

VICTORIAN YEAR-BOOK,

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ERRATA.

Page 150.—Fifth line from bottom of page, *read* “By J. Thurston Hogarth, Esq.,”
instead of “By J. Thurston Hogan, Esq.”

Page 201.—Third and sixth column of Table “F,” *read* “Number per 10,000
Persons Living,” *instead of* “Number per 1,000 Persons Living.”

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PARLIAMENT OF VICTORIA

P R E F A C E .

THIS is the first Year-Book that has been issued since that of 1895-8. It deals principally with Victorian matters relating to the year 1902, but an endeavour has been made to connect the tables back to those of the previous Year-Book. Tables of Australasian Statistics will be found in the Appendix, relating for the most part to population, shipping, posts and telegraphs, production, law and crime, education, railways and tramways, and public finance.

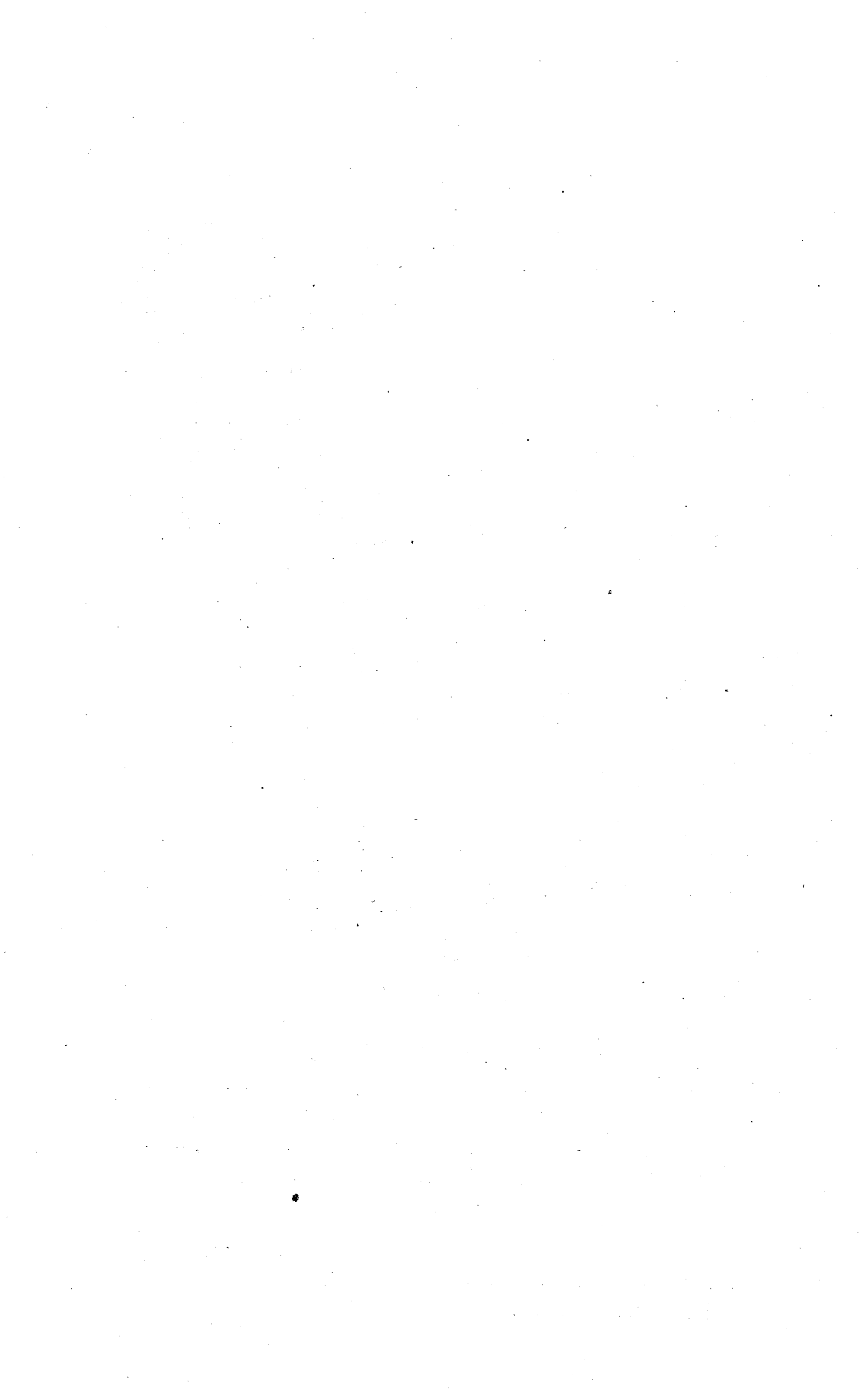
In the part relating to Vital Statistics appears a special report from the Chairman of the Board of Health, dealing chiefly with tubercular diseases, and furnishing much interesting and valuable tabular information on the subject.

The part relating to Agriculture contains a special report from the Government Astronomer, dealing mainly with the meteorological conditions of the State in the year 1902, and giving many interesting particulars in regard thereto. Following the tabular matter relating to live stock will be found a report from the Chief Inspector, in which he calls attention to many matters relating to the live stock of the State during the phenomenally dry season of 1902, and the steps which were taken for their preservation—succeeded by one from the Inspector of Food for export, on the subject of Diseases in Stock. Following the tables relating to fruit, is a report from the Government Entomologist, showing the steps that have been taken to establish an entomological and ornithological branch of the Department of Agriculture.

Owing to the limited time available for the preparation of this work, and to meet the wish of the Government that the expense of its production should be as low as possible, only those matters which are of first importance have been dealt with. Future issues will be annual; will be published at a much earlier date; and will deal with matters which have unavoidably been omitted from this issue.

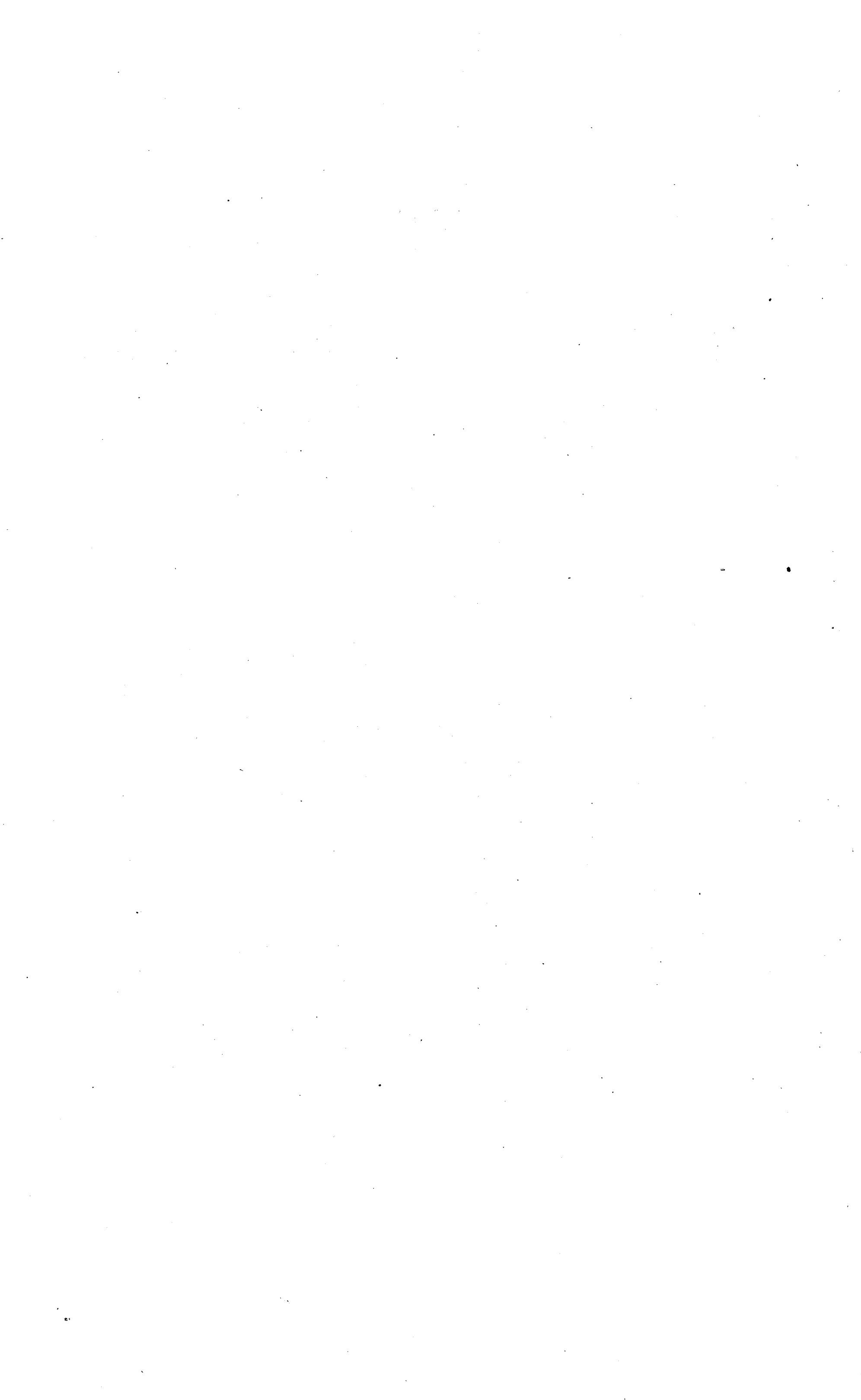
W. McLEAN.

Office of the Government Statist,
31st October, 1903.



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VICTORIAN YEAR-BOOK, 1902.

INTRODUCTORY REMARKS.

Victoria is situated at the south-east extremity of the Australian continent, of which it occupies about a thirty-fourth part, and contains about 87,884 square miles, or 56,245,760 acres. It is bounded on the north and north-east by New South Wales, from which it is separated by the River Murray, and by a right line running in a south-easterly direction from a place near the head-waters of that stream, called The Springs, on Forest Hill, to Cape Howe. On the west it is bounded by South Australia, the dividing line being about 242 geographical miles in length, approximating to the position of the 141st meridian of east longitude, and extending from the River Murray to the sea. On the south and south-east its shores are washed by the Southern Ocean, Bass's Straits, and the Pacific Ocean. It lies between the 34th and 39th parallels of south latitude, and the 141st and 150th meridians of east longitude. Its extreme length from east to west is about 420, its greatest breadth about 250, and its extent of coast-line nearly 600 geographical miles. Great Britain, exclusive of the islands in the British seas, contain 88,309 square miles, and is therefore slightly larger than Victoria.

Area of
Victoria.

The southernmost point in Victoria, and, consequently, in the whole of Australia, is Wilson's Promontory, which lies in latitude $39^{\circ} 8' S.$, longitude $145^{\circ} 26' E.$; the northernmost point is the place where the western boundary of the State meets the Murray, latitude $34^{\circ} 2' S.$, longitude $140^{\circ} 58' E.$, the point further east is Cape Howe, situated in latitude $37^{\circ} 31' S.$, longitude $149^{\circ} 59' E.$; the most westerly point is the line of the whole western frontier, which, according to the latest correction, lies upon the meridian $140^{\circ} 58' E.$, and extends from latitude $34^{\circ} 2' S.$ to latitude $38^{\circ} 4' S.$, or 242 geographical miles.

The area of the Australian Commonwealth is estimated to be somewhat under three million square miles; but that area, added to the area of New Zealand, amounts to nearly

Areas of
Australian
States
and New
Zealand.

three million one hundred thousand square miles. The following are the areas of the different States, as officially computed:—

	Sq. Miles.
Victoria	87,884
New South Wales	310,700
Queensland	668,497
South Australia	903,690
Western Australia	975,920
Tasmania... ..	26,215
<hr/>	<hr/>
Total Australia	2,972,906
New Zealand	104,471
<hr/>	<hr/>
Total Australasia	3,077,377

It will be noticed that, with the exception of Tasmania, Victoria is by far the smallest State of the Australian Commonwealth, and about a sixth smaller than the colony of New Zealand. If the whole Commonwealth were to be divided into 100 equal parts, the area of Tasmania would embrace nearly 1 of such parts, that of Victoria 3, that of New South Wales 10, that of Queensland 23, that of South Australia 30, and that of Western Australia 33. Victoria is thus more than three times the size of Tasmania, but less than a third of the size of New South Wales, little more than an eighth of that of Queensland, about a tenth of that of South Australia, and less than an eleventh of that of Western Australia.

A comparison of the areas of the different Australasian States with those of the principal European countries will be of interest. These are accordingly given:—

	Sq. Miles.
Great Britain (England, Wales, and Scotland)	88,309
Germany	208,694
Spain	190,050
France	204,092
Italy	110,659
Sweden and Norway	297,284
Denmark	14,799
Holland	12,648
Austria-Hungary	263,476
Belgium	11,373
Portugal	34,038
Switzerland	15,976
Greece	24,970
Russia	2,080,396
Turkey in Europe (including Bulgaria)	100,604

The area of the Commonwealth of Australia is about equal to that of Russia in Europe, Sweden and Norway, Germany, Austria-Hungary, Turkey in Europe, Bulgaria, and Greece.

Areas of
Austral-
asian
States and
European
countries
compared.

The following are the latitudes and longitudes of the capital cities of the different Australian States and New Zealand, the positions being the observatories at Melbourne, Sydney, Brisbane, and Adelaide, the Barracks Observatory at Hobart, the Survey Office Observatory at Wellington, and the Government House at Perth:—

Positions of
Austral-
asian
capitals.

Colony.	Capital City.		
	Name.	Latitude S.	Longitude E.
		° ' "	° ' "
Victoria ...	Melbourne ...	37 49 53	144 58 32
New South Wales ...	Sydney ...	33 51 41	151 12 23
Queensland ...	Brisbane ...	27 28 0	153 1 36
South Australia ...	Adelaide ...	34 55 34	138 35 4
Western Australia ...	Perth ...	31 57 24	115 52 42
Tasmania ...	Hobart ...	42 53 25	147 19 57
New Zealand ...	Wellington ...	41 16 25	174 46 38

From its geographical position, Victoria enjoys a climate more suitable to the European constitution than any other State upon the Continent of Australia. In the forty-four years ended with 1902, the maximum temperature in the shade recorded at the Melbourne Observatory was 111·2° Fahr., viz., on the 14th January, 1862; the minimum was 27°, viz., on the 21st July, 1869; and the mean was 57·4°. Upon the average, on four days during the year, the thermometer rises above 100° in the shade; and, generally, on about three nights during the year, it falls below freezing point. The maximum temperature in the sun ever recorded (i.e., since 1857) was 178·5°, viz., on the 4th January, 1862. The mean atmospheric pressure, noted at an Observatory 91 feet above the sea-level, was, in the thirty-nine years ended with 1902, 29·94 inches; the average number of days on which rain fell was 129, and the average yearly rainfall was 25·15 inches.

Climate.

The following are the dates of some of the principal events connected with the history of Victoria since 1894. For principal events prior to that year the reader is referred to the preceding issue of this work. A detailed statement of the discovery and early history of the State will be found in the issue for 1884-5, page 10, et seq.

Principal
events.

1895. January ... Conference at Hobart of the Premiers of Australia and Tasmania, at the instance of the Premier of New South Wales, to further consider the subject of Federation; at which it was agreed to commit the duty of framing a Federal Constitution to a convention strictly chosen by the electors, to whom it was afterwards to be referred for acceptance or rejection, and a draft *Enabling Bill* was adopted to give effect to this object.

1895. January 29th—First Income Tax Act passed, taxing all income received, with £200 exemption, except in case of an absentee; income from property charged double the rates of that derived from personal exertion.
1896. March 7th—Federal Enabling Act, on the lines just described, passed in Victoria. Similar measures were likewise passed about the same time by New South Wales, South Australia, Western Australia, and Tasmania.
- „ July 28th—Factory legislation passed providing for the appointment of Wages Boards, consisting of an equal number of members representative of the employers and employes respectively, to determine minimum rates of wages, &c.; and limiting the working hours in furniture factories where Chinese are employed—to from 7.30 a.m. to 5 p.m. on week days, and to not later than 2 p.m. on Saturdays, and lessening unfair competition in all factories.
1897. March 4th—Election by the people of delegates—ten for each colony—to the Australasian Federal Convention, held in Victoria, New South Wales, and Tasmania; and in South Australia on the 6th. The delegates for Western Australia were elected by members of Parliament.
- „ March 22nd—Australasian Federal Convention opened in Adelaide, at which the following colonies were represented: Victoria, New South Wales, South Australia, Western Australia, and Tasmania. The first session closed on 23rd April. The second session opened in Sydney on the 2nd and closed on 24th September. The third session opened in Melbourne on the 20th January, and closed on the 16th March, 1898. At this Convention a Draft Bill to constitute the Commonwealth of Australia was framed and adopted for submission to a popular referendum of the various States represented.
1898. June 3rd—Referendum to the electors in Victoria, New South Wales, and Tasmania, and in South Australia on the following day, for the acceptance or rejection of the Draft Bill drawn up by the Convention. The Bill was accepted by large majorities in three of the colonies, and by a majority of 5,000 in New South Wales; but as the statutory number of 80,000 affirmative votes required in New South Wales was not reached (71,600 being recorded) the Bill was considered as rejected by that colony.
1899. January 28th—Conference of the Premiers of all the Australian colonies and Tasmania held in Melbourne, to consider the amendments suggested in the Draft Commonwealth Bill by the Parliament of New South Wales, at which a provisional compromise was arrived at.
- „ July 27th—Enabling Acts having been passed by Victoria, New South Wales, Queensland, South Australia and Tasmania, the amended Draft Commonwealth Bill was submitted to the electors, who approved of same by large majorities, the voting in Victoria being 152,653 for, and 9,805 against.
- „ August 30th—Abolition of Plural Voting. Principle of “one man one vote,” introduced for the future elections to the Legislative Assembly.

1899. October 28th—Departure of the First Victorian Contingent (257 Mounted Rifles and Infantry) on the outbreak of war in South Africa between Great Britain and the Boers. Contingents also despatched by the other Australasian colonies and Canada.
1900. January 13th—Departure of Second Contingent of 264 mounted men for South Africa.
- „ February 22nd—Conference of Statisticians of the six Federating States in Sydney to estimate on a uniform basis the populations of the different States so as to decide the number of members of the House of Representatives to be allotted to each State in the first Federal Parliament.
- „ February 26th—Another statistical Conference, at which the New Zealand Statistician was also present, to arrange for the collection and compilation of the Census of 1901 upon a uniform principle. Conference closed on 3rd March.
- „ March 10th—Despatch of the Victorian Bushmen's Contingent and Cameron's Scouts (276 officers and men) for service in South Africa.
- „ May 1st—Departure of the Fourth (Imperial Bushmen's) Contingent of 629 officers and men for service in South Africa.
- „ July 9th—*The Commonwealth of Australia Constitution Act* passed, with several amendments, by the Imperial Parliament.
- „ July 31st—Departure of Naval Contingent for service in China—197 officers and men.
- „ „ „ Western Australia joins the Federation. Bill referred to and accepted by that State. Voting—for the Bill, 44,800; against the Bill, 19,691.
- „ October 29th—Appointment of Earl of Hopetoun as the first Governor-General of the Commonwealth.
- „ December 27th—First *Old Age Pensions Act* passed, making temporary provision out of the general revenue for the helpless poor, aged 65 or over, at a rate not exceeding 10s. per week for each unmarried, or 7s. 6d. for each married person. A more comprehensive permanent measure was subsequently passed on 11th December, 1901.
1901. January 1st—Proclamation and inauguration of the Commonwealth at Sydney, and swearing in of the Rt. Hon. E. Barton, first Prime Minister, and other members of the Ministry. Representatives from different parts of British Empire present, including representatives of Imperial and Indian regiments. State departments of Customs and Excise transferred, whilst those of the Post and Telegraph and Defence followed on 1st March.
- „ January 22nd—Death of Queen Victoria. Accession of King Edward VII. His Majesty's coronation took place on 9th August, 1902.
- „ February 15th—Despatch of Fifth (Imperial) Contingent—1,014 officers and men—for South Africa.
- „ March 31st—Eleventh census of Victoria, and third simultaneous census of Australia and New Zealand. Population enumerated:—In Victoria, 1,201,341, viz., 603,883 males and 597,458 females; in all the Australian States, 3,782,318, viz., 1,983,377 males and 1,799,541 females; and in New Zealand, 772,719, viz., 405,992 males, and 366,727 females (exclusive of 43,101 Maoris).

1901. May 9th—Opening of the first Parliament of the Commonwealth of Australia, in Melbourne, by His Royal Highness the Duke of Cornwall and York, Heir-Apparent to the Throne, under commission from His Majesty King Edward VII.
1901. October 8th—Interstate free trade established by the introduction of a provisional tariff by resolution of the Commonwealth House of Representatives.
1902. January 20th—Conference of statisticians of all the Australian States and New Zealand, convened for the purpose of securing uniformity in the preparation of statistical returns, met in Hobart. Conference closed 12th February. This was the first Conference of the kind since 1875.
- „ September 16th—The Commonwealth Tariff finally passed.
-

CONSTITUTION AND GOVERNMENT.

Victoria is one of the six States forming the Commonwealth of Australia; and is, except as regards matters dealt with by the Federal Parliament, a self-governing colony under the British Crown. By the Victorian Constitution, the Parliament was empowered generally "to make laws in and for Victoria in all cases whatsoever"; and in addition was granted special powers to alter the Constitution, to impose customs duties, regulate the sale and occupation of Crown lands and mining. Such powers are merely restricted to this extent:— That certain measures are to be reserved for the Royal Assent, such, for instance, as matters inconsistent with treaty obligations, divorce, currency, military or naval discipline, imperial trade and shipping, and rights of British subjects not resident in the colony: but the Royal Assent is never withheld so long as such measures are not "repugnant to the law of England." The powers of the Victorian Parliament have been considerably curtailed by the federation of the Australian Colonies, and the transfer of various functions to the Commonwealth Parliament. Although the matters which will ultimately be dealt with by that body will abrogate from the State Parliament many of its present functions, the internal development of the State still depends upon the local Parliament; the power of taxation for State purposes (other than by Customs and Excise) is retained; Crown lands, agriculture, mining, and factory legislation also remain; neither the State railways nor the public debts have yet been touched by the Commonwealth; whilst it will probably be many years before that Parliament will be able to assume all the multifarious functions assigned to it, and which must in the interim be dealt with by the States. The Victorian Parliament has also delegated to municipal bodies certain matters of a local nature, and a complete system of municipal government has been established. A full account of the Local Government System of Victoria is given in the issue of this work for 1892, Vol. I., pars. 36 to 50.

Division of
Govern-
mental
functions.

Reform of
the State
Constitu-
tion.

The Constitution of Victoria was briefly described in the issue of this work for 1895-8, page 9, and more fully in the issue for 1883-4, page 610; but since then a Reform Act has been passed, and has now received the Royal Assent on the 7th April, 1903. This Act, entitled the "Constitution Act 1903," provides for a reduction in the number of responsible Ministers from 10 to 8, and their salaries from £10,400 to £8,400; in the number of members of the Legislative Council from 48 to 35, including one special representative for the State railways and public servants, but an increase in the number of Electoral Provinces from 14 to 17—each being now represented by 2 members elected for 6 years—1 retiring every three years by rotation, except at a general election, when one-half of the members are to be elected for only three years; a reduction in the property qualification of members of the Council from £100 to £50 as the annual value of the freehold, and in that of electors qualifying as lessees or occupying tenants from an annual value of £25 to one of £15; also a reduction in the number of members of the Legislative Assembly from 95 to 68—including 2 to be specially elected by the railway officers, and 1 by the State public servants, and in that of the electoral districts from 84 to 65.

A dissolution of both Houses is to take place within six months after the Royal Assent to the Act has been given and Acts have also been passed determining the boundaries of the new constituencies. Power is given to any Minister who is a member of the Assembly to sit in the Council—or vice versa—in order to explain the provisions of any measure connected with any department administered by him. The Council is to be empowered to suggest alterations in any Appropriation Bill once at each of three stages of the Bill, viz.—(a) when in Committee, (b) on the Report of the Committee, (c) on the third reading. The remedy provided to meet disagreements between the two Houses is the simultaneous dissolution of both after a Bill has been twice submitted to, and rejected by, the Council—viz., once before, and once after, a dissolution of the Assembly in consequence of such first rejection. The "Reform Act" has now received the Royal Assent.

Voting by
post at
Elections.

To facilitate the exercise of the franchise in sparsely populated districts, the "Voting by Post Act 1900" was passed on the 17th October, 1900. This measure enables any elector, who is resident, or is likely to be staying, on the polling day more than five miles from the nearest polling booth, or who is prevented by reason of sickness or infirmity from voting personally, to obtain a ballot paper entitling him to vote by post for any candidate in his district standing for either

House of Parliament. This Act came into force on 1st December, 1900, and was to continue in force for three years, and thence until the end of the next ensuing session of Parliament. The first experience of the working of this Act was at the Commonwealth Elections held in March, 1901, at which 1,269 postal ballot papers were used in 18 out of the 19 contested districts for the House of Representatives, being about 1 per cent. of the total votes recorded. The number of electors who voted by post for the Senate throughout the whole State was 1,227 or 1 in every 114 who voted.

On 30th August, 1899, by an Act amending the Constitution, it was provided that after the expiration or dissolution of the then existing Parliament, no person should on any one day vote in more than one electoral district at an election for the Assembly. Plural voting, however, is still permissible in elections for the Upper House, but owing to the large area of the provinces, it is improbable that the right is exercised to any extent.

Plural voting abolished.

In cases where a person is entitled to become an elector and his name does not appear on the Ratepayers or General Roll, such person may, by an Act passed in 1898, take out a Right and apply to a Court of Petty Sessions for a Certificate enabling him to vote. At the general elections for the Assembly held in November, 1900, the total number of votes recorded on such Certificates was 10,472, or 8·12 per cent. of the total votes polled. In some of the metropolitan electorates, the proportion of electors using Voters' Certificates was remarkably high, thus it was 22 per cent. in Carlton South, 18 per cent. in Fitzroy, 17 per cent. in Melbourne North, 16 per cent. in Melbourne West and Daylesford, and 14 per cent. in Brighton.

Voters' Certificates.

The number of informal votes at the General State Elections held in November, 1900, was 679, about $\frac{1}{2}$ per cent. of the total votes polled.

Informal votes.

The numbers of electors on the rolls of both Houses of the State Legislature in 1902-3 were as follow. For the total and adult population and the number of electors in each electorate, see Part Population of the Statistical Register of Victoria for the years 1901 and 1902:—

ELECTORS ON THE ROLL, 1902-3.

		Legislative Council.		Legislative Assembly.
Ratepayers' Roll	...	135,848	...	213,988
General Roll	...	294	...	42,647
Total	...	136,142	...	256,635

Electors
who voted,
Legislative
Council.

More than usual activity was displayed at the elections for the Legislative Council held in 1901, when 6 of the 18 seats were contested, and 58·0 per cent—the highest on record—of the electors in contested provinces recorded their votes. In the preceding seven years, 1894 to 1900, not more than one or two seats in any one year were contested, and the proportion who voted averaged barely 37 per cent.; ranging from nearly 31 per cent. in 1898 and 1899 to $40\frac{3}{4}$ in 1900 and $48\frac{1}{4}$ in 1896. In the years 1871 to 1893, the average was 48·8; varying from a maximum of 56·7 in 1884 to 35·7 in 1893. There were no contested elections for the Legislative Council during 1902.

Proportion
of members
and elec-
tors of both
Houses to
population.

By the "Reform Act," lately assented to by His Majesty, a reduction is provided for, as previously stated, in the number of members of the Upper House from 48 to 35, and of the Lower House from 95 to 68. The number of electors in 1902-3 for the former was 136,142, which will probably be increased to 163,142 by the operation of the new Act; whilst the electors for the latter House numbered 256,635. And as the estimated population of the State at the end of 1902 (exclusive of the shipping) was 1,203,450—of whom about 310,800 were adult male British subjects—it follows that each member of the Upper House will in future represent 34,384 persons, or 8,880 adult male British subjects, instead of 25,070 persons, or 6,475 adult males under the existing Constitution; and each member of the Lower House, 17,698 persons or 4,571 adult males, as against 12,668 persons or 3,272 as formerly.

Constitu-
tions in
Australian
States
and New
Zealand.

In the last edition of this work a short account was given of the Constitutions of the different States and New Zealand, and still later particulars will be found in the "Australian Statistics," 1901-2, pages 46 and 47.

Parliament
ary repre-
sentation
in Austra-
lasia and
Canada
compared.

A comparison of the relative parliamentary representation in Victoria and other countries is not of great value, unless account be taken of the different surrounding circumstances. Thus, a comparison with the United Kingdom, Germany, and France, is irrelevant on account of the vast differences in density of population and the want of similarity in the functions assumed by the central governments. It is only natural to expect that in States where the population is scattered, the number of persons per member would be less than in densely populated States, such as New York (America).

In comparing the Australian States with the Provinces of Canada—where the area, population, and dominant race are similar to those in the former—allowance must still be made for the difference of the division of functions between the

Federal Parliament on the one hand and the local Parliaments on the other. In Canada the following matters are controlled by the Dominion Parliament, which are in Victoria still dealt with by the local Parliament:—Police and gaols, railways, lands (partly), fisheries, agriculture (partly), mining, statistics, banking, savings banks, bills of exchange, &c., bankruptcy and insolvency, naturalization, and criminal law. Notwithstanding this unequal division of labour, it is found that the number of members in the State Lower Houses in Australia is nearly the same as in the Canadian Provinces—395 in the former and 391 in the latter—whilst the number of members in the Australian House of Representatives is only 75 as against 213 in the Canadian House of Commons. The following table shows the number of members of the popular houses, both local and federal, and the population to each member in Australia, New Zealand, and Canada:—

State, Province, or Federation.	Population to the Square Mile.	Number of Members.		Population to each Member.	
		State Assembly.	Federal Assembly.	State Assembly.	Federal Assembly.
States of Australia—					
Victoria ...	13·6	68*	23	17,728	52,413
New South Wales ...	4·3	125	26	11,244	54,056
Queensland ...	·7	72	9	7,151	57,206
South Australia ...	·4	42	7	8,709	52,256
Western Australia ...	·2	50	5	4,303	43,028
Tasmania ...	6·6	38	5	4,660	34,515
Total Australia ...	1·3	395	75	9,833	51,784
Colony of New Zealand ...	7·4	80	...	10,099	...
Provinces of Canada—					
Ontario ...	9·5	94	92	23,223	23,728
Quebec ...	4·8	74	65	22,282	25,368
Nova Scotia ...	22·3	38	20	12,094	22,978
New Brunswick ...	11·8	46	14	7,198	23,651
Manitoba ...	3·9	40	7	6,374	36,421
British Columbia ...	·4	38	6	4,701	29,776
Prince Edward Island ...	51·6	30	5	3,442	20,652
N. W. Territories ...	·1	31	4	5,950	46,107
Total Canada ...	1·3	391	213	13,747	25,216

A comparison of the State Assembly of Victoria with that of each of the United States of America is fair, as the functions exercised are approximately the same, with the important exceptions that there are no State-owned railways in the latter, and that several powers which may at any time be

State
Assemblies
in Victoria
and United
States.

