</b>	<b>15,077</b>	<b>8,885</b>	<b>3,107</b>	<b>144,998</b>	<b>...</b>	<b>2,076</b>	<b>34</b>	<b>174,177</b>
<b>Females ...</b>	<b>1,038</b>	<b>7,550</b>	<b>...</b>	<b>...</b>	<b>56,329</b>	<b>116</b>	<b>142</b>	<b>65,175</b>

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 1939-40 varied from 3 per cent. in textile works to 11 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 1939-40 the proportion of working proprietors, etc., was 8.7 per cent., workers in the factories 83.2 per cent., and clerks 5.1 per cent. The corresponding proportions amongst the females were 1.6 per cent. and 86.4 per cent.

Of the clerical workers 45.9 per cent. were females, representing 11.6 per cent. of the total number of female employees.

The practice of giving out work at piece rates is very limited. Workers employed in their own homes represented less than one 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 twelve years is shown below:—

TABLE 805.—Factory Employment, Occupations, 1928-29 to 1939-40.

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	167,690
1930-31 ...	12,074	8,063	2,373	77,931	30,499	1,700	124	133,304
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	82,650	34,881	1,997	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	2,480	264	211,066
1937-38 ...	15,159	14,529	2,886	139,508	53,113	2,448	235	227,833
1938-39 ...	15,633	15,616	2,970	141,152	53,911	2,313	205	231,800
1939-40 ...	16,115	16,435	3,107	144,998	56,329	2,192	176	239,352

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, had regained pre-depression level in 1936 and remained fairly constant during subsequent years.

*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 927).

TABLE 806.—Sex of Factory Employees, 1920-21 to 1939-40.

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	66.6
1923-29 ...	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	35,088	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
1938-39 ...	167,172	121.3	61,609	45.5	228,781	83.7
1939-40 ...	172,259	123.6	64,715	47.1	236,974	85.7

In 1939-40 the manufacturing industries provided employment for nearly 8.6 per cent. of the total population, viz., about 12.4 per cent. of males, and 4.7 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 807.—Female Factory Employees, 1920-21 to 1939-40.

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	1939-40.	1920-21.	1928-29	1931-32	1939-40.
Food, etc.—								
Biscuits ... ..	822	940	898	1,615	102	142	143	187
Confectionery ..	1,190	1,629	1,332	1,874	113	139	153	171
Jam and fruit canning, pickles, etc.	951	917	826	899	122	133	142	123
Condiments, etc ...	545	673	562	784	125	184	163	187
Tobacco ... ..	1,262	1,392	1,253	1,887	131	162	151	208
Other food, etc. ...	325	705	848	1,516	6	9	11	14
Clothing, etc.—								
Woollen mills ...	793	1,908	2,297	4,301	101	207	166	153
Hosiery and knitting factories ...	1,196	3,343	2,916	3,849	663	383	309	336
Boot and shoe factories ... ..	1,512	2,222	1,755	2,960	70	91	98	115
Clothing, dressmaking, and millinery	11,080	11,833	7,001	12,898	620	643	667	715
Hats and caps ...	815	1,178	945	824	160	227	223	150
Shirts, underclothing, etc....	2,719	4,296	3,544	5,479	2,124	1,672	1,729	1,741
Paper, paper bags and boxes ... ..	827	1,521	1,252	2,342	119	148	129	110
Printing and book-binding ... ..	1,711	1,865	1,313	2,218	34	30	27	32
Rubber goods ...	344	618	392	1,094	57	36	38	58
Other industries ...	3,520	5,602	5,309	11,789	5	6	10	11
Total ... ..	29,602	40,642	32,443	56,329	32	35	43	39

\* Average during period of operation, see page 927.

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 56,329 in 1939-40, or by 38.6 per cent., and the number of men from 115,494 to 144,998, or by 25.5 per cent.

Between 1928-29 and 1931-32 when there was a marked decrease in employment in heavy industries where male employees predominate the proportion of female operatives in factories rose from 26 per cent. to 30 per cent. With the return to normal employment conditions the proportion of females dropped slowly to 27.6 per cent. in 1937-38 and 1938-39, but rose to 28 per cent. in 1939-40.

*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 the last four years the ages of factory employees were recorded as at 15th June and working proprietors were excluded. It has been ascertained that the proportion of juvenile employees is greater in December than in June.

TABLE 808.—Age and Sex of Factory Employees in N.S.W., 1911 to 1940.

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.	
<i>Average over whole year (including working proprietors).</i>									
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
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
<i>At 15th June (working proprietors excluded).</i>									
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
1939	5,759	31,923	122,041	159,723	7,084	24,289	28,529	59,902	219,625
1940	6,164	34,412	126,071	166,647	7,594	25,893	30,744	64,231	230,878
<i>Percentage of Total Employees.</i>									
<i>Average over whole year (including working proprietors).</i>									
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
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
<i>At 15th June (working proprietors excluded).</i>									
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
1939	2.6	14.5	55.6	72.7	3.2	11.1	13.0	27.3	100
1940	2.7	14.9	54.6	72.2	3.3	11.2	13.3	27.8	100

\*Calendar year—estimated.



Males represented 72.2 per cent. of factory employees (exclusive of working proprietors) at 15th June, 1940, and females represented 27.8 per cent. Of the males 3.7 per cent. were under 16 years of age, 20.6 per cent. were aged 16 to 21 years, and 75.7 were adults. Of the female employees 11.8 per cent. were under 16 years, 40.3 per cent. were between 16 and 21 years, and 47.9 per cent. were adults. The proportion of adults, male and female, rose from 67.5 per cent. to 68.6 per cent. between June, 1937, and June, 1939, and declined to 67.9 in the next twelve months.

More than 46 per cent. of the boys under 16 years and 51 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.

The diminution in number and proportion of youths and girls under 21 years in June, 1939, was apparently due to the fact that there was no expansion of factory employment in the year 1938-39. Employees advanced a year in age and relatively few new juniors were engaged. In 1939-40 the proportion rose again and was almost as high as in 1937-38.

*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 children were required to attend school until they reached the age of 14 years, unless specially exempted. In December, 1940, provision was made to raise the school leaving age by four months in each of the next three years so that it will be 15 years in 1943.

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 1940 certificates of fitness were issued to 13,729 children under 16 years of age, viz., 7,014 boys and 6,715 girls.

The number of boys and girls under 16 years of age employed in factories in June, 1940, as shown in the preceding table, includes clerks, messengers, etc., as well as factory operatives. The number of boys 6,164, represented approximately 12 per cent. of the boys aged 14 and 15 years in the State; and the number of girls, 7,594, was about 15 per cent. of the girls at these ages.

*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 six years are shown below:—

TABLE 809.—Number of Factory Employees, Monthly, 1935 to 1940.

Year ended June.	Employees on Factory Pay Rolls on the Pay Day nearest to the 15th of each Month (excluding working proprietors).											
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
Males—(Thousands).												
1935 ...	114·2	115·5	114·7	118·6	120·7	121·6	120·7	122·6	124·5	125·9	126·5	126·9
1936 ...	129·0	129·9	131·5	133·3	136·3	137·0	134·6	134·6	136·8	137·7	139·8	139·8
1937 ...	136·3	137·5	138·7	141·2	143·0	143·3	142·1	145·2	146·7	145·9	147·5	149·8
1938 ...	150·9	152·3	153·1	155·3	156·8	158·0	156·5	157·0	158·6	157·8	158·6	159·4
1939 ...	158·0	158·9	159·0	159·2	159·3	158·9	156·9	158·3	159·8	158·7	159·4	159·7
1940 ...	158·8	158·5	159·6	163·8	166·3	168·3	166·8	166·6	168·0	164·2	159·5	166·6
Females—(Thousands).												
1935 ...	41·7	44·5	45·9	47·2	48·0	47·5	44·1	46·5	48·3	48·4	47·8	47·4
1936 ...	47·2	48·4	49·9	51·0	51·9	52·2	48·5	51·8	53·4	52·4	52·8	52·0
1937 ...	51·8	53·1	54·3	55·0	55·5	54·8	51·6	55·1	56·7	56·3	56·0	56·0
1938 ...	56·5	57·9	58·8	59·4	60·0	60·6	56·7	59·9	61·1	60·8	60·8	60·2
1939 ...	59·9	60·6	61·2	61·8	61·9	61·7	57·0	60·3	61·4	61·0	60·5	59·9
1940 ...	59·3	60·5	61·2	63·0	64·2	64·0	61·8	64·1	66·0	65·4	64·3	64·2
Total—(Thousands).												
1935 ...	155·9	160·0	160·6	165·8	168·7	169·1	164·8	169·1	172·8	174·3	174·3	174·3
1936 ...	176·2	178·3	181·4	184·3	188·2	189·2	183·1	186·4	190·2	190·1	192·6	191·8
1937 ...	188·1	190·6	193·0	196·2	198·5	198·1	193·7	200·3	203·4	202·2	203·5	205·8
1938 ...	207·4	210·2	211·9	214·7	216·8	218·6	213·2	216·9	219·7	218·6	219·4	219·6
1939 ...	217·9	219·5	220·2	221·0	221·2	220·6	213·9	218·6	221·2	219·7	219·9	219·6
1940 ...	218·1	219·0	220·8	226·8	230·5	232·3	228·6	230·7	234·0	229·6	223·3	230·8

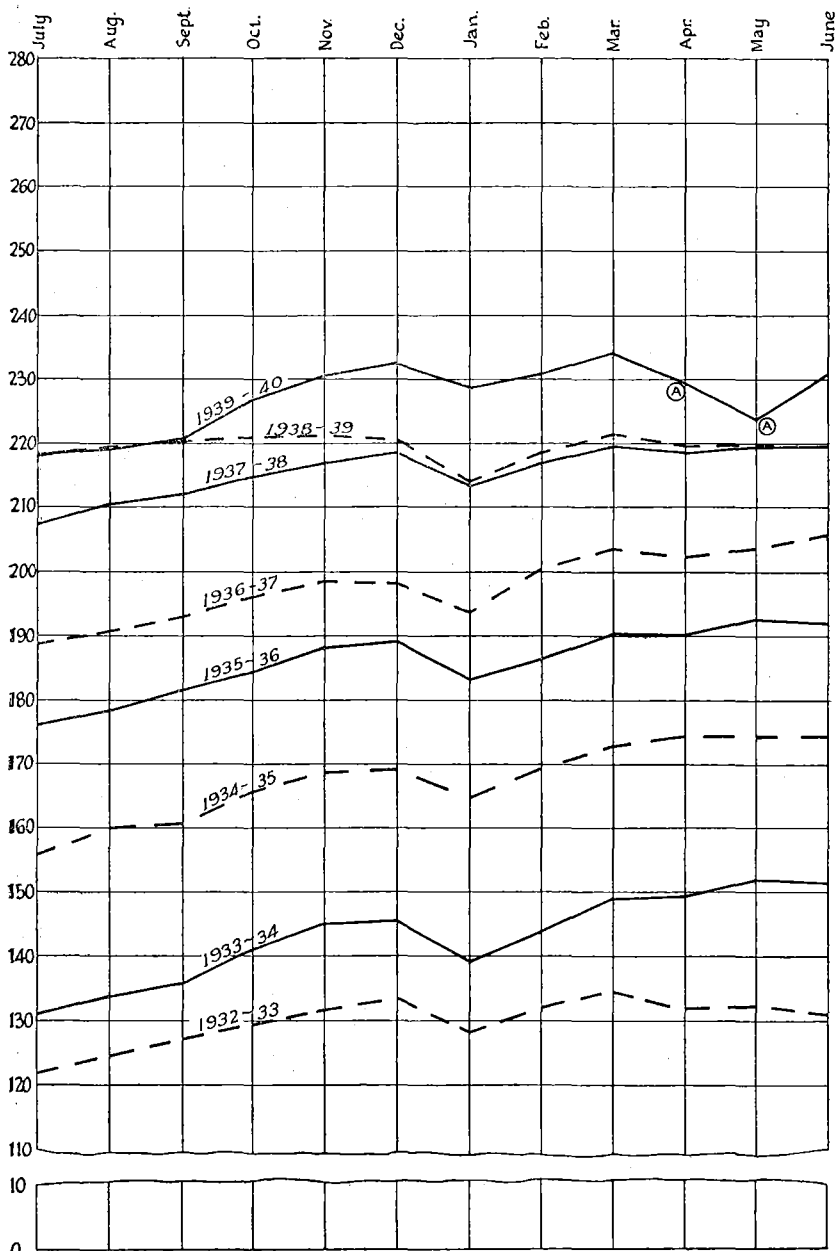
The experience of this period of six years indicates that there is a seasonal rise in the aggregate employment between July and November or December, and a decline in January, when work in many factories is interrupted on account of the summer holiday season. In 1938-39 there was less fluctuation than usual in the monthly figures apart from the seasonal decline in January, and in June, 1939, the aggregate was at the same level as twelve months earlier. In 1939-40, the decline in January was less than usual but there was a decrease in factory employment between March and May, when supplies of coal were restricted owing to an industrial dispute in coal mining. The movable incidence of Easter affects the figures for March and April—the Easter holidays commenced towards the end of March in 1937 and 1940, before the middle of April in 1936, 1938 and 1939 and towards the end of April in 1935.

The monthly figures for each industry are published in the "Statistical Register."

The monthly records of the metal and machinery works show a steady upward trend, with little seasonal fluctuation. 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 on page 602 of this Year Book.

FACTORY EMPLOYMENT—MONTHLY—JULY, 1932 to JUNE, 1940.  
(Exclusive of Working Proprietors.)



(A) Industrial Dispute in Coalmining, March to May, 1940.  
The numbers at the side of the graph represent 1000 employees.

## 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 £47,692,551 in 1939-40, 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 810.—Total Factory Wages, 1911 to 1939-40.

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
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
1938-39	38,271,867	6,334,630	44,606,497	238 14	103 13	201 13
1939-40	40,807,966	6,884,585	47,692,551	246 19	107 3	207 17

The average amount of wages per employee is based on the average number of employees over the whole year (excluding working proprietors), and represents approximately the amount which would have been received by an employee working full time. The average earnings of men and boys so calculated in 1939-40 were highest in heat, light and power works (£304 0s. 10d.), and paper and rubber factories (£273 7s. 2d.) 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, £115 6s. 3d.; printing and bookbinding trades, £103 15s. 11d.; clothing factories, £104 5s. 2d.; textiles, £104 14s. 7d. per female worker.

The wages paid to factory workers are for the most part subject to regulation by industrial awards and agreements. This matter is discussed in greater detail in the chapter, Food, Prices and Employment of this Year Book.

## MOTIVE POWER.

In order to eliminate as far as possible any duplication in 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 a 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 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, whether actually in use or not. Obsolete engines are excluded.

TABLE 811.—Horse-power of Engines in Factories, 1901 to 1939-40.

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
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	451,803	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	(a)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
1938-39 ...	443	8,915	209,697	5,692	601,999	398	20,541	838,327
1939-40 ...	336	9,023	187,601	5,548	658,418	109	20,478	872,154

(a) See context below table.

Prior to 1936-37 certain establishments which generated electricity for their own use furnished a separate return for the generation of electricity; in 1936-37 and later years 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 by an equivalent amount the horse-power of prime movers in electric generating stations. The horse-power involved in this change was approximately 50,000 in 1936-37.

A further analysis of the power of engines installed in factories (excluding electric generating stations) in the year 1939-40 is shown below.

TABLE 812.—Horse-power of Engines in Factories, 1939-40.

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.
Steam—		
Reciprocating ... ..	105,623	18,957
Turbine ... ..	48,849	14,172
Internal Combustion—		
Gas ... ..	4,624	924
Petrol or other light oils ... ..	3,859	620
Heavy oils ... ..	12,675	3,324
Water ... ..	109	.....
Total Prime Movers ... ..	175,739	37,997
Electric Motors—		
Driven by purchased electricity ... ..	524,605	35,799
Driven by electricity generated in own works ... ..	90,687	7,327
Total Electric Motors ... ..	615,292	43,126
Total Power Installed ... ..	791,031	81,123

The proportion of each kind of power installed in factories, excluding electric generating stations, in 1939-40 was: Electricity, 75 per cent.; steam, 22; oil, 2; 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 813.—Horse-power of Engines in Electric Generating Stations, 1901 to 1940.

Year.	Horse-power of Engines Installed in Electric Generating Stations.					Electricity Generated. (000) units.
	Steam	Gas.	Water.	Oil.	Total.	
	h.p.	h.p.	h.p.	h.p.	h.p.	
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
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
1938-39 ... ..	848,895	5,250	41,540	57,802	953,487	1,948,489
1939-40 ... ..	948,455	5,200	41,160	62,855	1,057,670	2,145,447

\*Not Available.

Further details of electric generating stations are shown in Tables 851 and 852.

FUEL CONSUMED.

The value of fuel consumed, motive power rented, and lubricating oil used in 1939-40 amounted to £8,135,614. This sum includes lubricating oil and water to the value of £604,143, and fuels of various kinds £7,531,471 as shown below:—

TABLE 814.—Value and Kinds of Factory Fuel, etc., 1939-40.

Industry.	Coal.	Coke.	Wood.	Oil and Tar.	Gas.	Electricity.	Other.	Total.
	£	£	£	£	£	£	£	£
Treatment of Non-metalliciferous Mine and Quarry Products ...	130,089	18,479	3,805	1,590	26,327	132,355	4,174	316,819
Brick, Pottery, Glass ...	310,093	3,687	20,407	36,038	24,662	70,740	6,765	472,392
Chemical, Paint, Oil, Grease ...	88,729	10,962	2,035	24,959	8,888	95,749	6,742	238,064
Industrial Metals, Machines, Conveyances ...	325,408	1,276,822	3,112	215,755	496,653	704,929	92,818	3,175,497
Textiles and Textile Goods (not Dress) ...	48,881	788	112	2,857	1,791	131,408	509	186,346
Skins, Leather (not Clothing or Footwear) ...	37,234	1,794	1,753	4,818	1,038	35,022	110	81,774
Clothing ...	15,327	3,712	673	7,308	10,262	68,580	80	105,942
Food, Drink, Tobacco ...	262,694	35,119	87,894	69,146	55,060	372,609	3,718	886,240
Woodworking, Basketware ...	5,894	148	13,829	5,384	1,261	61,809	2,112	90,437
Furniture, Bedding ...	2,665	188	15	537	1,386	23,587	8	28,386
Paper, Printing ...	62,475	564	416	6,292	16,609	87,405	89	173,850
Rubber ...	22,129	1,130	1,002	615	1,773	65,651	.....	92,300
Heat, Light, Power ...	1,167,505	151,027	6,582	219,682	70,858	15,797	7,103	1,638,554
Other ...	10,796	1,773	168	330	5,141	26,492	170	44,870
Total ...	2,489,919	1,506,193	141,808	595,311	721,709	1,952,133	124,398	7,531,471

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 1939-40 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 815.—Factory Fuel, Quantities, 1939-40.

Class of Industry.	Coal.	Coke.	Wood.	Oil.
Fuel—	tons.	tons.	tons.	gallons.
Treatment of Non-metal Mine and Quarry Products	202,609	31,729	7,054	48,258
Bricks, Pottery, Glass ...	271,787	2,585	31,508	1,734,632
Chemicals, Paint, Oil, Grease ...	68,356	9,579	2,039	1,370,502
Industrial Metals, Machines, Conveyances...	307,312	1,233,623	2,830	8,320,742
Textiles, Skins, Leather, Clothing ...	76,163	6,661	3,135	930,654
Food, Drink, Tobacco ...	209,319	30,284	95,706	2,272,709
Wood, Furniture, etc. ...	8,186	231	31,046	112,831
Paper, Printing, etc. ...	44,950	384	460	196,716
Rubber ...	19,283	800	1,075	24,126
Heat, Light, Power ...	1,201,912	154,053	10,596	8,961,843
Other ...	9,539	2,226	225	12,587
Total used as Fuel ...	2,419,416	1,472,155	185,674	23,985,600
Raw Material—				
Coke Works ...	1,833,643	...	...	...
Gasworks ...	621,164	...	...	1,974,765
Total (Fuel and Raw Material)...	4,874,223	1,472,155	185,674	25,960,365

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 1928-29 is shown below. Similar details are not available regarding oil prior to 1933-34, and are shown for the last seven years only:—

TABLE 816.—Factory Fuel, Quantities, 1929 to 1940.

Year ended June.	Coal.		Coke.	Wood.	Oil.
	Fuel.	Raw material, coke and gas works.			
	tons.	tons.	tons.	tons.	Gallons.
1929 ... ..	2,201,235	1,531,135	779,996	167,401	} * 17,300,000† 17,913,862 21,840,147 22,548,275 22,841,258 24,215,828 23,985,600
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 ... ..	1,490,024	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	
1939 ... ..	2,509,664	2,239,978	1,344,208	172,963†	
1940 ... ..	2,419,416	2,454,807	1,472,155	185,674	

\* Not available.

† Approximate.

The total quantity of coal used in factories of N.S.W. as fuel and raw material decreased from 3,732,370 tons in 1928-29 to 2,311,831 tons in 1931-32 and increased to 4,874,223 tons in 1939-40.

The increase in the use of coal as 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.

## 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 pages 916 and 917.

TABLE 817.—Value of Factory Output and Production, 1901 to 1939-40.

Year.	Value of—				Production per Employee: †	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.).			
	£(000)	£(000)	£(000)	£(000)	£	£(000)	£(000)
1901	15,141	496	25,648	10,011	182.1	4,952	5,059
1911	33,671	1,243	54,346	19,432	185.9	16,048	9,384
1920-21	91,194	3,609	137,841	43,128	309.8	25,610	17,509
1928-29	105,357	6,314	185,298	73,627	407.3	38,544	35,083
1929-30	94,265	6,038	167,251	66,348	410.3	34,876	31,972
1930-31	64,579	4,381	118,484	49,524	358.1	28,260	24,324
1931-32	63,557	4,229	114,430	46,653	380.2	22,751	23,902
1932-33	70,085	5,240	124,446	49,569	357.9	23,783	25,786
1933-34	77,097	5,240	136,612	54,042	350.0	25,748	28,293
1934-35	87,097	5,906	154,433	61,430	351.0	28,513	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	36,842	40,112
1937-38	122,591	7,124	214,883	85,168	378.8	42,210	42,958
1938-39	126,502	7,651	218,410	90,266	394.5	44,606	45,660
1939-40	134,690	8,136	239,268	96,442	407.0	47,693	48,749

† Based on average number of employees over full year, see page 927.



The value of materials used in 1939-40 was £134,690,374, including containers and packing £6,344,880, and tools replaced and repairs to plant £3,888,089.

On the average, out of every hundred pounds worth of goods produced in factories in 1939-40 the materials, containers, etc., cost £56 6s., and fuel £3 8s., while the employees received £19 18s., leaving a balance of £20 8s. 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 916).

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 920).

TABLE 818.—Value of Output, Proportionate Distribution, 1901 to 1939-40.

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
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
1938-39	58.7	20.4	20.9	100	59.5	19.4	21.1	100
1939-40	59.7	19.9	20.4	100	60.7	18.8	20.5	100

† Not available.

The proportion absorbed by materials and fuel in private establishments, which had been somewhat in excess of 61 per cent. for a number of years, declined to 59.5 per cent. in 1938-39 and rose to 60.7 in 1939-40.

The ratio of salaries and wages declined from 19.4 in 1930-31 to 17.6 per cent. in 1932-33, then rose slowly to 18 per cent. in 1935-36 and 1936-37. In the next two years it regained the former level of 19.4 per cent.

The balance for overhead charges, etc., and profits has been approximately 21 per cent. since 1932-33, except in 1937-38 and 1939-40, when it was slightly lower.

The following table shows in each class of industry in 1939-40 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 819.—Value of Output, Proportionate Distribution by Industries, 1939-40.

Class of Industry.	Proportionate Value of Manufactured Goods represented by—			
	Materials used.	Fuel, etc.	Salaries and Wages.	Balance.
	per cent.	per cent.	per cent.	per cent.
Treatment of Non-metalliferous Mine and Quarry Products ... ..	52.3	6.3	19.8	21.6
Bricks, Pottery, Glass ... ..	24.7	10.9	37.9	26.5
Chemicals, Paint, Oil, Grease ... ..	56.4	1.6	11.2	30.8
Industrial Metals, Machines, Conveyances ... ..	57.1	3.8	23.1	16.0
Precious Metals, Jewellery ... ..	38.8	1.5	35.8	23.9
Textiles and Textile Goods (not Dress) ... ..	60.0	2.0	21.1	16.9
Skins, Leather (not Clothing or Footwear) ... ..	67.5	1.8	13.1	12.6
Clothing ... ..	51.2	0.9	30.0	17.9
Food, Drink, Tobacco ... ..	66.5	2.0	10.9	20.6
Woodworking, Basketware ... ..	59.2	1.4	23.4	16.0
Furniture, Bedding ... ..	54.9	0.8	28.8	15.5
Paper, Printing ... ..	46.1	1.5	27.4	25.0
Rubber ... ..	67.4	3.0	22.6	7.0
Musical Instruments ... ..	34.6	3.3	40.5	21.6
Miscellaneous Products ... ..	46.7	1.6	26.2	25.5
Heat, Light, Power... ..	12.4	19.7	11.1	56.8
Total ... ..	56.3	3.4	19.9	20.4

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. During the last three years it has been 49½ per cent. It varies considerably in different industries, as indicated below:—

TABLE 820.—Ratio of Wages to Value of Production, 1939-40.

Class of Industry.	Ratio of Amount of Wages Paid to Value of Production.					
	1928-29.	1931-32.	1936-37.	1937-38.	1938-39.	1939-40.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Treatment of Non-metalliferous Mine and Quarry Products ... ..	49.9	57.9	44.5	45.1	45.8	47.9
Bricks, Pottery, Glass ... ..	60.0	59.1	57.0	54.6	58.8	58.8
Chemicals, Paint, Oil, Grease ... ..	33.9	23.8	23.2	26.4	26.5	26.7
Industrial Metals, Machines, Conveyances ... ..	65.2	68.8	57.2	59.9	58.4	59.2
Precious Metals, Jewellery ... ..	61.5	59.9	60.5	58.9	61.0	60.0
Textiles and Textile Goods (not Dress) ... ..	53.5	64.3	59.4	60.6	59.0	55.5
Skins, Leather (not Clothing or Footwear) ... ..	60.4	62.0	59.2	62.2	64.2	59.1
Clothing ... ..	61.6	61.4	60.8	57.1	62.9	62.6
Food, Drink, Tobacco ... ..	35.4	38.0	34.2	34.0	34.3	34.5
Woodworking, Basketware ... ..	62.3	61.7	58.4	60.1	60.6	59.4
Furniture, Bedding ... ..	63.6	65.4	62.5	58.7	64.6	65.0
Paper, Printing ... ..	57.1	55.5	53.2	53.4	54.0	52.3
Rubber ... ..	45.0	47.6	72.1	81.1	76.8	76.4
Musical Instruments ... ..	57.5	109.3	56.0	55.1	61.3	65.1
Miscellaneous Products ... ..	62.2	49.9	51.9	50.1	54.5	50.8
Heat, Light, Power ... ..	21.9	15.2	16.1	16.5	16.8	16.4
Total ... ..	52.4	48.8	47.7	49.6	49.4	49.4

PRINCIPAL FACTORY PRODUCTS.

The following statement of principal products embraces those for which particulars of quantity and value were collected for the years prior to 1936-37. Since this year the information has been collected in respect of a comprehensive list of the factory products shown in Table 822:—

TABLE 821.—Principal Articles Manufactured, 1928-29 to 1939-40.

Commodities.	1928-29.		1938-39.		1939-40.	
	Quantity.	Value at Works.	Quantity.	Value at Works.	Quantity.	Value at Works.
Wool, Scoured ... ..lb.	19,649,577	2,106,373	31,246,493	£ ††	42,606,512	£ ††
„ Tops and Noils ...lb.	2,274,959	301,886	7,046,824	726,784	7,556,894	953,135
Leather—						
Dressed and Upper* sq. ft.	19,396,616	1,660,787	26,058,549	1,100,073	29,627,241	1,401,330
Sole and Harness ...lb.			11,119,957	664,810	13,441,274	844,801
Soap ... ..cwt.	483,531	1,152,735	487,692	1,179,467	525,300	1,306,427
Tallow, Raw ... ..cwt.	354,566	604,165	269,982	237,055	393,508	405,358
Bricks ... ..1,000	437,158	1,625,464	379,236	1,265,555	316,529	1,025,545
Cement ... ..ton	414,913	1,744,792	432,487	1,447,542	405,388	1,284,336
Timber, Sawn ...100 super ft.	1,395,297	1,760,408	2,811,694	††	2,675,601	††
Steel, Ingots ... ..ton	432,773	††	1,169,149	4,213,220	††	††
Pig Iron ... ..ton	461,110	††	1,104,605	2,664,279	††	††
Bacon and Ham† ...lb.	22,340,106	1,163,507	21,721,914	††	20,510,621	††
Butter† ... ..cwt.	819,050	7,173,369	1,016,345	7,103,194	1,000,177	7,409,026
Cheese† ... ..lb.	6,203,409	282,755	7,193,022	271,621	6,634,079	243,712
Margarine ... ..lb.	16,627,959	551,014	26,967,332	729,319	26,277,958	718,018
Biscuits ... ..lb.	43,289,522	1,462,757	44,550,455	1,635,323	46,628,421	1,745,043
Ice ... ..ton	258,833	503,605	232,747	438,157	233,418	435,552
Aerated Waters, etc. ...gal.	6,980,373†	1,071,897	9,827,640	1,032,965	10,277,273	1,075,976
Jams and Preserves ...lb.	30,579,055	755,268	53,924,197	1,205,173	59,304,511	1,428,713
Pickles and Sauces ...pint	10,419,549	528,713	9,249,001	453,633	9,478,147	507,497
Flour ... ton (2,000 lb.)	449,011	4,977,770	547,162	3,866,163	584,648	4,270,268
Bran ... ..ton	87,259	559,012	107,779	599,810	115,331	494,686
Pollard ... ..ton	95,641	645,294	121,154	662,125	131,965	577,571
Meat, Preserved in Tins...lb.	4,251,040	172,627	3,377,960	124,251	7,139,312	282,969
Sugar, Raw (94 net titre), tons	17,434	304,175	45,106	747,502	36,938	693,640
Beer and Stout ... ..gal.	29,420,920	3,176,085	33,899,023	3,465,190	36,610,707	3,652,635
Tobacco ... ..lb.	10,134,242	3,064,680	10,755,820	3,738,704	11,148,821	3,887,970
Cigarettes and Cigars ...lb.	5,203,558	1,780,623	4,531,058	2,286,593	†4,614,615	2,358,470
Cloth, Woollen and Worsted sq. yds.	5,743,788	1,293,288	12,373,749	2,341,092	14,014,981	2,979,883
Socks and Stockings doz. prs.	1,142,192	1,343,990	1,055,219	804,032	1,072,436	935,356
Knitted Goods—Woollen No.	1,397,172	538,395	3,073,220	560,428	3,127,788	596,248
„ Cotton No.	5,609,930	297,073	4,217,628	234,841	5,329,116	294,561
„ Art Silk No.	1,855,943	408,924	6,444,504	688,819	8,342,412	902,413
Hats and Caps ... ..No.	2,860,332	948,292	4,187,100	††	4,722,432	††
Boots, Shoes and Slippers prs.	5,108,946	2,627,023	7,874,362	2,600,788	8,134,571	2,893,221
Goloshes & Rubber Shoes prs.	2,294,682	352,793	3,557,914	457,170	3,830,700	525,518
Rubber Tyres ... ..No.	670,952	1,703,780	662,736	1,233,832	††	††
Gas ... ..1,000 cub. ft.	10,683,530	2,139,694	10,896,185	1,546,562	11,208,764	1,596,233
Coke ... ..ton	1,003,626	1,441,321	1,548,521	1,639,684	1,708,998	1,768,117
Electricity ... 1,000 units	959,985	4,930,839	1,948,489	5,602,877	2,145,447	6,051,729
Motor Bodies ... ..No.	13,321	845,727	5,576	480,865	4,625	429,045

\* Includes Upholstery Leather. † Dozens. ‡ Exclusive of quantity made on farms.  
 § lb. †† Not available. ¶ Cigarettes only. †† Not available for publication.

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 1939-40 contributed £87,922,694, or nearly 37 per cent. of the total as well as of the printing and furniture trades, the combined output of which was £17,026,486, or 7 per cent. of the total value of factory output.

Information relating to a number of the principal articles produced in the year 1939-40 is shown in the following table in which the total recorded production of each article is classified according to 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 in both coke works and gas works, but the total output of coke is shown below in Class I which relates to the treatment of non-metalliferous mine and quarry products.

The details here shown are a summary only of information available as to articles manufactured. More detailed information is available from statistical records and is published fully in comparative tables in the Statistical Register.

Particulars of articles produced in only one or two factories cannot be published, because the disclosure of the contents of any individual return is prohibited by the Census Act, 1901.

TABLE 822.—Principal Articles Manufactured in N.S.W., 1939-40.

Description.	Quantity.	Value at Works.
CLASS I.—Treatment of Non-metalliferous Mine and Quarry Products.		
		£
Coke ... .. tons	1,708,998	1,768,117
Coke Breeze ... .. tons	100,673	48,445
Naphtha Solvent ... .. gals.	233,076	13,039
Tar—		
Crude ... .. gals.	26,427,265	287,875
Refined ... .. "	2,519,300	34,900
Cement, Portland grey ... .. tons	405,388	1,284,396
Cement pipes ... .. "	(a)	218,884
Cement building sheets ... .. sq. yds.	5,330,326	433,976
Fibrous plaster sheets ... .. "	2,427,395	280,089
Building and roofing material with paper or felt base ... .. sq. yds.	2,247,997	72,827
Lime—		
Quick ... .. tons	22,845	53,510
Hydrated ... .. "	8,004	27,334
Agricultural ... .. "	6,971	9,027
CLASS II.—Bricks, Pottery, Glass, etc.		
Bricks—Building ... .. 1,000	316,529	1,025,545
Fire bricks and blocks ... .. "	17,693	338,204
Floor and wall tiles ... .. sq. yds.	82,351	37,256
Roofing tiles ... .. 1,000	20,119	296,749
Earthenware pipes ... .. "	(a)	343,960
Pottery ... .. "	(a)	62,766
Terra cotta ... .. "	(a)	32,835
Sanitary earthenware ... .. "	(a)	114,674
Domestic and other earthenware ... .. "	(a)	72,499
Glass bottles ... .. "	(a)	684,270
CLASS III.—Chemicals, Dyes, Paint, Oils, etc.		
Cosmetic creams and lotions ... .. cwt.	7,419	199,995
Pharmaceutical products ... .. "	(a)	2,699,053
Tooth paste and powder ... .. "	(a)	296,371
Disinfectants ... .. "	(a)	115,795
Insecticides ... .. "	(a)	148,056
Sprays ... .. "	(a)	48,686
Weed-killers ... .. "	(a)	9,523

(a) Quantity not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description.	Quantity.	Value at Works.
<b>CLASS III.—Chemicals, Dyes, Paint, Oils, etc.—continued.</b>		
Toilet lanoline ... ..	lb. 34,515	£ 2,691
Water paints ... ..	lb. 4,274,908	75,986
Oil paints, ready mixed and other... ..	gals. 1,912,217	1,226,901
Colours—Dry ... ..	lb. 7,414,192	42,279
"    Ground in Oil ... ..	lb. 1,200,229	40,188
Varnishes ... ..	gals. 1,452,439	(b)
Kalsomine ... ..	lb. 3,908,426	57,759
Lacquer—		
Clear ... ..	gals. 53,535	37,592
Colours ... ..	" 261,543	201,485
Thinners ... ..	" 285,890	91,498
Enamels ... ..	" 157,265	166,517
Stains (oil) ... ..	" 79,204	43,018
Whitelead ... ..	cwt. 136,770	(b)
Zinc oxide ... ..	" 141,635	204,628
Zinc oxide paste ... ..	" 25,313	66,695
Putty ... ..	" 24,120	30,496
Synthetic finishes ... ..	gals. 353,324	342,549
Rubbing compounds ... ..	lb. 153,558	6,741
Oil—		
Castor ... ..	gal. 93,743	25,432
Linseed ... ..	" 2,526,772	580,845
Neatsfoot ... ..	" 69,063	9,644
Coco-nut (refined) ... ..	tons 1,691	60,171
Coco-nut (unrefined) ... ..	" 12,871	270,023
Grease ... ..	lb. 6,733,473	82,439
Coco-nut cake and meal ... ..	tons. 9,087	45,090
Linseed cake and meal ... ..	" 17,577	175,962
Tallow, raw ... ..	" 19,675	405,358
Glue pieces and sinews ... ..	" 11,913	28,550
Glue ... ..	cwt. 14,807	33,500
Soap—		
Household ... ..	" 328,312	537,399
Toilet ... ..	" 133,869	676,967
Sand ... ..	" 42,993	65,392
Soft and other ... ..	" 20,126	26,669
Soap extracts and powders ... ..	" 80,691	143,022
Cleansers and cleansing powders ... ..	" 31,534	83,294
Candles ... ..	cwt. 7,225	27,114
Soda crystals ... ..	" 47,738	16,739
Talcum powder ... ..	lb. 222,548	62,599
Stearine ... ..	cwt. 37,379	29,232
Manures ... ..	" 794,875	285,533
Printers' ink ... ..	(a)	211,813
Printers' rollers ... ..	(a)	14,655
Writing ink ... ..	(a)	33,764
Polish, Auto... ..	(a)	11,110
"    Floor ... ..	(a)	106,522
"    Brass ... ..	(a)	75,646
"    Boot and Shoe ... ..	(a)	21,303
"    Stove ... ..	(a)	62,745
Paste ... ..	(a)	24,591
Mucilage ... ..	(a)	3,157
Other Adhesives—Powder ... ..	cwt. 4,088	12,369
"    Liquid ... ..	" 414,120	68,417
Tennis gut ... ..	hanks 21,152	32,348

a Quantity not available. b Value not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description.	Quantity.	Value at Works.
CLASS IV.—Industrial Metals, Machines, Implements and Conveyances.		
		£
Fabricated structural steel ... ..	tons 57,213	1,550,730
Mining and excavating machinery... ..	(a)	145,985
Weighing machinery and appliances ... ..	(a)	44,429
Laundry machinery (other than household) ... ..	(a)	38,245
Refrigerating machinery (other than household)... ..	(a)	323,994
Woodworking machinery ... ..	(a)	49,932
Printing machinery ... ..	(a)	6,738
Textile machinery ... ..	(a)	17,104
Refrigerators—Household ... ..	No. 13,641	504,959
Furniture of iron and steel ... ..	(a)	97,446
Metal window frames ... ..	(a)	75,571
Lawnmowers ... ..	No. 23,167	41,403
Bolts and nuts ... ..	(a)	271,872
Washers ... ..	tons 373	10,887
Railway and deck spikes ... ..	" 279	5,543
Springs—		
Automobile ... ..	(a)	147,286
Other ... ..	(a)	81,358
Spades and shovels ... ..	No. 128,191	24,670
Forks (Garden or Farm) ... ..	" 7,444	2,102
Water meters ... ..	" 13,647	60,691
Brass and copper utensils ... ..	(a)	53,527
Aluminium utensils ... ..	(a)	150,647
Non-ferrous alloy steam, gas and water fittings ... ..	(a)	436,714
Non-ferrous alloy window and door fittings ... ..	(a)	71,167
Milk cans ... ..	No. 18,363	18,049
Packers' cans... ..	(a)	1,704,720
Household utensils of sheet iron and steel ... ..	(a)	223,260
Ploughs ... ..	No. 316	3,390
Cultivators ... ..	" 715	67,324
Harrows ... ..	" 291	489
Chaffcutters ... ..	" 53	1,909
Milking Machines ... ..	" 159	2,645
Dairy and butter-making machinery ... ..	(a)	15,169
Internal combustion engines (petrol) ... ..	No. 1,379	46,650
Railway Cars and Wagons ... ..	" 80	178,021
Stoves—		
Wood, coal and coke burning ... ..	" 17,222	90,210
Gas ... ..	" 18,102	185,528
Electric ... ..	" 5,296	84,724
Other Heating ... ..	" 10,018	44,605
Fencing wire ... ..	tons 27,146	536,650
Wire, other iron and steel (excluding fencing-wire) ... ..	" 85,569	1,525,600
Wire gates ... ..	(a)	89,116
Nails ... ..	tons 6,933	170,798
Pipes—Wrought, welded, black and galvanised ... ..	" 65,060	1,512,965
Pipe fittings... ..	" 4,086	366,630
Motor chassis assembled—		
Imported car ... ..	No. 15,298	(b)
Imported truck ... ..	" 4,180	(b)
Motor bodies made—		
Car ... ..	" 373	19,259
Passenger buses ... ..	" 115	87,545
Trucks, utilities, and vans ... ..	" 2,974	196,393
Other, etc. ... ..	" 1,163	125,848
Bicycles ... ..	" 30,721	(b)

a Quantity not available.