* As provided for in the new Constitution Act.

assumed by the Federal Government are still exercised by the Australian State:—

State.	Population per Square Mile.	Number of Members.	Population to each Member.
Victoria	13·6	68	17,728
States of America—			
New York	147·8	150	48,453
Ohio	101·3	109	38,143
Illinois	85·0	153	31,513
New Jersey	241·0	60	31,394
Pennsylvania	139·4	204	30,942
Indiana	69·2	100	25,165
Michigan	41·1	100	24,210
Texas	11·5	128	23,818
Iowa	39·8	100	22,318
Missouri.....	44·7	140	22,190
Kentucky	53·1	100	21,472
Wisconsin	36·9	100	20,690
Tennessee	48·1	99	20,410
California	9·4	80	18,563
Virginia	43·7	100	18,542
Alabama	35·0	100	18,287
North Carolina	36·2	120	15,782
Minnesota	21·0	119	14,718
Arkansas	24·4	100	13,116
Georgia	37·3	175	12,665
Maryland	97·5	98	12,143
Louisiana	28·4	116	11,945
Kansas	17·9	125	11,764
Massachusetts	337·4	240	11,689
South Carolina	43·8	124	10,809
Connecticut	18·2	255	3,562
22 other States	7·1	1,809	5,519
Total American States ...	25·5	5,104	14,900

Municipal or local government is almost universal throughout Victoria, all but about $\frac{3}{4}$ per cent. of its whole area being divided into urban or rural municipal districts: The former are called cities, towns, and boroughs, and the latter shires. They are regulated under the several Local Government Acts, each municipality being a body corporate, with perpetual succession and a common seal, and capable of suing and being sued, and of purchasing, holding, and alienating land. The councils of municipalities have power to levy rates, which, together with subsidies received from the State, form their chief sources of income. Their functions are to make, maintain, and control all streets, roads, bridges, ferries, culverts, water-courses, and jetties within their respective boundaries; also, under proper by-laws, to regulate

Local
government—
Municipali-
ties, &c.

the markets, pounds, abattoirs, baths, places of recreation, charitable institutions, and the arrangements for sewerage, lighting, water supply, prevention of fire, and carrying on of noxious trades, and to act as local Boards of Health.

Other functions of a special character have been delegated to boards or trusts, of which the following are the more important:—Melbourne Harbor Trust, constituted to provide for the maintenance and improvement of the Port of Melbourne; Melbourne and Metropolitan Board of Works, for the water supply and sewerage of the metropolis; Melbourne Tramways Trust, for the construction, on behalf of the municipalities, of cable and other tramways in Melbourne and suburbs, which have been leased to a company for a term of years; two fire brigade boards; and Irrigation and Water Supply Trusts, for the conservation, distribution, and supply of water in country districts. A full account of the municipal system of government existing in Victoria, also of the Metropolitan Board of Works and the Fire Brigades Boards, was given in the issue of this work for 1892, Vol. I., paragraphs 36 to 50.

The Act constituting the Federal Council of Australasia, which had been in force since the 14th August, 1885, was repealed and superseded by the "Commonwealth Constitution Act" on the 9th July, 1900, although the Acts passed by it continue to have the force of law in the States legislated for, until repealed by the Federal Parliament. A list of the Acts passed by the Council appeared in the issue of this work for 1895-8, pars. 39 and 40.

Repeal of
Federal
Council
Act.

The eighth and final session of the Federal Council was held in Melbourne on the 24th January, 1899, and lasted only four days. It was attended by representatives from all the States now embraced in the Commonwealth, except New South Wales and South Australia. A Bill to provide means for the protection of Australia against exotic diseases by the establishment of an effective system of Federal Quarantine was introduced, but the Council adjourned while it was under consideration. A resolution was also passed expressing the Council's regret that the subject of trade restrictions in the New Hebrides had not yet been finally dealt with by the Imperial Government.

Proceedings
of eighth
session.

A series of conferences of Australasian Premiers, inaugurated in 1895 primarily for considering the question of federation, have continued to be held annually. The first of these was important as being that at which germinated the official movement, which eventually culminated in the present Federation of the six Australian States. At subsequent conferences various matters of general interest, besides federation, were

Conference
of Premiers
prior to
Federation.

discussed, and opinions expressed by means of resolutions, whilst in several cases agreements were made to take concerted action in regard to important affairs. Particulars of the conferences held prior to 1899 will be found in the previous issue of this work, paragraphs 41 and 42. The principal business transacted by more recent conferences held in Melbourne on the 3rd February, 1899, in Sydney on the 24th January, 1900, and in Melbourne on the 19th April, 1900, was as follows:—

CONFERENCE OF 1899.

The Conference of 1899 dealt solely with the amendments required by New South Wales, by resolutions of both Houses of that State, in the Commonwealth Bill 1898, as approved by the Convention.

FIRST CONFERENCE OF 1900.

Resolutions.

MEETING OF STATISTICIANS AND CENSUS.—That a census be taken in each Colony during 1901, and that a Conference of Statists be held to make arrangements therefor, and to prepare and publish a return showing how many members each original State shall be entitled to in the House of Representatives, the basis of such return being agreed upon and laid down by the Premiers.

BUBONIC PLAGUE.—That precautions should be taken to prevent any outbreak of the disease spreading, and that measures should be adopted to stamp out the disease and immediately advise the other Colonies.

APPOINTMENT OF FEDERAL DELEGATES to visit England.—That in compliance with the request contained in the despatch received from the Secretary of State for the Colonies, each Colony should appoint a delegate, and that such delegates should represent all the federating Colonies in unitedly urging the passage of the Bill through the Imperial Parliament without amendment, and in explaining any legal or constitutional questions that may arise.

THE NEW HEBRIDES.—That a telegram in the following terms be forwarded to the Secretary of State for the Colonies:—“Reported in press cables that French newspapers insist on the necessity of settling the fate of the New Hebrides. Australian opposition to French annexation has in no way diminished, and, without wishing to embarrass the Imperial Government at the present juncture, express an earnest hope that no steps will be taken to give France greater control unless Australasian Governments first consulted.”

SECOND CONFERENCE OF 1900.

This Conference was held to consider the position in regard to the amendments proposed to be made by the Imperial Parliament in the Commonwealth of Australia Constitution Bill.

Soon after the establishment of Federation, conflicting interests and differences of opinion between the States' Governments on the one hand and the Federal Government on the other became manifest; and in order to get the benefit of an interchange of ideas, and, if possible, to arrive at some agreement in regard to matters in dispute, a joint conference between the States' and Federal Ministers sat in Melbourne

Joint
conference
of State
and
Federal
Ministers,
1901.

from the 1st to the 4th November, 1901. The most prominent subject discussed was the "Property Acquisition Bill," by which the Federal Government proposed to compensate the States for the value of property handed over by crediting each State for the value of its property transferred, debiting it on a population basis (as "new" expenditure) for its share of the whole of the property taken over from all the States, and then paying or receiving (as the case might be) the difference in cash. Thus the whole matter would be settled once for all by a mere adjustment between the States, without the creation of any liabilities on the part of the Commonwealth, and without affecting its sources of revenue, although it would acquire by one stroke properties estimated as worth over ten millions sterling. The States' Ministers, however, contended that, even if the payment of such compensation be regarded as "new" expenditure, the Commonwealth should in any case take over corresponding portions of the States' debts, and pay the interest thereon out of its fourth share of the net Customs and Excise revenue; but if it is, as they believe it ought to be, regarded as "transferred" expenditure, the interest would be deductible in the same manner as working expenses, which was considered only fair, seeing that at least during the book-keeping period each State reaps the benefit of its own capital expenditure; and hence it was urged that (a) each State should be charged with the interest on value of properties taken over with the transferred services, and (b) have returned to it either the capital value of transferred properties, or preferably the interest represented by such capital value. In regard to this view, however, it must be borne in mind that the properties were transferred permanently, but that the duration of the book-keeping clauses is limited. The real trouble appears to be that the whole of the Commonwealth and portion of the States' expenditure are defrayed out of the same purse, and there is no line of demarcation between them so long as the former does not exceed the limit of one-fourth of the net revenue from Customs and Excise. The following is a list of other subjects discussed at this conference:—State and Federal Offices in same building; payment for services rendered by State to Commonwealth; and officers occupying dual positions in State and Commonwealth; establishment of ironworks; administration of New Guinea; transport of members of defence force; quarantine and light-houses; and the "Pacific Island Labourers Bill."

Owing to the advisability of the States' Governments first agreeing among themselves before urging their views on the Federal Government, as well as to the desirability of co-operation in regard to Interstate matters not yet brought within the sphere of Federal politics, conferences of State Premiers continued to be held after Federation. One was

Conferences
of Premiers
after
Federation.

held in Sydney, on the 15th and 16th May, 1902, at which numerous questions were discussed and the following resolutions were adopted:—

Urging upon the Federal Ministry that transferred State properties should be valued by the Federal Government, valuations having been, or being, made by each State; and that the mode of payment should be by the taking over of an equivalent amount of the State debts.

Protesting against the large sum upon the estimates for the staff of a Public Works Department, and that Federal works for the present can be carried out by the Public Works Departments of the several States.

As to the performance of Federal duties by State officers, and *vice versa*.

That the establishment of a High Court is a matter of urgent necessity.

That it is undesirable to impose Customs duties on Government imports; and that any encouragement which it is considered desirable to give to the production of articles required for Government purposes, should be given in the shape of bonuses on production, rather than by Customs duties on imports.

That transport for Defence purposes be paid for by the Federal Government; and that a scheme of uniform charges be prepared.

That the maritime and industrial interests of Australia will suffer by the discontinuance of meteorological warnings from Queensland, and urging that, pending Federal legislation, telegrams on these matters be free.

Protesting against any Table of Precedence which affects State Governments and officials, and State functions, receiving approval without first being submitted to the State Governments.

To arrange for a conference of experts to consider and advise on the question of securing uniform legislation as to inspection, carriage and storage of explosives.

Conference
of Premiers,
1903.

Another conference was held in Sydney from the 15th to the 22nd April, 1903, at which a very large number of questions was discussed. The most important result achieved by this conference was the temporary settlement, pending the appointment of the Interstate Commission, of the rival claims on the waters of the River Murray, by South Australia for navigation, and by Victoria and New South Wales for irrigation. The agreement entered into between the Premiers of the three States interested was for a period of 5 years from the 1st May, 1903, and was subject to the ratification of their respective Parliaments. The basis of the agreement is the maintenance, in normal years of low river discharge, of a level on the gauge at Morgan (S.A.), during the 7 months, July to January, of at least 4 feet, and during the 5 months, February to June, of a minimum volume flowing in the river channel at the eastern boundary of South Australia of 150,000 cubic feet per minute. Until the actual level has been ascertained, New South Wales and Victoria must during the former period limit their respective diversions to 290,000 and 147,000 cubic feet per minute respectively, but if the level be above or below that stipulated, a pro rata increase may, or decrease must be made; and during the latter period of 5 months—until the volume flowing has been ascertained—must limit their diversions to 190,000 and 100,000 cubic feet per minute respectively; but if there is any surplus it shall be divided pro rata between the three States of New South Wales, Vic-

toria, and South Australia, in the proportions of 10, 5, and 3, whereas any deficiency must be made good by reduced diversions in the two former States. It is stated that the total flow of the Murray in a normal low year is 774,000 cubic feet per minute during the 7 months, and 440,000 during the 5 months above referred to. Certain tributaries of the Murray, which make no effective contributions to it except in time of floods, are exempt from the terms of the agreement, viz.:—The Campaspe, Broken, Avoca, and Wimmera rivers in Victoria; and the Wakool, Lachlan, Bogan, Macquarie, Castle-reagh, Naomi, and Gwydir rivers in New South Wales.

In view of the danger of the Federal Government possessing a large surplus which might tend to extravagance, as well as of the financial stability of the States, the following resolution—important as expressing the State Premiers' views on the question—was agreed to after a good deal of consideration:—"Having regard to the fact that the debts of the various States were incurred upon the security of the revenues of the States, and as the greater part of the revenues has been transferred to the Commonwealth in the Customs and Excise duties, and having regard to the fact that the permanent financial stability of the States must depend upon either (a) the continuance of the application of the principal part of those revenues to payment of the interest of the debts, or (b) the imposition of very largely increased direct taxation, it is resolved that, in order to secure to the several States' Governments the guarantee contemplated by the Constitution, the provisions of the Constitution with respect to the taking over of the debts of the States, or a proportion thereof, should be brought into operation as soon as possible." Resolutions were also carried expressing the desirability of Federal Legislation to remove the anomaly with respect to aliens, who, although naturalized in one State, still continue to be regarded as aliens in another State; in favor of the adoption by means of Federal legislation of the metric system of weights and measures; that "it is to the best interest of the public that disqualifications upon members of either the Federal or State Parliaments, as such, from becoming candidates for the State or Federal Parliaments respectively should be removed," and it was accordingly agreed to take steps to remove such disqualifications so far as regards candidates for the State Parliaments; that mutual action was desirable in regard to the Interstate use of loan account credits in London; and that the appointment of a High Commissioner for Australia would not obviate the necessity of independent State representation in London. The questions of differential railway rates, and the existing heavy charges for underwriting Australian loans in London, were also discussed, as well as several other matters of minor importance.

Federation.
Conference
of Premiers
to consider
New South
Wales
amend-
ments.

A short account was given, in the last issue of this work, of the Federal movement up to the time of the non-acceptance, by the requisite majority, of the Draft Commonwealth Bill by the electors of New South Wales, and of the subsequent adoption of certain resolutions by the Legislative Assembly of that Colony—embodying the amendments in the Bill desired by it. These resolutions were duly considered at a conference of Premiers of the six Australian Colonies held in Melbourne in February, 1899, when, after private discussion, a compromise was arrived at. It was agreed that at the joint sitting of the two Houses for the purpose of settling disagreements between the Houses, the decision of an absolute majority of the total number of the members of both Houses should be final; that the operation of Clause 87, providing that at least three-fourths of Customs revenues be returned to the States, be limited to a period of ten years, during which period the Parliament may grant financial assistance to any State; that the seat of Government be in New South Wales, distant not less than 100 miles from Sydney, and of an area of not less than 100 square miles, all Crown lands therein to be granted without payment, but that the Parliament shall sit at Melbourne until it meets at the seat of Government; that the alteration of the boundaries of a State be subject not only to the consent of the Parliament of the State (as already provided) but also to the approval of the State electors, and that any alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives be subject to the like approval of a majority of electors of the State. With regard to the resolutions affecting (e) inland rivers, (f) money bills, (g) judicial appeal from States, and (j) number of senators, it was decided that no alteration could be made; and with regard to resolution (i) it was agreed that Clause 127, as to mode of altering the Constitution, be amended to provide that if either House twice, with an interval of 3 months, passes any law altering the Constitution (by an absolute majority the first time), and the other House fails to pass it, the proposed law may be submitted to the Federal electors in each State; and that no alteration affecting the limits of any State shall become law unless approved of by the electors in that State. Permission was also given to Queensland, in case that colony entered the Federation at its establishment, to divide the State into electorates for the Senate, reserving power to the Parliament to make the system of election uniform throughout the Commonwealth. It was also agreed that the Bill as proposed to be altered, be referred to the electors of New South Wales

in the first instance, and afterwards to those of the other colonies, and that the decision of a simple majority should be sufficient for the acceptance or rejection of the Bill.

The Bill, with the amendments agreed upon by the Premiers, was then submitted—after the passing of Enabling Acts—to the electors of the several colonies except Western Australia, which for the time held aloof. The Referendum was held in South Australia on the 29th April, 1899, in New South Wales on the 20th June, in Victoria and Tasmania on the 27th July, and in Queensland on the 2nd September of the same year, and the Bill was accepted by overwhelming majorities in Victoria, Tasmania, and South Australia, and by a majority of nearly one-third in New South Wales, and of about one-fourth in Queensland. The features of this Referendum, as compared with the previous one, were the intense interest taken in the question as indicated by the heavy polling in nearly all the colonies, running as high as 70 per cent. of the electors on the rolls in Queensland, whereas the highest proportion on the previous occasion was only 50 per cent.; and the largely increased majorities in favour of the Bill, notwithstanding a stationary opposition in South Australia, and a much more pronounced opposition in New South Wales. The voting was as follows:—

Second Referendum.

Colony.	Electors who voted.			Total Voters.	
	For the Bill.	Against the Bill.	Informally.	Number.	Percentage of Electors on Rolls or qualified to vote.
Victoria	152,653	9,805	1,325	163,783	57·00
New South Wales	107,420	82,741	1,166	191,327	63·45
Queensland	38,488	30,996	348	69,832	69·59
South Australia ...	65,990	17,053	10,909	93,952	62·17
Tasmania	13,437	791	111	14,339	41·83

In compliance with the request contained in a despatch from the Secretary of State for the Colonies, considered at a Conference of Premiers held in Melbourne on 25th January, 1900, it was decided to send a delegate from each colony to England to be ready with explanations and assistance when the Commonwealth Bill was being dealt with by the Imperial Parliament, and that such delegates should unitedly urge the passing of the Bill without amendment. The delegates appointed were as follow:—

Despatch of Federal Delegates to visit England.

- | | |
|---|-----------------|
| Hon. Edmund Barton, Q.C., M.L.C. ... | New South Wales |
| Hon. Alfred Deakin, M.L.A. | Victoria |
| Hon. J. R. Dickson, M.L.A. | Queensland |
| Right Hon. C. C. Kingston, P.C., Q.C., M.H.A. | South Australia |
| Hon. Sir Philip Fysh, K.C.M.G., M.H.A. ... | Tasmania |

The Government of Western Australia despatched Mr. L. H. Parker, Q.C., as their delegate, with instructions to

try and procure an amendment of Clause 95, to provide that that colony should be enabled for five years after the imposition of the Federal Tariff to levy the same Intercolonial Customs Duties as it received at the time of the passing of the Act, instead of such duties diminishing by one-fifth each year as provided. The Hon. W. P. Reeves, Agent-General for New Zealand, was chosen as delegate for that colony, with a view of urging the following amendments:—(1) That New Zealand should be permitted to join, at any time or within a specified term, as an original State; (2) That New Zealand litigants, in the meantime, should have the right of appeal to the High Court as well as to the Privy Council; (3) For a joint system of naval and military defence between that colony and the Commonwealth.

Amend-
ments
by the
Imperial
Parliament

After several conferences between the delegates, the Colonial Office, and Imperial Crown Law Officers, a conference of Australian Premiers in Melbourne on 19th April, 1899, and the interchange of cabled messages and instructions to the delegates from the Premiers of the Federating States, a compromise was at length arrived at in regard to certain amendments desired by the Imperial authorities. The amendments ultimately incorporated in the Imperial Act were as follow:—The words in Clause 2, "This Act shall bind the Crown," were omitted. In Clause 3 provision was made for the admission of Western Australia (without, however, the stipulation referred to in the preceding paragraph), "if Her Majesty is satisfied that the people of Western Australia have agreed thereto." Clause 74 was amended providing that no appeal should be permitted to the Privy Council from a decision of the High Court upon any question as to the limits inter se of the constitutional powers of the Commonwealth and those of any State or States, or as to those of any two or more States, unless the High Court should certify that the question is one that ought to be determined by the Privy Council. As to other decisions, the Royal Prerogative to grant special leave of appeal from the High Court to the Privy Council is reserved, but the Parliament may make laws limiting the matters in which such leave may be asked, but such laws shall be reserved by the Governor-General for Her Majesty's pleasure. With these amendments the Bill was passed through the Imperial Parliament, and received the Royal Assent on the 9th July, 1900.

Acceptance
of the Act
by Western
Australia.

On the 31st July, 1900, the Act, as passed by the Imperial Parliament, was referred by referendum to the electors of Western Australia, who accepted it by a substantial majority; the voting being 44,800 for, and 19,691 against the Act—the total number of votes polled being 65,030 (including 539 informal votes), or 67·7 per cent. of the electors.

The following are the leading features of the "Commonwealth of Australia Constitution Act," passed by the Imperial Parliament:—

Leading features of the Commonwealth Constitution.

Constitution indissoluble, and to come in force by Imperial Proclamation.

The Parliament is to consist of the Queen, a Senate, and a House of Representatives. Governor-General appointed to act for the Queen.

Parliament.

Senate to consist of six members from each State; number may be increased or diminished, but so that equal representation of the States be maintained. Qualification of electors of Senate and of Senators to be same as that of House of Representatives. Each elector shall vote only once.

Senate.

House of Representatives shall have twice the number of members of the Senate; and the number of members for each State shall be in proportion to population, but not less than five for any State. Qualification of electors to be that of the more numerous House in each State. Each elector to vote only once. Qualifications of a member—(a) 21 years of age, (b) to be an elector or entitled so to be, (c) resident three years, (d) natural born or naturalized five years.

House of Representatives.

The general powers of the Parliament are 39 in number, the principal of which are to make laws for trade, taxation, bounties, borrowing, postal services, naval and military, statistics, currency, banking, insolvency, corporations, divorce, marriage, old age pensions, immigration and emigration, railways, &c. Exclusive powers in regard to the seat of Government, State departments transferred, other matters declared by the Constitution to be within the exclusive power of the Parliament.

Powers of Parliament

Money Bills not to originate in, nor to be amended by the Senate, which House may, however, return the Bill requesting any omission or amendment. Equal power in all other matters. Tacking Bills prohibited.

Money Bills.

Provision for dead-locks.—Joint dissolution, and if again passed in lower House and rejected in Senate a joint sitting to be held, and if passed by an absolute majority of the total members of both Houses, disputed Bill to become law.

Dead-locks.

A Bill having passed both Houses the Governor-General shall either assent, withhold assent, reserve the Bill or return it, and recommend amendments.

Executive power vested in Queen and exercisable by Governor-General in Council who may appoint Ministers of State.

Executive.

State departments of Customs and Excise transferred to Commonwealth on its establishment. Departments of posts, naval and military, defence, light-houses, &c., and quarantine, on a date or dates to be proclaimed.

Departments transferred

High Court of Australia established; appellate and original jurisdiction.

Judicature.

Collection of Customs to pass. Custom and Excise duties to be uniform, and intercolonial free-trade established within two years after the establishment of the Commonwealth, after which period the Federal Government shall have exclusive power to levy such duties as well as bounties in the production or export of goods.

Finance and Trade.

Of the net revenue from Customs and Excise not more than one-fourth to be applied by Commonwealth towards its expenditure. This provision is liable to variation or repeal after 10 years from the establishment of the Commonwealth.

Right of States to reasonable use of river waters for conservation or irrigation reserved.

Water rights.

Interstate Commission appointed to regulate trade and commerce, and prevent discriminations being made by any State which may be deemed unreasonable or unjust to any other State.

Interstate Commission.

Constitutions, powers, and laws of States protected. State Debts may be taken over.

State Debts.

Admission of new States provided for. Commonwealth to protect States against invasion or domestic violence.

Protection to States.

Seat of Government to be fixed by the Parliament at some place in New South Wales, but at least 100 miles from Sydney, and to be federal territory.

Federal Capital.

Constitution may be altered by an absolute majority of both Houses, or of one House if passed twice successively with three months interval; subject to the approval of a majority of the electors voting in a majority of the States, and in the whole Commonwealth.

Alteration of Constitution.

Governor-General and Proclamation of Commonwealth.

The Right Hon. the Earl of Hopetoun, P.C., K.T., G.C.M.G., G.C.V.S., was on the 29th October, 1900, appointed Governor-General and Commander-in-Chief of the Commonwealth, and arrived at Sydney on the 16th December. The Proclamation of the Commonwealth and the swearing-in of the Governor-General took place at Sydney on the 1st day of January, 1901, in the presence of representatives of most of the principal countries of the world, and of a vast assemblage from all parts of the Commonwealth and elsewhere. The Governor-General continued in office until the 9th May, 1902, when he was, at his own request, recalled.

First Commonwealth Ministry.

At the Proclamation ceremony the members of the first Commonwealth Ministry were sworn in. The following are their names and the respective offices filled by them:—

Prime Minister and Minister for External Affairs: The Right Hon. Edmund Barton, P.C.

Attorney-General: The Hon. Alfred Deakin.

Treasurer: The Right Hon. Sir George Turner, P.C., K.C.M.G.

Minister for Home Affairs: The Hon. Sir William John Lyne, K.C.M.G.

Minister for Trade and Customs: The Right Hon. Charles Cameron Kingston, P.C., Q.C.

Minister for Defence: The Hon. Sir James Robert Dickson, K.C.M.G. Died January, 1901, succeeded by Sir John Forrest.

Postmaster-General: The Right Hon. Sir John Forrest, P.C., G.C.M.G. Succeeded in January, 1901, by Hon. J. G. Drake (re-arrangement of portfolios).

Honorary Ministers: Richard Edward O'Connor, Esq., Q.C.; The Honorable Neil Elliott Lewis, succeeded by the Hon. Sir Philip Fysh, K.C.M.G.

First Commonwealth Elections.

The first elections to the Commonwealth Parliament were held in March, 1901. For the House of Representatives 4 of the 23 Victorian electorates were uncontested. The proportion of the electors entitled to vote who availed themselves of the franchise was 56 per cent., against 63·5 at the State general elections held in November, 1900. The following table gives particulars of the elections in each State:—

State.	Number of Members.		Number of Electors.		Electors who Voted.		Percentage of Electors who Voted.	
	Senate.	House of Representatives.	Total.	In contested Districts for House of Representatives.	Senate*	House of Representatives. †	Senate.	House of Representatives.
Victoria	6	23	280,661	233,051	149,012	130,610	53.09	56.04
New South Wales ..	6	26	331,765	317,902	218,456	211,035	65.81	66.38
Queensland	6	9	103,806	103,806	51,336	62,656	49.45	60.35
South Australia ..	6	7	154,281	154,281	62,952	62,892	40.80	40.76
Western Australia ..	6	5	87,920	70,230	28,733	25,945	32.68	36.95
Tasmania	6	5	39,528	39,528	18,822	18,572	47.62	46.99
Commonwealth	36	75	997,961	918,798	529,311	511,710	53.04	55.69

* Including informal voters as follow:—8,769 in Victoria, 38,674 in New South Wales, 3,371 in Queensland, 1,478 in South Australia, 5,793 in Western Australia, and 419 in Tasmania.

† Including informal voters as follow:—1,051 in Victoria, 4,070 in New South Wales, 1,575 in Queensland, 985 in South Australia, 525 in Western Australia, and 533 in Tasmania.

The first Parliament of the Commonwealth was opened in Melbourne on the 9th May, 1901, by His Royal Highness the Duke of Cornwall and York, K.G., K.T., K.P., G.C.V.S., who was authorized as His Majesty's High Commissioner by letters patent. Besides the Duke and Duchess and suite, the Governor-General, and Members of Parliament, there were present at this memorable function an assemblage of 12,000 people—embracing official representatives from other British Colonies, the Foreign Consuls, Admirals and Captains of visiting war ships (British and Foreign), Commonwealth and State Government officials, representatives of Provincial Bodies, Societies, and Institutions, as well as leading Australian citizens and visitors. The celebrations, which took place to commemorate this important historical event, and the visit of their Royal Highnesses (which lasted from the 6th to the 16th May), embraced several processions, extensive city decorations and illuminations, a levée, a royal review, numerous receptions and dinners, fireworks, naval, military, and other sports, &c.

Opening of the first Commonwealth Parliament.

Since the inauguration of Responsible Government, thirty-one Ministries have held office in Victoria. The following are the names of the Premiers of the last five of these Ministries, the dates of their assumption of and retirement from office, and the number of days they continued to hold office:—

Ministries.

MINISTRIES, 1894 TO 1902.

Name of Premier.	Date of Assumption of Office.	Date of Retirement from Office.	Duration of Office.
27. George Turner ...	27th September, 1894	5th December, 1899	Days. 1895
28. Allan McLean ...	5th December, 1899	19th November, 1900	349
29. Sir George Turner, P.C., K.C.M.G.	19th November, 1900	12th February, 1901	85
30. Alex. James Peacock	12th February, 1901	10th June, 1902 ...	483
31. William Hill Irvine ...	10th June, 1902 ...	Still in office ...	

The present is the eighteenth Parliament since the inauguration of Responsible Government in Victoria. The following were the number of sessions held in each of the last two Parliaments, the dates of opening and of closing or dissolution; also the duration of each session. For particu-

State Parliaments.

lars respecting previous Parliaments, see "Victorian Year-Book," 1895-8, page 55:—

STATE PARLIAMENTS.

Number of Parliament.	Number of Session.	Date of Opening.	Date of Prorogation or of Dissolution.	Duration of Session.
17	1	25th October, 1897...	21st December, 1897	Days. 58
	2	28th June, 1898 ...	20th December, 1898	176
	3	27th June, 1899 ...	20th February, 1900	238
	4	27th June, 1900 ...	18th October, 1900 ...	113
18	1	13th November, 1900	16th January, 1901 ...	64
	2	18th June, 1901 ...	23rd December, 1901	188
	3	27th May, 1902 ...	15th September, 1902	111

The names of the present Governors of the Commonwealth and of the States and New Zealand and the dependencies, and the dates of their assumption of office, are as follow:—

	Name.	Date of Assumption of Office.
Commonwealth ...	The Right Honorable Hallam Baron Tennyson, K.C.M.G. (Governor-General)	17 July, 1902 (Acting) 16 Jan., 1903 (Appointed)
Victoria ...	Colonel Sir George Sydenham Clarke, K.C.M.G., R.E., F.R.S. Sir John Madden, K.C.M.G., LL.D. (Lieutenant-Governor)	10 Dec., 1901 29 April, 1899
New South Wales	Vice-Admiral Sir Harry Holdsworth Rawson, K.C.B. Sir Fred. M. Darley, G.C.M.G. (Lieutenant-Governor)	May, 1902 29 Oct., 1900
Queensland ...	Major-General Sir Herbert Charles Chermiside, R.E., G.C.M.G., C.B. Right Honorable Sir Samuel W. Griffith, P.C., G.C.M.G. (Lieutenant-Governor)	March, 1902 29 Oct., 1900
South Australia ...	Sir George Ruthven Le Hunte, K.C.M.G. Sir Samuel J. Way, P.C. (Lieutenant-Governor)	1 July, 1903 29 Oct., 1900
Western Australia	Admiral Sir Frederick George Denham Bedford, K.C.B.	24 March, 1903
Tasmania...	Captain Sir Arthur Elibank Havelock, G.C.M.G., G.C.I.E.	8 Nov., 1901
New Zealand ...	The Right Honorable the Earl of Ranfurly, K.C.M.G.	10 Aug., 1897
Fiji ...	Sir Henry Moore Jackson, K.C.M.G.	1902
New Guinea (British) ...	Honorable Christopher Robertson (Acting Administrator)	

POPULATION.

At the date of the Census, 31st March, 1901, the population of Victoria was 1,201,341, and on 31st December, 1902—a year and nine months afterwards—it was estimated to have increased to 1,205,513, or an addition of 4,172 persons, resulting from an increase of 5,672 in the number of females, less a decrease of 1,500 in the number of males. The births during the same period were 53,727, the deaths 27,952, and the natural increase 25,775. The arrivals by sea were 152,155, and the departures 173,758, including an allowance of 11,746 for unrecorded departures. The difference represents a loss to the State of 21,603 persons, which, deducted from the natural increase of 25,775, gives a net gain of 4,172 from 1st April, 1901 to 31st December, 1902. These particulars are detailed in the following statement:—

	Males.	Females.	Total.	Males.	Females.	Total.
<i>Population at the date of the Census, 31st March, 1901</i> .. .. .	..	..	..	603,883	597,458	1,201,341
Births, 1st April, 1901, to 31st December, 1901	11,902	11,364	23,266			
Deaths, 1st April, 1901, to 31st December, 1901	6,708	5,067	11,775			
Natural increase .. .. .	..	..	..	5,194	6,297	11,491
Arrivals by Sea, 1st April, 1901, to 31st December, 1901	42,909	21,689	64,598	609,077	603,755	1,212,832
Departures by Sea, 1st April, 1901, to 31st December, 1901	41,202	22,877	64,079			
Allowance for unrecorded Departures, 1st April, 1901, to 31st December, 1901	3,502	1,144	4,646			
Total Departures by Sea, recorded and unrecorded, 1st April, 1901, to 31st December, 1901	44,704	24,021	68,725			
Departures in excess, 1st April, 1901, to 31st December, 1901 .. .. .	..	..	..	1,795	2,332	4,127
<i>Estimated Population on 31st December, 1901</i>				607,282	601,423	1,208,705
Births, 1902	15,583	14,878	30,461			
Deaths, 1902	9,152	7,025	16,177			
Natural increase .. .. .	..	..	..	6,431	7,853	14,284
Arrivals by Sea, 1902.. .. .	56,984	30,573	87,557	613,713	609,276	1,222,989
Departures by Sea, 1902	62,963	34,970	97,933			
Allowance for unrecorded Departures, 1902	5,351	1,749	7,100			
Total Departures by Sea, recorded and unrecorded, 1902	68,314	36,719	105,033			
Departures in excess, 1902 .. .. .	..	..	..	11,330	6,146	17,476
<i>Estimated Population on 31st December, 1902</i>				602,383	603,130	1,205,513
Increase from Census, 31st March, 1901, to 31st December, 1902				-1,500	5,672	4,172

Railway
passenger
traffic.