b Value not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description.	Quantity.	Value at Works.
CLASS IV.—Industrial Metals, Machines, Implements and Conveyances—continued.		
Motor car—		£
Axles ... ..	No. 30,371	33,086
Radiator cores ... ..	" 12,812	26,354
Pistons ... ..	" 17,614	4,665
Piston rings ... ..	" 1,253,298	52,278
Sleeves ... ..	" 5,837	4,555
Gears ... ..	" (a)	90,014
Dynamos—		
Alternators ... ..	No. 269	22,524
Generators ... ..	" 195	7,244
Electric motors—		
Alternating current ... ..	" 31,949	364,138
Direct current ... ..	" 593	64,730
Transformers and converters—Above 20 K.V.A. ... ..	" 920	201,738
" " —Below 20 K.V.A. ... ..	" 123,765	70,454
Electric batteries—Wet ... ..	" 20,929	71,165
Batteries—Auto. and Radio ... ..	" 405,994	453,781
Telephone and telegraph apparatus ... ..	" (a)	75,215
Electric meters ... ..	No. 101,518	176,657
Electric regulating, starting and controlling apparatus ... ..	" (a)	466,365
Household fittings (switches, fuses, etc.) ... ..	" (a)	30,700
Small household electro mechanical appliances ... ..	" (a)	30,800
Other domestic cooking appliances ... ..	" (a)	45,701
Electric heating apparatus ... ..	" (a)	144,384
Wireless chassis made ... ..	No. 87,873	605,506
Complete wireless sets assembled ... ..	" 147,589	(b)
Parts for receiving sets ... ..	" (a)	377,510
Wireless transmitting apparatus ... ..	" (a)	242,898
Other wireless apparatus ... ..	" (a)	55,738
CLASS VI.—Textiles and Textile Goods.		
Cotton tweed, denims and other piece goods ... ..	sq. yds. 4,963,824	448,167
Woollen cloth and tweed ... ..	" 2,070,503	275,828
Worsted cloth ... ..	" 11,751,626	2,271,595
Serge ... ..	" 192,852	32,460
Flannel ... ..	" 659,198	78,666
Blankets ... ..	" pair 123,821	162,640
Stockings and socks—		
Men's—		
Wholly of wool ... ..	doz. pairs 68,081	52,148
Wholly of other materials ... ..	" 16,525	8,519
Mixtures of wool ... ..	" 73,365	58,265
Mixture of artificial silk ... ..	" 2,460	1,093
Mixture of cotton ... ..	" 45,541	25,398
Women's—		
Wholly of wool ... ..	" 14,180	9,200
Wholly of silk ... ..	" 137,288	203,447
Wholly of artificial silk ... ..	" 90,904	50,760
Wholly of cotton ... ..	" 13,355	9,412
Mixtures of Wool ... ..	" 25,846	22,243
Artificial silk mixture ... ..	" 201,787	181,133
Other mixtures ... ..	" 86,885	148,921
Children's—		
Wholly of wool ... ..	" 117,303	78,672
Wholly of other materials ... ..	" 4,733	2,790
Mixtures of wool ... ..	" 35,395	22,474
Mixtures of artificial silk ... ..	" 106,509	42,150
Mixtures of cotton ... ..	" 36,279	18,731

a Quantity not available. b Value not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—*continued.*

Description.	Quantity.	Value at Works.
<b>CLASS VI.—Textile and Textile Goods.—<i>continued.</i></b>		
<b>Knitted apparel—</b>		
<b>Underwear—</b>		
Wool or containing wool ... .. doz.	157,124	168,26£
Artificial silk ... .. "	655,038	785,031.
Cotton ... .. "	438,857	279,907
Other ... .. "	47,230	25,89T
<b>Women's and girls' nightwear—</b>		
Artificial silk ... .. "	34,498	91,269
Other ... .. "	2,012	7,084
Women's and girl's costumes, dresses or robes ... .. "	147	2,422
<b>Bathing suits—</b>		
Wool or containing wool ... .. "	43,629	162,081
Other ... .. "	4,875	23,582.
<b>Cardigans, jumpers, sweaters, etc.—</b>		
<b>Chest under 34 inches—</b>		
Wool or containing wool ... .. "	13,563	37,505.
<b>Chest, 34 inches and over—</b>		
Wool or containing wool ... .. "	44,484	220,960.
Cotton ... .. "	2,990	9,072.
Other ... .. "	3,029	8,325.
Waterproofed piece goods ... .. sq. yds.	106,304	23,465.
Tarpaulins ... .. "	(a)	60,411
Sails ... .. "	(a)	94,424
Tents ... .. "	(a)	9,430.
<b>CLASS VII.—Skins and Leather.</b>		
Scoured wool ... .. lb.	(c)42,606,512	(b)
Pelts ... .. No.	2,238,383	(b)
<b>Leather—</b>		
Sole ... .. lb.	12,432,123	756,468.
Harness, etc. ... .. "	392,053	31,343.
Upholstery ... .. sq. ft.	2,610,400	152,112
Dressed and upper from hides ... ..	"	7,934,131
	lb.	153,418
<b>Dressed from skins—</b>		
Calf ... .. sq. ft.	6,219,680	364,682.
Goat ... .. "	4,509,884	301,859.
Sheep ... .. "	7,919,702	184,453.
All other ... .. "	433,444	14,000
<b>Rough tanned hides—Splits—Dressed</b>		
Rough tanned ... .. lb.	1,939,906	54,198.
Basils ... .. "	586,676	12,742
Harness—Single set ... .. No.	1,615,600	106,202.
Saddles ... .. "	521	2,471
Collars ... .. "	3,499	16,406.
Trunks ... .. "	6,439	6,318.
Suitcases ... .. "	3,287	7,498.
Handbags ... .. "	450,425	139,901
School bags ... .. "	505,464	215,521
Machine belting—leather ... .. lb.	21,820	3,399
Leather coats ... .. No.	262,123	68,137
	10,595	28,623

a Quantity not available.

b Value not available.

c Exclusive of wool scoured and used at woollen mills for tops and other goods.



TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description.	Quantity.	Value at Works.
CLASS VIII.—Clothing.		
Articles made from woven piece goods—		
Men's and boys'—		
Shirts ... .. doz.	390,554	£ (b)
Collars (including those made for sale with shirts shown above) ... .. "	217,865	(b)
Undershirts, underpants and combinations ... .. "	191,045	(b)
Pyjamas ... .. "	110,137	(b)
Handkerchiefs ... .. "	937,186	(b)
Neckties ... .. "	215,360	(b)
Garters and hose suspenders ... .. "	20,159	8,224
Braces ... .. "	60,541	44,201
Women's and girls'—		
Underwear ... .. "	315,036	(b)
Pyjamas and nightdresses ... .. "	61,786	(b)
Handkerchiefs ... .. "	899,586	(b)
Corsets and corselets ... .. "	42,896	314,564
Brassieres ... .. "	33,907	78,876
Leather gloves ... .. doz. pairs	47,393	41,738
Umbrellas ... .. doz.	16,928	74,566
Hats—		
Fur felt ... .. "	66,487	(b)
Wool felt ... .. "	76,907	(b)
Straw—		
Men's and boys' ... .. "	62,043	(b)
Women's and girls' ... .. "	101,521	(b)
Other ... .. "	50,716	(b)
Caps (all kinds) ... .. "	34,862	(b)
Boots—Leather—		
Men's ... .. pair	669,924	385,108
Women's ... .. "	2,410	1,869
Children's ... .. "	13,399	5,271
Shoes—Leather—		
Men's ... .. "	1,162,641	585,139
Women's ... .. "	1,879,141	1,172,140
Children's ... .. "	1,102,060	292,927
Boots and shoes, other than leather—		
Men's ... .. "	37,175	15,240
Women's ... .. "	83,914	29,941
Children's ... .. "	95,547	24,379
Slippers—Felt and Fabric—		
Men's ... .. "	200,634	26,895
Women's ... .. "	1,440,129	163,323
Children's ... .. "	340,677	18,319
Slippers—Leather—		
Men's ... .. "	208,281	46,767
Women's ... .. "	800,194	118,177
Children's ... .. "	98,445	7,426
Uppers made for sale ... .. "	14,832	5,453
Soles made for sale ... .. "	1,093,720	57,486
Boot and shoe accessories ... .. "	(a)	156,330
CLASS IX.—Food, Drink and Tobacco.		
Flour ... .. tons (2,000 lb.)	584,648	4,270,268
Bran—Wheaten ... .. "	115,331	494,686
Pollard—Wheaten ... .. "	131,965	577,571
Wheatmeal ... .. cwt.	249,782	104,601
Breakfast foods—(Made from Wheat) ... .. "	153,884	370,772
"  "  Other ... .. "	110,726	507,353
Oatmeal ... .. "	90,445	157,970

a Quantity not available. b Value not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description	Quantity.	Value at Works.
CLASS IX—Food, Drink, and Tobacco—(continued)		
		£
Maizemeal ... .. cwt.	35,986	11,676
Semolina ... .. "	36,511	15,805
Sharps and screenings ... .. bushels	365,854	27,014
Rice (Dressed) ... .. cwt.	346,700	375,367
Rice meal ... .. "	47,335	9,319
Rice flour ... .. "	28,779	20,221
Macaroni and vermicelli ... .. "	30,174	51,830
Cattle and Poultry Food ... .. "	(a)	218,319
Dog Biscuits... .. lb.	1,951,075	15,750
Biscuits ... .. "	45,613,617	1,690,924
Ice cream cones ... .. "	1,014,804	54,119
Sugar raw (94 net titre) ... .. tons	36,938	693,640
Confectionery—		
Chocolate ... .. lb.	23,164,557	1,503,229
Other ... .. "	28,907,889	1,642,778
Jams, conserves and jellies ... .. "	29,549,423	720,367
Fruit preserved in liquid ... .. "	24,182,682	517,299
Vegetables preserved in liquid (including asparagus) ... .. "	5,572,406	191,047
Tomato pulp ... .. cwt.	50,433	(b)
Fruit pulp ... .. "	33,419	(b)
Crystallized fruit ... .. "	846,689	41,934
Candied peel ... .. "	262,140	9,128
Pickles ... .. pints	2,053,893	95,596
Sauce—		
Tomato ... .. "	3,900,664	187,945
Other ... .. "	3,523,590	223,956
Soup—		
Tomato ... .. "	452,877	16,889
Other ... .. "	797,291	34,900
Vinegar ... .. gals.	2,156,138	52,944
Butter... .. lb.	112,019,857	7,409,026
Cheese... .. "	6,634,079	243,712
Bacon and ham* ... .. "	20,510,621	(b)
Lard ... .. "	582,043	13,186
Milk—		
Condensed ... .. "	6,286,287	139,171
Concentrated ... .. "	3,325,800	44,740
Powdered (including Malted) ... .. "	5,192,940	260,226
Sterilized Cream ... .. "	1,663,212	54,859
Preserved meat ... .. "	5,981,933	205,559
Preserved tongues ... .. "	1,217,379	77,410
Meat extracts and Pastes ... .. "	267,885	32,195
Margarine—		
Table ... .. "	4,477,967	163,871
Other ... .. "	21,799,991	554,147
Edible Fats—other—including Dripping ... .. "	19,007,990	308,695
Cocoa and chocolate (potable) ... .. "	1,138,078	46,888
Coffee ... .. "	1,600,010	132,520
Pepper ... .. "	429,079	22,966
Spices ... .. "	178,544	12,006
Mustard ... .. "	592,864	89,022
Curry ... .. "	219,929	13,581
Custard powder ... .. "	2,165,380	85,445
Saline powders ... .. "	1,141,721	50,163
Flavouring essences ... .. gals.	73,764	168,921
Peanut butter ... .. lb.	1,141,338	91,317
Icing sugar ... .. "	11,286,131	178,806
Starch ... .. cwt.	32,361	51,312
Baking powder ... .. lb.	1,805,647	136,183

a Quantity not available. b Value not available.

\* Exclusive of 4,110,0361 b. made from green bacon, imported interstate.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40—continued.

Description.	Quantity.	Value at Works.
CLASS IX.—Food, Drink, and Tobacco—continued.		
		£
Self-raising flour ... .. cwt.	249,962	297,579
Jelly crystals ... .. lb.	3,694,647	184,829
Ice ... .. tons	233,418	435,552
Ice cream ... .. gals.	2,230,575	757,983
Aerated waters ... .. "	7,793,154	743,213
Syphons ... .. (No. 1,966,509) ... .. "	368,720	46,431
Cordials and Syrups ... .. "	503,466	168,809
Pure fruit juices ... .. "	163,601	68,567
Hop and ginger beer ... .. "	1,599,095	116,299
Ale and beer—Bulk ... .. "	29,937,143	2,439,778
Ale and beer—Bottled ... .. "	6,673,564	1,212,857
Wine—		
Beverage ... .. "	824,869	(b)
For distillation ... .. "	1,010,894	109,545
Malt ... .. bush.	657,138	189,343
Tobacco—		
Plug ... .. lb.	1,946,164	577,274
Flake ... .. "	5,566,682	2,073,478
Fine cut ... .. "	3,635,975	1,237,218
Cigarettes ... .. "	4,614,615	2,358,470
Casings—		
Beef ... .. cwt.	5,506	9,248
Mutton and lamb ... .. "	6,538	100,308
Pig ... .. "	862	13,701
CLASS X.—Woodworking and Basketware.		
Rough sawn timber—		
Local—		
Hardwoods ... .. super ft.	129,273,044	(b)
Pines ... .. "	43,368,424	(b)
Other softwoods ... .. "	18,932,110	(b)
Imported (interstate or overseas)—		
Hardwoods ... .. "	696,020	(b)
Softwoods ... .. "	75,290,525	(b)
Hewn Timber—		
Piles, poles, spars, logs, etc. ... .. cub. ft.	150,560	10,575
Palings—Split ... .. sup. ft.	94,500	947
Sleepers—Sawn ... .. "	454,357	4,508
Palings—Sawn ... .. "	3,692,161	29,137
Pickets ... .. "	64,912	623
Floorboards—		
Australian timber ... .. "	28,771,748	372,080
Imported timber ... .. "	1,383,365	31,969
Weatherboards—		
Australian timber ... .. "	9,649,763	127,902
Imported timber ... .. "	362,603	10,525
Other dressed timber, linings, etc. ... .. "	26,430,740	656,905
Plywood ... .. super ft. solid	4,300,093	230,406
Veneers ... .. " "	1,182,163	83,639
Joinery ... .. (a)		1,531,525
Casks ... .. No.	46,948	(b)
Box shooks ... .. (a)		190,041
Boxes—Butter ... .. No.	2,449,886	183,325
Cases—Fruit ... .. "	2,811,631	116,727
All other boxes, cases and crates ... .. (a)		591,060
Axe handles ... .. gross	2,159	7,641
Broom, mop, tool, and other handles ... .. "	24,981	33,813
Firewood ... .. tons	68,965	52,234
Timber, kiln-dried ... .. super. ft.	8,911,908	(b)
Baskets ... .. (a)		10,220
Seagrass and bamboo furniture ... .. (a)		48,545

a Quantity not available.

b Value not available.

TABLE 822.—Principal Articles Manufactured in N.S.W.,  
1939-40.—continued.

Description.	Quantity.	Value at Works.
CLASS XI.—Furniture, Bedding, etc.		£
Perambulators (including pushers and strollers) ... No.	39,008	73,222
Furniture ... ..	(a)	2,268,967
Picture and mirror frames ... ..	(a)	76,684
Wireless cabinets ... ..	No.	128,900
Mattresses—Spring ... ..	93,743	109,028
Inner spring ... ..	29,085	114,366
Other bedding and pillows ... ..	(a)	372,045
Down quilts ... ..	No.	22,000
Blinds and Awnings—Outdoor ... ..	(a)	76,964
Other ... ..	(a)	250,357
CLASS XII.—Paper, Stationery, Printing, Bookbinding, etc.		
Cardboard boxes ... ..	(a)	1,236,912
Envelopes ... ..	(a)	199,307
Exercise books, etc. ... ..	(a)	285,933
Paper bags ... ..	(a)	378,853
Paper containers ... ..	(a)	192,785
Writing pads ... ..	(a)	96,025
Stay Paper ... ..	(a)	39,982
Cigarette papers ... .. thousand	1,923,289	56,728
CLASS XIII.—Rubber.		
Rubber boots and shoes (including Goloshes) ... pair	3,830,700	525,518
Rubber hose—Garden and other ... .. ft.	6,131,830	123,307
CLASS XIV.—Musical Instruments.		
Pianos ... .. No.	1,021	50,374
CLASS XV.—Miscellaneous Products.		
Buttons ... ..	(a)	51,281
Buckles, clasps, slides ... ..	(a)	29,402
Other Casein products ... ..	(a)	35,195
Brushes—		
Hair and cloth ... .. gross	3,020	36,173
Nail ... ..	2,765	7,967
Tooth ... ..	36,531	121,862
Scrubbing ... ..	3,093	10,965
Shaving ... ..	669	5,072
Paint and varnish ... ..	6,223	66,715
Other ... ..	4,742	33,702
Brooms—		
Millet ... ..	4,638	66,407
Bassine ... ..	1,549	26,861
Hair ... ..	933	18,210
Mops ... ..	3,881	21,991
Toys ... ..	(a)	187,334
Tennis racquet frames ... .. doz.	9,520	103,517
Golf clubs ... ..	5,006	52,063
Cricket Bats ... ..	821	8,001
CLASS XVI.—Heat, Light, and Power.		
Electricity—		
Generated and sold ... .. 1,000 units.	1,791,882	6,051,729
Used in generating station ... ..	97,926	...
Lost ... ..	129,005	...
Generated in factories for own use ... ..	126,634	...
Total Electricity generated ... ..	2,145,447	6,051,729.
Gas—		
Sold ... .. 1,000 cub ft.	9,533,170	1,596,233
Used in own works ... ..	85,298	...
Lost ... ..	1,590,296	...
Total gas made ... ..	11,208,764	1,596,233

a Quantity not available.

INDIVIDUAL INDUSTRIES.‡

CEMENT WORKS.

The extensive deposits of limestone and shale in New South Wales are used for making cement in five establishments situated in proximity to the supplies of raw material and coal mines.

TABLE 823.—Cement Works.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	3	5	5	5	5
Average Number of Employees*	642	1,143	465	931	838
Total Horse-power installed...	12,705	29,227	31,309	48,495	52,557
Value of Land and Buildings	£ 241,815	641,130	672,905	586,510	540,952
Value of Plant and Machinery	£ 655,258	1,506,435	1,246,837	1,059,604	947,384
Salaries and Wages paid ...	£ 143,176	327,308	123,216	246,490	218,841
Value of Fuel and Power used	£ 61,838	259,110	92,563	202,961	198,330
Value of Materials used ...	£ 193,107	499,819	111,799	385,428	324,261
Value of Output ...	£ 592,707	1,744,792	459,841	1,453,599	1,292,391
Value of Production ...	£ 337,762	985,863	255,479	865,210	769,800
Cement Made ...	tons 159,979	414,913	116,943	432,487	405,388

\*Average over whole year.

A decrease in the value of land, buildings and plant used for cement works in 1939-40 was due to revaluation.

The output of cement declined from 414,913 tons in 1928-29 to 116,943 tons in 1931-32, then rose steadily to 321,689 tons in 1936-37. In the following year the output, 438,267 tons, was the largest yet recorded; it has since declined by 32,879 tons or 7½ per cent.

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 824.—Glass and Bottle Works.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments...	34	37	27	39	37
Average Number of Employees*	2,040	1,802	1,412	3,214	3,421
Total Horse-power installed	1,840	2,588	4,117	9,073	11,760
Value of Land and Buildings	£ 262,953	336,791	370,037	722,331	789,949
Value of Plant and Machinery	£ 139,990	217,719	296,764	467,836	551,296
Salaries and Wages paid ...	£ 346,780	423,101	243,301	672,740	709,361
Value of Fuel and Power used	£ 108,751	87,557	86,436	158,609	168,052
Value of Materials used ...	£ 387,744	441,793	205,481	693,688	779,906
Value of Output ...	£ 1,142,279	1,331,288	766,776	2,024,036	2,260,875
Value of Production ...	£ 645,784	801,938	474,859	1,171,739	1,312,917

\* Average over whole year.

The number of employees increased from 1,412 in 1931-32 to 3,421 in 1939-40, and the value of the land, buildings and equipment from £540,065 to £1,341,245.

‡See text on page 916 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 825.—Brick Tile and Pottery Works.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments...	175	203	101	176	165
Average Number of Employees* ... ..	4,271	4,692	939	5,043	4,608
Total Horse-power installed	13,414	18,052	10,105	20,063	20,955
Value of Land and Buildings ... ..	£ 951,595	1,348,954	713,015	1,047,940	1,082,946
Value of Plant and Machinery... ..	£1,192,522	1,654,901	787,291	1,232,838	1,205,084
Salary and Wages paid	£ 912,108	1,173,170	182,125	1,118,664	1,033,094
Value of Fuel and Power used ... ..	£ 311,394	429,568	47,740	356,964	332,530
Value of Materials used... ..	£ 246,995	440,025	55,787	380,051	358,652
Value of Output ... ..	£1,947,118	2,715,326	349,768	2,611,482	2,341,567
Value of Production ... ..	£1,388,729	1,845,733	246,241	1,874,467	1,650,385

\*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 297,837 square yards, valued at £113,266, in 1939-40.

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 826.—Output of Bricks, Tiles, etc.

Products.	1928-29.	1931-32.	1934-35.	1935-36.	1937-38.	1938-39.	1939-40.
Bricks... .. 000	437,158	28,521	277,697	303,260	351,639	379,236	316,529
Firebricks ... 000	8,642	5,875	15,206	15,918	23,230	19,070	17,693
Tiles—roofing... 000	20,414	1,094	12,953	14,255	17,521	20,129	20,119
„ other ... .. £	40,896	6,313	15,562	19,183	32,792	39,468	37,256
Pipes ... .. £	250,151	49,221	182,417	252,660	396,467	402,613	343,960
Pottery ... .. £	256,873	90,389	152,282	183,138	226,838	231,518	200,587

SOAP AND CANDLE FACTORIES.

The soap and candle factories supply practically the whole of the local requirements and there is a small export trade with the islands of the Pacific. The following table shows particulars relating to the industry:—

TABLE 827.—Soap and Candle Factories.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	26	27	26	27	32
Average Number of Employees*...	939	1,080	986	1,460	1,539
Total Horse-power installed ...	1,271	1,818	1,968	3,952	3,993
Value of Land and Buildings £	223,423	352,700	320,188	335,682	361,174
Value of Plant and Machinery £	287,714	304,446	269,894	224,237	255,537
Salaries and Wages paid ...	£ 141,135	218,551	196,924	284,580	304,496
Value of Fuel and Power used £	40,160	35,441	28,636	30,078	33,461
Value of Materials used ...	£ 859,555	913,071	708,624	796,759	950,170
Value of Output ...	£ 1,177,511	1,613,066	1,355,089	1,825,877	2,071,515
Value of Production ...	£ 277,796	664,554	617,829	999,040	1,087,884
<b>Materials Treated—</b>					
Tallow ... cwt.	139,153	212,568	191,510	242,592	273,796
Alkali ... cwt.	40,322	93,537	95,566	81,315	89,090
Resin ... cwt.	22,327	38,638	25,907	25,539	23,898
Copra Oil ... cwt.	15,560	37,311	47,254	68,866	75,551
<b>Principal Products—</b>					
Soap ... cwt.	280,620	483,531	382,397	478,488	520,937
Soap Extract, etc. ... lb.	4,051,251	6,022,338	5,994,737	6,266,064	8,957,460
Glycerine ... lb.	1,882,423	2,442,745	2,475,501	3,057,600	†
Soda Crystals ... lb.	681,024	3,430,067	1,583,456	2,540,944	2,267,104

\* Average over whole year.

† Not available for publication.

Glycerine and soda crystals are produced in chemical works as well as in soap factories. These quantities are not included in the foregoing table, the total output of soda crystals in 1939-40 was 5,346,656 lb.

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 New South Wales factories are supplying a large proportion of the local requirements. New industries, including the rolling of steel sheets for automobile bodies, have commenced operations, and buildings are being constructed for aluminium rolling mills and for the manufacture of aeroplanes.

A comparative statement relating to the metal and machinery works is shown below:—

TABLE 828.—Metal and Machinery Works, 1911 to 1939-40.

Year.	Number of Establishments.	Average Number of Employees.	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	46,603	132,263	9,897	23,789	37,064	13,275
1928-29 ...	2,170	62,090	199,475	15,045	31,922	54,995	23,073
1929-30 ...	2,144	64,574	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
1938-39 ...	2,634	82,452	383,350	18,495	48,172	79,863	31,691
1939-40 ...	2,667	86,841	391,944	20,345	53,592	87,923	34,331

\* 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 object of supplying the Australian requirements of pig-iron and ingot steel. Production commenced in 1915, at a most opportune time because the outbreak of war in 1914 prevented the importation of sufficient iron and steel from abroad, and there would have been widespread industrial dislocation if the plant at Newcastle had not been available to supply the local demand. Various subsidiary industries have been established around the steelworks and progress has been continuous, except in the depression years 1929-30 to 1932-33.

#### 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 1937-38 issue of the Year Book at page 628.

The principal iron and steel works are at Newcastle and Port Kembla in proximity to the northern and southern coalfields respectively. These works are modern and efficient, and they are controlled by an organisation which owns the coke works and iron and steel furnaces, large deposits of iron ore, limestone, coal and other minerals and a fleet of ships for the transport of iron ore and other raw materials, and 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 829.—Output of Iron and Steel, 1928-29 to 1938-39.

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	1935	698,493	696,861	585,838
1930	308,369	314,917	256,696	1936	783,233	820,395	671,244
1931	232,783	228,363	188,708	1937	913,406	1,073,479	837,445
1932	190,132	221,488	178,740	1938	929,676	1,159,075	905,078
1933	336,246	392,666	295,523	1939	1,104,605	1,169,149	972,799
1934	487,259	518,326	431,765				

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 the output in 1938-39 was more than two and a quarter times the quantity produced in 1933-34.

*Metal Extraction.*

In addition to the iron and steel works at Newcastle and Port Kembla there were in 1938-39 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 830.—Metal Extraction in N.S.W., 1938-39.\*

Source of Ores, Concentrates, etc.	Metals extracted from Ores, Concentrates, etc.						
	Gold.	Silver.	Copper.	Tin.	Iron, Pig.	Antimony.	Platinum.
	oz. fine.	oz.	tons.	tons.	tons.	tons.	oz.
New South Wales ...	105,078	116,963	3,203	1,552	...	91	6
Victoria ...	17,797	35,194	36	148	...	136	...
Queensland...	35,386	70,695	3,050	665	...	...	...
South Australia ...	301	313	136	...	1,104,605	...	...
Western Australia...	19,826	17,568	44	14	...	...	...
Tasmania ...	7,930	87,000	323	840	...	...	...
Northern Territory	1	...	...	17	...	...	...
Papua ...	11,312	26,460	...	...	...	...	3
New Guinea ...	56,583	84,401	...	...	...	...	5
New Zealand ...	18,945	15,305	64	...	...	...	1
Fiji ...	98,589	14,264	...	...	...	...	...
Total ...	371,748	468,163	6,856	3,236	1,104,605	227	15

\*Figures for 1939-1940 are not available for publication.

WOOLLEN AND TWEED MILLS.

The woollen goods required in New South Wales, 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 1939-40 there were twenty-four establishments in this group, employing on the average 3,087 males and 4,403 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 831.—Woollen and Tweed Mills.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ... ..	9	14	15	22	24
Average Number of Employees* ... ..	1,628	2,993	3,882	6,712	7,490
Total Horse-power installed ... ..	4,398	7,389	8,997	11,845	12,312
Value of Land and Buildings ... ..	£ 224,474	540,680	615,320	697,215	761,443
Value of Plant and Machinery ... ..	£ 384,662	1,023,692	1,021,546	1,051,096	1,204,267
Salaries and Wages paid ... ..	£ 235,668	469,019	609,911	974,382	1,075,503
Value of Fuel and Power used ... ..	£ 23,517	57,941	81,167	131,481	137,730
Value of Materials used ... ..	£ 745,848	1,311,049	1,239,400	2,511,519	3,035,882
Value of Output ... ..	£ 1,437,647	2,144,234	2,146,026	4,299,710	5,040,780
Value of Production... ..	£ 603,282	776,244	825,459	1,656,710	1,867,168
Materials treated—					
Scoured Wool ... ..	lb. 3,603,448	5,748,343	10,232,957	15,761,440	16,198,642
Cotton Yarn ... ..	332,501	272,005	270,623	†210,941	†267,137

\* 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 1939-40 was 17,833,567 lb., the estimated greasy weight being 37,000,000 lb. The quantities used in various processes in the last three years are shown below:—

TABLE 832.—Scoured Wool processed in N.S.W. Factories.

Scoured Wool Processed.	1936-37.	1937-38.	1938-39.	1939-40.
	lb.	lb.	lb.	lb.
Used for making tops ... ..	11,905,358	11,449,317	11,865,670	12,899,800
Carded, or used for making felt, etc.	3,087,400	3,745,492	3,895,770	4,732,583
Used in hat and cap factories ...	154,712	185,271	185,994	201,184
Total ... ..	15,147,470	15,380,080	15,947,434	17,833,567

The quantity of tops made in New South Wales was 11,556,893 lb. and noils 996,580 lb. The tops used in New South Wales factories, including tops imported from Victoria, amounted to 10,547,136 lb.

The quantity of woollen and worsted yarn made in New South Wales in 1939-40 was 12,647,164 lb., and 84,853,314 lb. were used in weaving mills to make 14,014,981 square yards of woollen and worsted cloth and 659,198 square yards of flannel. The output of the mills included 123,821 pairs of blankets.

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—made for the most part in factories for cotton goods:—

TABLE 833.—Output of Cloth, Tweed, Blankets.

Year.	Cloth, Woollen and Worsted.	Cotton Tweed, Denim, etc.	Blankets.
	sq. yds.	sq. yds.	pairs.
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
1938-39 ... ..	12,949,108	1,908,920	106,447
1939-40 ... ..	14,674,179	4,963,824	123,821

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 1939-40 there were 78 establishments employing 5,406 persons, including 4,026 women and girls, the value of materials and fuel was £1,888,073, and the value of the output was £3,142,873.

The following statement shows a comparative review of the operations of the hosiery and knitting factories during 1928-29, and at intervals to 1938-39:—

TABLE 834.—Hosiery and Knitting Mills.

Particulars.	1928-29.	1931-32.	1936-37.	1938-39.	1939-40
Number of Establishments ..	67	64	75	78	78
Average Number of Employees*	4,492	4,112	4,968	5,298	5,406
Total Horse-power Installed	1,978	2,430	2,44£	2,857	2,820
Value of Land and Buildings	£ 665,628	506,073	612,532	701,582	691,203
Value of Plant and Machinery	£ 541,795	457,317	591,942	622,681	602,963
Salaries and Wages paid ...	£ 619,780	506,276	621,240	697,004	739,573
Value of Fuel and Power used	£ 26,920	29,994	30,494	36,468	36,680
Value of Materials used ...	£ 1,413,195	908,414	1,224,170	1,482,743	1,851,393
Value of Output ... ..	£ 2,732,950	1,849,321	2,348,132	2,619,764	3,142,873
Value of Production ... ..	£ 1,292,835	910,913	1,093,468	1,100,553	1,254,800
Yarn used—					
Woolen ... ..	lb. 1,273,522	1,169,773	1,649,004	1,536,598	1,725,739
Cotton ... ..	„ 1,942,479	2,019,641	2,192,147	2,578,800	3,178,401
Silk ... ..	„ 102,653	127,483	212,085	223,575	147,225
Artificial Silk ... ..	„ 2,282,590	1,350,917	2,726,309	3,031,145	3,566,166
Articles Produced—					
Socks and Stockings doz pairs	1,142,192	815,987	1,074,309	1,055,219	1,072,436
Other Garments ... ..	£ 1,297,679	1,021,786	1,250,285	1,513,425	1,821,796

\* 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.

Particulars of the operations of the wool scouring and fellmongering works at intervals since 1928-29:—

TABLE 835.—Woolscouring and Fellmongering.

Items.	1928-29.	1931-32.	1936-37.	1938-39.	1939-40.
Number of Establishments ...	31	30	29	29	32
Average Number of Employees*	564	832	878	871	1,168
Total Horse-power Installed ...	2,726	2,960	3,457	3,590	3,907
Value of Land and Buildings £	174,034	134,817	158,526	162,973	161,445
Value of Plant and Machinery £	156,767	127,804	109,251	150,527	168,707
Salaries and Wages paid ... £	150,594	184,434	176,896	208,292	283,688
Value of Fuel and Power used £	25,716	39,399	31,475	35,066	51,728
Value of Materials used ... £	1,972,092	1,296,287	1,414,782†	1,039,761†	1,267,847†
Value of Output ... ... £	2,175,240	1,580,977	1,712,973†	1,344,895†	1,724,233†
Value of Production ... ... £	177,432	245,291	266,716	270,068	404,658
<b>Materials Treated—</b>					
Greasy Wool ... lb.	28,547,411	28,737,336	36,995,079	38,195,743	53,085,097
Skins ... ... No.	2,040,259	4,907,844	3,484,551	3,443,374	4,487,796
<b>Articles Produced—</b>					
Scoured Wool ... lb.	19,649,577	28,922,555	29,492,996	30,025,413	39,856,453
Pelts ... ... No.	1,647,472	2,775,906	2,459,243	1,752,626	2,238,383

\* Average over whole year.

† Exclusive of value of large quantity of wool treated on commission basis.

In the fellmongering establishments 4,487,796 skins and 1,937,849 lb. of skin pieces were treated, and 15,356,762 lb. of scoured wool were produced in 1939-40, the balance being the output of the scouring works. In addition 9,097,865 lb. of scoured wool were produced in wool washing plants attached to woollen mills. The total output of scoured wool in New South Wales in 1939-40 was 48,954,318 lb., including 6,347,806 lb. scoured and used in the woollen mills in the manufacture of tops, etc.

## 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 35,077 cwt., valued at £252,909, in 1939-40, and the value of other leather exported was £454,263. Supplies of fancy leather are obtained partly by importation.

The following tables give particulars of the tanneries for the year 1920-21 and at intervals thereafter:—

TABLE 836.—Tanneries.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	80	69	65	60	62
Average Number of Employees* ...	1,209	1,174	1,193	1,632	1,792
Total Horse-power Installed ...	3,394	3,749	4,165	5,180	5,725
Value of Land and Buildings	£ 265,166	253,423	245,214	297,636	333,640
Value of Plant and Machinery	£ 172,132	164,981	160,276	208,702	228,624
Salaries and Wages paid ...	£ 262,724	267,453	237,633	357,210	390,336
Value of Fuel and Power used	£ 17,855	22,816	26,434	31,668	35,622
Value of Materials used ...	£ 1,684,791	1,587,055	961,368	1,303,529	1,685,240
Value of Output ...	£ 2,103,525	2,089,373	1,422,301	1,910,085	2,430,287
Value of Production ...	£ 400,879	479,502	434,499	574,888	709,425

\*Average over whole year.

The hides and skins treated in the tanneries in 1939-40 consisted of 669,903 cattle hides, 742,983 calfskins, 10,364 other hides, 1,575,891 sheep pelts, 1,833,739 sheepskins, 934,101 goat skins and 9,974 other skins. The leather produced was as follows:—7,934,131 square feet of dressed and upper leather from hides, 2,610,400 square feet of upholstery leather, 19,082,710 square feet of dressed leather from skins, 12,824,176 lb. of sole and harness leather, and 617,098 lb. of other leather.

A comparative statement of the materials treated and the principal products of the tanneries is shown below:—

TABLE 837.—Leather Products.