In the preceding estimates of population the Interstate railway traffic has not been taken into account. This traffic has now assumed considerable dimensions, and is undoubtedly in favour of this State. The objections to the adoption of the returns furnished are that they do not distinguish sexes, and that the railway tickets, which form the basis of the enumeration, do not represent persons, since none are required by children under 3 years, and two children aged between 3 and 13 years may travel on one full ticket. It has, however, been estimated from some returns that did distinguish sexes, that the proportions are 60 per cent. males, and 40 per cent. females. Adopting this approximation, and taking into account the railway returns, the population of the State on 31st December, 1902, was 1,210,433 persons, of whom 605,406 were males and 605,027 females. Again, in the previous estimates of population the "gross" arrivals and departures seawards have been used, as distinguished from the "net." The former include, whilst the latter exclude, all passengers en route to places beyond the State. In the estimation of future populations it has been decided to take the railway passenger traffic into account, and also the "net" arrivals and departures seawards. The amended allowances for unrecorded departures by sea have been computed, and will of course be applied.

Increase of
population
at five
decades.

The enumerated population at the five census years, and the increases, numerical and centesimal, are as under:—

Year of Census.	Both Sexes.			Males.			Females.		
	Popu- lation.	Increase since last Census.		Popu- lation.	Increase since last Census.		Popu- lation.	Increase since last Census.	
		Numeri- cal.	Centesi- mal.		Numeri- cal.	Centesi- mal.		Numeri- cal.	Centesi- mal.
1861 ...	540,322	129,556	31·54	328,651	64,317	24·33	211,671	65,239	44·55
1871 ...	731,528	191,206	35·39	401,050	72,399	22·03	330,478	118,807	56·13
1881 ...	862,346	130,818	17·88	452,083	51,033	12·72	410,263	79,785	24·14
1891 ...	1,140,405	278,059	32·24	598,414	146,331	32·37	541,991	131,728	32·11
1901 ...	1,201,341	60,936	5·34	603,883	5,469	.91	597,458	55,467	10·23

Population,
1861-1901.

The increase between 1891 and 1901 was the smallest since 1861, being only 60,936 persons, as against 278,059 between 1881 and 1891, and 130,818 and 191,206 respectively in the two decennial periods prior to 1881.

The increase in the number of males between 1891 and 1901 has been very small, only 5,469, or less than 1 per cent., as compared with 146,000, or 32 per cent., in the previous decade. Small increase of males, 1891-1901.

The proportion of sexes at the five census enumerations was:— Proportion of sexes.

Year.	Females to 100 Males.
1861	64.41
1871	82.40
1881	90.75
1891	90.57
1901	98.94

The number of females has thus gradually approximated to that of males, until in 1901 the sexes were almost equal in number. The emigration of males has been the principal factor in contributing to the large proportionate increase of females during the last intercensal period, when the excess of departures over arrivals was for men 73,674, and for women only 37,983. Uniformity of sexes.

In the following return, the persons and dwellings to the square mile, persons and rooms to a dwelling, and persons to a room, are shown for the five census years 1861-1901:— Density of population, houses, etc.

Year of Census.	Persons to the Square Mile (exclusive of Persons in Ships).	Inhabited Dwellings to the Square Mile.	Persons to the Inhabited Dwelling (exclusive of Persons in Ships.)	Rooms to a Dwelling (Inhabited and Uninhabited).	Persons to a Room.
1861 ...	6.126	1.470	4.16	2.96	1.35
1871 ...	8.298	1.714	4.84	3.89	1.18
1881 ...	9.791	1.935	5.06	4.44	1.08
1891 ...	12.948	2.549	5.08	5.10	.92
1901 ...	13.643	2.747	4.97	5.25	.90

The population returned at the recent census furnishes a proportion of 13.6 persons to the square mile. In 1891 the proportion was 12.9; in 1881, 9.8; in 1871, 8.3; and in 1861, 6.1. In 1901 the inhabited dwellings were in the proportion of 2.7 to the square mile, as compared with averages of 2.5, 1.9, 1.7, and 1.4 at the four preceding enumerations. There were 497 persons to every 100 inhabited dwellings in 1901, a smaller number than in 1891 and 1881, when the numbers were 508 and 506 respectively, but greater than in 1871 and 1861, when the numbers were 484 and 416. The accommodation of the houses shows an improvement from census to census, and this is demonstrated by the fact that the average number of rooms to a dwelling increased during each decade of the past forty years, from less than 3 rooms per dwelling in 1861, to more than 5 in 1901.

Ages in
Australasia

When the census of 1901 was taken, the ages of the people in Australia and New Zealand were:—

Age Group. (Years.)	STATE.						Australia.	New Zealand.
	Victoria	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.		
MALES.								
0—5	66,807	80,457	31,626	20,260	10,441	10,702	220,293	44,324
5—10	72,052	84,340	32,264	22,756	8,891	11,160	231,463	43,314
10—15	67,389	81,702	29,439	22,193	7,505	10,649	218,877	43,100
15—20	58,896	70,528	24,148	20,007	7,088	9,388	190,055	42,456
20—25	50,593	62,556	25,197	16,641	11,841	8,261	175,089	41,196
25—30	45,469	56,390	24,102	13,771	15,822	7,276	162,830	35,307
30—35	46,635	52,679	22,935	12,945	14,845	6,422	156,461	29,694
35—40	46,723	52,412	22,303	12,013	12,441	6,262	152,154	24,301
40—45	37,118	45,006	18,562	11,371	8,722	5,273	126,052	21,589
45—50	24,137	33,417	13,155	9,033	5,220	3,760	88,722	19,134
50—55	18,348	25,707	10,274	6,767	3,453	2,797	67,346	15,413
55—60	15,351	19,686	8,008	5,336	2,311	1,996	52,688	13,711
60—65	14,979	16,816	6,825	3,992	1,767	1,729	46,108	12,803
65—70	16,080	13,041	4,142	2,872	1,101	1,292	38,528	10,160
70—75	11,781	7,798	2,237	2,282	692	1,123	25,913	5,348
75—80	5,733	3,587	959	1,290	290	756	12,615	2,285
80—85	2,453	1,892	454	646	140	459	6,044	1,050
85—90	603	566	107	197	30	160	1,663	297
90—100	160	227	36	47	6	38	543	78
100 and over	12	13	36	3	...	1	...	...
Un-specified } Children	502	277	7	...	8	...	794	432
Un-specified } Adults	2,062	3,359	3,312	...	261	120	9,114	...
Total ...	603,883	712,456	280,092	184,422	112,875	89,624	1,983,352	405,992
FEMALES.								
0—5	65,179	78,689	31,000	19,817	10,234	10,163	215,082	42,482
5—10	70,493	82,078	31,273	22,612	8,856	10,864	226,176	42,422
10—15	66,640	80,189	28,863	21,599	7,320	10,487	215,098	42,125
15—20	59,717	70,826	23,131	20,162	5,849	9,063	188,748	42,358
20—25	57,632	64,934	21,590	17,540	7,279	8,149	177,124	41,960
25—30	52,832	56,121	18,559	14,253	8,677	6,561	157,003	33,233
30—35	48,156	46,770	16,213	12,368	7,298	5,576	136,381	27,272
35—40	43,390	41,660	13,863	11,213	5,322	5,217	120,665	21,217
40—45	33,551	33,513	10,861	9,596	3,391	4,467	95,379	17,347
45—50	21,810	24,050	7,448	7,277	2,151	3,094	65,830	13,997
50—55	17,601	19,380	6,100	5,573	1,678	2,379	52,711	11,991
55—60	15,157	15,399	4,941	4,545	1,177	1,885	43,104	9,963
60—65	14,292	12,234	3,975	4,026	908	1,725	37,160	8,017
65—70	13,843	9,259	2,414	3,051	570	1,321	30,458	6,028
70—75	8,360	5,212	1,386	2,280	279	910	18,427	3,236
75—80	4,231	2,850	705	1,262	133	514	9,695	1,679
80—85	2,065	1,583	343	698	56	302	5,047	852
85—90	587	511	94	240	21	109	1,562	259
90—100	152	164	33	69	4	37	476	81
100 and over	11	4	33	1	...	1	...	...
Un-specified } Children	376	44	14	...	15	...	449	208
Un-specified } Adults	1,383	1,207	368	...	31	27	3,016	...
Total ...	597,458	646,677	223,174	178,182	71,249	82,851	1,799,591	366,727

Effective strength of population in Australasia.

The subjoined tabulation shows, according to the census of 1901, the number of persons at the supporting and de-

pendent ages, in each of the Australian States and in New Zealand, in every 10,000 of the population:—

State or Colony.	Numbers in every 10,000 Persons living—		
	At Supporting Ages (15 to 65 Years).	At Dependent Ages.	
		Under 15 Years.	65 Years and upwards.
1. Western Australia	6,920	2,899	181
2. New Zealand	6,255	3,339	406
3. New South Wales	6,055	3,601	344
4. Queensland	6,048	3,693	259
5. Victoria	6,030	3,418	552
6. South Australia	6,024	3,564	412
7. Tasmania	5,877	3,716	407

Western Australia stands, as might be expected, far ahead of all the States in the relative strength of its population and this is undoubtedly due to the development of gold mining there and the consequent large immigration of adult males from all the adjoining States. New Zealand occupies second position, and Victoria, which ten years before was second only to Western Australia in this respect, has fallen to fifth place on the list. Tasmania has relatively the weakest population of any of the States, i.e., a larger proportion of persons at the dependent ages under 15 years.

Relative strength of population of Australasia.

Victoria has the largest proportion of old people in its population, viz., 552 per 10,000, and is followed in this respect by South Australia with 412, Tasmania with 407, and New Zealand with 406. In New South Wales, Queensland, and Western Australia the proportion is much lower.

Old persons in Australasia.

The number of women at ages between 15 and 45 years, and the proportion they bore to the total female population of each State at the census of 1901, were:—

Women at reproductive ages in Australasia

State or Colony.	Women between the Ages of 15 and 45 Years.	Number in 10,000 Females Living.
1. Western Australia	37,816	5,307
2. New Zealand	183,387	5,001
3. Victoria	295,278	4,942
4. New South Wales	313,824	4,853
5. South Australia	85,132	4,778
6. Tasmania	39,033	4,711
7. Queensland	104,217	4,670

States with greatest proportion of women at reproductive ages.

Western Australia and New Zealand had the greatest proportion of women at ages ranging from 15 to 45 years, and the progress of New Zealand in this respect since the 1891 census has been most marked. Tasmania was the only Australian State with a lower proportion than New Zealand on that date.

Chinese and Aborigines in Victoria.

The population of Victoria, distinguishing Chinese and Aborigines, was at the five census enumerations:—

Year of Census	Total Population—including Chinese and Aborigines.			Chinese.			Aborigines.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1861	540,322	328,651	211,671	24,732	24,724	8	1,694	1,046	648
1871	731,528	401,050	330,478	17,935	17,899	36	1,330	784	546
1881	862,346	452,083	410,263	12,128	11,869	259	780	460	320
1891	1,140,405	598,414	541,991	9,377	8,772	605	565	325	240
1901	1,201,341	603,883	597,458	7,349	6,740	609	652	367	285

Decrease of both races.

Since 1861 there has been a gradual decrease of Chinese. In that year they numbered 24,732; in 1901 they totalled only 7,349—a falling off which is due mainly to Acts of the Legislature imposing severe restrictions on Chinese immigration. At the 1901 census there were enumerated 652 Aborigines, consisting of 271 of pure blood and 381 half-castes. These figures indicate that the race is gradually but surely dying out, for, although the half-castes have increased by 133 since 1891, the pure race shows a decrease of 46 in the ten years. From the report of the Aborigines Board, dated 3rd September, 1901, it would appear that the majority of the pure race and half-castes are under the care of that body, in the following mission stations:—

Station.	Area of Reserves.	Total Number under care.
	Acres	
Coranderrk	2,400	78
Condah	2,000	47
Ramahyuck	800	60
Lake Tyers	4,000	55
Ebenezer	1,600	40
Framlingham	548	26
Colac and Lake Moodemere	48	...
Industrial Schools and Orphanage ... ..	...	12
Depôts ... ..	...	89
Total	11,396	407

Of the balance, numbering 245, some are residing elsewhere than at the mission stations, but they receive supplies of food and clothing when they call; some prefer to lead a wandering life about the country, and but rarely come under the notice of the Board.

The following is a statement of the number of Chinese and Aborigines in each Australian State and New Zealand at the census of 1901:—

Chinese and Aborigines in Australasia.

State.	Chinese.		Aborigines.			
	Males.	Females.	Full Blood.		Half-caste.	
			Males.	Females.	Males.	Females.
Victoria ...	6,740	609	163	108	204	177
New South Wales ...	10,590	673	2,451	1,836	2,108	1,885
Queensland ...	8,783	530	13,000	12,137	773	760
South Australia ...	3,280	175	14,076	12,357	349	341
Western Australia ...	1,526	43	2,933	2,328	492	459
Tasmania ...	536	72	...	...	79	78
Australia ...	31,455	2,102	32,623	28,766	4,005	3,700
New Zealand ...	2,825	32	21,418	18,592	1,694	1,439

There are more Chinese in New South Wales and Queensland than in the other States, but they appear to be steadily diminishing in Australia as a whole. With the exception of Queensland and Western Australia, the number enumerated in 1901 was smaller than in 1891—the total decrease in Australasia in the decade amounting to about 6,100 persons. In Western Australia they increased from 917 to 1,569, and in Queensland from 8,574 to 9,313 in the same period.

Decrease of Chinese in Australia.

The enumeration of Aborigines, owing to their nomadic habits, was incomplete. In Victoria the number returned is believed to be correct, but in some of the other States, for example—Queensland—the figures given are only a rough approximation. The aboriginal race is extinct in Tasmania—the last male having died in 1869, and the last female in 1876. The Maoris enumerated in New Zealand show an increase of 3,289 over those returned in 1896, but this increase is believed to be more apparent than real, as, although some slight increase has probably taken place in the quinquennium—averaging the results of the different enumerations since 1878, the authorities in New Zealand state that they convey the idea of a stationary population.

Aborigines in Australia.

Birthplaces
of the
people,
1901.

The census of 1901 gives the principal birthplaces of the people:—

Birthplaces.	Males.	Females.	Total.
Victoria	428,823	447,180	876,003
Other Australian States ...	30,672	34,422	65,094
New Zealand	4,404	4,616	9,020
England and Wales	64,871	52,237	117,108
Scotland	19,003	16,748	35,751
Ireland	28,796	32,716	61,512
Other British Possessions ...	3,000	1,551	4,551
Total British	579,569	589,470	1,169,039
Germany	5,295	2,313	7,608
United States	1,382	753	2,135
Sweden and Norway	2,033	174	2,207
China	6,158	72	6,230
Other Foreign Countries ...	5,814	1,588	7,402
Total Foreign	20,682	4,900	25,582
At Sea	782	782	1,564
Unspecified... ..	2,850	2,306	5,156
Grand Total	603,883	597,458	1,201,341
Allegiance—			
British Subjects	586,921	594,080	1,181,001
Foreign ,,	16,962	3,378	20,340

Victorian
born.

Persons of Victorian birth were in the proportion of 73 to every 100 persons in 1901, as compared with 63 in 1891. These, combined with natives of the other Australian States and New Zealand, amounted to nearly four-fifths of the total population of Victoria.

Decrease of
natives of
the United
Kingdom.

The decrease of natives of all parts of the United Kingdom resident in Victoria during the ten years ended 1901 was considerable, amounting to 84,510. This decrease is equivalent to 28 per cent. of the natives of England, Wales, and Ireland, and 29 per cent. of the natives of Scotland.

Foreign
subjects.

The number of persons in the State in 1901 who owed allegiance to some foreign power was 20,340 or 1·7 per cent. of the population. This is a large decrease compared with 1891, when they numbered 35,126 or 3·1 per cent. of the population.

In the interval between the censuses of 1891 and 1901 Chinese natives of China decreased from 8,467 (including 17 of European race) to 6,230 (including 70 of European race). This, however, does not represent all the Chinese in the State, as there are persons of this race born in places outside of China resident in Victoria. The total number of the Chinese race in Victoria was 9,377 in 1891 and 7,349 in 1901.

The following table shows the principal religions of the people as ascertained at the census of 1901:— Religions of the people.

Religion.	Number.	Per Cent. of Population.
Church of England (including Protestant so stated)...	432,704	36·5
Presbyterian	191,503	16·2
Methodist	180,272	15·2
Baptist	32,648	2·8
Independent	17,141	1·4
Salvation Army	8,830	·7
Other Protestant	33,006	2·8
Total Protestant...	896,104	75·6
Roman Catholic (including Catholic so stated)	263,710	22·3
Jews... ..	5,907	·5
Mohammedan, Buddhist, Confucian, &c.	5,675	·5
Other religions	8,592	·7
Sceptics	4,969	·4
Total specified...	1,184,957	100·0
Unspecified	16,384	...
Grand Total	1,201,341	...

The total number of Protestants of all denominations in 1901 was 896,104, as against 836,857 in 1891. In 1901 the Roman Catholics numbered 263,710; in 1891, 248,591. The rate of increase of each of these bodies in the ten years was, therefore, about the same as that of the population. Protestants and Roman Catholics.

The Presbyterians, Methodists, and Baptists have improved their positions relatively to the total population since 1891. The proportion of members of the Church of England has remained almost stationary. The Independents have decreased from 22,100 to 17,141. Protestant sects.

In 1891 the adherents of the Salvation Army were enumerated at 13,521, but they numbered only 8,830 in 1901. Salvation Army.

The conjugal condition of the people of Victoria at various periods of life, exclusive of Chinese and Aborigines, was returned as follows at the census of 1901:— Conjugal condition, 1901.

Ages.	Males.					Females.				
	Un-married.	Husbands.	Widowers.	Divorced.	Total.	Un-married.	Wives.	Widows.	Divorced.	Total.
Under 15 years ..	206,305	..	..	..	206,305	202,235	..	..	..	202,235
15 to 25 years ..	104,373	4,245	52	1	108,671	103,209	13,646	135	10	117,000
25 to 45 years ..	69,106	99,916	3,406	150	172,578	56,044	114,054	7,176	244	177,518
45 and upwards ..	17,924	71,373	16,381	135	105,813	7,498	54,655	35,576	72	97,801
Unspecified adults ..	479	239	64	2	784	312	338	126	5	781
All Ages ..	398,187	175,773	19,903	288	594,151	369,298	182,693	43,013	331	595,335
Under 21 years ..	275,086	245	4	..	275,335	271,184	2,231	7	2	273,424
21 years and upwards	123,101	175,528	19,899	288	318,816	98,114	180,462	43,006	329	321,911
15 years and upwards	191,882	175,773	19,903	288	387,846	167,063	182,693	43,013	331	393,100
20 years and upwards	133,284	175,684	19,901	288	329,157	108,523	181,656	43,011	331	333,521

Persons whose conjugal condition was not returned, viz., 2,625 males and 1,229 females, are excluded; children whose ages were unspecified are included in the age group under 15 years; and adults whose ages were unspecified are included in the group 21 years and upwards.

Married persons. According to these figures there were, on 31st March, 1901, 358,466 persons, or 30 per cent. of the population, in the marriage state. The wives exceeded the husbands by 6,920.

Marriageable persons. The single males of 20 years and upwards, and the single females of 15 years and upwards, or, in other words, the bachelors and spinsters, numbered respectively 133,284 and 167,063. If to these were added the widowers and widows, and the divorcees, the whole marriageable population at the census was 153,475 males and 210,407 females, the latter thus exceeding the former by 56,932.

Proportion of marriageable females. At the census, therefore, the marriageable females were in the proportion of 137 to every 100 marriageable males. In 1891 the proportion was 106; in 1881, 107; but in 1871, only 74.

Married persons under 21 years of age. It will be noticed that 249 youths (of whom 4 had lost their wives) had become husbands, and 2,238 girls (of whom 7 had lost their husbands) had become wives, before they reached the age of 21. Two males aged 16, and three females aged 15 years, were the youngest married persons of each sex in the State.

Husbands and wives together and apart. On the night of enumeration, 160,096 husbands were living with their wives, but there were 16,113 whose wives were absent, of these 7,310 were in Victoria, 1,673 were out of the State, and the whereabouts of 7,130 was unstated. Of the wives, 22,787 were not living with their husbands on the particular night, 5,890 of the husbands were out of the State, 8,944 in the State, the location of 7,953 being unspecified. On

the night of the taking of the census of 1891, the lone husbands numbered 15,945, and the lone wives 19,304.

Immigration and emigration, 1898-1902.

The recorded immigration and emigration by sea from 1898 to 1902 was:—

Year.	Immigrants.	Emigrants.	Excess of Emigrants.
1898	94,436	98,225	3,789
1899	85,384	86,947	1,563
1900	82,157	83,684	1,527
1901	93,107	90,126	-2,981
1902	87,557	97,933	10,376

The departures exceeded the arrivals in each of the years stated with the exception of 1901, when there was an excess of immigrants numbering 2,981. In only one other year since the first settlement of the State, viz., in 1896, did the excess of emigrants exceed that recorded in 1902.

Excess of departures, 1898-1902.

The net result of the recorded immigration and emigration by sea between Victoria and the neighbouring States, the United Kingdom, and Foreign Countries during each of the five years ended 1902 is shown in the following table. Where a minus sign (-) appears, it indicates that the immigrants exceeded the emigrants by the number against which it is placed:—

Loss by emigration to various countries, and vice versa.

Year.	Excess of Emigration over Immigration between Victoria and—									Net Emigration.
	New South Wales and Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand and South Seas.	South Africa.	United Kingdom.	Other British Dominions.	Foreign Ports.	
1898	3,773	-1,261	817	316	1,424	130	949	..	-2,359	3,789
1899	1,032	213	-104	-402	1,522	198	278	-153	-1,021	1,563
1900	-1,218	-709	2,938	-1,592	1,064	1,767	558	-625	-656	1,527
1901	1,851	6	5,333	-2,847	564	-1,070	-3,083	-1,101	-1,442	-2,981
1902	939	8	8,058	-407	2,595	1,245	253	-125	-1,294	10,376
Total	6,377	-3,831	17,042	-4,932	7,169	2,270	-1,045	-2,004	-6,772	14,274

During the five years mentioned, the emigration from exceeded the immigration to Victoria as follows:—To Western Australia by 17,042 persons; to New Zealand and South Seas by 7,169; to New South Wales and Queensland by 6,377; and to South Africa by 2,270. There was a balance in favour of this State of 6,772 from Foreign ports; 4,932 from Tasmania; 3,831 from South Australia; 2,004 from British dominions otherwise unspecified; and 1,045 from the United Kingdom. The net loss to Victoria amounted to 14,274 in the quinquennium. During the ten years, 1891 to 1901, the

Immigration and emigration to various places, 1898 to 1902.

loss by emigration from Victoria amounted to 111,577, and the loss has continued to the end of 1902. During the same period New South Wales has managed to retain its position, the increase being entirely accounted for by the excess of births over deaths.

Immigration from and emigration to Western Australia, 1891 to 1902.

The following figures show the number of immigrants who arrived in Victoria from Western Australia and the number of emigrants who departed thereto during each of the years from 1891 to 1902:—

Year.	Arrivals from.	Departures to.	Excess of Departures.
1891	344	2,304	1,960
1892	632	2,346	1,714
1893	1,922	4,177	2,255
1894	6,545	16,690	10,145
1895	6,344	17,471	11,127
1896	12,951	37,448	24,497
1897	20,580	31,775	11,195
1898	21,687	22,504	817
1899	12,403	12,299	-104
1900	10,638	13,576	2,938
1901	11,371	16,704	5,333
1902	10,550	18,608	8,058
Totals	115,967	195,902	79,935

Victorians in Western Australia.

The arrivals and departures cannot all be taken to represent Victorians, as passengers from the other Eastern States calling at Victorian ports on their way to the Western State were, up to the 31st December last included. A very large proportion of Victorians must, however, have emigrated to Western Australia, as the census returns of that State on the 31st March, 1901, disclosed the fact that there were no less than 39,491 natives of Victoria resident there.

Arrivals from and departures to South Africa, 1895 to 1902.

The first year in which a separate record of passenger traffic to South Africa was kept was 1895, since which date it has been as follows:—

Year.	Arrivals from.	Departures to.	Excess of Departures.
1895	136	1,524	1,388
1896	333	3,214	2,881
1897	824	1,570	746
1898	740	870	130
1899	994	1,192	198
1900	1,878	3,645	1,767
1901	4,785	3,715	-1,070
1902	4,215	5,460	1,245
Total	13,905	21,190	7,285

It is here shown that for some time past there has been a growing tendency on the part of young Victorians to leave for South Africa. This tendency was, however, somewhat checked during 1898 and 1899, the years immediately preceding the war, but again asserted itself in 1902. From the 28th October, 1899, to 19th May, 1902, 3,575 officers and men left Victoria for South Africa, nearly all of whom have returned.

Migration to South Africa.

The estimated population of each Australian State and New Zealand at the end of 1902, the increase of population since the census, and the number of persons to the square mile are as follow:—

Population of Australian States and New Zealand, 1902.

State.	Estimated Population 31st December, 1902.			Increase Since Census, 1901.			Persons to the Square Mile.
	Males.	Females.	Total.	Males.	Females	Total.	
Victoria	602,383	603,130	1,205,513	-1,500	5,672	4,172	13·72
New South Wales ...	739,290	666,160	1,405,450	26,834	19,483	46,317	4·52
Queensland	285,482	229,369	514,851	5,390	6,195	11,585	·77
South Australia Proper	181,579	179,876	361,455	...	...	3,475	·95
" " Northern Territory	3,872	464	4,336	...	...	-288	·01
Western Australia ...	130,636	84,504	215,140	17,761	13,255	31,016	·22
Tasmania	92,034	85,043	177,077	2,410	2,192	4,602	6·75
Australia	2,035,276	1,848,546	3,883,822	...	...	100,879	1·31
New Zealand	425,908	382,021	807,929	19,916	15,294	35,210	7·73

During the year and nine months from the date of the census to the end of 1902, the population of the Commonwealth of Australia increased by about 101,000, New South Wales contributing very nearly one-half, and Western Australia almost one-third of that number. The increase in Victoria, which was the smallest in any of the States except South Australia, was made up solely of females—the males showing a decrease of 1,500. On the other hand, New Zealand has made good progress, the addition of 35,210 to her population being second only to that of New South Wales.

Increase in different States, 1901-1902.

The increase of population per cent. from the 31st March, 1901, to 31st December, 1902, was as follows in the different States:—Western Australia, 16·84; New Zealand, 4·56; New South Wales, 3·41; Tasmania, 2·67; Queensland, 2·30; South Australia Proper, ·97; and Victoria, ·35. In the Northern Territory there was a decrease of 6·23 per cent.

Proportionate increase from census, 1901, to 31st Dec., 1902.

The following table shows for Greater Melbourne its estimated area in acres, its estimated population, the number

Population of Greater Melbourne, 1902.

of persons to the acre at the end of 1902, also the estimated mean population during that year in the various municipalities:—

Sub-district.	Estimated Area in Acres.	At End of 1902.		Mean Population, 1902.
		Estimated Population.	Persons to the Acre.	
Melbourne City	6,005	68,650	11·4	68,720
North Melbourne Town	565	17,770	31·4	18,010
Fitzroy City	923	32,180	34·9	31,980
Collingwood City	1,139	34,500	30·3	33,830
Richmond City	1,430	38,180	26·7	38,080
Brunswick Town	2,722	24,050	8·8	24,100
Northcote Town	2,850	9,780	3·4	9,970
Prahran City	2,320	41,220	17·8	40,920
South Melbourne City	2,311	40,450	17·5	40,860
Port Melbourne Town	2,366	12,200	5·2	12,330
St. Kilda City	2,046	20,730	10·1	20,640
Brighton Town	3,288	10,160	3·1	10,100
Essendon Town	4,000	17,800	4·5	17,720
Flemington and Kensington Borough ...	1,088	11,000	10·1	11,030
Hawthorn City	2,400	22,440	9·3	21,940
Kew Borough	3,553	9,500	2·7	9,840
Footscray City	2,577	18,300	7·1	18,440
Williamstown Town	2,775	14,060	5·1	14,060
Oakleigh Borough	1,858	1,300	·7	1,300
Caulfield Town	6,080	9,860	1·6	9,840
Malvern Town	3,989	10,900	2·7	10,870
Camberwell and Boroondara Shire ...	8,320	8,750	1·1	8,770
Preston Shire	8,800	4,000	·4	4,070
Coburg Shire	4,800	7,300	1·5	7,110
Remainder of District	85,275	15,800	·2	15,860
Shipping in Hobson's Bay and River ...	...	1,730	...	1,730
Total, including Shipping ...	163,480	502,610	3·1	502,120

Density of metropolitan population.

Fitzroy is the most thickly populated municipality, with about 35 persons to the acre; North Melbourne is next, with 31; Collingwood has 30; Richmond 27; Prahran 18; South Melbourne 17; and Melbourne City about 11. There are large areas devoted to parks, gardens, and other reserves in many of the municipalities, so that the population is really living closer together than these figures indicate. Melbourne City contains 1,643 acres of such reserves, Kew 634, South Melbourne 482, Williamstown 456, Flemington and Kensington 307, St. Kilda 250, Richmond 204, and Brighton 167 acres. There are smaller areas in other districts, but they do not appreciably affect the question of density of population. The total area of all the reserves is 5,323 acres, and if these be excluded, the number of persons to the acre in the places

named would be as follows:—Richmond, 31; South Melbourne, 22; Melbourne City, 16; Flemington and Kensington, 14; St. Kilda, 11; Williamstown, 6; Kew, 3; and Brighton, 3.

Outside Melbourne and suburbs, the most important towns in Victoria are Ballarat, comprising three municipalities; Bendigo, two; Geelong, three; Castlemaine, two; Warrnambool, Maryborough, and Stawell, one each. The enumerated populations of these, with their immediate suburbs, according to the census of 1901, and an estimate brought to about September, 1902, were as follow:—

Population of chief extra metropolitan towns.

Name of Town.	1901 (Census).	1902 (Estimate).
Ballarat	49,414	50,565
Bendigo	42,701	42,634
Geelong	25,017	25,112
Castlemaine	7,912	8,011
Warrnambool	6,404	6,600
Maryborough	5,622	5,747
Stawell	5,318	5,300

In the following return, Victoria is divided into three districts, the first being the metropolitan (Greater Melbourne), extending in all directions for a distance of 10 miles from the centre of the city; the second, the other urban districts, including the total space embraced in cities, towns, and boroughs (present or former) outside the limits of Greater Melbourne; and the third, rural districts, including the remaining portions of the State. The population at the end of the year 1902, the average population during the year, the ratio of the population of each district to that of the whole State, and the number of persons to the square mile were as follow:—

Urban and rural population, 1902.

District.	Estimated Area in Square Miles.	Estimated Population at end of 1902.			Mean Population, 1902.
		Total.	Proportion per cent.	Persons to the Square Mile.	
Metropolitan	255	502,610	41·69	1,971	502,120
Other Urban	376	205,900	17·08	548	206,640
Total Urban	631	708,510	58·77	1,123	708,760
Rural	87,253	497,003	41·23	5·7	498,350
Total State	87,884	1,205,513	100·00	13·7	1,207,110

Increasing
proportion
of metro-
politan
population.

The urban is greater than the rural population, and the population of the metropolis alone is equal to nearly 42 per cent. of the whole State. This proportion shows a slight tendency to increase, as will be seen by the following figures:—

Year (31st December).	Proportion of Population of Greater Melbourne to Victoria.
	Per cent.
1898	40·6
1899	41·2
1900	41·3
1901	41·5
1902	41·7

Naturaliza-
tion.

Aliens who desire to obtain the rights and privileges of citizens must take out letters of naturalization. The native countries of those who did so during the years 1898-1902 were:—

Native Places.	Numbers Naturalized in each Year.				
	1898.	1899.	1900.	1901.	1902.
France	14	10	11	19	17
Belgium	4	5	4	7	2
Austria	9	13	10	13	10
Germany	144	119	154	233	194
Russia	17	21	18	24	19
Norway and Sweden	61	42	73	108	75
Other European Countries ..	71	98	102	141	146
United States	3	6	8	11	16
Other Countries	11	18	12	18	21
Total	334	332	392	574	500

Naturaliza-
tion of
Chinese.

No less than 601 Chinese in 1884, and 1,178 in 1885, took out letters of naturalization, but after the latter year the Government, in view of the increasing number of Chinese applying for such papers, determined to issue no more "unless a sufficient reason was assigned," with the result that only 173 were issued in 1886, and 16 in 1887, since which year none have been issued.

GENERAL FINANCE.

The following is a return of the revenue and expenditure of Victoria for the five years 1898-1902—special receipts and expenditure being excluded. The Mallee land receipts (£12,914 in 1901-2), which are set apart for the redemption of loans, are included as revenue, an equivalent amount being entered as expenditure, and afterwards transferred to the Mallee Land Account:—

Revenue and expenditure, 1897-8 to 1901-2.

Year ended 30th June.	Revenue.	Expenditure.	Surplus.	Deficit.
	£	£	£	£
1898	6,898,240	6,692,444	205,796	...
1899	7,389,444	7,107,206	282,238	...
1900	7,453,355	7,285,636	167,719	...
1901	7,712,099	7,672,780	39,319	...
1902	6,997,792	7,398,832	...	401,040

Early in 1901, the Customs, Post and Telegraph, and Defence Departments were transferred to the Commonwealth Government. If the returns from these departments were included, the revenue for 1902 would be increased to £8,053,318, the expenditure to £8,455,602, and the figures for the five years would show that an annual increase in both revenue and expenditure had been maintained; but that, while the increase in revenue between 1898 and 1902 would have been £1,155,078, the increase in expenditure would have been £1,763,158. The latter is mainly due to the introduction of old age pensions, and to increased expenditure on education and on the railway working expenses. In the period shown, the excess of revenue over expenditure is £294,032. The accumulated revenue deficiency on 30th June, 1902, was £2,356,119. The whole of this amount was, however, covered by advances from trust funds, with the exception of £100,000 which was raised by the issue of Treasury Bonds.

The sources of revenue may be grouped under three headings—(1) taxation, (2) public works, and (3) other services. Customs and Excise (under taxation), and Posts and Telegraphs (under public works) were transferred to the Federal Government in 1900-1, and an additional heading, "Federal Government," which comprises these sources, is therefore added. Land revenue, which averaged £381,000 yearly, is included under "other sources." The amounts received during the last five financial years were:—

Heads of revenue, 1897-8 to 1901-2.

Head of Revenue.	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
Federal Government ...	...	...	...	1,177,740	1,920,974
State Taxation—					
Customs and Excise	2,110,866	2,234,442	2,267,131	1,202,191	...
Other ...	799,371	851,363	717,161	762,438	818,274
Public Works and Services—					
Railways ...	2,602,547	2,849,370	3,008,521	3,302,202	3,362,030
Posts and Telegraphs	526,401	553,672	586,061	410,435	...
Others ...	188,263	191,371	175,445	195,743	202,502
Other Sources ...	670,792	709,226	698,736	661,350	694,012
Total ...	6,898,240	7,389,444	7,453,355	7,712,099	6,997,792
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per Head of Population	5 16 8	6 4 11	6 5 4	6 8 10	5 15 9

In this table the figures for 1900-1 for Customs and Excise include only the amounts collected for the half-year ended 31st December, 1900, and for Posts and Telegraphs for the eight months ended 28th February, 1901. There is no State revenue under these headings for 1901-2. The amount returned to the State by the Federal Government—£1,177,740 for the former year, and £1,920,974 for 1901-2—is that collected from the transferred departments, less the amount deducted by the Federal Government under Section 89 of the "Commonwealth of Australia Constitution Act." For 1901-2, the Federal Government received £2,376,525 from Customs and Excise; £591,470 from Posts and Telegraphs; and £8,505 from other sources; and returned to the State Government £1,920,974. Had the old arrangement remained in existence, the amount per head of the population would have been £6 13s. 4d. instead of £5 15s. 9d. under the new arrangement.

Income tax.

An income tax was first imposed in Victoria in 1895, and was to have expired by effluxion of time in 1898, but it has been from time to time extended ever since. The Act is administered by a Commissioner, who, together with his officers, are bound by oath to secrecy. Incomes assessed for tax in any year are those earned, derived, or received in Victoria in the preceding calendar year; and are divided into two classes, viz.:—Incomes, (1) from personal exertion, and (2) from property. The former consists of earnings, salaries, wages, allowances, pensions, &c., or stipends earned in or derived from Victoria, and all income arising or accruing from any profession, business, or occupation carried on in Victoria, and the latter, of all other income. This is the gross income, and the net income is ascertained by making certain deductions, the principal of which are losses and outgoings incurred in the production of the income, all other

taxes under any Victorian Act, life assurance premiums not exceeding £50, and calls or contributions actually paid into any reconstructed company whose shares are of no value. Incomes of certain public, local, religious, provident, &c., bodies or societies are exempt from taxation, also the official salaries of the Governor and of Ministers of the Crown, and the incomes of mutual life offices with head offices in Australia, fire, fidelity, &c. insurance companies taking out licences under the "Stamps Act," limited to income from that class of business; and income from stock debentures or bonds of the Victorian Government or of any public or municipal trust or body prior to 1902. An exemption to the extent of £200 was allowed, except in the case of absentees. The rate of tax was 4d. in the £ in on the first £1,200 of the taxable amount (allowing for £200 exemption), 6d. on the next £1,000, and 8d. on all over £2,200 on income from personal exertion, and double these rates on income from property. The rate of tax for 1902 was fixed by Parliament in 1903 as follows:— (a) Personal exertion—Net incomes up to £125 exempt; from £125 to £500, 4d. (with £100 exemption); over £500, 4d. on first £500 (no exemption), 1d. extra on every £500 or portion thereof up to £2,000; and 8d. on all over £2,000. (b) Property—Double these rates. The following is a statement of the assessments, taxpayers, taxable income, and tax payable from personal exertion and property during the last five years:—

	1898.	1899.	1900.	1901.	1902.
Number of Assessments:					
Personal exertion ...	17,607	17,954	20,322	21,511	22,863
Property ...	16,517	16,766	15,322	17,589	17,562
Total ...	34,124	34,720	35,644	39,100	40,425
Distinct taxpayers ...	33,051	33,577	34,377	37,803	39,166
Taxable Income—	£	£	£	£	£
Personal exertion ...	4,613,500	4,570,300	6,027,200	6,150,300	6,245,200
Property ...	2,244,500	2,126,400	2,316,500	2,348,000	2,318,400
Total ...	6,858,000	6,696,700	8,343,700	8,498,300	8,563,600
Tax Payable—	£	£	£	£	£
Personal exertion ...	89,140	89,444	123,457	125,824	123,333
Property ...	90,373	83,976	93,787	95,091	91,273
Total ...	179,513	173,420	217,244	220,915	214,606
Per Taxpayer ...	£ s. d. 5 8 7	£ s. d. 5 3 4	£ s. d. 6 6 5	£ s. d. 5 16 11	£ s. d. 5 9 7
Average Tax payable in the £ on Taxable Incomes derived from—	d.	d.	d.	d.	d.
Personal exertion ...	4·64	4·70	4·91	4·91	4·75
Property ...	9 67	9·48	9·72	9·72	9·45

PRINCIPAL HEADS OF STATE EXPENDITURE, 1897-8 TO 1901-2.

Heads of expenditure, 1897-8 to 1901-2.

Heads of Expenditure.	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
General Administration ...	219,155	220,199	231,189	246,238	249,043
Retiring Allowances, Gratuities, &c.	335,897	313,005	320,118	310,301	318,780
Defences ...	184,316	197,585	201,611	161,342	...
Law, Order, and Protection	455,520	470,374	484,597	501,767	502,645
Education :—					
State ...	521,086	543,987	585,062	621,774	656,761
Secondary and Technical	24,748	29,250	31,100	33,682	33,976
Science, Medical, &c. ...	41,763	46,319	60,371	61,083	63,084
Charitable Institutions ...	264,038	305,196	281,656	293,154	313,735
Agriculture ...	89,988	78,503	133,961	150,222	169,351
Mining ...	53,435	59,021	64,889	67,953	59,502
Crown Lands ...	67,128	67,186	68,879	78,978	83,096
Public Works and Services :—					
Railways ...	1,559,552	1,710,696	1,801,954	1,982,421	2,052,264
Posts and Telegraphs ...	506,268	514,500	521,918	329,272	...
Others ...	246,929	368,349	280,156	322,370	330,545
Public Debt :—					
Interest and expenses	1,852,056	1,881,198	1,852,970	1,900,139	1,941,449
Redemption ...	10,777	30,543	37,947	47,702	94,414
Old Age Pensions ...	...	...	...	129,338	292,432
Other Expenditure ...	259,788	271,295	327,258	435,044	237,755
Total { Special Appropriations	2,577,473	2,758,073	2,672,851	2,878,550	2,996,333
Votes ...	4,114,971	4,349,133	4,612,785	4,794,230	4,402,499
Grand Total ...	6,692,444	7,107,206	7,285,636	7,672,780	7,398,832
Per Head of Population ...	£ s. d. 5 13 1	£ s. d. 6 0 3	£ s. d. 6 2 7	£ s. d. 6 8 2	£ s. d. 6 2 5

A steady increase is observed in the expenditure under the headings General Administration, Law, Education, Science, Charities, Agriculture, Lands and Public Works. The interest on the public debt has advanced from £1,852,056 in 1897-8 to £1,941,449 in 1901-2, and the old age pensions appear as a new item in 1900-1. On the whole, notwithstanding the transfer of the Departments of Defence, Post and Telegraphs, and Customs to the Commonwealth Government, the total expenditure has increased from £6,692,440 in 1897-8 to £7,398,832 in 1901-2, and the amount per head of the population from £5 13s. 1d. per annum to £6 2s. 5d.

Loss on working of railways, 1897-8 to 1901-2.

After deducting the net earnings of the Department of Railways from the amount of interest and expense of loans,

a correct idea of its financial condition is obtained. This has been done in the table which follows, and from the figures quoted the actual annual loss to the State in the last five years is shown. No account is, however, taken of the value of the work performed free of cost for other Government departments, which is estimated at £20,000 in each of the first 3 years, £31,000 in 1900-1, and £34,000 in 1901-2:—

—	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
Gross Receipts ...	2,608,896	2,873,729	3,025,162	3,337,797	3,367,843
Working Expenses ...	1,566,073	1,716,441	1,807,301	1,984,796	2,072,374
Pensions, Gratuities, &c.	83,720	81,284	95,239	90,443	93,744
Net Receipts ...	959,103	1,076,004	1,122,622	1,262,558	1,201,725
Interest on Cost of Construction	1,437,269	1,472,090	1,430,448	1,464,809	1,492,695
Deficit ...	478,166	396,086	307,826	202,251	290,970

An annual increase is here shown, both in the receipts and in the working expenses. There is only a slight variation under the heading Interest, but in the case of pensions and gratuities, which stood at about £80,000 for the first two years, it is observed that a sudden increase to £95,000 took place in the third year, and that this expenditure had decreased in the two latter years to £90,000 in 1900-1, and to £93,000 in 1901-2. During the years under review an increase is shown in the revenue amounting to £759,000, and in the expenditure to £516,000 for working expenses and pensions, and nearly £56,000 for interest, the deficit in 1901-2 being £187,000 less than that of 1897-8.

The expenditure during 1901-2 on State education amounted to £800,202, portion of which, however, was for the Melbourne University and for technical schools. Pensions, gratuities, &c., are also included, but this expenditure may

Expenditure
on public
instruction

be considered as more appropriately belonging to the education of a past generation rather than as a portion of the cost of instruction of the children of the present day. The expenditure in detail for the five years 1897-8 to 1901-2 is as follows:—

Expenditure on—	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
Instruction	477,455	487,592	517,714	546,009	565,931
Training			2,242	4,516	4,701
Administration	30,532	31,024	34,218	39,865	41,977
Technical Schools	11,998	20,930	24,740	26,225	22,958
Melbourne University	3,250	5,250	5,250	5,750	6,000
Pensions, Compensation, and Gratuities	78,847	77,993	75,785	75,166	76,352
Miscellaneous	1	120	144	22	338
Total (exclusive of Buildings)	602,083	622,909	660,093	697,553	718,257
Buildings—					
Expended by the Public Works Department:—					
From Loans		1,089	13,940	4,758	35,197
,, Annual Votes	9,000	20,919	25,756	24,144	39,231
By Boards of Advice	2,191	2,202	2,077	3,293	3,398
Rents	1,911	2,186	2,912	3,845	4,119
Total	615,185	649,305	704,778	733,593	800,202

A considerable annual increase in the expenditure will be noticed during each of the last five years. The principal increase is in the item of instruction, which was greater by £88,476 in 1901-2 than in 1897-8, of which, however, £10,795 was caused by manual training, cookery instruction, kindergarten, scholarships, and exhibitions. The increase in the average attendance from 136,576 in 1897-8 to 150,271 in 1901-2 accounts for £47,876, and the balance is mainly due to the operation of Acts Nos. 1,642 and 1,721, which largely added to the salaries of certain teachers. The increase in the cost of administration was caused by the appointment of new inspectors and truant officers, expenditure in the erection of new schools to meet the requirements of additional scholars, and repairs rendered necessary by the bad state into which many of the buildings had been allowed to fall owing to the

heavy retrenchment which had to be carried out for several years. Since the inception of the system of free, compulsory, and secular education in 1872, the expenditure on public instruction has amounted to £19,692,580, of which £14,604,264 has been spent on instruction, £1,099,535 on administration, £145,682 on training teachers, £1,471,080 on miscellaneous items, principally pensions, technical schools, and the Melbourne University (excluding the annual fixed grant of £9,000 to that institution), £2,372,019 on buildings, of which £1,118,492 was paid out of loans, and £1,253,527 from revenue. For particulars of the progress of State instruction since its inception, see Part Social Condition, post.

The foregoing statement deals with public instruction generally, and includes some items of expenditure on secondary and technical education; but in the following statement particulars are given of primary State school education only,—that is, the cost to the State of the “free, compulsory, and secular” system:—

Expenditure
on primary
education.

Items.	1897-8.	1898-9.	1899-00.	1900-01.	1901-02.
Instruction :—	£	£	£	£	£
Teachers' Salaries	437,263	446,340	472,704	496,336	511,846
Singing, Drawing, Drill, Gymnas- tics, Kindergarten, Cookery, and Manual Training	...	...	1,211	2,497	4,681
Teachers' Travelling Expenses ...	1,746	1,789	1,438	1,803	2,060
Conveyance of Children to Schools	1,910	1,978	2,372	2,063	2,386
Books, Stores, Cadets, Kinder- garten, Manual Training, and Cookery Expenses	4,733	5,630	7,350	9,479	9,140
Cleaning, Stationery, Fuel, &c. ...	30,162	30,178	30,863	31,039	31,459
Teaching Night Schools ...	211	232	306	615	804
Training ... ..	...	...	2,242	4,516	4,701
Total Instruction ...	476,025	486,147	518,486	548,348	567,077
Administration :—					
Office and Inspectors	26,296	26,814	29,380	31,257	31,235
Truant Officers	3,234	3,342	3,655	6,793	7,569
Stores, Cleaning, &c.	1,002	868	1,183	1,814	3,173
Total Expenditure ...	506,557	517,171	552,704	588,212	609,054

	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
Grants to Agriculture, &c. ...	69,348	56,429	107,039	123,508	142,418
„ Mining ...	17,643	20,917	23,399	24,900	15,992
Subsidy to Municipalities ...	100,000	100,000	100,000	100,000	100,000
<i>Educational Grants, &c.—</i>					
Melbourne University—Endowment under Act	9,000	9,000	9,000	9,000	9,000
Melbourne University—Additional Endowment voted	3,250	3,250	3,250	6,250	6,000
College of Pharmacy ...	500	500	500	500	500
Technological Schools—Maintenance, &c.	11,998	14,500	16,350	17,932	18,476
Working Men's College—Workshops	...	6,000	...	...	...
Public Libraries, &c. (including Melbourne Public Library)	17,724	19,870	24,767	26,660	27,065
Royal Society ...	100	100	100	100	100
Royal Geographical Society ...	...	...	...	...	75
Victorian Artists' Society ...	100	100	100	150	100
Fine Art Galleries—Ballarat, Bendigo, &c.	200	500	500	500	500
Zoological and Acclimatisation Society, &c. ...	3,100	3,100	3,600	3,500	3,500
Parks and Gardens (including Melbourne Botanical Gardens)	12,569	13,963	14,383	14,867	15,175
Charitable Institutions ...	108,669	136,483	116,026	115,979	114,459
Instructor of the Blind ...	170	170	170	170	170
Animals Protection Society ...	50	50	50	50	50
<i>Miscellaneous Grants and Subsidies—</i>					
Exhibitions ...	...	9,296	4,302	500	1,000
Exhibition Trustees, Expenses of	1,250	2,249	2,749	1,250	1,250
Fire Brigades ...	13,941	14,423	14,766	15,941	16,215
Mint Subsidy ...	20,000	20,000	20,000	20,000	20,000
Village Settlements and Labor Colonies	5,018	5,898	4,000	3,987	2,993
Carriage of Water—to reimburse Railway Department for	2,730	102	...	5,036	11,026
Relief on account of Bush Fires, Cyclones, Drought, &c.	1,766	221	...	1,250	3,295
Relief of the Unemployed ...	1,086	700	1,082	906	1,161
Savings Banks Commissioners—Extra Working Expenses	...	13,736	10,841	11,178	12,685
Total ...	400,212	451,557	476,974	504,114	523,205

A statement of the Commonwealth revenue and expenditure for Victoria given separately is as follows:—

Commonwealth revenue and expenditure for Victoria

Revenue from—	1901-2.
	£
Customs Duties ...	1,976,245
Excise Duties ...	400,280
Posts and Telegraphs ...	591,470
Miscellaneous ...	8,505
Total ...	2,976,500

Expenditure on—		£
Customs and Excise	...	63,812
Posts and Telegraphs	...	588,888
Defences	...	316,876
New Expenditure	...	87,194
Balance paid over to the State	...	1,920,974
Total	...	2,977,744

The total revenue and expenditure of the State of Victoria is shown by combining State and Commonwealth receipts and expenditure. The following are the main heads:—

Revenue.	1901-2.	Expenditure.	1901-2.
	£		£
Customs and Excise	2,376,525	Customs and Excise	63,812
Posts and Telegraphs	591,470	Posts and Telegraphs	588,888
Railways	3,362,030	Railways	2,052,264
State Taxation	818,274	Public Instruction	690,737
Other sources	905,019	Public Debt—	
		Interest and Expenses	1,941,449
		Redemption	94,414
		Other Expenditure	3,024,038
Total	8,053,318	Total	8,455,602

The Customs and Excise revenue was less by £181,765 than during the preceding year, when the State tariff was in force, but exceeded that for the year 1899-00 by £109,394. It is satisfactory to note that since the transfer of that department to the Commonwealth the expenditure on Customs and Excise has decreased by £5,500. On the other hand, under the Commonwealth in 1901-2 Posts and Telegraphs only showed a surplus of £2,582, whereas under State control in 1899-1900 there was a surplus of £64,143, the loss of which has not been caused by a diminution of revenue, but by an increase in expenditure under Commonwealth control.

The following statement gives particulars respecting the various loans forming part of the public debt, which were raised in London since 1859, together with the average prices obtained after deducting flotation expenses as well as accrued interest, and the rates of interest to which such prices are equivalent:—

Revenue and expenditure, Commonwealth and State combined.

Loans floated in London.

had been incurred in connection with the flotation. The column, Amount Sold, includes £957,000 for conversion loans.

The nominal rate of interest has varied from 6 per cent. for earlier loans to 3 per cent. for those of later date, and the actual rate obtained by investors varied from 6 per cent. in 1866 to $3\frac{3}{8}$ per cent. in 1899. The first six loans raised were obtained at about $5\frac{3}{4}$ per cent., but the credit of the State would appear to have gradually improved after 1866, and money was obtained four years later at 5 per cent. In 1883 it was obtained at 4 1-5 per cent., in 1885 at $4\frac{1}{8}$, in 1888 at $3\frac{5}{8}$, and in 1889 at less than $3\frac{1}{2}$ per cent. In 1891 there was a reaction, when the money obtained cost $3\frac{3}{4}$ per cent., and the rate was still increased to over $4\frac{1}{2}$ in 1893, while 5 per cent. was paid on short-dated Treasury bonds obtained in 1892. Later loans show a marked improvement, as in 1899 the actual rate of interest was less than $3\frac{3}{8}$ per cent., this being the lowest rate of those loans which were raised in London, while for the only later loan, which was floated in 1901, the money was obtained at slightly over $3\frac{1}{2}$ per cent.

The outstanding balance of loans floated in Melbourne amounted to £3,451,088 on 30th June, 1898; but during the last four years, the local debt having been increased by 2 1-3 millions sterling, it stood, on 30th June, 1902, at £5,785,614. The following is a statement of these loans, showing the amounts originally raised, the amounts converted or paid off, and the amounts outstanding on 30th June, 1902:—

Authorization.		Loans as originally raised.			Amounts.		Loans Outstanding on 30th June, 1902.
Act No.	Year.	Rate of Interest.	When due.	Amount.	Converted into Stock or Debentures.	Paid off.	
		Per cent.		£	£	£	
					<i>Debentures.</i>		
13 & 23	1854	...	1855-75	735,000	...	735,000	...
40	1855	6	1857-72	299,100	...	299,100	...
15	1856	6	1872-4	2,900	...	2,900	...
36	1857	6	1883-5-8	1,000,000	52,780	947,220	...
150	1862	6	1889	300,000	23,900	276,100	...
332	1868	5	1874	610,000	297,100	312,900	...

Loans
floated in
Melbourne.

Authorization.		Loans as originally raised.			Amounts.		Loans Outstanding on 30th June, 1902.			
Act No.	Year.	Rate of Interest.	When due.	Amount.	Converted into Stock or Debentures.	Paid off.				
		Per cent.		£	£	£	£			
<i>Debentures.</i>										
371	1870	5	...	100,000	100,000	...	...	
1296	1893	4	1913-23	746,795	...	...	746,795	
1440	1896	3	1912	63,000	...	...	63,000	
1659	1900	3	1921-30	1,000,000	...	...	1,000,000	
1753	1901	3	1923-32	280,200	...	...	280,200	
<i>Inscribed Stock.</i>										
428	1872	4	1897	1,113,000	} 2,659,613	...	...	
439	1872	4	"	{ 86,780 }						
				{ 13,102 }						
741	1882	4	"	167,600						
963	1887	4	"	130,000						
1015	1889	4	"	750,000						
1341	1893	4	"	150,000						
1369	1895	4	"	249,131						
1468	1896	3	1917	2,290,482				...	10,000	2,280,482
1552	1898	3	"	1,228				...	1,000	228
1564	1898	3	"	500,000	...	...	500,000	
1602	1898	3	"	206,284	...	5,002	201,282			
1623	1899	3	"	213,627	...	...	213,627	
<i>Treasury Bonds.</i>										
1574	1898	3½	1901	500,000	...	...	500,000	
Total				11,508,229	3,133,393	2,589,222	5,785,614			

Of the total loans raised in Victoria, £2,337,000, i.e., the total of those loans which were floated prior to 1863, was obtained at 6 per cent.; £710,000, or those floated from 1868 to 1870, at 5 per cent.; £3,406,408, or those floated from 1872 to 1895, at 4 per cent.; and £4,554,821, floated since 1895, at 3 per cent. During 1898, short-dated Treasury bonds, for £500,000, at 3½ per cent., were issued. Of the total loans outstanding on 30th June, 1902, £746,795 is bearing interest at 4 per cent., £500,000 at 3½ per cent., and the balance, £4,538,819, at 3 per cent. In the total raised to date is included conversion loans of £2,089,613.

The total debt on 30th June, 1902, was £50,408,957, and of this sum £7,546,995 was in the form of debentures; £38,666,343 of inscribed stock (London Register); £3,195,619 of

Repayment of debt.

funded stock (Melbourne Register); and £1,000,000 in the form of Treasury bonds. The following are the dates on which these loans are repayable, and those repayable in Melbourne and London are also indicated:—

Under Act No.	When Repayable.	Rate of Interest per cent.	Amount Repayable.		
			In Melbourne.	In London.	Total.
			£	£	£
	<i>Debentures.</i>				
608	1st Jan., 1904 ...	4½	...	5,000,000	5,000,000
611	" " ...	4	...	457,000	457,000
1296	1st April, 1913-23 ...	4	746,795	...	746,795
1440	" 1912-22 ...	3	63,000	...	63,000
1659	1st Jan., 1921 ...	3	1,000,000	...	1,000,000
1753	" 1923-32 ...	3	280,200	...	280,200
	<i>Inscribed Stock (London).</i>				
717	1st July, 1907 ...	4	...	4,000,000	4,000,000
739	1st April, 1908 ...	4	...	2,000,000	2,000,000
760	1st Oct., 1913 ...	4	...	4,000,000	4,000,000
805	" 1919 ...	4	...	4,000,000	4,000,000
845	" 1920 ...	4	...	6,000,000	6,000,000
989 } 1032 }	" 1923 ...	3½	...	7,000,000	7,000,000
1196 } 1217 }	1st Jan., 1921 to 1926 ...	3½	...	5,000,000	5,000,000
1287	" 1911-1926 ...	4	...	2,107,000	2,107,000
1560	" 1929-1940 ...	3	...	4,559,343	4,559,343
	<i>Funded Stock (Melbourne).</i>				
1468	} 29th Sept., 1917 ...	3	2,280,482	...	2,280,482
1552			228	...	228
1564			500,000	...	500,000
1602			201,282	...	201,282
1623			213,627	...	213,627
	<i>Treasury Bonds.</i>				
1574	{	4	...	500,000	500,000
		3½	500,000	...	500,000
	Total ...	...	5,785,614	44,623,343	50,408,957

The last of the 6 per cent. loans was paid off on the 1st January, 1891, and the last of the 5 per cents. on the 1st January, 1897. The only loan now bearing a higher rate of interest than 4 per cent. is one of 5 millions at 4½ per cent., and this becomes due for redemption on 1st January, 1904. The loans at the higher rates of interest which have already been redeemed, were replaced by others obtained at lower rates, and by this means a considerable saving in interest has been effected. The last two loans which fell due were one for 1½ millions in 1899, and the other for 3 millions in 1901. Both were 4 per cent. debentures, and they were redeemed by the proceeds of £4,600,000 stock raised in London

at 3 per cent., the transaction effecting an annual saving of £42,000 in the amount of interest payable.

The aggregate amount of the loans raised to 30th June, 1902, exclusive of temporary Treasury bonds in aid of revenue, was £71,602,649; but a total of £21,193,692 (exclusive of £2,089,613 conversion loans) having been repaid, viz., £2,243,457 out of the general revenue, and £18,950,235 out of the proceeds of redemption loans, the balance on 30th June, 1902, was reduced to £50,408,957. The purpose for which each amount was borrowed, the amount paid off, the amount outstanding on 30th June, 1902, and the annual interest payable thereon, are as follow:—

Purposes for which loans were incurred.

Public Borrowings Contracted for—	Amount of Loans.			Annual Interest Payable.
	Borrowed.	Paid Off.	Outstanding on 30th June, 1902.	
	£	£	£	£
REVENUE-YIELDING WORKS.				
Railways	38,785,067	380,542	38,404,525	1,456,824
Tramways, Country	200,000	...	200,000	7,750
Water Supply and Irrigation—				
Melbourne	3,189,934	1,107,598	2,082,336	77,742
Country	5,607,689	5,892	5,601,797	202,134
Harbors and Docks	275,554	...	275,554	11,022
Graving Dock	353,797	1,068	352,729	13,091
Agriculture—Advances to Beet Sugar Company	63,000	...	63,300	1,890
Agriculture—Wineries, &c.	50,533	...	50,533	1,516
Purchase of Land for Closer Settlement	206,285	5,002	201,283	6,038
Development of Mining	99,669	...	99,669	2,990
Total Revenue Yielding	48,831,528	1,500,102	47,331,426	1,780,997
OTHER WORKS OF A PERMANENT CHARACTER.				
Parliament Houses	246,453	...	246,453	10,305
Law Courts	354,501	793	353,708	13,186
Public Offices	165,954	371	165,583	6,098
Defence Works	151,024	...	151,024	5,031
State School Buildings	1,159,341	3,151	1,156,190	40,741
Melbourne and Geelong Improvements	735,000	735,000	...	...
Other	1,008,613	4,040	1,004,573	31,519
Total other Permanent Works	3,820,886	743,355	3,077,531	106,880
Net Borrowings	52,652,414	2,243,457	50,408,957	1,887,877
Redemption of Loans	18,950,235	18,950,235	...	...
Gross Borrowings	71,602,649	21,193,692	50,408,957	1,887,877

The loans outstanding on the 30th June, 1902, include sums not yet expended, amounting in the aggregate to £316,974, of which £257,150 has been borrowed for railways, £51,787 for country water supply, and the balance (£8,037) for different other services. Of the total sum borrowed, 94 per cent. has been devoted to revenue-yielding works, namely, railways, water supply, and country trams.

Including money borrowed for temporary purposes (£525,000) in aid of revenue, the total debt on the 30th June, 1902, is £50,933,957, upon which the amount of interest payable is £1,921,807, or an average of 3·77 per cent. on the total debt. The amount of interest due was fully earned by £36,989,237, the amount of such interest being £1,395,721. This leaves £13,944,720, all the interest upon which, £526,086, has to be met by charge upon the general revenue. In addition, a sum of £2,613,308 has been advanced from the trust funds, upon which the interest is £54,880, or 2·10 per cent. The total interest which has to be met from general revenue is thus £580,966, equal to 3·51 per cent., or 9s. 8d. per head of population on a debt of £16,558,028, and this amount represents the real burden on 30th June, 1902. It is, however, worthy of notice that £3,820,886 (of which £743,355 has been repaid) has been expended in the erection of Parliament House, public offices, and school buildings throughout the State, defence, and other works of a necessary and permanent character, and if these are not directly reproducing in character, yet they save the State in rent charges and otherwise. A sum of £2,863,308 has been expended to meet revenue deficiencies, and the balance of the real debt, £10,617,189, has been expended on railways, water conservation, country trams, development of the agricultural and mining resources of the State, the graving dock, and on other revenue-producing works, which do not at the present time earn sufficient to cover working expenses and interest on the money expended in their construction, and will not do so until the population of the State has materially increased.

The following is a statement of the total indebtedness of the Australian States on 30th June, 1902:—

State indebtedness.

State.	State Debts.		Municipal and Corporation Debts* (exclusive of Loans from Government).	Grand Total.	
	Funded.	Unfunded.		Amount.	Per Head of Population.
	£	£	£	£	£ s. d.
Victoria. ...	50,408,957	3,090,007	11,387,557	64,886,521	53 15 4
New South Wales ...	69,109,208	6,865,188	2,893,044	78,867,740	56 10 3
Queensland ...	38,307,427	2,936,890	60,620	41,934,937	81 9 5
South Australia ...	26,423,045	1,088,674	101,310	27,613,029	75 19 8
Western Australia ...	14,942,310	...	360,850	15,303,160	73 9 2
Tasmania ...	9,009,051	96,835	514,252	9,620,138	55 14 11
Total ...	208,199,998	14,077,894	15,947,633	238,225,525	61 13 10

The figures, £238,225,525, include loans raised by the Australian Governments, by municipal bodies, corporations, and trusts, but exclude moneys advanced by the Governments to these bodies.

On 30th June, 1901, the sinking funds (which have been deducted from these loans) were as follow:—

State.	Sinking Funds in Connection with—	
	State Funded Debts.	Municipal and Other Debts.
	£	£
Victoria ...	208,284	676,701
New South Wales ...	386,383	304,471
Queensland ...	...	...
South Australia ...	26,879	...
Western Australia ...	429,227	48,967
Tasmania ...	183,022	73,190
Australia ...	1,233,795	1,103,329

In addition to the ordinary expenditure from revenue, certain sums are annually disbursed for various purposes from amounts raised by means of loans. The following table shows the details of such expenditure in each of the last five years:—

Expenditure from loans.

*The figures in this column refer to the year 1901, excepting those for South Australia, which are for 1902; and for Tasmania, which are for 1900.