Year.	Materials Treated.				Principal Products.		
	Hides.	Sheep Pelts and Skins.	Other Skins.	Bark.	Leather.		Basils.
					Dressed and Upper.	Sole, Harness, etc.	
No.	No.	No.	tons.	sq. ft.	lb.	lb.	
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 ...	1,036,349	3,358,901	590,184	9,231	27,513,478*	10,886,270	1,360,288
1937-38 ...	1,124,392	3,788,285	762,567	8,787	25,584,431*	11,245,143	1,732,855
1938-39 ...	1,255,646	3,009,816	996,324	8,092	26,058,549*	11,119,957	1,386,207
1939-40 ...	1,423,250	3,409,680	944,075	9,086	29,627,241*	13,441,274	1,615,600

\* 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 1939-40 the employees numbered 1,520, of whom 884 were females. There were 22 establishments listed under this classification, and 21 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 838.—Hat and Cap Factories.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments	28	31	27	23	22
Average Number of Em- ployees* .. .. .	1,433	1,868	1,502	1,593	1,520
Total Horse-power installed	982	894	815	1,335	1,390
Value of Land and Build- ings .. .. . £	174,315	412,094	195,432	209,199	216,018
Value of Plant and Mach- inery .. .. . £	88,817	147,103	80,898	94,611	100,926
Salaries and Wages paid £	185,394	314,616	199,725	257,731	264,075
Value of Fuel and Power used .. .. . £	7,574	11,416	9,790	12,209	12,017
Value of Materials used £	393,372	509,393	245,065	312,386	319,954
Value of Output .. .. . £	747,545	1,058,126	626,370	684,837	709,944
Value of Production .. .. . £	346,599	537,317	371,515	360,242	377,973
Hats and Caps made No.	2,284,572	2,860,322	2,533,596	3,083,004	3,182,016

\* 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 839.—Boot and Shoe Factories.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ..	101	103	92	101	101
Average Number of Employees*	4,459	5,110	3,861	5,741	5,961
Total Horse-power installed ..	1,815	1,978	1,781	2,323	2,484
Value of Land and Buildings £	371,985	538,339	377,479	425,428	450,607
Value of Plant and Machinery £	184,549	255,323	223,235	243,754	255,856
Salaries and Wages paid... £	628,541	888,314	543,899	848,733	918,185
Value of Fuel and Power used £	10,365	13,228	13,604	16,279	17,767
Value of Materials used .. .. . £	1,496,068	1,424,791	860,788	1,369,667	1,574,408
Value of Output .. .. . £	2,540,222	2,665,943	1,634,148	2,610,578	2,900,065
Value of Production .. .. . £	1,033,789	1,227,926	759,756	1,224,632	1,307,890
<b>Leather Used—</b>					
Sole .. .. . lb.	4,822,678	4,873,665	4,006,499	5,079,290	5,582,298
Upper .. .. . sq. ft.	7,282,176	7,773,595	6,810,325	9,100,230	11,299,042
<b>Articles Produced—</b>					
Boots and Shoes .. .. . pairs	3,232,413	3,908,103	3,173,294	4,762,454	5,042,784
Slippers, etc. .. .. . "	609,398	1,200,843	1,496,215	3,106,976	3,088,360
Uppers, N.E.I. .. .. . "	41,925	62,244	31,799	17,133	14,832

\* Average over whole year.

The number of factories for the manufacture of boots and shoes was 101, of which 97 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 Table 850).

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 1939-40 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 1939-40 numbered 607, with 1,071 employees. Materials and fuel to the value of £142,161 were used, including 814,939 lb. of sole leather and 26,774 square feet of upper leather; the output, valued at £417,212, included a number of boots and shoes made.

FLOUR MILLS.

The amount of mill-power for grinding and dressing grain is ample for manufacturing the flour consumed in New South Wales, and there is a considerable export trade.

Details concerning flour-milling at intervals since 1921 are as follow:—

TABLE 840.—Flour Mills.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	60	56	53	54	53
Average Number of Employees* ...	918	1,094	1,182	1,356	1,413
Total Horse-power installed ...	8,415	9,372	9,027	10,503	10,938
Value of Land and Buildings £	561,688	804,901	760,852	805,016	809,820
Value of Plant and Machinery £	572,456	884,194	776,444	710,207	706,481
Salaries and Wages paid ... £	219,964	312,880	291,447	312,778	370,594
Value of Fuel and Power used £	37,746	70,282	79,838	86,720	93,998
Value of Materials used ... £	4 951,650	5,498,861	3,582,629	4,297,338	4,223,951
Value of Output ... £	5,590,405	6,276,317	4,607,595	5,281,514	5,425,182
Value of Production ... £	601,009	707,174	945,128	897,456	1,107,233
Wheat Treated ... bus.	11,596,000	21,478,000	23,745,000	26,427,132	27,825,530
Articles Produced—					
Flour ... .. †tons.	244,818	449,011	490,662	547,112	578,466
Bran, Pollard, Sharps, etc. ,,	100,545	185,993	217,506	222,116	250,805
Wheat Meal ... .. †cwt.	21,863	75,289	69,871	165,504	132,583
Flour exported oversea ... †tons.	36,367	183,200	210,702	293,726	‡

\* Average over whole year.

† 2,000 lb.

‡ Not available for publication.

BISCUIT FACTORIES.

There are in New South Wales fifteen establishments engaged in the manufacture of biscuits, of which fourteen are within the metropolitan area. The output of biscuits was 45,355,005 lb., with a value of £1,701,766 in 1939-40. An export trade in biscuits is maintained with the islands of the Pacific and Eastern countries, the total oversea exports amounting to 2,314,699 lb. in 1939-40. Small quantities are imported from abroad, the quantity in 1939-40 being 94,014 lb.

Details relating to the biscuit factories for 1921 and other years are given below:—

TABLE 841.—Biscuit Factories.

Items.	1920-21.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Number of Establishments	10	11	11	14	16	15
Average Number of Employees * ...	1,783	1,832	1,743	2,508	2,667	2,814
Total Horse-power Installed ...	1,276	1,280	1,427	4,614	4,734	5,161
Value of Land and Buildings	£ 164,031	226,962	247,665	366,782	373,646	395,541
Value of Plant and Machinery	£ 135,285	132,521	145,753	227,768	268,786	266,840
Salaries and Wages Paid ...	£ 221,791	273,660	238,321	360,225	375,701	395,210
Value of Fuel and Power Used	£ 23,614	37,172	28,680	38,295	38,203	38,682
Value of Materials Used ...	£ 936,747	786,824	507,090	809,772	830,341	902,405
Value of Output ...	£ 1,358,266	1,510,415	1,018,512	1,579,600	1,663,976	1,789,850
Value of Production ...	£ 397,905	686,419	482,742	731,533	795,432	848,763
Materials Treated—						
Flour ... tons (2,000 lb.)	12,210	13,808	9,865	15,369	14,838	15,457
Sugar ... ... tons	3,024	3,455	2,402	3,402	3,526	3,640
Biscuits Produced ...	lb. 38,308,360	48,289,522	30,619,396	42,056,053	43,234,873	45,355,005
Biscuits Exported Oversea	lb. 4,479,651	2,662,229	1,436,664	2,024,089	1,140,802	2,314,699

\* 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 842.—Sugar Mills.

Items.	1920-21.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Number of Establishments	3	3	3	3	3	3
Average Number of Employees * ...	159	111	124	260	212	209
Total Horse-power Installed ...	1,504	2,935	3,301	4,415	4,423	4,671
Value of Land and Buildings	£ 106,070	133,870	134,000	232,755	240,039	246,844
Value of Plant and Machinery	£ 425,283	538,046	540,813	938,610	962,748	958,734
Salaries and Wages Paid ...	£ 63,003	77,995	62,261	100,634	89,740	87,948
Value of Fuel and Power Used	£ 8,630	7,740	9,144	15,845	14,460	14,618
Value of Materials Used ...	£ 303,651	259,355	336,798	515,050	506,762	471,478
Value of Output ...	£ 476,405	367,983	512,581	766,624	756,567	701,202
Value of Production ...	£ 164,118	100,879	166,639	236,729	235,345	215,106
Cane Crushed ... tons	131,313	147,412	179,153	361,724	337,038	274,548
Articles Produced—						
Raw Sugar, 94 Net titre tons	15,580	17,434	23,297	47,077	45,106	36,938
Molasses ... gals.	649,800	914,000	940,600	1,754,527	1,479,090	1,338,802

\* Average over whole year; mills in operation about 4 or 5 months annually.

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, and a new agreement has been made for the five years ended 31st August, 1946. There is an embargo on the importation of sugar into Australia.

*Sugar Refinery.*

There is one sugar refinery in New South Wales. It is situated at Pyrmont, Sydney, and it treats raw sugar from the North Coast and Queensland mills. During the year 1939-40 the quantity of raw sugar treated was 3,061,580 cwt., and it gave an output of 2,957,040 cwt. of the refined article, valued at £4,761,703.



The three mills and the refinery provided employment for 1,162 persons during the period of operation in the year 1939-40.

BUTTER FACTORIES.

Butter-making is one of the chief industries connected with the preparation of articles of food, and more than 95 per cent. of the butter made in New South Wales is made in factories. Employees in butter factories numbered 1,208 in 1939-40 and the output was 112,019,857 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. More than 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 843.—Butter Factories.

Items.	1920-21.	1928-29.†	1931-32.†	1938-39.	1939-40.
Number of Establishments ...	126	108	105	94	94
Average Number of Employees*	1,002	1,021	1,077	1,186	1,208
Total Horse-power Installed ...	5,298	9,799	13,242	19,891	21,732
Value of Land and Buildings £	308,189	627,717	599,802	564,558	611,574
Value of Plant and Machinery £	395,668	663,756	661,630	624,145	705,530
Salaries and Wages paid £	225,392	284,729	286,124	302,037	315,188
Value of Fuel and Power used £	61,655	69,169	75,639	82,716	88,550
Value of Materials used ...	£ 8,017,379	6,925,551	5,830,785	6,673,567	6,836,308
Value of Output ...	£ 8,974,967	7,557,363	6,455,893	7,342,631	7,446,707
Value of Production ...	£ 895,933	562,643	549,469	586,348	521,849
Butter Produced ... cwt.	713,078	819,050	1,057,569	1,016,345	1,000,177
Exported overseas ‡ cwt.	248,833	137,998	352,351	213,986	§

\* Average for whole year.

† Includes 4 creameries.

‡ Exclusive of exports overseas via Queensland ports.

§ Not available for publication.

The production as shown above included butter made from cream imported from other States, viz., 8,098 cwt. in 1928-29, 5,308 cwt. in 1931-32, 6,689 cwt. in 1938-39, and 7,819 cwt. in 1939-40.

The 94 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., 29 cheese factories, 25 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:—

TABLE 844.—Cheese, Bacon, and Preserved Milk Factories.

Items.	1931-32.	1936-37.	1937-38.	1938-39.	1939-40.
Number of employees ...	549	671	706	730	773
Value of land and buildings £	218,406	243,317	256,133	259,519	277,618
Value of plant and machinery £	205,889	212,182	221,339	213,597	204,686
Salaries and wages paid £	136,529	143,735	153,322	161,053	176,776
Value of materials and fuel £	945,723	1,177,883	1,353,417	1,484,822	1,495,810
Value of output ... £	1,171,938	1,523,174	1,714,079	1,850,840	1,911,812
Value of production ... £	226,215	345,291	360,662	366,018	416,002

In addition there were in 1939-40 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.

## MARGARINE FACTORIES.

Margarine is the principal item of production in six factories of which particulars are shown below; other products of these establishments are edible fats, oil and tallow:—

TABLE 845.—Margarine Factories.

Items.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
Number of Factories ...	6	6	6	6	6
Average Number of Employees ...	321	420	416	398	478
Value of Land and Buildings £	103,428	111,878	109,884	127,081	141,997
Value of Plant and Machinery £	31,115	27,780	35,477	86,000	91,569
Salaries and Wages Paid ... £	67,700	91,195	90,345	92,594	114,885
Value of Fuel Used ... £	9,258	13,249	12,685	12,420	17,453
Value of Materials Used ... £	447,381	536,076	604,681	549,997	694,702
Value of Output ... £	607,953	776,907	888,345	823,288	939,408
Margarine Manufactured—					
Quantity—Table ... lb.	17,981,712	3,558,368	4,014,726	4,492,247	4,477,967
Other ... lb.		18,222,243	20,549,285	22,475,085	21,799,951
Value—Table ... £	526,362	134,300	148,773	162,692	163,871
Other ... £		501,812	576,346	566,627	554,147
Value of Other Products ... £	81,591	140,795	163,226	93,969	221,450

The total quantity of margarine made in New South Wales increased from 18,210,870 lb. in 1934-35 to 26,277,958 lb. in 1939-40. Approximately one-sixth of the quantity produced was for table use.

## 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 which had been about 5,000,000 lb. for several years declined to 3,378,000 lb. in 1938-39 and increased in the following year to 7,199,312 lb., the largest output since 1932-33.

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 following table shows the production of establishments treating meat by canning, freezing and chilling during 1928-29 and later years:—

TABLE 846.—Meat Preserved and Refrigerated.

Products.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
<b>Preserving Works—</b>					
Tinned Meat ... lb.	4,251,040	5,814,100	5,298,672	3,377,960	7,199,312
Other Products ... £	70,524	78,432	35,368	52,850	190,668
<b>Refrigerating Works—</b>					
<b>Carcases Frozen for Export—</b>					
Cattle ... .. No.	36,411	20,972	42,332	53,691	99,858
Sheep ... .. No.	319,995	947,661	642,721	314,401	754,741
Lambs ... .. No.	358,582	1,103,879	1,321,614	1,043,154	1,445,272
Pigs ... .. No.	3,474	11,458	3,815	5,156	19,703
<b>Carcases Chilled—</b>					
Cattle ... .. No.	14,999	21,255	104,298	119,523	243,481
Sheep ... .. No.	13,732	55,700	332,816	266,987	345,663
Lambs ... .. No.	10,495	20,405	196,819	258,385	308,705
Pigs ... .. No.	14,533	13,341	50,315	36,417	71,113

Between 1928-29 and 1937-38 there was a marked increase in the freezing of lambs for export and in more recent years a substantial increase in the chilling of meat. Following an unfavourable season in the pastoral districts, there was a decline in the number of sheep and lambs frozen in 1938-39 and a revival in 1939-40.

**BREWERIES.**

In 1939-40 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 847.—Breweries.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	17	8	5	6	6
Average Number of Employees *	1,122	1,275	811	1,009	1,039
Total Horse-power Installed ...	5,736	6,757	7,671	9,936	10,624
Value of Land and Buildings £	714,155	843,365	845,264	949,648	972,021
Value of Plant and Machinery £	924,181	1,038,768	869,217	782,142	784,005
Salaries and Wages paid ... £	286,685	387,017	226,194	310,682	311,997
Value of Fuel and Power used £	66,848	78,000	63,388	85,850	92,749
Value of Materials used £	1,316,561	1,381,494	571,585	1,040,086	1,057,431
Value of Output ... £	2,515,224	3,215,957	1,911,468	3,492,243	3,682,265
Value of Production ... £	1,131,815	1,756,463	1,276,495	2,366,307	2,532,085
<b>Materials Treated—</b>					
Malt ... .. bus.	832,850	992,385	586,106	1,059,628	1,121,827
Hops ... .. lb.	831,656	935,989	539,455	931,922	962,912
Sugar ... .. tons	5,477	5,505	3,054	6,922	7,483
Ale, Beer, Stout produced gals.	25,470,404	29,420,920	17,346,770	†33,899,023	†36,610,707

\* Average over whole year.

† Excluding waste beer.

**TOBACCO FACTORIES.**

Seven tobacco factories were in operation during the year 1939-40, 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 1939-40 represented nearly 20 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 4,674 cwt. in 1939-40, 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 848.—Tobacco Factories.

Items.	1920-21.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Number of Establishments ...	16	8	9	0	8	7
Average Number of Employees*	2,358	2,492	2,263	3,280	3,108	3,071
Total Horse-power Installed ...	1,044	1,870	2,070	5,178	6,104	6,576
Value of Land and Buildings ...	£ 291,604	527,350	572,815	636,323	645,706	633,430
Value of Plant and Machinery ...	£ 226,043	363,150	425,977	630,060	625,774	598,132
Salaries and Wages Paid ...	£ 356,781	468,904	454,421	627,858	623,799	625,239
Value of Fuel and Power Used ...	£ 11,697	12,598	15,730	24,062	23,846	25,444
Value of Materials Used ...	£ 3,403,517	3,345,869	3,862,098	4,770,342	4,806,898	5,023,214
Value of Output ...	£ 4,240,746	4,863,300	4,834,376	6,149,544	6,039,442	6,282,273
Value of Production ...	£ 825,532	1,504,833	957,048	1,355,140	1,208,698	1,233,015
Materials Treated—						
Australian Leaf ...	lb. 876,007	504,633	793,803	2,426,255	2,640,849	2,715,338
Imported Leaf ...	lb. 9,546,861	13,362,076	9,901,645	11,136,625	10,882,129	11,306,039
Articles Produced—						
Tobacco ...	lb. 6,622,540	10,134,242	8,628,575	10,864,732	10,755,820	11,148,821
Cigars ...	lb. 146,433	86,057	53,338	54,582	34,630	†
Cigarettes ...	lb. 5,072,903	5,117,501	3,354,242	4,466,067	4,496,428	4,614,015

\* Average over whole year. † Not available for publication.

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 1939-40, viz.:—1,888,594 lb. of tobacco and 2,282,330 lb. of cigarettes exported from New South Wales to other States; and 920,358 lb. of tobacco and 726,961 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, 1940, was estimated as follows:—Tobacco, 6,412,400 lb.; cigars, 97,200 lb.; cigarettes (factory made), 2,510,400 lb.; total, 9,020,000 lb. The annual consumption of imported tobacco, cigars and cigarettes was about 92,600 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 849.—Sawmills.

Items.	1920-21.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Number of Establishments ...	496	477	340	425	485	447
Average Number of Employees* ...	4,977	3,982	1,486	4,925	4,981	4,915
Total Horse-power Installed...	19,724	23,235	18,222	27,337	29,096	29,396
Value of Land and Buildings £	811,880	996,200	609,159	709,841	712,278	686,828
Value of Plant and Machinery £	908,192	813,170	546,454	630,347	631,702	627,960
Salaries and Wages Paid £	926,276	888,891	268,060	962,781	970,988	958,657
Value of Fuel and Power Used ...	£ 21,405	36,123	22,787	52,818	51,856	54,456
Value of Materials Used £	2,732,656	3,295,133	877,911	3,048,239	2,817,588	2,947,803
Value of Output ...	£ 4,103,924	4,891,185	1,319,415	4,703,882	4,404,421	4,608,249
Value of Production ...	£ 1,846,863	1,560,929	418,717	1,602,825	1,594,977	1,605,990
Logs Treated—						
Hardwood—						
Native ... ..cub. ft.	14,623,002	12,270,951	4,501,032	14,546,066	16,400,342	16,755,139
Imported ... ..cub. ft.	221,415	28,320	...	68,687	90,524	71,821
Softwood—						
Native ... ..cub. ft.	5,075,100	5,523,500	2,322,600	6,087,487	6,514,209	8,362,455
Imported... ..cub. ft.	576,900	369,900	425,100	11,685,567	9,725,537	7,288,067
Sawn Timber Produced—						
Hardwood—						
Native ... ..sup. ft.	115,744,848	94,414,153	34,250,922	119,523,751	129,510,433	129,273,044
Imported... ..sup. ft.	2,036,989	282,312	...	626,800	767,511	696,020
Softwood—						
Native ... ..sup. ft.	40,366,700	41,636,900	17,851,300	48,518,002	49,840,052	62,300,534
Imported... ..sup. ft.	5,262,200	3,196,300	3,902,500	120,345,763	101,051,353	75,290,525

\* Average over whole year.

The native logs treated during 1939-40 consisted of 16,755,139 cubic feet of hardwoods and 8,362,455 cubic feet of softwoods; the quantities of sawn timber produced therefrom being 129,273,044 super. feet, and 62,300,534 super. feet respectively. The output of the sawmills was affected by slackness in the building trades from 1928-29 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, which expanded from 3,200,000 super. feet in 1928-29 to nearly 120,350,000 super. feet in 1937-38 declined to 75,290,525 super. feet in 1939-40. 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 overseas imports of rubber goods (excluding crude rubber and waste) was £1,660,500 in 1925-26. Three years later it declined to £593,091, and in 1938-39 it was only £161,449. The imports of crude rubber and rubber waste in these years were: 36,610 cwt. in 1925-26; 125,659 cwt. in 1928-29, and 159,310 cwt. in 1938-39.

TABLE 850.—Rubber Works.

Items.	1920-21.	1928-29.	1931-32.	1937-38.	1938-39.	1939-40.
Number of Establishments ...	20	83	92	95	96	101
Average Number of Employees* ...	1,035	2,775	1,736	3,454	3,538	3,583
Total Horse-power Installed ...	1,069	13,667	17,364	22,392	21,680	21,782
Value of Land and Buildings £	121,848	843,814	955,074	816,805	814,659	813,653
Value of Plant and Machinery £	166,195	836,947	821,567	688,338	537,440	516,238
Salaries and Wages Paid ...	£ 162,015	670,200	350,840	712,883	735,830	779,243
Value of Fuel and Power Used ...	£ 12,339	94,678	68,270	93,457	94,862	101,851
Value of Materials Used ...	£ 343,504	1,506,265	891,916	2,133,826	1,882,261	2,326,474
Value of Output ...	£ 634,690	3,149,467	1,696,488	3,106,542	2,935,592	3,448,414
Value of Production ...	£ 278,847	1,488,524	736,302	879,259	958,469	1,020,089
Tyres Made... ..	No. †	670,952	399,051	631,890	662,736	†
Goloshes and Rubber Shoes Made ... ..	prs. †	2,294,682	2,167,291	2,924,638	3,557,914	3,830,700

\* 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. The current is supplied over a wide area which embraces Wagga Wagga, Cootamundra, Junee, Cowra, and Canberra.

The largest of the municipal electricity works is the undertaking administered by the Sydney County Council, from which electricity is distributed in 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.

The statistics of electricity generation in 1936-37 and later years are exclusive of plants generating power solely for use within the factories in which they are located. Such plants generate 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 1939-40 consisted of 6 owned by the State, 39 by local bodies, 54 by companies:—

TABLE 851.—Electric Generating Stations.

Items.	1920-21.	1928-29.	1931-32.	1938-39.	1939-40.
Number of Establishments ...	117	126	118	106	99
Average Number of Employees*	1,292	2,180	1,857	2,072	2,148
Total Horse-power of Prime Movers installed ...	194,624	558,131	859,629	953,487	.....
Value of Land and Buildings	£1,381,092	2,938,924	4,815,101	4,584,817	4,611,531
Value of Plant and Machinery	£2,531,358	8,354,176	10,251,153	11,695,870	12,271,485
Salaries and Wages paid	£ 327,157	676,195	504,068	634,276	668,240
Value of Fuel and Power used	£ 590,373	1,431,186	1,115,075	1,363,608	1,493,276
Value of Materials used	£ 54,995	238,422	154,909	223,343	236,845
Value of Output ...	£1,697,763	4,956,461	5,178,785	5,719,029	6,196,385
Value of Production ...	£1,052,395	3,286,853	3,908,801	4,132,078	4,466,264
Coal used ... tons	510,088	882,355	741,130	1,162,997	1,200,786
Electricity generated—					
In Electric Generating Stations, 1,000 units	} 342,536	} 959,985	} 1,075,706	} 1,833,540	} 2,018,813
In Factories for Own Use 1,000 units					
				114,949	126,634

\* 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 in the three years 1937-38 to 1939-40:—

TABLE 852.—Electric Generating Stations—Disposal of Electricity.

Disposal.	1937-38.	1938-39.	1939-1940.
	1,000 units.	1,000 units.	1,000 units.
Bulk sales for subsequent distribution... ..	254,392	254,044	247,822
Bulk sales to large industrial concerns... ..	472,330	} 917,658	1,039,943
Railways and tramways (traction, etc.) ... ..	364,893		
Domestic light and power ... ..	177,421	212,906	246,135
Small industrial and commercial power and lighting ... ..	116,171	128,850	140,773
Street lighting ... ..	26,299	27,638	29,391
Used in own works outside generating station	15,746	11,429	31,092
Used in generating station ... ..	74,384	87,913	97,925
Not classified ... ..	58,806	55,745	56,726
Electricity lost ... ..	137,219	137,358	129,005
Total electricity sold, used or lost ... ..	1,697,661	1,833,541	2,018,812

In addition to the foregoing, 119,153 thousand units of electricity were generated in factories for their own use in 1937-38, 114,949 thousand units in 1938-39 and 126,634 thousand units in 1939-40.

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 this Year Book.

GAS WORKS.

The gas works in 1939-40 consisted of one governmental concern, 18 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 853.—Gas Works.

Items.	1920-21.	1928-20.	1931-32.	1938-39.	1939-40.
Number of Establishments ... ..	46	48	47	43	42
Average Number of Employees* ... ..	1,642	1,668	1,039	1,092	1,054
Total Horse-power installed ... ..	6,572	8,679	8,986	17,409	17,884
Value of Land and Buildings ... ..	£ 1,068,074	874,702	854,593	741,580	758,665
Value of Plant and Machinery ... ..	£ 1,892,835	2,907,445	2,985,924	3,219,493	3,300,459
Salaries and Wages paid ... ..	£ 437,318	373,412	266,331	288,913	292,741
Value of Fuel and Power used ... ..	£ 112,995	247,331	183,844	207,801	208,895
Value of Materials used ... ..	£ 829,906	1,130,072	743,931	762,764	829,049
Value of Output ... ..	£ 2,264,644	2,867,142	2,142,531	2,327,850	2,436,081
Value of Production ... ..	£ 1,321,743	1,489,739	1,214,808	1,357,195	1,398,137
Materials Treated—					
Coal ... .. tons	564,122	661,878	515,508	578,127	621,164
Oil ... .. gals.	3,700,462	1,851,132	2,194,034	2,551,490	1,974,765
Articles Produced—					
Gas ... .. 1,000 cub. feet	8,131,712	10,633,530	9,320,868	10,896,185	11,208,764
Coke ... .. tons	346,380	435,816	336,846	412,986	444,086
Tar ... .. gals.	9,861,830	13,244,818	10,950,449	15,279,617	15,775,286
Sulphate of Ammonia ... .. tons	1,061	6,546	4,966	5,800	†

\* 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. † Not available for publication.

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 quantity of coke produced by all plants in 1939-40 was 1,708,998 tons.

## MINING INDUSTRY.

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. The discovery attracted a rapid flow of immigration to the country and promoted the development of its resources. Since 1883 extensive silver-lead deposits have been opened up and mined at Broken Hill. Copper and tin deposits also were opened up. Coal and silver-lead have proved to be the richest sources of mineral production. Tin has increased in importance in recent years but copper mining has declined since 1920 and is inextensive.

### STATISTICS OF MINES.

Statistics relating to the mining industry and summarised in this chapter are available from two sources:—

- (1) Returns as to employees, wages, value of machinery and plant, and total value of minerals *raised during the year* have been collected under the Census Act for each year from 1921 onwards. The value of output (as shown in Tables 854 to 857) is estimated before treatment;
- (2) Returns as to quantity and value of the principal metals and industrial minerals *won* during the year have been ascertained under the Mining Acts for many years past. The values of minerals won (as shown in Tables 873 to 881) relate to the estimated value after treatment.

### 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 and later years. The figures are selected items and are not a complete record of either the income or expenditure of the undertakings concerned:—

TABLE 854.—Comparative Statistics—All Mines, 1921 to 1939.

Year.	Mines in Operation.	Persons Employed (average).	Amount of Salaries and Wages Paid.	Value of—			
				Land, Buildings, etc.	Machinery and Plant.	Materials and Fuel Used, etc.	Output. (Minerals Raised.)
	No.	No.	£	£	£	£	£
1921*	493	25,612	6,430,988	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
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	7,463,590	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
1939	594	22,506	6,592,871	3,815,465	8,363,440	1,777,797	11,466,916

\* Including in 1921 particulars (excluded in later years) of quarries held under mining title.



In this table the value of minerals won by fossickers, which amounted to £101,072 in 1938 and £120,083 in 1939, is included in the output, but fossickers are not included in the number of persons employed in mining. The number of fossickers is shown in Table 858.

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, and the annual output of the coalmines represents nearly 60 per cent. of the total value of output of minerals. 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 the development of hydro-electricity schemes.

In 1928 the coal trade began to decline owing to diminished demand for export, and from 1st March, 1929, to 2nd June, 1930, practically all the northern collieries were idle on account of an industrial dispute. The value of the output has been reduced also by reason of a fall in prices. The quantity of coal raised decreased in each year from 1927 to 1931, but has risen again almost to the peak production recorded in 1924 (see page 979).

Summaries relating to coal mines and to other mines are shown below:—

TABLE 855.—Comparative Statistics—Coal Mines, 1921 to 1939.

Year.	Mines in Operation.	Persons Employed (average).	Salaries and Wages.	Value of—			
				Land, Buildings.	Machinery and Plant.	Materials and Fuel Used.	Output. (Minerals Raised.)
	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
1929	180	22,470	4,063,746	3,778,965	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	3,548,298	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	6,478,492	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	5,653,301
1939	172	16,201	4,685,709	3,411,978	6,610,626	963,439	7,034,816

‡ Includes shale mines.

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 fall in prices led to a decrease in later years. The output of metals rose slowly after 1931, and there was a substantial rise in prices in the years 1935 to 1937. The decline in value in 1938 was due to lower prices.

Statistics of quarries are not included with those here shown relative to mines but are contained in Tables 882 and 883.

TABLE 856.—Comparative Statistics—Mines other than Coal Mines, 1921 to 1939.

Year.	Mines in Operation.	Persons Employed (average).	Salaries and Wages.	Value of—			
				Land, Buildings.	Machinery and Plant.	Materials and Fuel Used.	Output. (Minerals Raised).
	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
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	4,394,152
1939	422	6,305	1,907,162	403,487	1,752,814	814,358	4,432,100

\* Including in 1921 particulars of quarries held under mining title, excluded in later years.

† Includes shale mines.

The amount of wages, as shown in the foregoing tables, includes the value of explosives sold to employees, which amounted to £209,458 in 1939, viz., £117,757 to coalminers and £91,701 to other miners.

The materials used in coal mines in 1939 consisted of timber valued at £191,186, and other materials valued at £510,307. The value of fuel used was £261,946.

In other mines the value of timber used in 1939 was £286,721, the value of other materials £315,801, and of fuel consumed, £211,836. The value of fuel used in all mines was £473,782, including the value of 254,270 tons of coal, £180,601, and electricity valued at £245,495.

#### MINES IN DIVISIONS.

Particulars of mines in operation in 1939 in the various divisions of the State are shown in the following table:—

TABLE 857.—Mines in Divisions, 1939.

Division.	Mines in Operation.	Persons Employed (average).	Amount of Salaries and Wages Paid.	Value of—			
				Land and Buildings.	Machinery and Plant.	Materials and Fuel Used.	Output (Minerals Raised).
	No.	No.	£	£	£	£	£
North Coast ... ..	19	72	10,247	6,823	25,061	4,353	17,440
Hunter and Manning ... ..	148	10,243	3,007,318	2,785,522	5,169,201	656,147	4,577,532
South Coast ... ..	49	4,155	1,086,852	463,109	934,783	208,604	1,545,853
Northern Tableland ... ..	111	669	94,163	9,657	203,820	62,409	292,739
Central Tableland ... ..	84	2,136	603,808	171,788	742,400	136,078	1,046,365
Southern Tableland ... ..	13	521	131,511	84,773	164,613	31,843	169,179
North-western Slope ... ..	31	221	42,776	5,376	59,769	14,531	81,924
Central-western Slope ... ..	19	53	2,628	238	1,753	1,187	7,415
South-western Slope ... ..	64	350	45,644	4,868	27,922	17,541	86,802
North central Plain ... ..	2	5	1,262	...	140	57	1,648
Central Plain ... ..	10	151	28,058	1,846	5,521	3,727	38,461
Riverina ... ..	15	73	11,025	1,974	13,736	2,895	22,736
East of Darling ... ..	14	463	152,070	15,535	192,108	74,998	523,974
West of Darling ... ..	15	3,394	1,375,509	263,956	822,612	563,427	3,054,848
Total, New South Wales ...	594	22,506	6,592,871	3,815,465	8,363,440	1,777,797	11,466,916

The northern coalfields are situated in the Hunter and Manning division, the southern in the South Coast division and the western in the central tableland. Broken Hill and Cobar districts are west and east of the Darling, respectively, and the principal tin mines are in the central tableland division.

## 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 engaged 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. Separate particulars are shown of the number of "fossickers," as reported by the mining wardens in the various districts. These men work more or less intermittently, digging for gold or other minerals, washing alluvial deposits, picking over abandoned workings, or prospecting. The average output won by fossickers is small.

TABLE 858.—Average Number of Miners, 1921 to 1939.

Particulars.	1921.	1926.	1931.	1936.	1937.	1938.	1939.
Miners—							
Coal ... ..	20,973*	24,125	15,584*	13,515	13,828	14,864*	16,201*
Metals—							
Gold ... ..	900	378	520	1,561	1,324	1,172	1,341
Silver, Lead, Zinc...	2,035	3,272	1,755	3,022	3,557	3,818	3,786
Tin ... ..	826	671	229	520	714	673	790
Copper ... ..	68	62	8	2	17	5	3
Other Metals ... }	810‡	419	140	48	130	163	131
Other Minerals ... }		259	134	222	205	196	254
Total, Metalliferous, etc.	4,639‡	5,061	2,786	5,375	5,947	6,027	6,305
Total, Miners ... ..	25,612‡	29,186	18,370	18,890	19,775	20,891	22,506
Fossickers—							
Gold ... ..	52	464	8,767	3,827	2,694	2,444	2,262
Tin ... ..	343	551	687	1,340	1,210	898	835
Other ... ..	55	228	657	147	257	225	162
Total, Fossickers	450	1,243	10,111	5,314	4,161	3,567	3,259

\* Includes shale miners, 189 in 1921; 62 in 1931; 36 in 1938; and 57 in 1939.

‡ Includes workers in quarries held under mining title, excluded in later years.

Between 1926 and 1935 the number of men engaged in coal mining declined from 24,125 to 12,788. After 1935 the number began to increase slowly. It increased by 1,000 in 1938 and by 1,400 in 1939, and in

this year the number was the highest since 1930. In other branches of mining the number of employees declined from 5,061 in 1926 to 2,786 in 1931, then increased steadily to 6,305 in 1939. The most notable increases were in gold mining and silver, lead and zinc. The rapid expansion in gold mining was encouraged by Government assistance to prospecting as a measure of unemployment relief and the high premium payable on gold. Activity in silver-lead mines was stimulated by rising prices in 1936 and 1937.

Additional information regarding persons engaged in coal and other mines is shown in the following statement. The figures show the number employed on the last full working day in each year:—

TABLE 859.—Employees in Mines, Above and Below Ground, 1931 to 1939.  
(On Last Working Day in Year.)

Year.	Coal Mines.				Other Mines.			
	Working Proprietors.	Employees above ground.	Employees below ground.	Total.	Working Proprietors.	Employees above ground.	Employees below ground.	Total.
1931	178	4,047	11,583	15,808	472	765	1,730	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
1939	207	3,779	12,499	16,485	660	1,777	3,569	6,006

† Includes shale mines.

Approximately 93.6 per cent. of employees in mines in New South Wales are adult men and only 6.4 per cent. are youths under 21 years of age. The respective numbers working above and below ground the last full working day of 1939 were as follow (excluding working proprietors):—

TABLE 860.—Employees in Mines—Age Groups, 1939.

Men Employed on Last Full Working Day, 1939.	Coal Mines.	Other Mines.	Total.
<b>Under Age 21—</b>			
Above Ground ... ..	530	63	593
Below Ground ... ..	790	6	796
Total under age 21 ... ..	1,320	69	1,389
<b>Over Age 21—</b>			
Above Ground ... ..	3,249	1,714	4,963
Below Ground ... ..	11,709	3,563	15,272
Total over age 21 ... ..	14,958	5,277	20,235
Grand Total ... ..	16,278	5,346	21,624

The employment of boys under 16 years of age and of women and girls in or about a mine is prohibited, and restrictions are placed upon the employment of youths.

## MINING MACHINERY.

The value of the machinery used in connection with mining in New South Wales during the year 1939 was £8,363,440, viz., coal mines £6,610,626, metalliferous mines, £1,743,763, and other mines, £9,051. The value in various years since 1921 is shown below:—

TABLE 861.—Value of Mining Machinery, 1921 to 1939.

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
1935	6,530,433	979,515	22,153	7,532,101
1936	6,399,424	948,732	30,542	7,378,698
1937	6,333,082	1,089,217	27,928	7,450,227
1938	6,605,068	1,515,334	21,515	8,141,917
1939	6,610,626	1,743,763	9,051	8,363,440

\* 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 1939 was as follows:—Gold, £535,286; silver, lead and zinc, £982,494; tin, £202,111; other metals, £23,872.

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 862.—Value and Purposes of Mining Machinery, 1921 to 1939.

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	253,876	680,616	14,531	21,557	7,453,590
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
1939	3,997,363	2,344,695	268,568	1,511,501	14,640	226,673	8,363,440

\* Including particulars of quarries held under mining title which were excluded in later years.  
† Shale mines included with other mines in 1931.

In the coal mines, the value of the machinery employed in mining operations in 1939 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 86 per cent. was used in mining operations and less than 1 per cent. in transporting minerals. 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 are shown below:—

TABLE 863.—Horse power of Engines—Average Used in Mines 1921 to 1939.

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	62,691	23,008	511	13,847	2,632	533	103,222
1931†	49,436	22,907	86	3,350	1,528	494	77,801
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
1939	35,749	30,125	725	7,406	14,485	3,927	92,417

\* Including particulars of quarries held under mining title, excluded in later years.

† Shale mines included with other mines in 1931.

The rated capacity of mining machinery in 1939 amounted to 143,043 horse-power, viz., 108,454 horse-power in coal mines and 34,589 horse-power in other mines.

#### COAL.

A description of the coal measures of New South Wales was published on pages 669 and 670 of the Year Book for 1937-38.

#### *Oil from Coal.*

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 using coal produced in this State for the production of motor spirit, oils, etc.

Investigations have been made of hydrogenation, low temperature carbonisation and synthetic processes.

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.