Works.	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
Railways	248,140	451,087	595,543	490,857	467,937
Water Supply	45,871	100,077	144,149	138,233	88,902
Defences ... ..	...	34,827	229	4,080	11,889
Schools—					
Primary ... ..	...	1,088	13,745	4,618	34,332
Technical ... ..	...	4,832	6,892	99	...
Beet Sugar Company	40,000	22,000	...	...	...
Wineries ... ..	...	5,094	12,063	15,480	17,895
Closer Settlement, Purchase of Estates	...	...	63,985	85,040	55,462
Bush Fires—Advances to Farmers	...	17,302	...	2,366	332
Mining Development...	...	...	41,294	25,932	32,443
Pilots — Advance for Steam Service	...	...	23,000	...	...
Sundry Public Works	...	75,786	104,989	165,560	175,083
Total	334,011	712,093	1,005,889	932,265	884,275
Per Head of Population	s. d. 5 8	s. d. 12 0	s. d. 16 11	s. d. 15 7	s. d. 14 8

It will be seen that during the last five years the loan expenditure averaged £773,707 yearly, whereas during the preceding five years the average was £368,703, and during the ten years ended 30th June, 1892, it was £2,300,000. During the last five years the loan expenditure of Victoria and New South Wales was as follows:—

	Total Last Five Years.	Annual Average.
Victoria	£3,868,533	£773,707
New South Wales	13,806,362	2,761,272

During the year 1901-2 the loan expenditure in New South Wales was nearly five millions.

The permanent loans authorized, but not raised, on the 30th June, 1902, amounted to £1,636,888, which sum now represents the unfloatable balance of loans authorized in 1896, 1898, 1899, and 1901. The following is a return of the amounts authorized, showing the purposes for which the original loans were intended, and the amounts raised up to June, 1902:—

Loans authorized but not raised.

Purposes.	Under Loan Act—				
	59 Vict., No. 1440.	62 Vict., No. 1562.	62 Vict., No. 1602.	63 Vict., No. 1623.	1 Ed. VII., No. 1753.
	£	£	£	£	£
Railways ...	...	700,000	...	205,810	350,573
Irrigation Works, &c. ...	...	300,000	...	100,000	100,000
Beet Sugar Industry ...	100,000	...	...	...	...
Closer Settlement ...	...	...	300,000	...	...
Miscellaneous ...	...	...	...	194,190	49,427
Total ...	100,000	1,000,000	300,000	500,000	500,000
Amount raised to 30th June, 1902	63,000	...	206,285	213,627	280,200
Balance not Floated ...	37,000	1,000,000	93,715	286,373	219,800

In addition to the £50,408,957, the total amount of the outstanding funded loans of the State on the 30th June, 1902, these figures show that authority had been obtained from Parliament for a further borrowing to the extent of £1,636,888, and of this sum £901,071 is for railway purposes, £426,960 for water supply, £93,715 for closer land settlement, and £215,142 for other works. The rate of interest on the full amount is 3 per cent.

The following is a summary of the funded debts of the Australian States and New Zealand on the 30th June, 1902, their proportion to population, and the total and average interest payable. The amounts are exclusive of Treasury bonds or bills issued for revenue purposes:—

Funded
debts of
Australian
States and
New
Zealand,
1902.

State.	Funded Debt.		Interest Payable.	
	Amount.	Per Head of Population.	Amount.	Average Rate Per Cent.
	£	£ s. d.	£	
Victoria ...	50,408,957	41 15 5	1,887,877	3·76
New South Wales ...	69,109,208	49 10 5	2,465,081	3·57
Queensland ...	38,307,427	74 8 6	1,420,689	3·71
South Australia ...	26,423,045	72 14 3	994,347	3·76
Western Australia ...	14,942,310	71 14 6	502,729	3·36
Tasmania ...	9,009,051	52 4 1	331,012	3·67
Total Australia ...	208,199,998	53 18 4	7,601,735	3·65
New Zealand ...	52,966,447	67 0 11	1,992,747	3·76

Victoria, South Australia, and New Zealand pay the highest average rate of interest on their loans, the reason being, not that their securities are considered of less value, but that a larger proportion of their loans was raised when

the rates of interest were high. Victoria has a loan of £5,000,000 at 4½ per cent., which falls due on 1st January, 1904; arrangements have now been made to convert this into 3½ per cent. stock for 25 years, and this will result in an annual saving, without allowing for redemption of the new stock, of £36,000 in interest, and the average rate of the total funded debt will be reduced to 3·65.

The following are the amounts to the credit of the principal trust funds, and the manner of their investment, at the end of each of the last five financial years:—

Accounts.	Credit Balance on 30th June.				
	1898.	1899.	1900.	1901.	1902.
	£	£	£	£	£
Deposits in Savings Banks	3,595,418	3,595,418	3,675,418	3,675,418	3,603,187
Deposits in Savings Banks Security Account	1,480,448	1,727,988	2,116,141	2,453,452	2,500,327
Municipal Investments Account	...	...	614,480	1,116,380	1,115,380
Municipal Sinking Funds	625,455	660,711	610,895	626,368	652,951
Assurance Fund ...	146,717	153,680	161,025	169,076	176,683
Intestate Estates ...	92,488	87,590	93,575	89,482	89,288
Country Tramways ...	137,872	137,872	137,872	137,872	137,872
Trustee and Assurance Companies	90,000	89,845	99,795	104,795	104,795
Police Superannuation Fund	71,079	55,803	37,422	15,327	1,665
Other Funds ...	433,026	650,380	858,751	945,731	1,437,001
Total ...	6,672,503	7,159,287	8,405,374	9,333,901	9,819,149
How Invested:—					
Invested in Debentures, &c.	1,451,684	1,494,277	2,136,814	2,673,002	2,689,430
Deposited in Banks	240,012	198,851	306,138	132,096	504,228
Held otherwise ...	4,980,807	5,466,159	5,962,422	6,528,803	6,625,491

In 1898 an Act was passed to relieve any municipality, which desired relief, from further contributions to its loan sinking fund. The amount already to the credit of the sinking fund of any municipality, which took advantage of the Act, is allowed to accumulate with interest, and at the maturity of the loan, the Government will, by the sale of inscribed stock, pay the difference between the amount at credit of the fund and the amount of the loan to be redeemed, the municipality repaying to the Government the amount so paid.

When application is made to bring land under the "Transfer of Land Act," a contribution of ½d. in the £ on the value of the land is levied on the applicant to assure

Trust funds,
1898 to
1902.

Municipal
Investment
Account.

Assurance
funds.

and indemnify the Government in granting a clear title against all the world, when there may have been a latent interest of some other person in the property, whom the Government recompenses out of this fund for the loss of such interest. Since 1884-5 the assurance fund has been reduced by £75,073, which amount was advanced towards the purchase of land adjoining the Titles Office, and on which the fund receives 4 per cent. per annum from the general revenue. Since its first formation, 28 claims have been made, and sums amounting to only £6,262 (including costs) have been paid to claimants.

The Police Superannuation Fund is maintained by the annual income arising from the balance of an investment in Government stock; by an annual subsidy of £2,000 from the consolidated revenue; by a moiety of the fines inflicted by the Courts of Petty Sessions; and, if necessary, by a deduction, not exceeding 2½ per cent., from the pay of the members of the force, and a further grant in aid from the consolidated revenue. The item "Other Funds" includes £550,000 advance to the Treasurer, £429,196 to the credit of the Public Debt Redemption Funds, £83,112 to the credit of the Railway Accident Fund, £81,801 to the credit of the Railway Stores Suspense Account, including various smaller funds.

GENERAL AND LOCAL FINANCE.

In addition to the indebtedness of the Australian States, as shown in a preceding table, there are further debts (unfunded) consisting of advances from trust funds to revenue and to loan and suspense accounts, cash overdrafts, Treasury bonds in aid of revenue, &c., and debts contracted by local bodies. A full statement of these for 1902 is given in the following table:—

State.	State Debts.		Municipal, &c., Debts.	Grand Total.	
	Funded.	Unfunded.		Amount.	Per Head of Population.
	£	£	£	£	£ s. d.
Victoria ...	50,408,957	3,091,007	11,387,557	64,886,521	53 15 4
New South Wales ...	69,109,208	6,865,488	2,893,044	78,867,740	56 10 3
Queensland ...	38,307,427	2,936,890	690,620	41,934,937	81 9 5
South Australia ...	26,423,045	1,088,674	101,310	27,613,029	75 19 8
Western Australia ...	14,942,310	...	360,850	15,303,160	73 9 2
Tasmania ...	9,009,051	96,835	514,252	9,620,138	55 14 11
Commonwealth ...	208,199,998	14,077,894	15,947,633	238,225,525	61 13 10

These figures show the full public indebtedness of the Commonwealth and the States. Victoria has the smallest amount per head, Tasmania the next, and Queensland the

largest. There are of course private debts to a considerable extent and private investments by British capitalists; but there is no reliable information as to the amount of this class of indebtedness.

General
and local
revenue
and ex-
penditure.

A statement of the ordinary revenue and expenditure and also of the loan expenditure of the General Government and of municipal and local bodies during the last five years will be found in the following table. From the totals of revenue and expenditure, the amounts granted by the State or by one Corporation to another have been deducted:—

	1898.	1899.	1900.	1901.	1902.
<i>Revenue.</i>	£	£	£	£	£
Government ...	6,785,493	7,277,395	7,344,495	7,603,009	6,908,731
Municipalities ..	1,008,005	1,027,926	1,036,497	1,105,262	1,201,230
Melbourne Harbour Trust	132,948	126,946	143,362	151,383	155,513
Melbourne and Metro- politan Board of Works	168,553	236,100	269,213	292,793	315,054
Fire Brigades Boards	17,551	16,818	18,516	19,529	20,278
Total ...	8,112,550	8,685,185	8,812,083	9,171,976	8,600,806
<i>Ordinary Expenditure.</i>					
Government ...	6,579,697	6,995,157	7,176,776	7,563,690	7,309,771
Municipalities	1,041,470	976,679	1,067,038	1,151,282	1,196,422
Melbourne Harbour Trust	137,909	135,607	148,612	158,007	162,603
Melbourne and Metro- politan Board of Works	281,421	306,002	337,079	366,936	373,571
Fire Brigades Boards	14,410	18,253	20,124	19,429	17,887
Total ...	8,054,907	8,431,698	8,749,629	9,259,344	9,060,254
<i>Loan Expenditure.</i>					
Government ...	334,011	712,093	1,005,889	932,265	884,275
Municipal ...	39,141	58,289	61,600	254,098	135,251
Melbourne and Metro- politan Board of Works	439,969	453,356	308,785	616,676	346,884
Fire Brigades Boards	...	1,533	1,609	...	...
Total ...	813,121	1,225,271	1,377,883	1,803,039	1,366,410
<i>Expenditure—Grand Total.</i>	8,868,028	9,656,969	10,127,512	11,062,383	10,426,664
Per Head of Popula- tion—					
Revenue ...	£ s. d. 6 17 2	£ s. d. 7 6 10	£ s. d. 7 8 2	£ s. d. 7 13 2	£ s. d. 7 2 4
Ordinary Expendi- ture	6 16 2	7 2 6	7 7 1	7 14 8	7 9 11
Loan Expenditure	0 13 9	1 0 9	1 3 2	1 10 1	1 2 8

The decrease in the Government revenue and expenditure is due to the transfer of the Departments of Customs, Posts and Telegraphs, and Defence to the Commonwealth.

LOCAL FINANCE.

The municipal districts of the State are of two kinds—urban and rural. In the former the area should not exceed 9 square miles, and should have no point in such area more than 6 miles from any other point therein, and must when first proclaimed contain at least 300 inhabitant householders, and they are designated, according to their gross revenue, cities, towns, or boroughs. A city must have a gross revenue of not less than £20,000; and a town, one of at least £10,000. Rural municipal districts are called shires, and their extent is undefined, but they must contain rateable property capable of yielding a revenue, upon a rate not exceeding one shilling in the pound on the annual value thereof, of £500. Each municipality is a body corporate with perpetual succession and a common seal, and is capable of suing and being sued, and of purchasing, holding, and alienating land. Every ratepayer has one or more votes according to the amount of his rates.

Municipalities.

The following is a summary of the population, number of ratepayers, estimated number of dwellings (inhabited and uninhabited), total and annual value of rateable property, and annual revenue of cities, towns, boroughs, and shires in each of the five years ended 1901-2:—

Year.	Estimated Population.	Number of Rate-payers.	Estimated Number of Dwellings.		Estimated Value of Rateable Property.		Total Revenue.
			Inhabited.	Un-inhabited.	Total.	Annual	
Cities, Towns and Boroughs—							
1898-9	595,485	157,363	132,696	5,990	£ 66,983,137	£ 4,605,199	£ 654,858
1899-00	605,944	153,285	133,825	4,543	67,113,600	4,670,200	657,775
1900-01	} 647,397 {	153,783	} 130,215 {	} 4,250 {	67,302,423	4,765,632	736,240
1901-02		157,320			77,289,493	5,223,282	809,325
Shires—							
1898-9	567,615	159,487	117,212	4,406	101,473,386	5,528,909	538,905
1899-00	577,600	154,662	118,588	4,840	102,798,300	5,613,300	531,102
1900-01	} 551,523 {	159,128	} 111,162 {	} 7,376 {	106,839,331	5,771,865	544,994
1901-02		147,671			107,812,500	5,661,805	491,209
Total—							
1898-9	1,163,100	316,850	249,908	10,396	168,456,523	10,134,108	1,193,763
1899-00	1,183,544	307,947	252,413	9,383	169,911,900	10,283,500	1,188,877
1900-01	} 1,198,920 {	312,911	} 241,377 {	} 11,626 {	174,141,754	10,537,497	1,281,234
1901-02		305,491			185,101,993	10,885,087	1,300,534

The population of the municipalities on the 31st March, 1901, was 1,198,920, and as the total population of the State was 1,201,341, there were only 2,421 persons outside municipal jurisdiction when the census was taken. Of these 2,281 were living on board of ships and vessels, and there were only 140 persons in the State who were not accounted for in any municipality on that night. The number of houses was 253,003, of which 11,626 were uninhabited.

The number of ratepayers returned for 1901-2 was 305,491, and the total value of rateable property £185,101,993, which was equivalent to 17 years' purchase on the annual value, £10,885,087.

The ordinary revenue and expenditure and the revenue and expenditure from loans of municipalities for the financial year ended 30th September, 1902, were as follow:—

Sources of Revenue.				1902.
Taxation—				£
Rates	...	...	...	784,810
Licenses	...	...	...	121,317
Market and Weighbridge Dues	...	...	...	58,113
Government Endowment and Grants	...	...	...	99,304
Contributions for Streets, Footpaths, &c.	...	...	...	21,901
Sanitary Charges	...	...	...	48,332
Rents	...	...	...	56,494
Interest	...	...	...	9,991
Other Sources	...	...	...	100,272
Total				1,300,534
Heads of Expenditure.				
Salaries, &c....	...	...	...	139,174
Sanitary Work	...	...	...	64,095
Street Cleaning, &c.	...	...	...	67,752
Lighting	...	...	...	97,414
Fire Brigades Contribution	...	...	...	15,884
Roads and Bridges—				
Construction	...	...	...	176,251
Maintenance	...	...	...	245,648
Parks, Gardens, Reserves, &c.	...	...	...	24,196
Other Public Works	...	...	...	90,183
Redemption of Loans...	...	...	...	32,015
Interest on Loans	...	...	...	195,186
Charities	...	...	...	13,277
Other Expenditure	...	...	...	134,651
Total				1,295,726

Population and dwellings in municipalities, 1901.

Ratepayers and rateable property in municipalities.

Municipal revenue and expenditure.

MUNICIPAL LOAN RECEIPTS AND EXPENDITURE, 1902.

	Cities, Towns, and Boroughs.	Shires.	Total.
	£	£	£
Receipts during the year	8,496	21,132	29,628
Balance unexpended from previous year ...	365,915	21,937	387,852
Expenditure during the year	109,287	25,964	135,251
Balance unexpended at the end of 1902 ...	265,124	17,105	282,229

The municipal expenditure of loan moneys during the year 1902 amounted to £135,251, of which £109,287 was spent by cities, towns, and boroughs, and £25,964 by shires. This was only a little more than half the amount of such moneys expended in the preceding year, but almost equalled the total expenditure in the three years, 1898 to 1900:—

Municipal
loan ex-
penditure,
1898 to
1902.

	Receipts.	Expenditure.
	£	£
1898	15,421	39,241
1899	42,361	58,289
1900	93,098	61,600
1901	375,683	254,098
1902	29,628	135,251

Sixty per cent. of municipal revenue was derived from rates, 9 per cent. from licences of all kinds, 4 per cent. from market and weighbridge dues, 8 per cent. from Government endowments and grants, 2 per cent. from contributions for streets, footpaths, &c., 4 per cent. from sanitary charges, 4 per cent. from rents, 1 per cent. from interest, and 8 per cent. from all other sources.

Proportion
of municip-
al
revenue
raised
from
different
sources.

In 1902 the salaries of the municipal officers amounted to £139,174, or nearly 10 $\frac{3}{4}$ per cent. of the entire revenue.

Salaries.

A sum of £13,277, equivalent to about 1 per cent. of the revenue, was devoted to local charities—the greater part of this disbursement was in aid of hospitals, benevolent asylums and associations, and orphan asylums.

Local
charities.

The assets of the municipalities are shown under three heads—(1) Municipal Fund, (2) Loan Fund, (3) Property; the

Assets and
liabilities
of municip-
alities.

liabilities under two heads—(1) Municipal Fund, (2) Loan Fund.

Assets.		
Municipal Fund—		£
Uncollected Rates		141,482
Other Assets		153,490
Loan Funds—		
Sinking Funds—		
Amount at Credit		697,019
Arrears due... ..		1,175
Unexpended Balances		282,229
Property—		
Halls, Buildings, Markets, &c.		2,470,460
Waterworks		210,367
Gasworks		61,592
Total Assets		4,017,814
Liabilities.		
Municipal Fund—		
Arrears due to Sinking Funds		1,175
Overdue Interest		13,044
Bank Overdraft		148,236
Temporary Government Advances		17,604
Other Liabilities... ..		147,888
Loan Funds—		
Loans Outstanding... ..		4,254,061
Due on Loan Contracts		33,455
Total Liabilities		4,615,463

Municipal
assets and
liabilities
compared.

The total assets of municipalities amounted to £4,017,814, and the liabilities to £4,615,463, showing a deficiency of £597,649. The aggregate of the current liabilities (Municipal Fund) was £327,947, against which there were assets amounting to £294,972. The gross liability on account of loan expenditure for works completed and in progress was £4,287,516, which, after deducting sinking funds and unexpended balances, was reduced to £3,307,093. If credit were taken for the value of municipal properties (£2,742,419) in markets, halls, buildings, gasworks, waterworks, &c., the net burden on account of loan moneys would be £564,674.

Endowment
of muni-
cipalities.

Under the "Local Government Act 1891," £450,000 was provided as an annual endowment for the municipalities. This was the first statutory provision made since 1879, when an endowment of £310,000, authorised under the "Local Government Act 1874," ceased to be payable. A subsidy, however, in lieu thereof, amounting to £310,000, was voted by Parliament annually, but this vote was gradually increased

until £450,000 was reached in 1889-90 and 1890-91. This amount was reduced to £405,000 per annum from the 1st January, 1893; to £310,000 from 1st July, 1894; to £100,000 from 1st July, 1895, and to £50,000 from 1st July, 1902. The endowment is payable in equal moieties in March and September in each year.

The number of properties rated and the annual assessments thereon in cities, towns and boroughs, and shires, in 1901-2, were as follow:—

Classifica-
tion of
properties
rated,
1901-2.

Rateable Values.	Number of Properties Rated.			Assessment of Properties.		
	In Cities, Towns, and Boroughs.	In Shires.	Total.	In Cities, Towns, and Boroughs.	In Shires.	Total.
				£	£	£
Under £25 ...	138,191	119,146	257,337	2,713,023	2,426,477	5,139,500
£25 to £50 ...	34,848	44,225	79,073			
£50 to £75 ...	8,002	10,681	18,683	693,482	1,096,013	1,789,495
£75 to £100 ...	3,094	6,612	9,706			
£100 to £200	3,823	5,813	9,636	517,663	762,504	1,280,167
£200 to £300	1,013	1,112	2,125			
£300 to £400	435	406	841	1,299,114	1,376,811	2,675,925
£400 to £500	257	226	483			
£500 and up- wards	627	707	1,334			
Total ...	190,290	188,928	379,218	5,223,282	5,661,805	10,885,087

Of these properties, 89 per cent. were of an annual value of under £50, 68 per cent. being less than £25. The annual assessment on properties under £50 amounted to over five millions, or 47 per cent. of the total. Although there are a greater number of properties rated in cities, towns, and boroughs, than in shires, the latter are the more valuable, as evidenced by the fact that the assessment on rural properties amounted to £5,660,000, as against £5,220,000 in urban municipalities.

Value of
properties
compared.

Of the 60 cities, towns, and boroughs, 13 levied rates of 1s. in the £, 3 of 1s. 3d., 3 of 1s. 4d., 12 of 1s. 6d., 15 from 1s. 8d. to 1s. 10d., 9 of 2s., 3 of 2s. 3d., 1 of 2s. 4d., and 1 of 2s. 6d. Of the 148 shires, 3 levied rates of 9d. in the £, 123 of 1s., 7 of 1s. 3d., 1 of 1s. 4d., 6 of 1s. 6d., 3 of 1s. 7d. to 1s. 10d., 4 of 2s., and 1 of 2s. 3d. in the £. These figures give an average rating of 1s. 8d. in the £ in cities, towns, and boroughs, and 1s. 1d. in shires. The rating in the urban districts is thus shown to be 7d. in the £ more than in the rural districts, and it would appear to be a question of considerable importance as to whether the rating in the latter is sufficient to meet the reasonable requirements of the districts.

Ratings in
municipali-
ties, 1902.

Melbourne
and Metro-
politan
Board of
Works—
constitu-
tion and
finances.

The Melbourne and Metropolitan Board of Works was constituted in 1891 for the purpose of taking over from the Board of Land and Works, which was under the direct control of the central Government, the Metropolitan Water Supply and Sewerage Works; and for the purpose of carrying out a scheme of sewerage for the metropolis and its suburbs. The Board consists of 40 members, one of whom is a Chairman elected every four years by the other members, the retiring Chairman being eligible for re-election. Seven of the members are elected by the Melbourne City Council, four by the South Melbourne, three by the Prahran, two each by the Fitzroy, Richmond, St. Kilda, and Collingwood, and one each by the other suburban municipal councils. That portion of the public debt incurred in connection with the Yan Yean Water Supply, amounting to £2,140,000 and the interest thereon, was made a liability of the Board. The following is a statement of the receipts and expenditure of the Board during the five years 1897-8 to 1901-2:—

	1897-8.	1898-9.	1899-1900.	1900-1.	1901-2.
	£	£	£	£	£
<i>Ordinary Receipts.</i>					
Water Supply... ..	163,214	153,603	163,366	164,271	170,488
Sewerage	5,339	82,494	105,937	128,522	144,566
Total	168,553	236,100	269,303	292,793	315,054
<i>Ordinary Expenditure.</i>					
Management	23,954	27,335	36,959	46,171	50,253
Maintenance—					
Water Supply	19,157	16,258	17,486	19,410	20,808
Sewerage... ..	5,633	13,282	22,587	24,582	24,336
Interest on Loans	232,677	249,127	260,047	268,196	278,174
Total	281,421	306,002	337,079	358,359	373,571
<i>Loans Receipts</i>					
	498,748	488,016	247,496	646,328	404,459
<i>Loan Expenditure.</i>					
Water Supply	7,426	17,260	14,814	14,294	16,042
Sewerage	419,983	430,203	292,523	322,030	325,111
Redemption of Loans ... ..	...	...	...	276,820	3,004
Other	12,560	5,893	1,448	3,532	2,727
Total	439,969	453,356	308,785	616,676	346,884

Melbourne
Harbor
Trust—
receipts
and expendi-
ture.

The Melbourne Harbor Trust is a corporate body established in 1876 to regulate, manage, and improve the Port of Melbourne and portions of the Yarra and Saltwater Rivers adjacent, for which purpose certain lands and properties are

vested in seventeen Commissioners, two of whom are elected by the Melbourne City Council, one each by the ratepayers of the municipalities of South Melbourne, Port Melbourne, Williamstown, and Footscray, three by the owners of ships registered at Melbourne, three by merchants and traders paying wharfage rates, and five are appointed by the Governor-in-Council. The following are particulars of the receipts and expenditure during each of the last five years:—

Net Receipts from—	1898.	1899.	1900.	1901.	1902.
	£	£	£	£	£
Wharfage Rates	112,263	110,393	127,785	136,178	140,258
Rents and Licence Fees	10,738	10,904	11,091	10,907	11,861
Other Receipts	9,947	5,649	4,486	4,298	3,394
Total	132,948	126,946	143,362	151,383	155,513
Net Expenditure on—					
Harbour Improvements and Maintenance	19,418	19,668	24,608	28,006	32,062
Wharves, &c. — Construction and Maintenance	19,400	17,746	25,638	32,414	32,871
General Management, &c.	9,968	9,644	10,150	10,107	10,196
Interest on Loans and Expenses	89,123	88,549	88,216	87,480	87,474
Total	137,909	135,607	148,612	158,007	162,603

During the 25½ years since the Trust has been in existence, the net receipts have amounted to £3,451,510, and the expenditure to £5,437,968, or £1,986,458 in excess of the receipts, to meet which loans amounting to £2,000,000 have been incurred. Of this expenditure of nearly 5½ millions, £1,822,804 has been expended on harbour improvements and maintenance, including dredging, landing and depositing silt; £1,383,692 on wharves and approaches, construction and maintenance; and £533,349 on plant.

There are two Fire Brigades Boards, viz.:—A Metropolitan Board having jurisdiction within a radius of 10 miles from the General Post Office; and a Country Board for other parts of the State. Each Board consists of nine members, 3 of whom are appointed by the Governor-in-Council, and in the case of the Metropolitan Board, 3 are elected by the municipalities and 3 by the fire offices; and in the case of the Country Board, 2 are elected by the municipalities, 2 by the fire offices,

Fire
Brigades'
Board—
receipts
and ex-
penditure.

and 2 by the brigades. Particulars of receipts and expenditure during the five years ended 30th June, 1902, are as follow:—

	1898.	1899.	1900.	1901.	1902.
<i>Ordinary Receipts.</i>					
Contributions—Government, Municipal, and Insurance	£ 44,159	£ 42,607	£ 46,852	£ 48,494	£ 49,280
Receipts for Services	591	682	815	1,344	2,062
Interest and Sundries	2,656	1,631	1,774	2,324	1,954
Total	47,406	44,920	49,441	52,162	53,296
<i>Ordinary Expenditure.</i>					
Salaries	16,981	18,585	19,494	23,693	24,410
Fire Expenses	3,008	2,992	3,013	2,917	3,027
Horses, Quarters, &c.	12,414	12,177	12,649	11,319	11,464
Plant—Purchase and Repairs	3,064	3,736	6,962	5,045	2,866
Interest	6,085	6,066	6,071	6,087	6,080
Sinking Fund	2,000	2,000	2,000	2,000	1,971
Miscellaneous	713	799	860	1,001	1,087
Total	44,265	46,355	51,049	52,062	50,905
<i>Loan Expenditure.</i>					
Sewerage Connections ... ..	...	1,533	1,609	...	...



INTERCHANGE.

By the Commonwealth Constitution the collection of Customs and Excise duties was transferred to the Federal Government on the 1st January, 1901, and the departments of Posts and Telegraphs and Defence were transferred by proclamation on 1st March following. The Commonwealth Government collects the revenue of these departments, and after deducting the expenditure of the transferred departments incurred in the State, and the State's proportion of new expenditure on a population basis, returns the balance to the State.

Customs and
Excise
trans-
ferred to
Common-
wealth

A limit to the amount which the Commonwealth may expend is fixed by Section 87 of the Constitution, which provides that not more than one-fourth of the net revenue from Customs and Excise shall be applied to the expenses of the Commonwealth. The operation of this provision is limited to ten years after the introduction of uniform duties, and thereafter until the Commonwealth Parliament otherwise provides. After 8th October, 1906, the Commonwealth Parliament may alter the basis of the distribution of Customs and Excise revenue amongst the States, and may provide for distribution on a population or any other basis. A provisional tariff was introduced by resolution of the House of Representatives on the 8th October, 1901; and the tariff, in its present form, was finally passed on 16th September, 1902, with various modifications of the duties as first proposed. The classification of imports and exports differs in regard to many items in the various States; so that to compare items or classes of products or manufactures in one State with those in another, it is sometimes necessary to search through the whole returns of one State for separated items, which in another State may together form one item.

The total value of imports and exports and their value per head of the population for each of the five years 1898 to 1902 are shown in the following table, the imports being

Imports and
exports.

subdivided according as they are subject to ad valorem, fixed or composite rates of duty, or are free of duty:—

<i>Imports.</i>					1898.	1899.	1900.	1901.	1902.
					£	£	£	£	£
Value of Articles at Ad Valorem Rates of Duty					1,913,271	2,212,665	2,587,079	3,170,147	5,123,101
"	"	Fixed	"	"	2,094,654	3,722,261	4,175,245	4,318,682	3,333,945
"	"	Composite	"	"	..	..	..	..	75,655
"	"	Warehoused	(rate	not	1,892,327	..	..	..	..
		stated)							
"	"	Free	..	..	10,868,652	12,017,968	11,539,487	11,438,511	9,737,481
Total Value	..	..	..	..	16,768,904	17,922,894	18,301,811	18,927,340	18,270,245
Value per Head of Population	..	..	..	..	£ s. d. 14 3 6	£ s. d. 15 2 8	£ s. d. 15 6 9	£ s. d. 15 14 8	£ s. d. 15 2 8
<i>Exports.</i>					£	£	£	£	£
Total Value	..	..	..	..	15,872,246	18,567,780	17,422,552	18,646,097	18,210,523
Value per Head of Population	..	..	..	..	£ s. d. 13 8 4	£ s. d. 15 13 0	£ s. d. 14 12 0	£ s. d. 15 10 0	£ s. d. 15 1 8

The value of imports in 1902 was less by over £600,000 than that of the preceding year, but was greater by a million and a half sterling than in 1898. The impending new Federal tariff was doubtless responsible for the heavy imports of 1901. The change from the State to the Federal tariff has put a much greater portion of the imports on the duty list, the value of goods subject to duty in 1902 being greater by a million sterling than in 1901. The value per head of population increased from £14 3s. 6d. in 1898 to £15 14s. 8d. in 1901, but dropped to £15 2s. 8d. per head in 1902.

The value of exports in 1902 was less by £400,000 than in 1901, but was greater than in 1898 by two millions and a third sterling. The value per head of the population in the five years under review was highest in 1899, that for 1902 being equal to £15 1s. 8d. per head. The greatest differences between the values per head in the imports and exports occurred in 1898 and 1900, when the exports were respectively 15s. 2d. and 14s. 9d. less per head than the imports. In 1899 the exports were 10s. 4d. more per head, and in 1901 and 1902 respectively 4s. 8d. and 1s. less per head than the imports.

Imports and exports to principal countries.

The value of Victorian trade with the other, Australian States, New Zealand, the United Kingdom, other British possessions, and all Foreign countries in each of the last five years was as follows:—

Country.	1898.	1899.	1900.	1901.	1902.
	Imports.				
From—	£	£	£	£	£
Other Australian States	7,258,952	8,050,519	6,364,167	6,240,460	5,412,520
New Zealand ...	361,377	356,311	404,356	619,894	1,151,179
United Kingdom ...	6,195,134	5,990,027	7,055,028	7,221,801	6,935,040
Other British Possessions	786,147	769,483	935,136	1,040,342	1,129,034
Foreign Countries ...	2,167,294	2,786,554	3,543,124	3,804,843	3,642,472
Total ..	16,768,904	17,952,894	18,301,811	18,927,340	18,270,245
	Exports.				
To—	£	£	£	£	£
Other Australian States	6,370,100	4,838,185	5,257,188	5,570,838	7,841,188
New Zealand ...	262,567	345,087	437,322	465,704	638,735
United Kingdom ...	6,740,420	5,648,15	6,363,685	5,425,772	3,443,310
South Africa ...	137,029	1,324,082	1,926,433	3,891,057	2,823,677
Other British Possessions	618,732	2,701,961	1,377,275	958,410	1,438,833
Foreign Countries ...	1,743,398	3,710,315	2,060,649	2,334,316	2,034,780
Total ...	15,872,246	18,567,780	17,422,552	18,646,097	18,210,523

This shows that Victoria's imports from the other Australian States amounted to £7,258,952, or 43 per cent. of the total imports in 1898; and £8,050,519, or 45 per cent. in 1899; but that they fell away during the next three years to £5,412,520, or only 30 per cent. of the whole in 1902.

The imports from the United Kingdom, which were valued at £6,195,134 in 1898, forming 37 per cent. of the total, fell to £5,990,027, or 33 per cent. in 1899; but increased to 38 per cent. of the total imports in each of the next three years. Imports from New Zealand rose from the value of £361,377, or only 2 per cent. of the whole in 1898, to the value of £1,151,179, or 6 per cent., in 1902. Other British possessions contributed 5 per cent. of the imports in 1898, and 6 per cent. in 1902. The imports from Foreign countries were valued at £2,167,294, or 13 per cent. of the whole in 1898, but increased considerably in the four following years, forming 20 per cent. of the whole in 1902. On the whole, these figures disclose that while the import trade from Great Britain only increased by 1 per cent. in the five years, the imports from Foreign countries increased by 7 per cent. in the same period. Victorian exports to the other States of the Commonwealth were valued at £6,370,100 in 1898, forming 40 per cent. of the total

exports, but fell off to £4,838,185, or only 26 per cent. in 1899, rose to 30 per cent. in 1900 and 1901, and amounted to £7,841,188, or 43 per cent. of the total, in 1902. The exports to the United Kingdom amounted to £6,740,420, or 42 per cent. of the whole, in 1898, but formed only 30 per cent. in 1899, 36 per cent. in 1900, 29 per cent. in 1901, and 19 per cent. in 1902; the value in 1902 being only half of that in 1898. The exports to South Africa in 1898 were valued at £137,029, or less than 1 per cent. of the whole; during the next three years they rose rapidly to the value of £3,891,057, or 21 per cent., of the total; in 1902 they were valued at £2,823,677, representing over 15 per cent. of the exports. Exports to New Zealand formed about 1½ per cent. of the whole in 1898, and gradually increased in value and proportion to 3½ per cent. in 1902. Other British possessions took about 4 per cent. of the exports in 1898, 14 per cent. in 1899, but less than 8 per cent. in 1902. Exports to Foreign countries amounted to 11 per cent. of the whole in 1898, 20 per cent. in 1899, 12 per cent. in the next two years, and 11 per cent. in 1902. The exports to the other Australian States, New Zealand, South Africa, and other British possessions show a decided improvement, but those to Great Britain a considerable falling off. Those to Foreign countries remained practically the same during the five years under review.

Imports and
exports to
Australian
States.

The value of Victorian trade with each of the other States of the Commonwealth in each of the last five years was as follows:—

State.	1898.	1899.	1900.	1901.	1902.
Imports.					
From—	£	£	£	£	£
New South Wales ...	3,461,900	3,990,626	4,136,297	4,597,861	3,669,446
Queensland ...	935,724	1,066,206	588,413	517,696	499,595
South Australia ...	402,129	521,995	513,049	492,654	524,952
Western Australia ...	2,224,579	2,119,618	780,291	276,832	291,004
Tasmania ...	234,620	352,074	346,117	355,417	427,523
Total Inter-State	7,258,952	8,050,519	6,364,167	6,240,460	5,412,520
Exports.					
To—					
New South Wales ...	4,263,247	2,436,216	2,953,510	2,992,342	3,747,504
Queensland ...	335,881	423,811	312,498	366,783	1,024,894
South Australia ...	357,758	526,477	462,966	523,978	702,157
Western Australia ...	870,275	795,425	852,167	988,481	1,122,500
Tasmania ...	542,939	656,256	676,047	699,254	1,244,133
Total Inter-State	6,370,100	4,838,185	5,257,188	5,570,838	7,841,188

The imports into Victoria from the sister States as a whole have fallen considerably, the difference in values between 1898 and 1902 being £1,846,432. Queensland and Western Australia are responsible for this large diminution, the imports from the first-named State, on account of the drought there, falling off to the extent of £436,129, chiefly in wool and sugar, and those from Western Australia, being £1,933,575 less in 1902 than in 1898, as that State now mints her own gold instead of sending it to Victoria. New South Wales supplies the great bulk of these imports, contributing 48 per cent. in 1898, 50 per cent. in 1899, 65 per cent. in 1900, 74 per cent. in 1901, and 68 per cent. in 1902. The chief items imported from New South Wales are wool, valued at £1,342,456 in 1898, £1,669,891 in 1899, £1,533,086 in 1900, £1,540,161 in 1901, £864,214 in 1902, the bulk of which is only forwarded to Victoria for shipment abroad; cattle, horses, and sheep, valued at £661,598 in 1898, £699,475 in 1899, £764,157 in 1900, £967,404 in 1901, and £1,094,805 in 1902; coal, valued at £257,644 in 1898, £275,694 in 1899, £403,613 in 1900, £446,053 in 1901, and £427,149 in 1902. Hides and skins, wheat, gold, and frozen mutton are also largely received from New South Wales. The imports from South Australia increased from £402,129, or 5½ per cent., in 1898, to £524,952, or nearly 10 per cent., in 1902. Imports from Tasmania also increased, rising from £234,620, or a little over 3 per cent., in 1898, to £427,523, or 8 per cent., in 1902. Victorian exports to the other Australian States were of greater value in 1898 than in any previous year. There was a decline in 1899, but an improvement in the next two years, and in 1902 they reached the value of £7,841,188. The exports to New South Wales have averaged 55 per cent. of Victoria's exports to Australian States for the past five years; in 1898 they were valued at £4,263,247, but have not reached anything like that value since, amounting to only £2,436,216 in 1899, less than three millions in 1900 and 1901, and nearly three millions and three-quarters sterling in 1902. The chief articles of export to New South Wales are gold, valued at £2,654,000 in 1898, £424,288 in 1899, £1,132,940 in 1900, £893,686 in 1901, and £630,476 in 1902; cattle, horses, and sheep, valued at £139,006 in 1898, £172,680 in 1899, £311,716 in 1900, £312,797 in 1901, and £183,333 in 1902; machinery and agricultural implements, valued at £144,106 in 1898, £164,191 in 1899, £164,767 in 1900, £169,960 in 1901, and £115,737 in 1902; hay, chaff, and straw, valued at £113,231 in 1898, £210,463 in 1899, £62,983 in 1900, £22,753 in 1901, and £830,359 in 1902; grain and sugar, apparel and slops, boots and shoes are also important articles of export to New South Wales. The exports to Western Australia, which were valued at £870,275 in 1898, were valued at £1,122,500 in 1902; the exports to Tasmania were worth only

£542,939 in 1898, but gradually increased in value during the next three years, and in 1902 were valued at £1,244,133, or £700,000 more than in 1898; the exports to South Australia were valued at £357,758 in 1898, but at nearly double that amount in 1902; the exports to Queensland were valued at £335,881 in 1898, and at more than three times that amount in 1902.

Exports of
home
produce.

The values of the principal articles of export entered at the Customs by exporters as being the produce or manufacture of Victoria during each of the last five years were as follow:—

Principal Articles.	1898.	1899.	1900.	1901.	1902.
	£	£	£	£	£
Wool	2,228,476	3,350,351	2,289,341	2,511,019	2,331,657
Grain and Pulse—					
Wheat	155,768	1,213,747	700,814	1,064,649	500,436
Other	108,735	65,154	292,705	317,010	340,734
Butter and Cheese	740,608	1,419,294	1,509,383	1,246,739	796,789
Hay and Chaff	124,705	257,496	316,352	407,433	1,242,186
Flour	116,637	229,901	196,899	199,506	179,293
Sugar (refined) and Molasses	132,940	142,117	103,302	133,666	127,975
Leather	286,279	292,474	311,240	300,905	237,442
Tallow	88,686	138,727	172,397	92,482	82,478
Skins and Hides	276,335	260,275	165,604	252,682	365,659
Horses, Cattle, and Sheep ...	149,492	232,629	455,245	514,870	444,293
Other Articles	1,469,966	1,831,185	2,149,850	2,542,667	3,598,780
Total Merchandise	5,878,627	9,433,350	8,663,132	9,583,628	10,247,722
Gold (Bullion and Specie)	3,296,782	1,555,989	2,663,220	3,104,911	2,945,511
Total	9,175,409	10,989,339	11,326,352	12,688,539	13,193,233
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per Head of Population	7 15 2	9 5 3	9 9 10	10 10 9	10 18 7
Percentage of Total Exports	57·808	59·185	65·010	68·049	72·448

These figures afford some indication of the condition of external trade in local products. Owing to the value of Victorian wool and gold, as given by the exporters, being defective, the value of the net exports (i.e., excess of exports over imports) has been substituted therefor in this statement. The exports of home produce as a whole show considerable improvement during the past five years: in 1898 they were valued at a little over 9 millions; in 1899, just under 11 millions; in 1900, 11 1-3 millions; in 1901, 12 2-3 millions; and in 1902 over 13 1-5 millions. The average value of these exports for the five years under review amounts to £11,474,000, that for the previous five years being £8,638,000. The value per head of the population rose from £7 15s. 2d. in 1898 to £10 18s. 7d. in 1902, and the proportion to the total exports from 58 per cent. in 1898 to 72½ per cent. in 1902.

Hay shows a larger growth in value than any other article, in the five years dealt with, 1900, 1901, and 1902 being each successively a record year, and the value in 1902 three times as much as that of 1901. After a good year in 1898, gold fell off considerably in 1899, in 1900 was well up to the average of the five years, and in 1901 and 1902 considerably above it. Except for a large rise of over a million sterling in 1899, wool has been fairly uniform throughout the period under notice. Wheat has had considerable fluctuations, being very low in 1898, but 1899 was the best year since 1884. The butter and cheese figures for 1898 are lower than those for any year since 1893, but the figures for 1899 and 1900 eclipse those of all previous years. The value of horses, &c., in 1901, is the highest since 1885. The chief articles of home produce or manufacture, comprised under the item "Other Articles," for the year 1902 are:—Apparel and slops, £249,000; biscuits, £120,000; boots and shoes, £186,000; manufactured fodder, £90,000; fruits (fresh and preserved), £136,000; bran, oatmeal, and pollard, £95,000; jam, £111,000; machinery and agricultural implements, £195,000; bacon and hams, £130,000; frozen mutton and beef, £196,000; frozen rabbits, £160,000; sugar and molasses, £128,000; tobacco, cigars, &c., £142,000; onions, £75,000; potatoes, £130,000; and wine, spirits, and beer, £128,000. The value of all domestic exports in 1902, as compared with 1898, increased 4 millions, the articles showing the largest increases being—hay and chaff, £1,117,000; wheat, £345,000; horses, cattle, and sheep, £295,000; grain other than wheat, £232,000; wool, £103,000; skins and hides, £89,000; flour, £63,000; butter and cheese, £56,000; but gold diminished £351,000 and leather £49,000. As compared with 1899, gold shows an improved value of £1,389,000; hay and chaff, £985,000; grain other than wheat, £276,000; horses, &c., £212,000; skins and hides, £105,000; but wool diminished £1,019,000; wheat, £713,000; butter, &c., £622,000; tallow, £56,000; leather, £55,000; flour, £51,000; the net increase being 2 1-5 millions. As compared with 1900, hay and chaff were of greater value by £926,000; gold, £282,000; skins, &c., £200,000; grain other than wheat, £48,000; wool, £42,000; and sugar, £25,000; but butter and cheese were of lesser value by £713,000; wheat, £200,000; tallow, £90,000; leather, £74,000; the net increase being £1,867,000. As compared with 1901, hay, &c., was of greater value by £835,000; skins, &c., £113,000; grain other than wheat, £24,000; but wheat was £564,000 less; butter, &c., £450,000; wool, £179,000; gold, £159,000; horses, &c., £71,000; leather, £63,000; and flour, £20,000 less; the net increase being £505,000.

Net revenue
of Customs
Depart-
ment.

The following are the net amounts of Customs and Excise duty collected in each of the last five years, the principal articles being separately distinguished:—

Articles.	1898.	1899.	1900.	1901.	1902.
Import duty—	£	£	£	£	£
Alcoholic Liquors ...	448,430	471,113	494,377	669,625	431,219
Narcotics ...	242,394	244,810	246,314	309,506	188,685
Sugar and Molasses	272,527	273,255	275,787	281,557	249,183
Rice ...	20,755	17,948	18,184	21,797	
Dried and Preserved Fruit and Vegetables	51,709	58,133	38,066	34,632	
All Other Articles at Fixed Rates	472,033	434,177	419,643	377,078	
Articles at Ad Valo- rem Rates	400,203	404,669	488,008	539,187	
Total Import Duties	1,908,051	1,904,105	1,980,379	2,233,382	2,013,241
Excise Duty—					
Spirits ...	86,516	89,427	87,236	132,180	64,838
Beer ...	167,647	169,913	176,787	185,019	184,890
Tobacco, etc. ...	55,357	61,777	76,655	112,200	109,915
Sugar ...	...	...	...	9,870	31,524
Starch ...	...	...	...	...	9,054
Total Excise Duties	309,520	321,117	340,678	439,269	400,221
Miscellaneous ...	75,766	80,559	92,632	49,494	44,375
Grand Total...	2,293,337	2,305,781	2,413,689	2,722,145	2,457,837

The net revenue collected by the Department of Trade and Customs in Victoria from all sources, after deducting drawbacks, refunds, and rebates, amounted to £2,457,837 in 1902, being £19,000 above the average of the five years shown above; £164,000 more than in 1898; £152,000 more than in 1899; £44,000 more than in 1900; but £264,000 less than in 1901. The revenue from Customs duties in 1902 was £5,000 above the average of the five years; £105,000 more than in 1898; £109,000 more than in 1899; £33,000 more than in 1900; but £220,000 less than in 1901. The revenue from Excise duties in 1902 was £38,000 above the average of the five years; £91,000 more than in 1898; £79,000 more than in 1899; £59,000 more than in 1900; but £39,000 less than in 1901. The imports of alcoholic liquors and narcotics were very heavy in 1901, probably on account of the impending change in the new Federal tariff, and it is these items that are mainly responsible for the decline in the revenue in the following year.

Imported goods, other than stimulants and narcotics, on which duty has been paid are allowed drawback, which is equivalent to a refund, of the duty paid, if subsequently exported. Drawback is allowed not only on goods exported in the same condition as when imported, but also upon imported goods which have been subjected to some process of manufacture in Victoria. Drawbacks are included in the general exports. The following are the figures for the last five years:—

Year.	Value of Goods Exported for Drawback.	Amount Paid as Drawback.
	£	£
1898	492,125	86,678
1899	508,560	97,962
1900	568,456	92,404
1901	577,928	115,283
1902 ... ..	...	45,022

From 1872, when the system of allowing drawbacks was first introduced, to the end of 1902, the total amount of duty repaid as drawback was £2,850,698. The withdrawals were heavy in 1901, but very light in 1902, the difference in the amount paid as drawback being £70,261.

Victorian shipping has considerably increased during the last five years; the number of vessels (excluding those engaged in the Victorian coastal trade) entered and cleared at Victorian ports, their gross tonnage, and the number of men forming their crews in each of the years 1898 to 1902 being:—

Vessels entered and cleared.

	1898.	1899.	1900.	1901.	1902.
Vessels Entered—					
Number	2,008	2,024	2,101	2,418	2,278
Tons	2,472,745	2,662,792	2,929,389	3,392,226	3,366,485
Men	91,208	92,397	97,770	107,120	110,134
Vessels Cleared—					
Number	2,043	2,031	2,134	2,347	2,286
Tons	2,483,992	2,678,663	2,944,192	3,323,265	3,372,555
Men	91,546	93,196	97,885	105,798	110,293
Total Vessels Entered and Cleared—					
Number	4,051	4,055	4,235	4,765	4,564
Tons	4,956,737	5,341,455	5,873,581	6,715,491	6,739,040

The number of vessels entered and cleared in 1902 has increased 12 per cent. as compared with 1898, their tonnage 36 per cent., and the number of men forming their crews 20 per cent.

Nationality
of vessels.

The nationality of vessels entered and cleared at Victorian ports in each of the years 1898 to 1902 was as shown hereunder:—

Year.	Total.	British.	Colonial.	Foreign.
Entered.				
1898	2,008	378	1,498	132
1899	2,024	416	1,453	155
1900	2,101	748	1,189	164
1901	2,418	580	1,640	198
1902	2,278	497	1,613	168
Cleared.				
1898	2,043	382	1,531	130
1899	2,031	420	1,459	152
1900	2,134	807	1,159	168
1901	2,347	561	1,598	188
1902	2,286	517	1,602	167

Fifteen per cent. of the Victorian shipping has wavered from Colonial to British ownership and back again between the years 1898 and 1902. Colonial vessels formed 75 per cent. of the total inwards and outwards in 1898, 72 in 1899, 55 in 1900, 68 in 1901, and 71 per cent. in 1902. British vessels amounted to 19 per cent. in 1898, 21 in 1899, 37 in 1900, 24 in 1901, and 22 per cent. in 1902. Foreign vessels were 6 per cent. of the total in 1898, 7 in 1899, 8 in 1900 and 1901, and 7 per cent. in 1902.

Vessels on
Victorian
register.

The vessels on the Victorian register were as follow on the 31st December, 1902, the ports of their registration and their net tonnage being distinguished:—

Port.	Steamers.		Sailing Vessels.		Total.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.
Melbourne	153	72,805	219	37,187	372	109,992
Geelong ... ..	...	...	4	358	4	358
Port Fairy	2	602	...	...	2	602
Total	155	73,407	223	37,545	378	110,952

Vessels on
registers of
Austral-
asian
States.

The following is a statement of the number and net tonnage of vessels on the registers of all the Australian States and New Zealand on the 30th June, 1903. It will be seen that the tonnage on the Victorian and New South Wales registers exceeded 100,000 tons:—

State.	Steamers.		Sailing Vessels.		Total.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.
Victoria ...	154	80,009	228	37,824	382	117,833
New South Wales ...	531	66,938	549	57,509	1,080	124,447
Queensland ...	101	15,006	167	10,218	278	25,224
South Australia ...	112	31,535	266	20,469	378	52,004
Western Australia ...	29	5,366	233	7,273	262	12,639
Tasmania ...	54	9,952	152	9,350	206	19,302
Total Australia ...	981	208,806	1,595	142,643	2,576	351,449
New Zealand ...	222	59,163	224	40,147	446	99,310
Total ...	1,203	267,969	1,819	182,790	3,022	450,759

In 1902 the Melbourne Harbor Trust possessed seven Dredges. dredges, having an aggregate lifting capacity of 3,560 tons per hour under ordinary circumstances, but varying according to the character of the material dredged, whether silt, sand, clay, rotten rock, &c. Of the above dredges two are end-cutting, two are central-ladder, one is side-cutting ladder, and two are grab dredges or silt cranes.

The total quantity of dredgings actually raised in 1902 Silt raised. amounted to 1,080,375 cubic yards, viz., 197,625 cubic yards from the bay, and 882,750 cubic yards from the river. Since the establishment of the Trust, the river dredgings have amounted to 19,558,804 cubic yards, and the bay dredgings to 11,666,424 cubic yards, making a total of 31,225,228 cubic yards. Of the dredgings, 21,548,323 cubic yards were deposited at sea, and 9,676,905 cubic yards were landed for roads and reclamation work. The average cost of dredging in 1902 was 2·40d. per cubic yard.

The postal returns for Victoria are incomplete, as Inter-state and International letters, newspapers, and packets posted at suburban and country post offices are not included. The figures for the past five years are as follow:— Postal re- turns.

	1898.	1899.	1900.	1901.	1902.
Number of Post Offices	1,581	1,593	1,615	1,637	1,645
Posted and Received—					
Letters and Post Cards	55,220,845	78,977,930	74,291,204	83,973,499	98,342,507
Newspapers ...	26,390,126	23,614,234	25,466,342	27,125,251	33,638,532
Packets ...	10,477,080	10,674,436	11,904,221	13,172,858	16,966,644
Parcels ...	273,732	283,426	298,352	309,118	365,898
Total ...	92,361,783	113,550,026	111,960,119	124,580,726	149,313,581

The volume of business done by the post office has grown considerably in the five years under review, that for 1902 being 62 per cent. more than that for 1898. The number of letters for 1902 is 78 per cent. higher than the number for 1898. International newspapers received are included with packets in 1902.

Money orders and postal notes.

Money order offices are established at 475 places in connexion with the post office. Money orders are payable throughout the Commonwealth, New Zealand, Great Britain, and Ireland, and most of the principal British and Foreign countries. The maximum amount for which orders payable in most countries outside the Commonwealth are issued is £10, for orders payable within the Commonwealth and certain other countries £20. The maximum charge is 6d. in the pound. Postal notes, ranging from 1s. to £1 in value, are issued and paid throughout the Commonwealth, the poundage ranging from $\frac{1}{2}$ d. to 3d. The following is a comparative statement of the business done since 1898:—

	1898.	1899.	1900.	1901.	1902.
Money Orders Issued—					
Number	216,165	223,335	223,566	228,931	217,634
Amount	£678,616	£681,962	£675,982	£700,618	£706,791
Money Orders Paid—					
Number	304,783	280,139	287,219	298,860	306,510
Amount	£1,064,180	£943,672	£961,270	£1,004,725	£1,053,313
Postal Notes—					
Victorian — Paid in Victoria	£437,369	£454,135	£474,907	£504,039	£498,174
Victorian — Paid in Other States	£16,512	£17,550	£18,270	£19,171	£30,207
Of Other States— Paid in Victoria	£23,745	£26,080	£27,583	£28,205	£46,805

The issue of money orders has varied both in number and amount during the past five years, from 216,165 for £678,616 in 1898 to 228,931 for £700,618 in 1901, and 217,634 for £706,791 in 1902. Money orders paid fell away from 304,783 for £1,064,180 in 1898 to 280,139 for £943,672 in 1899, but steadily increased during the next three years, attaining to 306,510 for £1,053,313 in 1902. The business in postal notes has increased considerably, the amount of Victorian notes paid within the State being £60,000 more than in 1898. The business with the other States, after a gradual improvement year by year up to 1901, shows a big rise in 1902, attributable to the removal of Interstate restrictions which existed prior to the Federation of the States.

Telegraphs and telegrams.

Telegraphic communication exists between 875 stations within the State. Victorian lines are connected with those of New South Wales, and by means of them with Queensland and the submarine cable to New Zealand, also with the lines

in South Australia, and through them with those of Western Australia, the Eastern Archipelago, Asia, Europe, and America; also with the submarine cable to Tasmania; the length of lines and wire open, and the number of telegrams sent from Victorian stations in the last five years being:—

	1898.	1899.	1900.	1901.	1902.
Number of Stations... ..	782	830	824	843	875
Miles open—					
Line (poles)	6,431	6,579	6,445	6,468	6,589
Wire	14,536	14,922	15,198	15,356	15,611
Number of Telegrams sent—					
Paid—Inland	1,376,158	1,416,489	1,522,642	1,513,217	1,524,236
Interstate	332,274	376,195	360,789	410,970	434,807
International	19,055	21,328	23,075	22,725	41,822
Unpaid—O.H.M.S.	78,697	75,477	86,503	110,768	93,892
Total	1,806,184	1,889,488	1,993,009	2,057,680	2,094,757

In 1902 there were nearly 100 telegraph stations, and over 1,000 miles of telegraph wire more than in 1898. The total number of telegrams sent was greater in 1902 than in 1898 by 288,573, the greatest increase between any two years being that of 103,521 between 1899 and 1900. Between 1901 and 1902 the increase was only 37,077, the O.H.M.S. telegrams falling off to the extent of 16,876. New Zealand telegrams for 1902 are included with International, for previous years they are included with Interstate.

The telephone exchanges were worked by a private company until September, 1887, in which month the business, buildings, and plant were purchased by the Government. The annual rental for business telephones in Melbourne and suburbs is £9, in country towns £7. For private residence telephones in Melbourne, suburbs, and country the rental is £5. The country exchanges are at Ballarat, Bendigo, Geelong, and Queenscliff. The following statement shows for the past five years the length of lines and wire open, the number of exchanges, subscribers, bureaux, and private lines:—

	1898.	1899.	1900.	1901.	1902.
Miles Open—					
Lines (Poles and under-ground Cables)	822	889	1,109	1,224	1,275
Wire	11,425	13,794	16,748	17,763	21,308
Exchanges—					
Number	13	14	17	20	20
Subscribers	3,630	4,407	5,136	6,049	6,847
Bureaux	40	64	64	70	74
Private Lines	219	281	311	383	388

The length of lines and wire include lines used exclusively by the Railway Department, which are not available for public use. The length of wire has increased 86 per cent., and the number of subscribers 89 per cent. since 1898.

Railways,
length
and cost

The railways of Victoria are owned by the State. The length of lines constructed on the 30th June, 1902, was 3,303 miles, including $1\frac{1}{4}$ miles constructed on disputed territory on the South Australian border, $16\frac{1}{4}$ miles dismantled in 1898, and $8\frac{3}{4}$ miles closed to traffic, but excluding the Dookie to Katamatite tramway, 17 miles in length, taken over from the Yarrawonga Shire Council in 1898, and upon which the Railway Department has expended £5,351 for improvements. The following table shows the length of double and single lines, the cost of construction, and average cost per mile for the last five years:—

	1898.	1899.	1900.	1901.	1902.
Length of Lines on 30th June—					
Double Lines ...	294	294	294	294	297 $\frac{1}{4}$
Single Lines ...	2,819 $\frac{1}{4}$	2,849 $\frac{1}{2}$	2,924 $\frac{1}{2}$	2,944 $\frac{1}{4}$	3,005 $\frac{3}{4}$
Total ...	3,113 $\frac{1}{4}$	3,143 $\frac{1}{2}$	3,218 $\frac{1}{2}$	3,238 $\frac{1}{4}$	3,303
	£	£	£	£	£
Cost of Construction ...	30,510,985	30,713,587	31,044,239	31,232,023	31,716,408
Average Cost per mile	9,800	9,770	9,645	9,645	9,602

NOTE.—The Woomelang to Mildura line has since been opened.

Owing to the care taken in keeping down the cost of construction of new lines, the average cost per mile of railways as a whole has been gradually reduced during the past five years, that for 1902 being £200 less than that for 1898. The only line in progress on the 30th June, 1902, was the Woome-lang to Mildura line, $127\frac{1}{2}$ miles in length, on which £43,249 had been expended up to that time.

Railway
traffic

Since 1898, $189\frac{3}{4}$ miles of new lines have been opened for traffic, and the length of lines closed to traffic reduced by 23 miles. The following statement shows the number of train miles run, and the passenger and goods traffic during the past five years:—

	1898.	1899.	1900.	1901.	1902.
Miles Constructed ...	3,113 $\frac{1}{4}$	3,143 $\frac{1}{2}$	3,218 $\frac{1}{2}$	3,238 $\frac{1}{4}$	3,303
„ Dismantled ...	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$
„ Closed to Traffic	31 $\frac{3}{4}$	39 $\frac{3}{4}$	8 $\frac{3}{4}$	8 $\frac{3}{4}$	8 $\frac{3}{4}$
„ Open for Traffic (30th June)	3,065 $\frac{1}{4}$	3,087 $\frac{1}{2}$	3,193 $\frac{1}{2}$	3,213 $\frac{1}{4}$	3,278
Train Mileage ...	9,239,657	9,714,298	10,107,549	11,066,016	11,284,944
Passengers carried ...	43,090,749	45,805,043	49,332,899	54,704,062	57,465,077
Goods and Live Stock Carried (Tons)	2,408,665	2,779,748	2,998,303	3,381,860	3,433,627

There has been a steady rise since 1898 in the number of train miles run, and it is satisfactory to note that the passengers, goods, and live stock carried have also progressed steadily year by year. The train mileage of 1902 was 22 per cent. higher than that of 1898, whilst the number of passengers carried was 33 per cent., and the tonnage of goods and live stock 42 per cent.

The receipts and working expenses of the railways during the financial years 1897-8 to 1901-2 were as follow:—

Railway receipts and expenditure.

	Year ended June.				
	1898.	1899.	1900.	1901.	1902.
Receipts—	£	£	£	£	£
Passenger Fares ...	1,089,952	1,127,870	1,214,348	1,368,311	1,378,746
Freight on Goods and Live Stock	1,283,834	1,501,729	1,555,252	1,711,894	1,719,462
Sundries ...	235,110	244,130	255,562	257,592	269,635
Total ...	2,608,896	2,873,729	3,025,162	3,337,797	3,367,843
Working Expenses—					
Maintenance ...	408,837	480,792	498,459	518,488	501,938
Locomotive Charges	459,993	502,763	537,340	646,192	710,105
Carriages and Wag-gons	111,113	130,659	142,639	147,153	145,359
Traffic Charges ...	526,958	546,754	564,908	609,000	640,442
Compensation ...	7,892	3,611	6,862	7,945	31,145
General Charges ...	135,001	133,147	152,332	146,461	137,129
Total ...	1,649,794	1,797,726	1,902,540	2,075,239	2,166,118
Net Receipts ...	959,102	1,076,003	1,122,622	1,262,558	1,201,725
Proportion of Expenses to Receipts	63·24	62·56	62·89	62·17½	64·32

The receipts, both from passenger fares and freights, have grown considerably during the past five years, the total increase being over three-quarters of a million sterling. The working expenses have increased during the same period by a little more than half a million, the increase being chiefly under the heads of locomotive power, general maintenance, and traffic charges. The net receipts for 1901-2, although £61,000 less than in 1900-1, were nearly a quarter of a million higher than in 1897-8. The proportion of expenses to receipts was higher in 1901-2 than in any of the other years under review.

The earnings, expenses, and net profits per mile of railway open, for the years 1898 to 1902, were as follow:—

	1898.	1899.	1900.	1901.	1902.
Average Number of Miles Open ...	3,124 $\frac{3}{4}$	3,123 $\frac{1}{4}$	3,187 $\frac{1}{4}$	3,229 $\frac{3}{4}$	3,266 $\frac{1}{2}$
	£	£	£	£	£
Gross Earnings per Mile ...	835	920	949	1,033	1,031
Expenses per Mile ...	528	576	597	642	663
Net Profits per Mile ...	307	344	352	391	368

The receipts per mile open have increased since 1898 by £196, and the expenses by £135, the net profits for 1901-2 being £61 more per mile than for 1897-8, but £23 less than for 1900-1. It must be understood, however, that this result excludes all consideration of interest payable on railway loans, and expenses of paying same, which amounted to £1,492,695 in 1901-2, equal to a charge of £457 per mile open. The average number of miles open given above includes the Dookie to Katamatite tramway (17 miles), and 1 $\frac{1}{4}$ miles constructed on disputed territory on the South Australian border.

This coal is now largely used by the Railway Department for steaming purposes. In 1900, 76,233 tons were consumed; in 1901, 95,273 tons; and in the year ended 31st December, 1902, 120,854 tons. The quantity carried for use by the general public was 140,740 tons in 1900, 109,801 tons in 1901, and 98,781 tons in 1902; the rate of the carriage being $\frac{3}{4}$ d. per ton per mile, of which $\frac{1}{4}$ d. per ton per mile was paid by the Government.