#### *State Coal Mine.*

The 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. Since 1932 control of the mine has been 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 384,096 tons in 1939 and the average number of men employed was 412.

## PRODUCTION OF COAL.

The following table shows the quantity and value of coal raised in New South Wales to the close of 1939 as recorded by the Department of Mines, the total production being 434,245,395 tons, valued at £252,178,752.

TABLE 864.—Coal Raised in New South Wales to end of 1939.

Period.	Coal Raised. (Gross.)	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	45,086,288	16 7
1926-30	46,170,868	38,628,003	16 9
1931-35	36,906,800	22,719,859	12 4
1936-39*	40,017,747	23,322,820	11 8

\* 4 years.

Gross coal production as recorded in returns under the Census Act in each year since 1921 was as follows:—

TABLE 865.—Coal, Gross Production—Annually, 1921 to 1940.

Year.	Tons.	Year.	Tons.
1921	10,793,387	1931	6,487,992
1922	10,183,133	1932	6,719,706
1923	10,478,513	1933	7,162,655
1924	11,618,216	1934	7,946,530
1925	11,396,199	1935	8,714,472
1926	10,885,766	1936	9,213,150
1927	11,126,114	1937	10,084,261
1928	9,448,197	1938	9,613,385
1929	7,651,373	1939	11,317,328
1930	7,147,127	1940	9,600,000*

\* Approximate.

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 rose steadily year by year until it again exceeded 10,000,000 tons in 1937. In the following year the mines were idle for six weeks in September and October owing to industrial strife, and the annual output declined by nearly 5 per cent. In 1939 production increased to within 300,000 tons of the maximum recorded in 1924. The

foregoing quantities of coal raised relate to gross production, which in 1939 exceeded saleable output by 439,186 tons—consisting mainly of coal used as fuel in operating coal mines.

Approximately 66 per cent of the coal is obtained from the northern coal-fields. The saleable output and average value per ton in each district since 1932 are shown in the following table.

TABLE 866.—Saleable Coal Raised in Districts, 1932 to 1939.

Year.	Northern District.		Southern District.		Western District.		Total.	
	Quantity.	Average Value per ton.	Quantity.	Average Value per ton.	Quantity.	Average Value per ton.	Total Quantity.	Average Value per ton.
	tons.	s. d.	tons.	s. d.	tons.	s. d.	tons.	s. d.
1932 ...	4,096,437	12 8	1,004,109	13 8	1,231,562	11 2	6,332,108	12 6
1933 ...	4,420,114	12 0	1,140,097	13 6	1,225,260	9 4	6,785,471	11 10
1934 ...	5,067,576	11 4	1,264,482	12 10	1,266,781	8 7	7,598,839	11 2
1935 ...	5,431,273	10 10	1,467,354	12 10	1,437,129	8 5	8,335,756	10 9
1936 ...	5,977,897	10 11	1,544,297	12 8	1,339,553	8 9	8,861,747	10 10
1937 ...	6,474,920	11 3	1,783,129	13 0	1,466,041	8 9	9,724,090	11 2
1938 ...	6,120,664	11 11	1,724,195	14 0	1,414,064	9 6	9,258,923	12 0
1939 ...	7,184,493	12 8	2,058,866	14 5	1,634,783	10 8	10,878,142	12 9

More than 55 per cent. of the output is drawn from tunnels, and the balance from shafts. Particulars regarding the quantity of coal cut by machinery are shown in Table 869:

The quantity of saleable coal produced from each of the principal coal seams in 1939 was as follows:—

Northern District—						Saleable Output.
						tons.
Greta Seam	...	...	...	...	...	4,371,297
Borehole Seam	...	...	...	...	...	849,461
Victoria Tunnel Seam	...	...	...	...	...	956,464
Great Northern Seam	...	...	...	...	...	247,409
Wallarah Seam	...	...	...	...	...	410,909
Other Seams	...	...	...	...	...	348,953
Total						7,184,493
Southern District						2,058,866
Western District						1,634,783
Grand Total						10,878,142



*Colliery Days Worked.*

The intermittency of operations in the coal-mining industry, due chiefly to irregularity of orders, 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 867.—Colliery Days Worked, 1913 to 1939.

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
1939 ... ..	205	216	216	209

(a) Extensive industrial disputes occurred in these years.

The maximum number of working days in a year until 1938 was approximately 274, but the average number of days worked has rarely approached this total. During 1939 the number of working days was reduced by the Federal Arbitration Court, and the maximum number for the year was 266. In 1940, when the reduction was operative during the whole year, the number was 244 days.

Between 1921 and 1927 the average number of persons engaged in coal-mining increased steadily from 20,784 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 in New South Wales as a whole.

A prolonged stoppage of the principal northern collieries from March, 1929, to June, 1930, caused a decrease in the average number of days worked on the northern field in those years, and an increase in the southern and western districts, due to diversion of trade. The average number of days worked was low in 1938, when nearly all the mines were closed for six weeks on account of an industrial dispute.

In the western mines the average is comparatively high and steady, work being much more regular in the large State colliery and in collieries supplying the cement-making industry in this district 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 868.—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
1939 ...	4.79	3.21	5.01	4.41	3.53	2.50	4.17	3.34

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. After 1930 depressed trade and substantially reduced prices tended to divert production to the more economical workings.

*Coal Cut and Filled by Machinery.*

The proportion of coal cut by machines has increased in recent years though it was lower than in 1911 until 1939 when the quantity was 2,593,775 tons or 32.1 per cent. of the total output. In this year 214 machines were used for cutting coal, 133 operated by electricity and 81 by

compressed air. The use of machinery for filling coal was commenced in 1935 and the quantity filled annually rose from 134,500 tons in 1936 to 1,101,400 tons in 1939.

TABLE 869.—Coal Cut and Filled by Machinery, 1911 to 1939.

Year.	Coal cut by Machinery.				Coal filled by Mechanical Means.
	Electricity.	Compressed Air.	Total.	Percentage of Total Output.	
	tons.	tons.	tons.	per cent.	tons.
1911 ... ..	2,075,000	563,000	2,638,000	30·4	Nil.
1912 ... ..	1,667,000	662,000	2,329,000	21·5	”
1926 ... ..	1,201,000	1,056,000	2,257,000	20·7	”
1931 ... ..	842,000	536,000	1,378,000	21·4	”
1935 ... ..	1,436,000	532,000	1,968,000	22·6	13,700
1936 ... ..	1,804,000	665,000	2,470,000	26·8	134,500
1937 ... ..	2,036,000	752,000	2,788,000	27·7	301,300
1938 ... ..	2,088,000	634,000	2,722,000	28·4	619,500
1939 ... ..	2,887,000	707,000	3,594,000	32·1	1,101,400

*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 and 1926 is included in the table under the heading “local consumption,” because it was not distinguished in the records from the coal taken in that port by intrastate vessels. In this group is included also coal used in the coal mines, miners’ coal, etc., which amounted to 354,462 tons in 1938. The figures for 1939 are not available for publication.

TABLE 870.—Local Consumption and Export of N.S.W. Coal.

Year.	Retained for Local 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
1931	4,146,164	1,540,416	5,686,580	801,412	6,487,992
1932	4,351,613	1,575,343	5,926,956	792,750	6,719,706
1933	4,632,152	1,699,165	6,331,317	831,338	7,162,655
1934	5,176,571	1,062,805	7,139,376	807,154	7,946,530
1935	5,863,602	1,974,279	7,837,881	876,591	8,714,472
1936	6,084,524	2,217,450	8,301,974	911,176	9,213,150
1937	6,703,744	2,458,002	9,161,746	922,515	10,084,261
1938	6,540,409	2,162,104	8,702,513	910,872	9,613,385
	Per cent. of Total.				
1921	48·8	25·5	74·3	25·7	100
1926	58·3	25·2	83·5	16·5	100
1931	63·9	23·7	87·6	12·4	100
1938	68·0	22·5	90·5	9·5	100

\* Including Ships’ Bunkers, see Table 871.

The greatest decline, absolutely and relatively, occurred in the oversea exports, which represented 12·5 per cent. of the output in 1931 as compared with 25·7 per cent. in 1921 and 16·5 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. Between 1931 and 1937 home consumption increased by 2,557,580 tons or 62 per cent. and interstate exports by 917,586 tons or 60 per cent. Some of the coal sent to South Australia is re-exported to Broken Hill.

For several years the export trade in coal has been affected by reason of a diminution in the demand due to such causes as the substitution of oil.

On the average local factories have absorbed approximately 45 per cent. of the output, the railways approximately 11 per cent., and the export trade 33 per cent.

*Purposes for which Coal was used.*

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 871.—Purposes for which N.S.W. Coal was Used, 1929 to 1940.

Coal Used.	1928-29.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1939-40.
<b>In Factories—</b>							
Fuel in Electricity Works	882,355	891,049	1,005,424	1,010,869	1,099,711	1,162,997	1,200,786
„ Other Factories ...	1,318,880	1,000,558	1,092,790	1,302,114	1,388,961	1,346,697	1,218,630
	2,201,235	1,891,607	2,098,214	2,312,983	2,488,672	2,509,694	2,419,416
<b>Raw Material in Gas Works</b>	661,878	517,347	534,140	560,174	577,030	578,127	621,164
„ Coke Works	869,257	1,241,279	1,284,603	1,401,008	1,536,690	1,661,851	1,833,643
	1,531,135	1,758,626	1,818,743	1,961,182	2,113,720	2,239,978	2,454,807
<b>Total in Factories ...</b>	3,732,370	3,650,233	3,916,957	4,274,765	4,602,392	4,749,642	4,874,223
<b>On Railways for Locomotive Purposes ...</b>	1,212,272	906,511	972,890	985,580	1,041,106	994,371	962,197
<b>Total, Factories and Railways</b>	4,944,642	4,556,744	4,889,847	5,260,345	5,643,498	5,744,013	5,836,420
<b>Exports—</b>							
Interstate*—Cargo ...	1,541,788	1,631,062	1,643,397	1,900,028	2,091,142	1,860,639	†
„ Bunker	458,200	394,907	354,380	404,996	431,383	411,098	†
<b>Total, Interstate</b>	2,029,988	2,026,029	1,997,777	2,305,024	2,522,525	2,271,737	†
<b>Oversea—Cargo ...</b>	311,608	304,087	306,356	340,083	392,013	381,778	†
„ Bunker ...	645,266	539,750	582,366	672,020	576,294	516,655	†
<b>Total, Oversea</b>	956,874	843,837	889,222	912,109	968,307	898,433	†
<b>Total Exports</b>	2,986,862	2,869,866	2,886,999	3,217,133	3,490,832	3,170,170	†
<b>Total, Factories, Railways and Exports</b>	7,931,504	7,426,610	7,776,846	8,477,478	9,134,330	8,914,183	†

\* Approximate.

† Not available for publication.

The quantity of coal used as fuel in factories has grown with expansion in the secondary industries, the requirements of the electric light and power works and the coke works being an important factor. The quantity used in coke works has increased rapidly as a result of expansion in the iron and steel industry.

The quantity consumed by railway locomotives decreased between 1928-29 and 1933-34 owing to the electrification of suburban railways and a decline in the volume of goods traffic. The increase in later years and the decline in 1938-39 and 1939-40 reflect the trend in goods traffic.

#### PRICES OF COAL.

The approximate trend of changes in value of coal is indicated by the average pit head values shown in Tables 864 and 866. 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 872.—Prices 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 recent years it has become increasingly the practice to screen coal in a variety of new ways.

#### 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 1924 amounted to 1,919,685 tons valued at £2,690,710. In subsequent years to 1938 only 5,904 tons were raised.

In 1931 a grant of £100,000 was made available by the Commonwealth to enable surplus coal miners to be employed in shale mining, and operations were resumed at Newnes, in the Wolgan Valley, in August, 1931. In June, 1932, the oil works at this locality were transferred to a private organisation, which abandoned the project in November, 1932. In 1934 a committee set up by the Government of the Commonwealth and of New South Wales 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 estimated the cost of establishing the industry on a sound basis at £600,000.

Following further investigation, the Commonwealth Government made arrangements in 1937 to assist a private company, the National Oil Proprietary Ltd., in the development of the Newnes-Capertee shale oil field. Of the capital required for the project, £166,000 was provided by the company, £334,000 by the Commonwealth Government and £166,000 by the Government of New South Wales, the amounts provided by the Governments being loans bearing a low rate of interest. In subsequent arrangements for increasing the capital the original proportions of Government and private capital were maintained. Among other concessions, tariff protection is provided for a period of fifteen years to the extent of 7½d. per gallon over imported petroleum spirit and 5½d. over petrol refined in Australia from imported crude oil. The production of crude oil was commenced at Glen Davis, near Newnes, in January, 1940.

#### 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, as they 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 (including quarry products) in each quinquennial period from 1901 to 1935, the annual production in certain years since 1931, and the total value of production to the end of each period are shown below:—

TABLE 873.—Value of all Minerals Won in N.S.W. to end of 1939.

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	12,044,998	531,265,503
			1939	13,649,956	544,915,459

\* Includes Quarry products.

The value £17,509,718 in 1926 was the highest yet recorded. There was a decline of £461,000 in 1927, when there was 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. Increases in the value of minerals won from 1932 until 1937 resulted largely from higher prices of metals obtained from the Broken Hill field, though they were due in part to increased coal and quarry production consequent upon economic recovery and to the expansion of gold-mining.

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 silver and lead surpassed the output of gold. At the end of 1938 coal represented 43 per cent. of the total value of mineral production, silver and silver-lead 25.4 per cent., and gold 12.6 per cent.

The values of the ores are estimated after assay. As many metals are commonly associated in the same mineral matter it is difficult to make a reliable estimate of the quantity and value, especially in cases where the ores are exported before final treatment.

INDIVIDUAL METALS, ETC., WON IN NEW SOUTH WALES.

The following statement shows the estimated quantity and value of individual metals, precious stones and industrial minerals (other than coal and shale), won in the years 1937 and 1938, also the total yield to the end of 1938. Particulars for 1939 are not available for publication.

TABLE 874.—Individual Metals, etc., 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	†595,855	88,698	†780,958	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	3,282,119	13,657,362	128,676,996
Lead—Pig, etc. ... "	...	...	...	...	326,621	6,442,397
Zinc—Spelter and concentrates ... "	219,838	657,967	265,296	230,989	9,149,909	28,330,102
Copper ... .. "	3,627	72,406	1,963	87,905	689,749	15,920,956
Tin ingots and ore ... "	1,143	336,628	1,180	280,768	142,753	16,422,868
Iron—Pig (from local ores) ... .. "	...	...	...	...	1,414,308	7,511,755
Iron oxide ... .. "	877	374	108	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	202,208
Platinum ... .. oz.	46	455	7	52	20,193	128,544
Molybdenite ... .. tons	16	1,139	8	1,759	870	218,126
Antimony ... .. "	144	3,488	144	3,444	19,992	376,875
Manganese ore ... .. "	107	322	218	740	37,835	59,463
Bismuth ... .. "	...	7	...	4	891	244,780
Alunite ... .. "	334	627	438	821	60,269	212,696
Arsenic ... .. "	...	...	...	...	(a)	193,990
Dolomite... .. "	23,628	11,814	25,539	32,715	(a)	176,633
Limestone flux ... .. "	144,371	28,317	158,381	35,113	3,408,617	1,401,997
Magnesite ... .. "	19,494	36,552	19,158	41,744	234,945	384,493
Diamonds ... .. carats	200	200	300	300	205,548	147,949
Opal ... .. "	...	3,357	...	4,226	...	1,627,021

† Value in Australian currency.

(a) Quantity not available.

## 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. The deposits are of 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 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. During the period of economic stress which followed, the price of gold rose and greater attention was paid to prospecting, and the yield increased from 7,496 oz. fine in 1929 to 100,255 oz. fine in 1940. The value of the gold won in 1940, at the standard rate, £4 4s. 11½d. per oz. fine, was £425,875, and exceeded the value in any year since 1916; the value in Australian currency, which includes a substantial premium, was £1,068,692. The prices paid for gold lodged at the Commonwealth Bank are shown in Table 884.

The Commonwealth Government provided a bounty on gold in terms of the Gold Bounty Act, 1930-31, as described on page 661 of the Official Year Book for 1937-38. 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. In June, 1940, the Federal Parliament appropriated the sum of £150,000 for the encouragement of gold mining in the various States; the amount allocated to New South Wales is £8,000.

Following the wartime increase in the price of gold a tax was imposed as from 15th September, 1939, on all gold produced in Australia and New Guinea. The tax is equal to half the amount by which the price of gold exceeds £A9 per fine oz., and is deducted by the Commonwealth Bank from payments made for gold received; certain rebates are allowed. Particulars of the tax are published on page 421 of this volume.

Under the National Security (Monetary Control) Regulations, 1939, all persons possessing gold are required to deliver it to the Commonwealth Bank or an agent of the Bank, and may not sell gold to any other buyer. This regulation does not apply to gold coins up to £25 in value, nor to wrought gold.

The following table shows the quantity and value of the gold won in New South Wales to the end of 1940:—

TABLE 875.—Gold Won in New South Wales, 1851 to 1940.

Period.	Quantity.	Value.*	Period.	Quantity.	Value.*
	oz. fine.	£		oz. fine.	£
1851-1900	11,399,508	48,422,001	1935	50,102	439,123
1901-1910	2,252,851	9,569,492	1936	60,739	525,792
1911-1920	1,145,185	4,804,440	1937	68,607	695,855
1921-1925	133,335	566,375	1938	88,698	780,958
1926-1930	70,287	298,557	1939	87,189	848,985
1931	19,673	518,623	1940	100,255	1,068,692
1932	27,041	203,622			
1933	29,252	226,068			
1934	36,123	307,662	Total	15,569,745	68,836,245

\* Value in Australian currency.



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. In later years the output increased; the quantity was 2,829 oz. fine in 1936 and 2,228 oz. fine in 1937. In the following year new dredging units were in operation and the output was 15,823 oz. fine.

Dredges are employed also for the recovery of stream tin; particulars are shown on page 993.

#### 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.

An account of the Broken Hill silver-lead field was published at page 662 of the Official Year Book, 1937-38.

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.

The quantity of ore raised at the Broken Hill mines amounted to 1,583,366 tons in 1938, and ore and concentrates despatched from the field were valued at £3,508,390.

A description of the silver field at *Yerranderie*, in the Burratorang Valley, was published on page 663 of the Official Year Book for 1937-38. The production in 1938 consisted of silver-lead, 49 tons, valued at £691; silver, 27,870 oz., £2,351; and gold to the value of £46.

A large silver-lead mine is being developed at *Captain's Flat*, where the prospective ore reserves are believed to amount to 5,000,000 tons. In terms of an agreement between the Government of New South Wales and the Lake George Mines Ltd. and the Lake George Mining Corporation, Ltd., the Government has constructed a railway from Bungendore on the Goulburn-Bombala railway to Captain's Flat and the companies are proceeding with the work of development. When complete the works are to be capable of winning and treating 500 tons of crude ore daily and the capacity is to be increased to 1,000 tons per day as soon as possible. Production of ore at the mine was 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 876.—Silver, Lead and Zinc Won in New South Wales to end of 1938.

Period.	Silver.	Silver-lead Concentrates, Carbonate ore, etc.	Lead-P'lg, 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
	Value.			
	£	£	£	£
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	2,195,599
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	3,282,119	...	230,989
Total ...	6,145,217	128,676,996	6,442,397	26,330,102

\* Includes 2,758 tons of spelter.