By the "Melbourne Tramway and Omnibus Company's Act 1883" (47 Vict. No. 765), passed on the 12th October, 1883, the company was authorized to construct tramways in the streets of Melbourne and suburbs, unless the twelve municipalities interested, viz., the cities of Melbourne, Prahran, Richmond, Fitzroy, Collingwood, South Melbourne, Hawthorn, and St. Kilda; the towns of North Melbourne, Brunswick, and Port Melbourne; and the borough of Kew; who had the prior right, elected to do so. All the municipalities, however, decided to exercise the powers conferred upon them, and, the necessary notice to the company having been given, a Tramways Trust was formed, as provided by the Act. This body, which consists of seven delegates from the Melbourne City Council, and one from each of the other eleven municipalities, received full power to construct tramways, and to borrow money for

that purpose, secured on the municipal properties and revenues and on the tramways themselves. The Trust was required by the above-mentioned Act, as modified by the amending Acts (51 Vict. No. 952 and 56 Vict. No. 1278), to complete the tramways by the 31st December, 1893, and to grant a 32 years' lease of the tramways to the company, dating from the 1st July, 1884 (when the liability for interest commenced), and expiring on the 1st July, 1916. The company, on its part, is required to find all the rolling-stock, to keep the tramways and adjoining road, a total width of 17 feet, in complete repair; to hand back the lines in good working condition to the Trust at the expiration of the lease, and to pay to the Trust the annual interest on the moneys borrowed; also to contribute annually a certain varying percentage on the sums borrowed, so as to form a sinking fund towards the ultimate extinction of the loans. The expenses of the Trust to the 31st December, 1893, were defrayed out of the loan; after that period by the company to an amount not exceeding £1,000 per annum, and the remainder by the municipalities; and the liability on account of loans is by Act 48 Vict. No. 788 made a joint and several charge on the properties and revenues of the several municipalities. The total amount the Trust is empowered to borrow is £1,650,000, which has been raised in London by means of debentures bearing interest at 4½ per cent. The premiums received amounted to £55,794, making a total of £1,705,794. The whole of this was expended by the 31st December, 1893, when all outlay from loan moneys ceased in accordance with Act No. 1278. The sinking fund on the 1st July, 1903, amounted to £691,000. The following particulars have been kindly furnished by Mr. T. Hamilton, secretary to the Tramways Trust:—

The total length of tramways authorized and constructed amounts to 47 miles 4 furlongs, of which 43 miles 6 furlongs are worked by cables and stationary steam-engines, and the remaining 3 miles 6 furlongs by horses.

The cable lines form one of the largest systems of this description of tramway in the world, and the method of construction adopted combined all the best features and latest improvements of lines constructed both in America and Europe.

A uniform fare of 3d. is authorized to be charged on the tramway lines, except on the section between the Spencer-street and Prince's-bridge Railway Stations, *via* Flinders-street, on which the fare is 1d. But the company is required to run, upon all lines open for traffic, every morning between the hours of 6 and 7, and every evening between the hours of 5.30 and 6.30 (Sundays and public holidays excepted), two or more carriages for workmen at a fare of 1½d. per journey. All fares will be, by Act No. 765, section 26, subject to revision by Parliament after the lapse of ten years from the date of the first 20 miles of tramway being opened for traffic, *viz.*, on the 31st December, 1897.

The lengths of the several lines and the dates on which they were opened for traffic were given in previous issues of this work.

The succeeding table has been compiled from information furnished by the secretary of the Melbourne Tramway and Omnibus Company:—

Year ended 30th June.	Length of Lines Open.	Tram Mileage.	Passengers Carried.	Traffic Receipts.
1898	48	7,983,852	36,245,280	£ 370,477
1899	48	8,364,707	38,875,210	389,427
1900	48	8,411,159	41,661,580	415,023
1901	48	8,964,734	47,195,647	465,427
1902	48	9,226,883	47,261,572	454,683

The tram mileage shows a steady increase during the past five years, that for 1902 being the greatest since the opening of the first tram line in 1885. The number of passengers carried has grown considerably; the passengers for 1902 being second only to the number carried in 1891, when they were nearly 800,000 more. The traffic receipts reached £562,541 in 1891, but in the next few years there was a fall to £346,582 in 1896; since then, however, there has been a steady recovery year by year, until in 1901 they amounted to £465,427. On account of the reduction in fares the receipts for 1902 were less by £10,744 than for 1901.

Besides the lines of the Melbourne Tramway and Omnibus Company, there is a cable tramway, $2\frac{1}{4}$ miles in length, between Clifton Hill and Preston; a horse tramway, 7 miles in length, between Sandringham and Cheltenham (Beaumaris); and a horse tramway, $1\frac{1}{2}$ mile in length, between Brunswick and Coburg. All these lines are the property of, and are worked by, limited liability companies. The cost of the Beaumaris tramway to 30th June, 1901, was £21,813. The following were the traffic receipts, &c., on this line during the last five years:—

BEAUMARIS TRAMWAY.

	Miles run.	Receipts.	Working expenses.
		£	£
1897-8	34,618	1,164	1,036
1898-9	35,622	1,270	1,207
1899-00	37,327	1,241	1,339
1900-01	38,723	1,323	1,281
1901-2	39,500	1,528	1,622

The number of vehicles licensed for the conveyance of passengers in Melbourne, and for a distance of 8 miles beyond the corporate limits, in 1902, was 1,620, of which 716 were tramcars and dummies; whilst the number of drivers licensed

for the conveyance of goods was 1,339. The following are the particulars for the last five years:—

	Number in—				
	1898.	1899.	1900.	1901.	1902.
<i>For Passenger Traffic.</i>					
Cabs (4 wheels)	679	682	663	657	637
Hansoms	212	218	208	199	210
Omnibuses	18	18	19	22	57
Tram cars	358	361	376	372	372
„ dummies	320	327	340	359	344
Total	1,587	1,606	1,606	1,609	1,620
<i>For Conveyance of Goods.</i>					
Drivers licensed	1,332	1,388	1,388	1,265	1,339

ACCUMULATION.

Wealth of
the people;
Victoria,
New South
Wales, and
New Zea-
land.

The returns of the Probate Office provide a means whereby a fairly accurate estimate may be made of the private wealth of the people. Of course the estimate must only be taken as approximate, but it will be shown exactly how far the method can be relied on, and what are its defects. The property left by persons who died during the last five years is the basis whereby the property owned by the people alive, as shown by the census of 1901, is estimated. A period of five years is taken, because the returns for a single year may be unduly inflated by the falling in of one or several very large estates; but the period of five years balances any inequality in a single year. The average amount left by each adult who died during the period is assumed to be the average amount owned by each adult alive at the census of 1901. The accumulated wealth of an individual is believed to be greater at a more advanced than at a less advanced age, and is probably greatest at death. Whatever advantage there may be is probably counterbalanced by the small estates, for which no probate or administration is taken out. Deposits in Savings Banks up to £100 may be divided amongst those entitled without taking out probate or administration; and on 30th June, 1902, such deposits amounted to 5½ millions, most of which is thus unaccounted for in the estimate made. Notwithstanding the stringent provisions of the "Probate and Administration Act," making chargeable with probate duty settlements and deeds of gift intended to evade payment of the duty, it is probable that some of these escape detection, and would also be unaccounted for in the calculation. The following is a statement, on the basis explained, of the private wealth in Victoria, New South Wales, and New Zealand. The net amount of property left is, for the calendar years 1898 to 1902, in Victoria; from 1897 to 1901, in New Zealand; and for the financial years 1897-8 to 1901-2, in New South Wales. The deaths of adults are for 1898 to 1902, in Victoria; and for 1897 to 1901, in the other two States:—

	Victoria.	New South Wales.	New Zealand.
Estates of Deceased Persons—Net Amount Sworn to	£25,633,200	£24,027,422	£10,596,250
Deaths of Adults	53,213	45,139	23,280
Average Amount left by each Adult...	£482	£532	£455
Adults Alive at Census, 1901	651,143	700,480	412,996
Private Wealth—Total	£313,851,000	£372,655,000	£187,913,200
" " Per Head of Population	£261	£275	£243

Estimates for the other States cannot be given, in the absence of information as to whether the figures published by them refer to the gross or net values of the estates left. The gross value only is returned in Victoria; but both the gross and net values are published by New South Wales; and the gross value in Victoria is reduced to net, by assuming that the gross bears the same ratio to the net as in New South Wales, and reducing the gross amount accordingly. Although the property left in Victoria by people dying during the five years amounted to £25 2-3 millions, as against 24 millions in New South Wales, the Victorian property was left by a much larger number of adults who died, which brings out the wealth per head slightly greater in New South Wales. It must be remembered, however, that the wealth represented by this estimate is the private wealth "in" the State, and not that "of" the State. Probates, &c., of persons dying out of the State leaving property in the State are included in the figures quoted; but on the other hand, many Victorians have large interests, pastoral, mining, and other, in the other States. Taking the net incomes from property of absentees in 1900 and capitalizing the same on a 4 per cent. basis, the income-returning property owned by outside investors in Victoria was £20,140,000.

Notwithstanding that the total amount of private wealth in New South Wales exceeds that in Victoria, and is also slightly in excess per head of the population, yet the diffusion of wealth in Victoria is much greater than in New South Wales. The following are the number of persons who died leaving property, as shown by the probate returns, the number of adult deaths, and the proportion of adults who died leaving property during the five years 1898-1902 in Victoria, 1897-8 to 1901-2 in New South Wales, and 1897 to 1901 in New Zealand:—

Wider diffusion of wealth in Victoria.

	Deaths of Adults.	Estates Proved.	
		Number.	Number per 1000 Adults.
Victoria	53,213	19,014	357
New South Wales	45,139	12,565	278
New Zealand	23,280	6,544	281

It will be seen that more than one-third of the adults who died in Victoria during the last five years (women included) are possessed of accumulated property. Assuming that a similar proportion of the adults alive at the census of 1901 were possessed of such property, the number of such persons would be 232,670 in Victoria, 194,960 in New South Wales, and 116,100 in New Zealand. An allowance should be made for the number of probates sealed of persons dying

out of the State; but it is estimated that 5 per cent. would more than cover this.

A branch of the Royal Mint was established in Melbourne in 1872, and from that year until the end of 1902, 25,762,523 ounces of gold were received. This gold averages nearly £4 per ounce in value, being above the standard, which is £3 17s. 10½d. In the following table particulars are given, for the period 1872 to 1898 and for each of the last four years, showing the quantity of gold received at the Mint, where the same was raised, and its coinage value; also gold coin and bullion issued during the same periods:—

Gold Received.		1872 to 1898.	1899.	1900.	1901.	1902.
<i>Gross Weight.</i>						
Raised in Victoria ...	oz.	15,370,782	872,742	795,721	805,812	825,335
„ New Zealand ..	„	2,108,239	41,731	47,471	89,245	185,848
„ Western Aus- tralia ..	„	1,824,245	507,072	222,319	67,022	55,387
„ elsewhere ...	„	1,589,384	99,194	93,140	86,160	75,674
Total ...	„	20,892,650	1,520,739	1,158,651	1,048,239	1,142,244
Coinage Value ...	£	82,873,785	5,834,916	4,485,955	4,077,194	4,470,378
<i>Gold Issued.</i>						
Coin—						
Sovereigns ...	No.	76,117,421	5,579,157	4,305,904	3,987,701	4,267,157
Half-Sovereigns ..	„	884,584	97,221	112,920	...	...
Bullion—Quantity	oz.	1,516,309	49,364	29,171	20,977	46,407
„ Value ...	£	6,310,693	207,503	122,291	87,534	195,410
Total Value Coin and Bullion	£	82,870,406	5,835,270	4,484,655	4,075,235	4,462,567

The Perth branch of the Royal Mint, having been opened on the 20th June, 1899, accounts for the large decrease of gold received from Western Australia during the last three years, as compared with 1899. From that date to the end of 1902, 2,877,263 ounces of gold, valued at £10,228,251, have been received at the Perth Mint, all of which, with the exception of 230 ounces, was raised in Western Australia. The production of gold in Western Australia during 1902 was 2,177,442 ounces, the quantity received at the Perth Mint that year being 1,320,618 ounces, valued at £4,668,905. The total value of coin and bullion issued from the Mint during 1902 was £4,675,110, consisting of 4,289,122 sovereigns and 91,230 ounces of bullion. Since commencing operations, the Perth Mint has coined 9,755,536 sovereigns, 59,688 half sovereigns, and issued bullion worth £407,245.

Since the establishment of the Melbourne Mint, the gold coin exported from Victoria, less that imported, has amounted

Royal mint
returns.

Perth mint
1899-1902.

Interchange
of coin and
bullion.

to £79,554,437, or less by £15,250,265 than the total gold coin issued from the Mint. The following particulars are given of the value of gold and silver coin and bullion imported and exported during each of the last five years:—

Imports of—	1898.	1899.	1900.	1901.	1902.
Gold Coin ... £	7,559	187,350	204,585	275,000	114,380
„ Bullion ... „	2,617,434	2,625,525	1,264,256	918,707	1,245,806
Silver Coin ... „	68,848	60,849	63,032	48,787	28,250
„ Bullion ... „	1,347	2,232	2,372	1,934	1,418
Exports of—					
Gold Coin ... £	5,650,727	4,164,222	4,045,461	4,202,231	4,109,661
„ Bullion ... „	271,048	197,642	86,600	96,297	196,036
Silver Coin ... „	24,460	28,900	22,975	6,100	13,963
„ Bullion ... „	41	270	299	743	167

During 1902 there were 11 banks of issue in Victoria, possessing 499 branches or agencies. The financial position of these banks, on 31st December in each of the last five years, is shown by the following return:—

Finances of banks.

In Victoria.	1898.	1899.	1900.	1901.	1902.
<i>Liabilities.</i>	£	£	£	£	£
Deposits bearing Interest	17,688,428	17,729,041	18,373,300	18,397,496	18,981,740
Deposits not bearing Interest	10,338,712	12,321,388	12,264,985	12,220,566	11,978,484
Notes in Circulation ...	904,301	951,795	963,447	947,597	940,082
Other	480,852	272,150	293,839	290,838	325,324
Total ...	29,412,293	31,274,374	31,895,571	31,856,497	32,225,630
<i>Assets.</i>					
Coin and Bullion ...	6,705,525	6,971,796	7,777,856	7,015,316	7,396,912
Debts due ...	31,766,849	30,143,322	30,612,533	31,263,826	29,861,071
Property ...	2,989,839	2,843,847	2,800,419	2,741,347	1,999,574
Other ...	570,488	563,150	565,120	440,145	538,236
Total ...	42,032,701	40,522,115	41,755,928	41,460,634	39,795,793
<i>Capital and Profits.</i>					
Capital Stock paid up	17,396,755	16,589,656	15,746,458	15,827,886	14,760,316
Reserved Profits (ex Dividend)	3,026,578	3,087,479	3,304,336	3,521,620	3,828,311
Last Dividend—					
Amount ...	214,734	234,794	337,494	371,024	418,555
Average Rate per annum per cent	2.48	2.76	4.29	4.69	5.67

Recovery in
banking
business.

A remarkable recovery in banking business is revealed by the annual increase in dividends paid and reserved profits. The last dividend paid in 1902 was nearly twice the amount of that in 1898, and the average rate of the dividend per cent. per annum on paid-up capital was considerably more than twice the rate in 1898. Deposits show a satisfactory increase, whilst of the assets, coin and bullion has increased since 1898, although during 1901 the amount in hand fell off by £762,540, most of which was apparently lent out in new advances. In 1902 the banks probably found it advisable to call in a considerable number of advances and restrict new loans, as the debts due fell off by nearly a million and a half in 1902, as compared with the previous year. A glance at page 99, however, shows by the large increase in the number and amount of mortgages registered that the banks' customers were, most of them, able to raise sufficient on their securities to clear off their overdrafts from the banks when called upon.

Government
deposits in
banks.

The amount of Government deposits with banks in Victoria during each of the last five years was as follows:—

	£
1898	1,796,075
1899	2,705,243
1900	2,840,102
1901	2,517,811
1902	2,455,773

The amount of Government deposits in 1899 and 1900 has only been exceeded in the past in 1887; the amount in 1901 was only exceeded in 1887, 1888, 1899, and 1900; whilst the amount in 1902 has only been exceeded in 1881, 1887, 1888, and 1899 to 1901.

Banks in
Australia
and New
Zealand.

There are twenty-two banks in Australasia, many of which do business in several States. Eleven do business in Victoria and Queensland, thirteen in New South Wales, seven in South Australia, six in Western Australia, four in Tasmania, and five in New Zealand. The amounts of deposits, advances, notes in circulation, and coin and bullion for the quarter ended 31st December, 1902, are as follow:—

Name of State.	Deposits.	Advances.	Notes in Circulation.	Coin and Bullion.
	£	£	£	£
Victoria ...	30,960,224	29,861,071	940,082	7,396,912
New South Wales ...	32,369,546	39,126,215	1,454,416	6,552,724
Queensland ...	13,325,797	13,678,361	...	2,230,270
South Australia ...	5,926,114	4,368,871	361,372	1,546,967
Western Australia ...	4,919,180	3,435,714	408,548	2,832,551
Tasmania ...	3,531,812	2,365,171	161,415	718,971
Australia ...	91,032,673	92,835,403	3,325,833	21,278,395
New Zealand ...	17,529,397	15,368,755	1,399,044	3,292,089
Australasia ...	108,562,070	108,204,158	4,724,877	24,570,484

These figures have been taken from the "Australasian Insurance and Banking Record." In Queensland, Treasury notes have taken the place of bank notes, the value of such outstanding at the end of 1901 being £1,322,473. In New South Wales and Queensland, particularly the former, the advances outstanding exceed the deposits, whilst in every other State this condition is reversed. Coin and bullion in the banks in Victoria is considerably greater than in New South Wales, in which State, however, the notes in circulation are much in excess of those in Victoria.

The average rates of discount on local bills have been the same in 1902 as the previous year, varying from 4 to 6 per cent. for bills under 95 days' currency, 4½ to 7 per cent. for those from 95 to 125 days, and 5 to 7 per cent. for those over 125 days' currency. These rates are from ½ to 1 per cent. lower than those obtaining during the preceding three years, when the rates were nearly uniform.

Rates of discount on local bills.

The two classes of Savings Banks which formerly existed in Victoria, viz., the Post Office and the Trustees, were, in 1897, merged into one institution controlled by the Savings Banks Commissioners. The following are the particulars of depositors and deposits for the last five years:—

Savings Banks.

On the 30th June.	Number of Depositors.		Amount remaining on Deposit.	
	Total.	Per 1,000 of Population.	Total.	Average to each Depositor.
			£	£ s. d.
1898 ...	338,260	286	8,099,364	23 18 10
1899 ...	356,074	300	8,517,006	23 18 5
1900 ...	375,070	314	9,110,793	24 5 9
1901 ...	393,026	327	9,662,006	24 11 8
1902 ...	410,126	340	10,131,604	24 14 1

The best evidence of the growing habit of thrift, as well as the wide diffusion of wealth amongst the middle and poorer classes in Victoria, is contained in the Savings Banks returns, the number of depositors, in proportion to population, having increased by nearly one-fifth during the last five years. On the 30th June, 1902, slightly more than 1 person out of every 3 in the State (including children and infants, who themselves number more than one-third of the population) was a depositor with a credit balance, on the average, of nearly twenty-five pounds.

Savings
Banks
loans to
farmers.

An advance department was established in 1896 by the Act amalgamating the Post Office and Commissioners' Savings Banks. The funds for this purpose are raised by sale of mortgage bonds for £25 each, and by debentures in denominations of £100 and over, redeemable at fixed dates not more than ten years from date of issue. The total issues up to 30th June, 1902, amounted to £1,383,000, of which mortgage bonds for £184,750 have been redeemed or repurchased, leaving £1,198,850 outstanding, £222,725 of which have been taken up by the public and the balance by the Commissioners themselves with Savings Bank funds. The amount advanced during the year 1901-2 was £201,405, making with the amounts previously advanced a total of £1,364,510, of which £218,549 has been repaid, leaving the amount outstanding on 30th June, 1902, at £1,145,961, representing 2,625 loans, which thus averaged £437. As a measure of the safety with which the advance department has been conducted, it may be mentioned that the instalments of principal in arrear amount to only £111, and of interest to £282.

Savings
Banks in
Austral-
asia.

There are both Government and Trustee Banks in New South Wales, Tasmania, and New Zealand; Government Savings Banks only in Queensland and Western Australia; and Trustee Banks only in South Australia and Victoria—those in the latter State being guaranteed by, and under the supervision of the Government. The following is a comparison of the number of depositors and amount on deposit in Victoria, New South Wales, Tasmania, and New Zealand on the 31st December, and in Queensland, South Australia, and Western Australia on the 30th June, 1901:—

State.	Number of Depositors.		Amount remaining on Deposit.			
	Total.	Per 100 of the Population.	Total.	Average to each Depositor.		
			£	£	s.	d.
Victoria ...	401,173	33·19	9,783,553	24	7	9
New South Wales ...	306,311	22·20	11,808,710	38	11	0
Queensland ...	81,027	16·02	3,896,170	48	1	8
South Australia ...	111,537	30·80	3,782,575	33	18	3
Western Australia ...	39,339	20·86	1,618,359	41	2	9
Tasmania ...	44,527	25·56	983,576	22	1	9
Australia ...	983,914	25·76	31,872,943	32	7	11
New Zealand ...	245,024	31·11	7,268,103	29	13	3
Australasia ...	1,228,938	26·67	39,141,046	31	17	0

The number of depositors in Victoria is greater than in any other State in proportion to population, although the average amount standing to the credit of each depositor is much larger in all the other States with the exception of Tasmania. One-third of the population of Victoria are depositors, nearly one-third in New Zealand and South Australia, a little more than one-fourth in Tasmania, more than one-fifth in New South Wales and Western Australia, and one-sixth in Queensland. As compared with other countries, the percentage of depositors in Victoria is only exceeded in Denmark and Switzerland. The number of depositors per 1,000 of the population was 454 in Denmark, 396 in Switzerland, 232 in France, 220 in the United Kingdom, 196 in Prussia, 77 in the United States, and 40 in Canada, as against 332 in Victoria. The figures for Prussia refer to the year 1893, the United States 1894, the other countries 1895, and Victoria 1901.

The number and amount of life policies in force during 1901, distinguishing between companies whose head offices are in or outside Victoria, and the nature of the policy, are as follow:—

Life policies in force.

Assurance Offices with—	Assurance.		Endowment.		Annuity.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.
		£		£		£
Head Offices outside Victoria (12)	113,256	18,410,836	12,665	886,848	229	15,150
Head Offices in Victoria (6)	60,000	8,798,922	10,115	468,283	81	4,221
Total ...	173,256	27,209,758	22,780	1,355,131	310	19,371

These particulars were first obtained from insurance companies in 1896, and are not obtainable until after September in the year following that in respect of which they are given, and consequently the year 1901 is the latest for which figures are yet available. Since 1896 there has been a substantial annual increase, the number of assurance policies in force being 173,256 in 1901, as against 121,921 in 1896; the amount assured exceeding 27 millions in 1901, as against 22 millions in 1896. Endowment policies have also increased during the same period from 10,763 for £813,005 to 22,780 for £1,355,131, and annuities from 127 for £11,716 to 310 for £19,371.

Building Societies.

The collapse of the land boom in 1891 was responsible for an almost entire cessation of new building society business, the amount of advances falling from 4 1-3 millions in 1888, when land transactions were heaviest, to 2 millions in 1891, to half a million in 1892, to £96,000 in 1893, and to £65,395 in 1897, since which year, however, the amount has increased annually to £164,786 in 1902. The number of borrowers in 1902 was 6,167, as against 4,933 in the previous year, whilst the value of landed property owned by the societies increased annually from £138,444 in 1898 to £342,047 in 1902.

Price of debentures and stock in Melbourne.

The amount of Victorian Government stock and debentures, payable in Melbourne, outstanding on 30th June; the closing price in January, and the return to the investor per cent. for the last five years, are as follow. The market prices are taken from the "Australasian Insurance and Banking Record":—

Year.	Amount Outstanding on 30th June.	Closing Price in January.	Return to Investor per cent.		
			£	s.	d.
3 per cent. Stock, due 1917.					
1899 ...	2,790,482	100½	2	19	4
1900 ...	3,059,511	100-100¼	2	19	10
1901 ...	3,146,000	98½-99½	3	1	7
1902 ...	3,195,619	99¾	3	1	0
1903 ...	...	97	3	5	6
3 per cent. Debentures, due 1921.					
1901 ...	532,000	97¼-97½	3	3	7
1902 ...	1,000,000	95-95¾	3	6	8
1903 ...	...	93½-93¾	3	9	8
4 per cent. Debentures, due 1913-23.					
1899 ...	746,795	111-112	3	0	4
1900 ...	746,795	112	2	18	3
1901 ...	746,795	105-107½	3	7	6
1902 ...	746,795	106	3	7	1
1903 ...	...	104¼	3	9	11

The following figures show for the last five years the highest prices quoted in London for the leading issue of 3½ and 3 per cent. stocks, also the minimum return to the investor:—

Prices of
Victorian
stocks in
London.

Year.	Highest Prices Quoted.		Minimum return to Investor, allowing for accrued interest and redemption at par.					
	3½ per cents.	3 per cents.	3½ per cents.			3 per cents.		
	£	£	£	s.	d.	£	s.	d.
1899...	107 $\frac{3}{4}$	...	3	2	7	...	...	...
1900...	105 $\frac{3}{4}$	...	3	4	10	...	...	...
1901...	106 $\frac{3}{8}$	99	3	3	11	3	2	8
1902..	104 $\frac{3}{4}$	99	3	5	3	3	2	9
1903...	101 $\frac{3}{4}$	93	3	9	10	3	9	8

The 3½ per cents. are due in 1923, or between 1921 and 1926, at the option of the Government; and the 3 per cents. are due between 1929 and 1949, also at the option of the Government. By comparing the return per cent. to the investor in the 3 per cents., payable in London, with the return to the local investor in the 3 per cents., payable in Melbourne, it is seen that the British investor obtains a better return than the investor in local stocks.

A statement of the number and amount—including an estimate in cases where it was not stated—of registered mortgages and releases of land in each of the last five years is hereunder. No account is taken of unregistered or equitable mortgages to banks and individuals, as there is no public record of these dealings; nor are building society mortgages over land held under the "Transfer of Land Act" included, they being registered as absolute transfers. Besides releases registered as such, some mortgages are released in other ways, e.g., by a transfer from mortgagor to mortgagee, by sale by mortgagee, or by foreclosure:—

Land
mortgages
and
releases.

Registered During Year.	1898.	1899.	1900.	1901.	1902.
Mortgages—					
Number ...	7,950	7,460	6,927	7,678	8,951
Amount ...	£ 6,577,034	6,831,132	5,661,021	6,207,157	8,075,072
Releases—					
Number ...	6,166	5,673	5,783	5,947	5,985
Amount ...	£ 5,601,350	5,390,439	5,541,113	5,632,258	6,247,820

There is nothing to show the number of new mortgages given during the year, for the majority of the mortgages registered simply replace old mortgages. It appears, however, that in 1902 there must have been a considerable number of new mortgages which, as pointed out on page 94, is probably accounted for by the calling in of overdrafts by the banks during that year, which forced a number of people to pay off the banks by mortgaging their properties. Owing to the imperfection and incompleteness of the returns mentioned above, it would be unsafe to make any further deduction from the figures.

Stock mortgages, liens on wool and crops.

The number and amount of stock mortgages, liens on wool, and liens on crops registered during each of the last five years were as follow. Releases are not shown, as releases of liens are not required to be registered, being removed from the register after the expiration of twelve months; and very few of the mortgagors of stock trouble to secure themselves by a registered release:—

Security.	1898.	1899.	1900.	1901.	1902.
Stock Mortgages:—					
Number ...	673	769	641	706	717
Amount ... £	216,135	157,526	90,327	165,806	118,648
Liens on Wool:—					
Number ...	348	290	283	287	278
Amount ... £	121,260	113,976	116,057	86,691	66,570
Liens on Crops:—					
Number ...	1,387	1,194	971	737	565
Amount ... £	202,593	204,656	145,485	116,159	82,999
Total:—					
Number ...	2,408	2,253	1,895	1,730	1,560
Amount ... £	539,988	476,158	351,869	368,656	268,217

Notwithstanding the number of bad seasons lately experienced the number of these dealings has fallen off considerably since 1898 and since 1894 the fall has been from 4,000 to 2,408 in 1898. It is not, however, to be inferred that this is evidence of absence of necessity on the part of farmers, graziers, and pastoralists, but it rather points to the conclusion that the banks and storekeepers are restricting advances on the securities of this description that are being offered.

Bills and contracts of sale.

Two forms of security are taken by lenders over personal chattels, viz., a bill of sale, or a contract of sale and for letting and hiring. The former is a simple mortgage of the chattels, whilst the latter purports to be an absolute sale of the chattels to the lender, with an agreement by the lender

to hire the goods back to the borrower at a certain rental, which takes the place of interest. The number and amounts of those filed in each of the last five years are as follow:—

Security.	1898.	1899.	1900.	1901.	1902.
Bills of Sale—					
Number	1,751	1,902	2,007	2,124	1,958
Amount £	348,841	247,611	180,061	186,932	225,544
Contracts of Sale—					
Number	792	455	393	370	327
Amount £	19,375	15,062	15,935	11,723	9,277

Before filing a bill of sale, 14 days' notice of intention to file must be lodged with the Registrar-General, within which period any creditor may lodge a "caveat" to prevent the filing of the bill without the payment by the borrower of his claim. To circumvent this, the practice arose, in 1877, whereby the borrower purported to sell the chattels to the lender, who hired them back to the borrower, and this became the form of security more generally adopted until 1887, when a decision was given that if there were any tacit understanding that the transaction should be considered as a loan, the security would be void unless registered as a bill of sale. In consequence of this, the number of contracts of sale has gradually decreased, until in 1902 the bills of sale were more than six times their number, and the amount secured twenty-four times as great.

LAW, CRIME, &c.

The legal
system.

The law of Victoria, in its basic principles and main provisions, is founded on the law of England. All laws in force in England in 1829 were, so far as they should be held to apply to the circumstances of Australia, by Imperial Statute made law in New South Wales (which then included Victoria); and in case of any doubt as to the applicability, the Colonial Legislature was empowered to declare whether or not they do apply, or to establish any modification or limitation of them within the colony. The same Statute established a legislature within New South Wales with power to make laws for that colony; and Supreme and other courts were established. On the separation of Port Phillip from New South Wales in 1850, the new colony of Victoria was invested with similar powers, which were widened on the establishment of responsible government in 1855. In order, therefore, to ascertain the law of Victoria as to any particular matter or point, considerable research is often involved. The first step is a search of the Victorian Statutes; and if the matter is fully dealt with there, the labour is concluded; but, if it has never been dealt with by any Victorian Act, it is then necessary to search the Statutes of New South Wales passed between 1829 and 1850; and, if not there, the Imperial Statutes specially applicable to New South Wales passed from 1829 to 1850 must also be examined. If no law on the point is obtainable from these sources, the law of England in 1829 must be ascertained, which in most cases is found in the English text-books; but may, in some cases, entail considerable research amongst law reports.

Supreme
Court civil
business.

The Supreme Court was first established in 1852, and its constitution and powers remain substantially unaltered by recent legislation, although the procedure has been entirely remoulded by the "Judicature Act of 1883." There were in 1902 six judges, viz., a Chief Justice and five Puisne Judges, one of whom has, however, since retired, and whose place has

not been filled. The following is a statement of Supreme Court business during the years 1891, 1895, and 1899 to 1902:—

Year.	Writs of Summons.		Causes Entered for Trial.	Causes Tried.	Verdicts for		Amount Awarded.
	Number Issued.	Amount Claimed.			Plaintiff.	Defendant.	
		£					£
1891 ...	5,744	304,377	479	247	119	64	57,713
1895 ...	2,115	140,292	254	187	101	33	41,487
1899 ...	937	90,957	180	122	68	29	15,203
1900 ...	825	137,083	161	106	62	31	101,896
1901 ...	823	69,788	156	97	38	20	4,640
1902 ...	844	109,012	191	101	52	16	6,717

A glance at these figures reveals an extraordinary decline in litigation in the Supreme Court since 1891. In 1902 the writs issued were only one-seventh; the amount sued for was little more than one-third; and the causes which actually came to trial were only two-fifths of the number in 1891. Notwithstanding this great decrease in litigation, the census of 1901 showed the number of barristers and solicitors as 820, an increase of 90 over the number as shown at the previous census of 1891. The figures show that a very small proportion of writs result in actual trials whilst a large number of trials are either abandoned before a verdict is given, adjourned to another sitting; or compromised.

Decline in litigation.