The total value of production, as stated above, amounted to £1,592,154 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 value decreased by £1,448,115 to £3,520,465 in 1938.

As the bulk of the ore 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, 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 the following particulars have been obtained 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. In the case of the lead and zinc contents, the quantities have been estimated only when payment was made for them.

TABLE 877.—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. 47,426	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	6,730,689	251,294	2,371,264	23,242	96,167	1,501,678	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	5,491,136
1931	6,177,863	129,819	53,832	2,995,029	95,421	460,958	13,405	43,629	257,705	3,252,734
1932	5,806,193	131,422	53,200	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	63,349	475,161	4,055,047
1934	7,380,624	153,641	54,629	3,384,193	89,654	826,896	22,142	34,016	345,350	3,720,543
1935	8,422,316	180,958	67,666	4,933,492	147,856	669,630	11,947	72,285	424,929	5,358,421
1936	7,778,514	157,755	57,744	4,608,338	147,969	779,289	18,569	68,011	549,319	5,158,207
1937	8,731,750	184,822	43,254	6,353,963	140,646	1,048,749	13,832	64,785	389,991	7,243,954
1938	8,497,637	181,137	47,370	4,438,183	142,150	1,060,913	15,213	66,359	479,795	4,917,983

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 1938 was 147 tons, valued at £60,770.

#### COPPER.

The ores of copper are distributed widely throughout New South Wales. Deposits at Cobar yielded a large output until 1920 when the better grade ores were worked out. 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 878.—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.	2,169,508	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
1931-1935	3,304	123,951	208	4,026	127,977
1936	753	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

† Concentrates.

The output in 1938 was obtained partly from the Cobar mines and partly in the treatment of silver-lead concentrates mined at Broken Hill.

### 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 879.—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	40,914	3,470,243	16,422,868

The total quantity of tin won during 1938 was 1,189 tons, making the total 142,753 tons to the end of 1938.

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 obtained in 1938 was 774 tons valued at £120,765. The total quantity obtained 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 the Lithgow works were transferred to the new site at Port Kembla and with the cessation of operations at Lithgow the production of local iron ore was suspended. The iron ore used at the Port Kembla and Newcastle iron and steel works is imported from South Australia.

The quantity of pig iron produced from local ores during the years 1907 to 1929 was 1,409,728 tons valued at £7,493,435, and the only production in later years was 4,580 tons valued at £18,320 produced in 1935 from ore raised at Breadalbane.

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 1938 was 108 tons, valued at £43. 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 oz. valued at £128,544, of which 7 oz. were obtained 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 1938 was 952 tons, valued at £2,564, making a total output of 44,214 tons, valued at £136,354.

*Scheelite and Wolfram.*—The tungsten ores, scheelite and wolfram, 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 increases during war periods and declines upon the cessation of hostilities. The production in 1938 was 9 tons of scheelite, valued at £2,472, and 94 tons of wolfram, valued at £25,740. The total production up to the end of 1938 was 1,747 tons of scheelite, valued at £202,209 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 is for the manufacture of molybdenum steel. The output to the end of 1938 was 870 tons, valued at £218,126, of which 8 tons, valued at £1,759, were produced in 1938.

*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 144 tons, valued at £3,444, were produced in 1938.

*Manganese.*—Manganese ores have been discovered in various places but generally in localities which lack facilities for transport. The total production to the end of 1938 was 37,835 tons, valued at £83,463, including 218 tons valued at £740 produced in 1938.

*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 1938 was 1 cwt., valued at £4. 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.

## 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 880.—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	1939	103	167
1921-1925	3,232	4,183			
1926-1930	1,077	1,226	Total ...	205,646	148,116

## 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 881.—Opal Won in N.S.W., 1890 to 1939.

Period.	Value.	Period.	Value.
	£		£
1890-1900	456,599	1926-1930	47,409
1901-1905	476,000	1931-1935	15,995
1906-1910	305,300	1936	6,310
1911-1915	154,738	1937	3,357
1916-1920	105,547	1938	4,226
1921-1925	51,740	1939	1,020
		Total ...	1,628,041

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.

The output of alunite in 1938 was 438 tons, valued at £821, and the total production to the end of 1938 was 60,269 tons, valued at £212,696.

#### OTHER MINERALS.

*Marble.*—Beds of marble of great variety of colouring and with highly 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 1938 was 19,158 tons, valued at £41,744.

*Diatomaceous earth* occurs in several localities. The principal deposits are situated at Cooma, Barraba, Coonabarabran, and Wyrallah. The output in 1939 was 3,008 tons, valued at £2,244.

*Other Mineral Deposits.*—Other mineral deposits known to exist but not worked extensively include asbestos, barytes, fluorspar, 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 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 1938 and 1939, as recorded in returns collected from the owners under the Census Act of 1901:—

TABLE 882.—Output of Quarries, 1938 and 1939.

Stone, etc.	1938.		1939.	
	Quantity.	Value.	Quantity.	Value.
	tons.	£	tons.	£
<b>Building and Construction</b>				
Stone—				
Sandstone ... ..	32,149	38,995	31,095	39,984
Granite ... ..	18,690	12,981	13,002	14,307
Basalt ... ..	220,362	58,346	341,422	88,954
Dolerite ... ..	90,052	27,666	89,509	26,185
Trachyte, etc. ... ..	1,811	3,355	1,522	3,172
Limestone ... ..	522	3,156	7,490	3,179
Marble ... ..	4,186	2,167	317	1,330
<b>Macadam, Ballast, etc.—</b>				
Sandstone ... ..	504,895	83,079	433,813	70,697
Granite ... ..	75,015	24,854	116,952	38,253
Bluestone, Basalt, etc. ... ..	1,349,399	288,144	1,012,170	200,629
Ironstone ... ..	18,572	2,377	23,133	1,361
Trachyte ... ..	6,794	2,609	3,174	1,192
Limestone ... ..	25,740	4,682	44,186	13,729
Gravel ... ..	3,459,333	587,891	2,826,407	455,473
Sand ... ..	494,533	38,979	479,340	37,298
Shale ... ..	279,108	41,202	170,687	20,814
Andesite ... ..	94,564	7,805	86,236	7,283
Porphyry ... ..	27,296	1,814	.....	.....
Other... ..	35,933	4,917	79,717	4,964
<b>Limestone—</b>				
For Cement ... ..	611,300	113,121	522,277	97,048
For Burning ... ..	81,715	34,841	64,142	23,641
For Flux ... ..	156,531	30,229	277,022	53,715
Shale for Cement... ..	75,347	9,839	51,744	6,930
Sea Shells for Cement ... ..	.....	.....	58,752	14,688
<b>Clays—</b>				
Brick ... ..	1,536,638	171,842	1,393,647	152,538
Pottery ... ..	27,329	6,388	10,961	2,813
Earthenware ... ..	82,493	13,843	109,345	18,612
Kaolin ... ..	9,231	6,894	12,839	8,531
Fire Clay ... ..	55,426	14,675	65,417	16,126
Silica ... ..	19,985	13,919	18,164	8,320
Other... ..	3,025	788	8,915	354
Shell Grit ... ..	3,506	3,489	5,719	3,961
<b>Total</b> ... ..	<b>9,401,530</b>	<b>1,654,887</b>	<b>8,461,054</b>	<b>1,446,927</b>

Of the value of output shown above, the portion won from quarries using power machinery or employing four hands or more was £1,604,611 in 1938 and £1,382,149 in 1939.

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 the output was at a minimum in 1932. There was

substantial recovery in later years. The production of building stone fluctuates with the demand for stone for the construction of reservoirs and other public works. The output of the quarries, as recorded for each year since 1928, is shown below:—

TABLE 888.—Value of Quarry Output, 1928 to 1939.

Year.	Output.		Year.	Output.	
	Quantity.	Value.		Quantity.	Value.
	tons.	£		tons.	£
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
1933	3,484,950	836,568	1939	8,461,054	1,446,927

## PRICES OF METALS.

Since the outbreak of war in September, 1939, export parities for lead, zinc and copper have been governed principally by the terms of the contracts for sale made by Australian companies with the British Government. The Australian smelting companies have undertaken to sell to the British Government 3,000 tons of zinc and 13,875 tons of lead each month during the period of the war and for three months thereafter. The British Government has the option of terminating the contracts when deliveries of zinc have reached a total of 36,000 tons and deliveries of lead 166,000 tons. The contract for the sale of copper provided for the export to the United Kingdom of any surplus electrolytic copper available up to a maximum of 7,000 tons per annum. The prices f.o.b. Australian ports were as follows:—lead, £A.18 16s. 7d. per ton, zinc £A.22 10s., and copper £A.60 12s. 6d. per ton—with provision in each case for periodical adjustments in accordance with changes in costs of production.

Prices of metals for use in Australia have been fixed under the Commonwealth wartime prices regulations, described in the chapter Food and Prices, tin since October, 1939, and lead, zinc and copper since 14th December, 1939. The fixed price of tin was £306 per ton on 15th February, 1940, lead and zinc £22 a ton on 8th February, 1940, and copper £76 per ton on 16th February, 1940. A control scheme for copper in Australia was instituted in February, 1941, and supplies were pooled for sale at £78 10s. a ton; the price was increased to £86 10s. a ton on 2nd May, 1941.

The average prices of gold, silver, lead, zinc, tin and copper (in Australian currency) in each year from 1928 are shown in the following table. The prices for the year represent the mean of the average monthly prices. The quotations for gold relate to the average prices paid by the Commonwealth Bank for gold lodged at the Mint in Australia; the prices are based on the forward open market prices of gold abroad, adjusted to the ruling rate of exchange for telegraphic transfers, less a small allowance for realisation charges. The quotations for the other metals are the prices f.o.b. at principal Australian ports of shipment.

TABLE 884.—Prices of Metals, in Australian Currency—1928 to 1940.

Period.	Gold (Mint Price).	Export Parities.				
		Silver (Standard).	Lead.	Zinc (Electrolytic).	Tin (Standard).	Copper (Electrolytic Wire bars).
	per fine oz.	per oz.	per ton.	per ton.	per ton.	per ton.
	£ s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average—						
1928 ...	4 5 0	2 2-8	19 11 7	26 5 8	219 7 5	68 6 2
1929 ...	4 5 0	2 0-6	21 14 5	25 19 5	200 11 5	84 10 11
1930 ...	4 9 0	1 6-6	17 10 8	18 14 9	145 7 8	63 16 11
1931 ...	5 14 9	1 6-7	14 19 7	17 3 10	147 13 10	53 0 8
1932 ...	7 5 7	1 10-1	13 8 4	18 6 6	163 5 5	43 17 3
1933 ...	7 13 6	1 10-4	13 0 9	20 12 1	235 13 11	44 18 9
1934 ...	8 9 11	2 2-4	12 1 5	18 10 10	277 19 1	40 9 0
1935 ...	8 15 8	2 11-8	16 4 6	18 14 8	264 1 1	43 2 1
1936 ...	8 14 0	2 1-0	20 11 3	19 10 6	242 5 8	52 1 5
1937 ...	8 15 1	2 0-9	27 9 3	29 1 6	292 16 5	73 10 8
1938 ...	8 17 1	2 0-1	17 12 11	19 14 10	228 11 10	55 15 2
1939 ...	9 14 4	2 1-4	17 12 1	19 15 3	268 3 6	59 15 1
1940 ...	10 13 1	2 3-0	18 14 6	22 9 11	292 19 7	.....
June, 1939 ...	9 4 10	2 0-2	16 14 8	19 8 1	273 13 0	58 8 0
August, 1939 ...	9 10 5	1 10-3	18 6 8	19 13 9	273 15 11	62 2 0
December, 1939 ...	10 12 6	2 3-8	18 18 1	21 10 4	285 2 11	.....
December, 1940 ...	10 14 0	2 3-8	18 8 1	22 0 6	292 8 11	.....

The Australian export parity price of silver declined from 2s. 2½d. per oz. in 1928 to 1s. 6½d. in 1930. Two years later there was an appreciable increase and further increases occurred after the end of 1933 when 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. In 1935 the average parity price was as high as 2s. 11¼d. per oz., then a modification in the policy of the United States Government led to a decline and the average in 1936 was 2s. 1d. per oz.. In 1937 and 1938 the price was fairly steady; in July, 1939, the average declined from 2s. 0¼d. to 1s. 8d. but it rose to 2s. 3½d. after the outbreak of war in September, 1939.

In London the Ministry of Supply assumed control of the base metal markets upon the outbreak of war in 1939. Copper, lead and zinc may be sold only to licensed purchasers, and maximum prices have been fixed for these metals. The fixed prices current throughout 1940 were:—refined copper £stg. 62 per ton, lead £stg. 25 per ton and spelter £stg. 25 15s. per ton.

The introduction of an international scheme for the regulation of the output of tin and its effect upon prices are described in the 1937-38 issue of this Year Book. The price of tin reached a peak in March, 1937, when the London spot price was £283 5s. 7d. per ton. Then it declined with the prices of other metals and in April and May, 1938, it was lower than in any month of the previous five years. The price rose in 1938-39 and on 17th September, 1939, it was fixed by the British Minister of Supply at a maximum of £230 per ton (exclusive of delivery charges). A free market for the tin was restored on 11th December and to meet a heavy demand the International Tin Committee increased the output quota for the year ended 30th June, 1941, and later extended the higher quota for the six months July to December, 1941.

## ADMINISTRATION OF MINING LAWS.

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.

*Occupation of Land for Mining.*

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 27,701 in 1931. This was the largest number in any year since 1897. The average number issued during the five years 1932 to 1936 was 16,074 and the number was 9,971 in 1938, and 10,836 in 1939. Business licenses issued numbered 135 in 1938 and 161 in the following year.

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.

*Area of Land occupied for Mining.*

The area under mining occupation in New South Wales at 31st December, 1939, was approximately 519,125 acres. 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 885.—Mining Leases, etc., 1938 and 1939.

Nature of Holding.	At 31st December, 1938.			At 31st December, 1939.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	acres.	acres.	acres.
Leases—						
Mining ... ..	122,712	94,359	217,071	172,636	95,943	268,579
Mining Purposes ... ..	6,756	1,793	8,549	7,270	1,897	9,167
Agreements ... ..	...	49,766	49,766	...	45,989	45,989
Authority to Enter ... ..	...	20,499	20,499	...	56,604	56,604
Authority to Prospect ... ..	10,477	...	10,477	14,672	...	14,672
Miners' Rights and Business Licenses ... ..	8,160	...	8,160	7,461	...	7,461
Applications for Leases—						
Mining ... ..	82,879	4,105	86,984	68,528	4,820	73,348
Mining Purposes ... ..	793	393	1,186	894	458	1,352
Dredging ... ..	*3,502	...	3,502	4,368	...	4,368
Applications for Authority to Prospect ... ..	47,706	...	47,706	36,785	...	36,785
Other Mining Titles ... ..	722	...	722	710	...	710
Total ... ..	238,707	170,915	454,622	313,324	205,801	519,125

\* 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.

*Mining Royalties.*

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.

Royalty in regard to mining on private lands held without reservation of minerals to the Crown, is collected by the Department of Mines on behalf of the owner. The rates are 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 1939 amounted to £238,365, of which £2,675 was paid in respect of output under permits, and the balance from land under lease.

#### ENCOURAGEMENT OF PROSPECTING FOR MINERALS.

Moneys were voted by Parliament at irregular intervals between 1878 and 1886 to encourage prospecting for minerals and to assist miners to open up new fields. From 1887 to 1930-31 an amount was voted each year and 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 prospecting vote has been appropriated since 1930-31, but assistance has been given to prospectors from funds made available by the State and Commonwealth for the relief of unemployment.

The following statement shows a summary of the amounts allotted from the Prospecting Vote and other funds to prospectors for the various minerals. Sustenance at the rate of £1 a week paid to unemployed persons engaged in prospecting in the years ended June, 1931 to 1935, is not included in the table; the amount was £46,966:—

TABLE 886.—Grants to Prospectors.

Period (years ended 30th June).	Amounts allotted to Prospectors for—							Total.
	Gold.	Silver and Lead.	Copper.	Tin.	Coal.	Other Minerals.		
	£	£	£	£	£	£	£	
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	8,109	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	94,459	1,405	17	3,031	...	2,488	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	
1939	10,531	3,320	...	1,603	...	781	16,235	
Total ...	698,288	64,357	66,666	59,760	7,298	41,190	937,559	

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 Commonwealth Government has provided financial assistance from time to time 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, and £209,612 had been expended at 30th June, 1939. Further provision of assistance in

the search for petroleum oil was made in 1936, and the sum of £250,000 was set aside for making advances to persons engaged in drilling operations and in the initial stages of the production of petroleum and geological surveys. Expenditure to 30th June, 1940, amounted to £193,820, viz., advances £82,407, purchase of plant and machinery £81,254, administrative expenses £30,159. The amount expended in 1938-39 was £40,182. Information relating to the development of shale oil deposits is shown on page 986.

Grants made by the Commonwealth to the States for the assistance of metalliferous mining with the object of relieving unemployment amounted to £493,750 in the four years 1934-35 to 1937-38. The amount allocated to New South Wales was £75,700.

#### 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 works in company with an experienced miner. Special rules are established in each mine for the safety, convenience, and discipline of the employees.

The Governor may appoint a District Court judge, a stipendiary or police magistrate, or a mining warden to sit as a Court of Coal Mines Regulations to determine matters relating to the safe working of the coal mines. 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.

A Royal Commission was appointed by the Government of New South Wales in August, 1938, to inquire into matters relating to the safety and health of workers in coal mines. The Commission reported that the fatality rate in coal mines is not higher than in other mines in New South Wales and it is more favourable in New South Wales than in Great Britain or the United States of America. About 50 per cent of the serious accidents

in New South Wales have been caused by falls of roof and sides and 7½ per cent. of the fatal accidents were connected with haulage. The Commission recommended that vigorous measures be undertaken to effect a reduction in the number of accidents, *e.g.*, a "greater safety" campaign, education in remedial measures and the use of protective equipment. For protecting the health of the miners, methods were recommended to reduce the incidence of dust and other diseases to which miners are exposed.

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.

The records of the Department of Mines show the following particulars regarding persons killed or reported as seriously injured in accidents in mining and quarrying during the ten years 1930 to 1939:—

TABLE 887.—Mining Accidents, 1930 to 1939.

Year.	Accidents.				Per 1,000 Employees subject to Mining Acts.			
	Coal and Shale Miners.		Other Miners and Quarrymen.		Coal and Shale Miners.		Other Miners and Quarrymen.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
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	·90	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*	·69	4·10	1·10	17·17
1939	15	81	13	212*	·90	4·86	·93	15·12

\* Includes minor fractures, etc., not previously reported as serious.

The accident rates are not based on the number of employees as shown in Table 858 or 859. 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. 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 in Table 867.

Allowances paid during 1939 to beneficiaries under the provisions of the Miners' Accident Relief Act amounted to £12,437. The beneficiaries at the end of the year were: widows, 162; mothers, 8; sisters, 3; permanently disabled persons, 120; and children, 14. These allowances relate to accidents which occurred prior to 1st July, 1917. Compensation in respect of accidents which occurred later and compensation for miners and quarrymen who contract industrial diseases such as silicosis or lead poisoning are payable under the Workers' Compensation Act and other Acts of which particulars are shown in the chapter Employment of this Year Book.



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