County Courts have a jurisdiction both in equity and common law cases, limited to £500; and to try cases remitted by the Supreme Court. The cause of action must have arisen within 100 miles of the Court in which proceedings are taken, which Court must not be more than 10 miles further away from defendant's residence than some other County Court in which the plaintiff might have sued. In 1902 there were 119 sessions lasting 389 days held in 47 places. Particulars of litigation in 1891, 1895, and the last four years are as follow:—

County Courts business.

Year.	Number of Cases Tried.	Amount Sued For.	Amount Awarded.	Costs Awarded to—	
				Plaintiff.	Defendant.
		£	£	£	£
1891 ...	9,947	293,073	115,199	14,006	7,263
1895 ...	1,361	219,285	73,091	7,256	5,514
1899 ...	874	124,466	62,708	5,577	2,868
1900 ...	789	160,676	49,595	5,188	2,782
1901 ...	572	137,227	43,222	5,012	4,143
1902 ...	622	169,968	52,202	5,662	2,331

The falling off in the number of causes tried is enormous, the number in 1902 being only one-sixteenth of that in 1891; but the amount sued for and awarded, and costs awarded, have not fallen off to anything like the same extent. This would seem to indicate that litigants are much more cautious in instituting proceedings than formerly; and that the County Court is not resorted to for the recovery of petty and trade debts to the same extent as in former years.

Petty Sessions civil business.

Courts of Petty Sessions were held at 239 places in Victoria in 1902 by stipendiary magistrates and honorary justices. Clerks of Courts of ten years' standing, who have passed the prescribed examination, and barristers of five years' standing are eligible for appointment as Police Magistrates; but there is no legal training or knowledge of the law required as a condition precedent to the appointment of a person as an honorary Justice of the Peace. The jurisdiction is limited to what may be called ordinary debts, damages for assault, or restitution of goods, where the amount in dispute does not exceed £50. Particulars of the debt cases heard during a series of years are as follow:—

Year.	Cases heard.	Amount claimed.	Amount awarded.
		£	£
1891	33,030	210,255	144,158
1895	30,609	168,143	138,722
1899	20,196	118,321	87,907
1900	17,577	95,890	80,960
1901	17,646	104,884	86,199
1902	20,421	116,936	96,166

In addition to the ordinary civil cases above mentioned, and the criminal jurisdiction mentioned on page 106 post, Courts of Petty Sessions deal with other business of a civil and a quasi-criminal nature. During the year 1902, 406 appeals against municipal ratings, 871 maintenance cases, 443 fraud summonses against debtors, 16,324 electoral revision cases, and 1,791 miscellaneous cases were heard, and 531 lunatics were examined.

Probates and letters of administration.

A considerable increase has occurred in the number of probates and letters of administration issued, and the value

of property bequeathed thereunder since 1898. Thus in 1902, as compared with that year, the number increased by 11 per cent., and the value of property by 21 per cent. The following information is furnished for the last five years:—

Year.	Probates.		Letters of Administration.		Both.	
	Number.	Property Sworn Under.	Number.	Property Sworn Under.	Number.	Property Sworn Under.
		£		£		£
1898	2,290	5,453,593	1,300	815,752	3,590	6,269,345
1899	2,355	4,727,698	1,286	1,192,406	3,641	5,920,104
1900	2,534	5,835,594	1,427	1,082,939	3,961	6,918,533
1901	2,509	5,596,261	1,337	930,974	3,846	6,527,235
1902	2,590	6,483,077	1,386	1,088,405	3,976	7,571,482

Prior to 1898, the returns of insolvencies were defective, inasmuch as private arrangements with creditors were not taken into account until that year. The number of failures and the declared assets and liabilities during the last five years were:—

Insolvencies, &c.

Year.	Insolvencies.			Private Arrangements.		
	Number.	Declared Liabilities.	Declared Assets.	Number.	Declared Liabilities.	Declared Assets.
		£	£		£	£
1898	588	504,750	253,314	153	205,531	156,913
1899	360	274,288	131,859	150	256,796	203,305
1900	346	185,198	89,462	149	168,700	159,771
1901	327	216,198	86,391	183	222,608	189,908
1902	406	364,630	270,061	206	200,128	178,337

Although the number of insolvencies and the declared liabilities were greater in 1902 than the three preceding years, they are still much below the average in normal times. Thus the average number of insolvencies during the last five years was 405, with declared liabilities £309,013, whereas during the ten years, 1879 to 1888, the average yearly number was 612, with declared liabilities £661,720. During the nine years, 1889 to 1897, when the failures resulting from the collapse of the land boom and the consequent banking crisis in 1893 swelled the returns, the yearly average number was 862, with declared liabilities £2,166,978.

The "Divorce Act 1889," which considerably extended the grounds on which divorce may be granted, is responsible for a great increase in the number since that year. The added grounds of divorce, provided by that Act, will be found on page 1008 of the previous issue of this work. The number

Divorces, &c.

of petitions and decrees for dissolution of marriage and judicial separation during the last five years were as follow:—

Year.	Petitions for—		Decrees for—	
	Dissolution of Marriage.	Judicial Separation.	Dissolution of Marriage.	Judicial Separation.
1898	143	2	87	...
1899	160	3	105	2
1900	159	2	93	...
1901	148	2	83	...
1902	157	...	109	...

Since jurisdiction was first conferred upon the Supreme Court of Victoria in matters matrimonial in 1861, 1,489 decrees for dissolution of marriage and 85 decrees for judicial separation have been granted. Of these, 1,141 and 14 respectively were granted since 1890. New South Wales is the only other State which may be compared with Victoria in regard to the number of divorces, for the grounds of divorce are substantially the same in both States. The yearly average number of divorces per 100,000 married couples during the last five years was 124 in New South Wales and 57 in Victoria.

Administra-
tion of the
criminal
law.

In nearly all cases where the criminal law has been broken, the alleged offender is brought at the very first opportunity before a Court of Petty Sessions, before two honorary justices or a police magistrate, or both, who, if the matter is one which comes within their summary jurisdiction, dispose of the case summarily. If the offence is an indictable one, the magistrates hold a preliminary investigation; and, if satisfied that a "prima facie" case is made out by the prosecution, the accused is committed for trial to a superior Court. There are two superior Courts with criminal jurisdiction, viz., the Supreme Court, and a Court of General Sessions, which are held at various places throughout the State. The latter Court corresponds with the Quarter Sessions in England, and may deal with all cases of a criminal nature except such as are expressly excluded from its jurisdiction, viz., 19 of the most serious crimes. A person may be brought before magistrates by three modes of procedure, viz., by an arrest by a police officer on warrant issued on a sworn information, or without an information if the offence is witnessed by the arresting constable; by private summons; and by a police summons. If at a coroner's inquest a verdict is returned for murder or manslaughter, the accused person is sent for trial to the Supreme Court without any investigation before magistrates. The Attorney-General or Solicitor-General has also the power of presenting any person for trial before a superior Court without the necessity of any preliminary magisterial hearing; and upon

the application of any person, properly supported by affidavit, a grand jury may be summoned, on the order of the Full Court, if the affidavit discloses that an indictable offence has been committed by a corporate body; or that such an offence has been committed by any person, and that some justice has refused to commit such person for trial. The grand jury consists of twenty-three men, who investigate the charge, and if they are of opinion that a "prima facie" case has been made out, the case is sent for trial. The cases which are presented under these two latter forms of procedure, are, however, very rare.

Of the offenders who are reported as having committed offences, generally about 50 per cent. are arrested, 38 per cent. are summoned, whilst about 11 per cent. are still at large at the end of March of the year following that in which the offence was reported. The following are particulars for the last five years:—

Offences reported and undetected crimes.

Offences in respect to which persons were—	1898.	1899.	1900.	1901.	1902.
Brought before Magistrates on Summons	19,327	20,950	22,482	21,130	20,478
Apprehended by the Police	28,178	24,907	28,866	30,957	26,402
Still at large	5,899	6,032	6,449	6,472	6,153
Total	53,404	51,889	57,797	58,559	53,033

In this table each separate charge against a person is considered as a separate offence; for instance, a charge of drunk and disorderly, of resisting the police, of riotous conduct, and of tearing uniform would appear as four separate offences, although the occasion is the same. Of the offences in respect of which persons were still at large, 89 per cent. were offences against property, 4 per cent. were offences against the person, and the balance, 7 per cent., were of a miscellaneous character.

The following are particulars of cases brought before magistrates, from which it will be seen that nearly three-fourths are generally summarily convicted, one-fourth discharged, whilst an average of between 600 and 700 are sent for trial by superior courts:—

Offences dealt with by magistrates.

Number of Persons—	1898.	1899.	1900.	1901.	1902.
Arrested or Summoned	45,448	44,165	49,589	50,169	45,198
Discharged by Magistrates	11,767	11,120	11,664	12,564	11,096
Summarily Convicted or Dealt with	33,003	32,476	37,224	36,905	33,461
Committed for Trial	678	569	701	700	641

In regard to persons arrested included in these figures, minor charges are excluded, and only that charge which throughout the hearing of the case has been most prominent is taken account of; but in regard to summons cases, the unit is each separate charge or case.

Males and females arrested.

The sexes of persons brought up on summons are not recorded; but about 20 per cent. of the arrests are always found to be females. The males and females arrested, and the disposal of the cases, in 1902, were as follow:—

Disposal.	Arrests.		
	Males.	Females.	Total.
Summarily Convicted	13,553	3,533	17,086
Discharged by Magistrates	5,680	1,364	7,044
Committed for Trial	549	41	590
Total	19,782	4,938	24,720

The arrests during the last five years numbered 26,121 in 1898, 23,215 in 1899, 27,107 in 1900, 29,039 in 1901, and 24,720 in 1902.

Arrests for drunkenness, 1898 to 1902.

The following are the number, and proportion per 1,000 of the population, of persons arrested for drunkenness during the last five years. Summons cases for drunkenness are not included, particulars regarding them being unavailable before 1902, when the number was 643:—

Year.	Number.	Proportion per 1,000 of Population.
1898	13,728	11·61
1899	12,998	10·96
1900	15,878	13·31
1901	17,360	14·43
1902	13,897	11·51

Drunkenness—Comparison with previous years.

The arrests for drunkenness were fewer during last year than in 1900 and 1901, about the same as in 1898, and about 900 more than in 1899. A comparison of the last five years with previous periods is given below. The amount of drunkenness, as evidenced by arrests, being taken as 100 in 1874-8, the numbers for the subsequent periods will show the increase or decrease by comparison:—

Period.	Index Number.
1874-8	100
Average 5 years ... ..	...
1879-85	88
1886-92	106
1893-97	65
1898-1902	83

A very considerable decrease in drunkenness is shown during the five years following the banking crisis, which was a period of general depression; but during the last five years the arrests for drunkenness are assuming something nearer their normal proportions.

It is difficult to make a proper comparison of crime in recent years with former periods on account of the differences in the sex and age constitution of the people at different periods. The bulk of arrests consist of males from 20 to 50 years of age. The proportion of women and children arrested is comparatively very small; so that it is natural that, at a period like the present, when the percentage of males at those ages is much less than ten years ago, the proportion of arrests per 10,000 of the population is not a true index of crime, and makes the decrease appear greater than it really is. It is therefore necessary to divide the sexes of arrested persons, and each sex into age groups, and to show the number of charges laid against males and females at various ages between 10 and 50, per 10,000 alive at each age, as shown by the census. The following are the particulars on this basis at the last four census years:—

Decrease of
crime in
Victoria.

Ages.				1871.	1881.	1891.	1901.
				Males.			
10 to 15 years	...	...	...	104	111	96	51
15 to 20 years	...	...	...	338	335	305	209
20 to 25 years	...	...	...	773	720	688	570
25 to 30 years	...	...	...	834	823	777	712
30 to 40 years	...	...	...	771	865	869	700
40 to 50 years	...	...	...	726	721	1,053	873
50 to 60 years	...	...	...	830	623	760	804
60 years and over	...	...	...	756	661	586	443
				Females.			
10 to 15 years	...	...	...	37	26	15	15
15 to 20 years	...	...	...	80	90	50	28
20 to 25 years	...	...	...	141	178	139	116
25 to 30 years	...	...	...	232	219	171	172
30 to 40 years	...	...	...	303	290	189	168
40 to 50 years	...	...	...	272	322	238	166
50 to 60 years	...	...	...	245	223	215	116
60 years and over	...	...	...	186	166	144	110

During the years 1871, 1881, and 1891 the tabulations were based on each separate charge against arrested persons, and in 1901 on each separate arrest, only the most prominent charge being counted in the latter year. The percentage by

which the total charges exceeded the arrests during 1901, has, however, been added on to the figures for each age group for the purpose of comparison. A study of the figures shows that the proportion of offences has on the whole fallen off in 1901 as compared with the three previous periods. In regard to males, there has been a falling off in 1901 as compared with the three previous periods at all ages except 50 to 60, in which group the proportion of arrests was in excess of that in 1891 and 1881. The falling off is more marked amongst the very old people (60 years and over) and the young people under 20 than at other ages. The ages at which the largest proportion of arrests was made were 40 to 50 years in 1901 and 1891, 30 to 40 years in 1881, and 25 to 30 and 50 to 60 years in 1871. In regard to females there has been a very decided falling off at all ages, the ages at which the largest proportion of arrests were made being 25 to 50 in 1901, 40 to 60 in 1891, and 30 to 50 in 1881 and 1871.

Age and
degree of
instruction

The ages of those arrested in 1902, and the degree of instruction possessed by them, are shown in the following table:—

Ages.	Superior Education.	Read and Write Well.	Read Only, or Read and Write Imperfectly.	Unable to Read.	Total
Under 10 years ...	...	...	121	581	702
10 to 15 „ ...	...	...	392	50	442
15 to 20 „ ...	...	34	1,161	42	1,237
20 to 25 „ ...	2	102	2,824	98	3,026
25 to 30 „ ...	4	134	3,123	87	3,348
30 to 40 „ ...	15	290	6,013	233	6,551
40 to 50 „ ...	20	217	4,471	222	4,930
50 to 60 „ ...	12	119	2,029	185	2,345
60 and upwards ...	3	70	1,798	268	2,139
Total ...	56	966	21,932	1,766	24,720

Education
of children
arrested.

The returns of those under 15 years of age arrested by the police consist mainly of neglected and deserted children. Of the 1,144 children under 15 arrested during 1902 not one was possessed of superior instruction nor could read and write well; and 631, or 55 per cent., were unable to read.

Arrests and
summonses
for various
offences.

Hitherto information relating to various offences has been incomplete on account of there being no returns as to summons cases other than “against the person,” “against property,” and “other offences.” As will be seen below, there is a large proportion of assaults and offences against good order initiated by summonses, and the following are particulars of the different classes of offences in 1902, distinguishing

between arrest and summons cases, multiple charges against the same individual being each counted as an offence:—

Nature of Offence.	Number of Offences for which—		Total Offences Heard.
	Arrests were made.	Summonses were issued.	
Against the Person—			
Murder and attempts, manslaughter, shooting at, &c.	102	...	102
Assaults	684	959	1,643
Others	178	198	376
Against Property—			
Robbery, burglary, &c. ...	252	...	252
Larceny and similar offences ...	2,087	475	2,562
Willful damage to property ...	233	225	458
Others	77	404	481
Against Good Order—			
Drunkenness	13,897	643	14,540
Other	7,155	6,726	13,881
Breaches of Licensing Act ...	...	611	611
Other Offences	1,737	10,237	11,974
Total	26,402	20,478	46,880

Of the 26,402 arrests, 1,682 were multiple charges, leaving the number of separate arrests 24,720, of which 17,086 were summarily convicted, 7,044 were discharged, and 590 were committed for trial. Of the 20,478 summons cases, 16,375 were summarily convicted, 4,052 were discharged, and 51 were committed for trial. Of the total persons dealt with (45,198), the number summarily convicted was 33,461, 11,096 were discharged, and 641 were committed for trial.

The following is a statement of the principal countries in which persons arrested during 1902 were born, and the proportion per 1,000 of the persons of such nationalities living in the State at the census of 1901:—

Birthplaces of persons arrested.

Birthplace.	Number.	Proportion per 1000 living.
Victoria	12,316	14.06
Other Australian States ...	1,830	28.11
New Zealand	323	35.81
England and Wales	3,666	31.30
Scotland	1,394	38.99
Ireland	3,489	56.72
China	72	11.69
Other Countries	1,630	53.11
Total	24,720	20.58

As the ages of the people were not tabulated in conjunction with their birthplaces at the census, the proportion of Victorian arrests does not afford a proper comparison with the proportions indicated for other Australian States, Great Britain, and foreign countries. The Victorian figures include a large number of children, whereas there is so small a number of children in the State born in places outside Victoria, that the arrests of persons born outside the State may be regarded almost entirely as those of adults. If the proportion of adults arrested in Victoria be taken, it would in all probability approximate to those of the other Australian States.

A scientific comparison of crime cannot be made between the States on account of the differences in the sex and age constitution of their population. If the ages and sexes of arrested persons were tabulated in each State, an accurate comparison could be made, but any comparison that is made must be restricted to offences charged against persons brought before magistrates on arrest or summons, it being assumed that the administration of the law is equally strict in all the States, and that substantially the same acts or omissions are breaches of the law in each State. The following is a statement of the number of offences for which persons were charged before magistrates during 1902 in the case of the first four, and during 1901 in the case of the last three, States:—

State or Colony.	Offences for which Persons were charged before Magistrates.	
	Number.	Per 1,000 of the Population.
Victoria	46,880	38·84
New South Wales	66,700	47·90
Queensland	21,115	41·11
South Australia	6,365	17·50
Western Australia	15,333	81·92
Tasmania	5,499	31·68
New Zealand	25,825	33·17

As in only about one in every six of these cases is the offender a female, and as the bulk of arrests are of males aged 25 to 50, it is natural that in a State like Victoria, where the proportion of those persons is less, or like Western Australia, where the proportion is much greater, than in the other States, the offences per 1,000 of the population would be correspondingly small or large as the case may be. Allowing, however, for any undue inflation of the rate in the other States due to this cause, it appears that offences against the law for which persons are charged before magistrates are much less rife in South Australia than in any other State, that Tasmania and New Zealand occupy the next best position, then

coming Queensland and Victoria, closely followed by New South Wales, with Western Australia, as to be expected, occupying the worst position in this respect, although by no means to the extent indicated by the above figures. No comparison can be made as to convictions by magistrates or by superior courts, on account of the differences in jurisdiction. For instance, in Victoria magistrates have wider powers than in New South Wales, and many cases which are summarily disposed of by magistrates in the former State must be committed to a superior court in the latter.

A large proportion of the offences dealt with by magistrates cannot be classed as crimes properly so called, but are mere breaches of Acts of Parliament and show no degree of criminality in the person charged. A still larger proportion consists of drunkenness and offences against good order, including vagrancy, larrikinism, &c. The number of serious crimes preliminarily investigated by magistrates in Victoria and New South Wales during 1902 were:—

Serious crimes in Victoria and New South Wales.

Class of Crime.	Victoria.	New South Wales.
Murder and attempts, manslaughter, shooting, wounding, &c.	90	203
Robbery, burglary, &c.	190	392
Crimes of lust	86	130
Horse, sheep, and cattle stealing	116	158
Total	482	883

The total per 10,000 of the population was 6·34 in New South Wales, and 4·00 in Victoria. Multiple charges are excluded in the above figures, each separate arrest only being counted. It is claimed on behalf of New South Wales that the comparatively large number of criminals in that State is due to the want of a proper law to prevent the influx of such persons from other places.

During 1902 there were 16,485 sentences by magistrates in exercise of their summary jurisdiction, 12,980 of which were of males and 3,505 of females. These figures do not represent the number of distinct individuals sentenced during the year, for many of them, particularly the habitual drunkard class, were brought up and sentenced several times during the year. Of every 1,000 males sentenced, 451 were fined, 397 were imprisoned for a period less than 1 month, 92 for a period between 1 and 12 months, 8 for 1 year or over, and 52 were sent to reformatory schools, ordered to find bail, or otherwise dealt with. Of every 1,000 females sentenced, 344 were fined, 422 were imprisoned under 1 month, 110 over 1 and under 12 months, 13 over 12 months, and 111 were sent to the industrial

Sentences by magistrates.

or reformatory schools. In addition to these sentences, there were 601 cases (573 males, 28 females) in which the magistrates, having found the accused persons guilty, deemed it inexpedient to inflict any punishment, and "admonished" such persons, that is, let them off with a caution. In addition to the sentence of imprisonment, 1 prisoner was ordered 1 whipping of 20 lashes, and 4 were ordered solitary confinement.

Sentences in superior courts.

During 1902, 381 persons were sentenced by superior courts, of whom 21 were females. Of the 360 males, 6 were sentenced to death, 1 to imprisonment of 15 years or over, 3 to periods between 10 and 15 years, 4 between 7 and 10 years, 9 between 4 and 7 years, 135 or 37½ per cent. between 1 and 4 years, and 170 or 47 per cent. to periods under 1 year, whilst 2 were fined, 23 were required to find bail to appear when called upon, and 7 were sent to a reformatory or lunatic asylum. Of the 21 females, 1 was sentenced to 15 years or over, 1 between 1 and 2 years, and 13 under 12 months, whilst 6 were discharged on finding bail. In addition to the terms of imprisonment, 17 persons were ordered to be kept in solitary confinement during various portions of their terms of imprisonment, and 9 were ordered to be whipped, 3 to receive 2 and 6 one whipping each.

Strength of police force in Australia and New Zealand

The following figures denote the numerical strength of the police force in Australia, the States, and New Zealand, and the proportion of same to population. The figures refer to 31st December, 1902, in the case of Victoria and New South Wales, and to the 31st December, 1901, in respect of the other States and New Zealand:—

State or Colony.	Number.			Proportion per 10,000 of Population.
	Metropolitan.	Country.	Total.	
Victoria	806	709	1,515	12.55
New South Wales	950	1,272	2,222	15.81
Queensland	225	633	858	17.03
South Australia	205	166	371	10.22
Western Australia	150	346	496	26.54
Tasmania	58	192	250	14.42
Total Australia	2,394	3,318	5,712	14.90
New Zealand	61	526	587	7.54

It will be seen that Western Australia has the greatest police protection in proportion to population, Queensland and New South Wales next, New Zealand having by far the lowest. Of course, where the population is scattered, it is natural that more police in proportion to population will be required than in a densely populated centre where the area requiring protection is comparatively small.

There are nine gaols in Victoria, including the Pentridge Penal Establishment, Ararat and Portland gaols having been closed several years ago, and Maryborough recently. The gaols at Sale and Castlemaine have been reduced to receiving stations for local committals with very short sentences. The following statement gives for the year 1902 the accommodation, daily average in confinement, number received during the year, and the number in confinement at the end of the year:—

Gaols and prisoners.

Name.	Number of Prisoners.							
	For Whom there is Accommodation.		Daily Average.		Total Received.		In Confinement, 31.12.02.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Pentridge ...	800	...	483.00	...	460	...	475	...
Ballarat ...	62	18	27.34	2.05	494	57	33	2
Beechworth ...	66	15	32.80	.27	214	14	29	...
Bendigo ..	116	28	26.38	2.53	396	64	17	5
Castlemaine ...	99	...	29.00	...	158	...	31	...
Coburg Female Prison	...	324	...	120.23	...	272	...	114
Geelong ...	177	29	111.33	.39	336	32	102	1
Melbourne ...	485	114	217.43	44.55	4,259	1,182	198	49
Sale ...	30	5	7.49	.04	102	3	11	1
Total ...	1,835	533	934.77	170.06	6,419	1,624	896	172

There are also six police gaols which are used as receiving stations, but the daily average number of prisoners detained therein during 1902 was only eight. The above figures show that there is accommodation in the gaols for more than twice the average number in confinement.

The following is a statement of the average number of prisoners, male and female, in detention during each of the years 1895 to 1902 in all the gaols of the State, from which it will be seen that the decrease is very considerable, the number in 1902 being 311, or 22 per cent. less than in 1895:—

Prisoners in confinement 1895 to 1902—decrease.

Year.	Average Number of Prisoners in Confinement.		
	Males.	Females.	Total.
1895 ...	1,208	216	1,424
1896 ...	1,143	194	1,347
1897 ...	1,044	182	1,226
1898 ...	1,065	223	1,288
1899 ...	1,020	215	1,235
1900 ...	981	204	1,185
1901 ...	951	200	1,151
1902 ...	943	170	1,113

Executions.

Two executions took place in 1902, 1 in 1900, 1 in 1898, 1 in 1897, 1 in 1896, 2 in 1895, and 5 in 1894. Since the first settlement of Port Phillip, 167 criminals have been executed within the State, of whom only three were females.

Coroners'
inquests.

In 1902 the number of coroners' inquests into the causes of deaths of individuals was 1,510, which was below the average number of the four preceding years. In 882 cases the death was found to be due to disease or natural causes, in 366 cases to accident, in 124 to suicide, in 112 to external causes which could not be ascertained, in 9 to homicide, in 3 to intemperance, in 2 to judicial hanging, whilst in 10 cases the cause of death was doubtful, and in 2 cases verdicts of still-born were returned. The number of inquests during the last five years was 7,969, of which 4,680 deaths were found to be due to disease or natural causes, and 3,220 to violence. Of those due to violence, 60 per cent. were due to accidental causes, nearly 17 per cent. to suicide, about 1 per cent. to homicide, whilst in 22 per cent. of the cases the cause or motive of the violence which caused death was doubtful.

SOCIAL CONDITION.

The University of Melbourne was incorporated and endowed by an Act of the Governor and Legislative Council of Victoria, to which the Royal assent was given on 22nd January, 1853. It consists of a Council and Senate, and is incorporated and made a body politic with perpetual succession. It has power to grant degrees, diplomas, certificates, and licences in all faculties except divinity. The Council consists of 20 members elected by the Senate. It elects two of its members to be Chancellor and Vice-Chancellor respectively. The ordinary tenure of office of Councillors is five years, but those members who were in office on 7th June, 1881, have a life tenure. The Senate consists of all male persons who have graduated doctor or master in the University. It elects a Warden annually from its members. Control and management are in the hands of the Council. Council and Senate conjointly make statutes and regulations. There is no religious test for admission. The Governor of Victoria for the time being is the Visitor, and has authority to do all things which appertain to Visitors. By Royal letters patent of 14th March, 1859, it is declared that the degrees of the University of Melbourne shall be as fully recognized as those of any University in the United Kingdom. Scholarships, exhibitions, and prizes are provided in all the principal subjects, the cost being defrayed partly out of University funds and partly by private bequests. In the matter of endowment by private persons, the Melbourne University does not, however, compare favourably with others. There are three affiliated colleges, viz., Trinity, Ormond, and Queen's. The Act provides for an endowment of £9,000 annually for maintenance and management. Additional grants are voted annually by Parliament for maintenance, and from time to time for building purposes. There is a University Extension Board, appointed for the purpose of imparting the higher instruction to those people who,

The University of Melbourne.

being neither children nor specialists, constitute the great bulk of the intelligent and influential members of the community. This is done by the delivery of lectures, the inauguration of discussions, and the conduct of experiments and research. The University buildings, together with those of the affiliated colleges, are situated in 106 acres of ground, in the southern part of Carlton.

Matricula-
tion and
attendance
at lectures.

The number of students who presented themselves for the matriculation examination, the number that passed, as well as those matriculated, who entered the Melbourne University as undergraduates, and the number attending lectures, in each of the five years 1898 to 1902, were:—

Year.	Number Presented for—		Students who Passed the Matriculation Examination.		Number Matriculated and Admitted as Under-graduates.	Number Attending Lectures.
	Matriculation Examination.	Less than Required Number of Subjects.	Number.	Percentage.		
1898	1,315	175	482	42·3	117	691
1899	1,496	261	559	45·3	108	727
1900	1,479	320	443	38·2	101	647
1901	1,438	302	511	45·0	137	584
1902	1,415	368	490	46·8	124	621

The number of candidates has decreased since 1899, although the number in 1902 exceeded that in 1898. Of the 621 students who attended lectures in 1902, 122 attended in Arts, 55 in Laws, 69 in Engineering, 255 in Medicine, 14 in Science, 106 in Music.

Degrees.

The number of degrees taken in 1902 was 122, all of which were direct, as against a total of 633 for the four preceding years, or an average of 158 per year. The direct graduates numbered 602, and the ad eundem degrees 31 in the four preceding years. Of the total number of 3,359 degrees conferred, 217 were conferred on women, 215 of which were direct, and 2 ad eundem; and 111 of which were the degree of Bachelor of Arts, 47 Master of Arts, 27 Bachelor of Medicine, and 25 Bachelor of Surgery. The following table shows the number of degrees conferred at the University between the

date of its first opening and the end of 1902—the year 1902 and the period 1898-1901 being shown separately:—

Degrees.	Prior to 1898.			1898 to 1901.			During 1902.			Total.		
	Direct.	Ad Eundem.	Total.	Direct.	Ad Eundem.	Total.	Direct.	Ad Eundem.	Total.	Direct.	Ad Eundem.	Total.
Bachelor of Arts ...	620	103	723	139	4	143	16	...	16	775	107	882
Master of Arts ...	325	141	466	81	14	95	19	...	19	425	155	580
Bachelor of Medicine ...	436	13	449	106	...	106	27	...	27	569	13	582
Doctor of Medicine ...	46	90	136	22	8	30	9	...	9	77	98	175
Bachelor of Surgery ...	331	2	333	124	1	125	28	...	28	483	3	486
Master of Surgery ...	6	...	6	1	...	1	2	...	2	9	...	9
Bachelor of Laws ...	237	9	246	57	...	57	8	...	8	302	9	311
Master of Laws ...	42	2	44	14	1	15	3	...	3	59	3	62
Doctor of Laws ...	13	20	33	2	...	2	...	...	...	15	20	35
Bachelor of Engineering ...	91	2	93	19	...	19	6	...	6	116	2	118
Master of Engineering ...	46	...	46	17	...	17	1	...	1	64	...	64
Bachelor of Science ...	12	3	15	16	...	16	1	...	1	29	3	32
Master of Science ...	7	...	7	4	...	4	1	...	1	12	...	12
Doctor of Science ...	...	2	2	...	1	1	1	...	1	1	3	4
Bachelor of Music ...	3	1	4	...	1	1	...	...	...	3	2	5
Doctor of Music ...	...	1	1	...	1	1	...	...	...	...	2	2
Total ...	2,215	389	2,604	602	31	633	122	...	122	2,939	420	3,359

The present system of "free, compulsory, and secular" education came into operation on the 1st January, 1873, the Act having been passed the previous year, and being now, with two Amending Acts passed in 1876 and 1889, consolidated in the "Education Act 1890," which in turn has been amended by Act No. 1777, passed in December, 1901. Before the inception of the present system, several different systems were tried. Prior to 1848 education was left to private enterprise; but in that year a denominational system was introduced and administered by a Board, subsidy being granted by the State. Under that system, religious as well as secular instruction was imparted by the teachers—the former being given according to the principles of the denomination to which the school was attached, the clergy of which also exercised control over the instruction imparted. On the separation of Port Phillip district from New South Wales in 1851, a Board of National Education was established in the new Colony of Victoria "for the formation and management of schools to be conducted under Lord Stanley's National System of Education, and for administering the funds in connexion therewith." There were thus two systems of education under separate Boards in operation at the same time, which duplicate system continued in force until 1862, when it was abolished as being cumbrous and

The education system of Victoria.

costly. The "Common Schools Act 1862" transferred the powers of both Boards to a single Board of Education, provided a limit to the distance between which schools might be established, and fixed a minimum of scholars a school must have in order to entitle it to State aid; it prescribed, moreover, that four hours each day would be set apart for secular instruction, and that no child should be refused admission to any school on account of its religious persuasion. Although this Act caused some improvement, it was not designed to abolish denominationalism, nor did it reduce the number of small schools to any appreciable extent. It continued in force, however, for ten years, when it was repealed by the present Act in 1872. Under these systems, a fee ranging from 6d. to 2s. 6d. weekly was charged to all children except those whose parents were in destitute circumstances. Under the Act of 1872, education was made free to all willing to accept it; compulsory, in the sense that, whether accepted or not, evidence must be produced that all children are educated up to a certain standard; and secular, no teacher being allowed to give other than secular instruction in any State school building. Every facility is, however, afforded to the clergy of any denomination to assemble any of the children of the parents who desire it in a school room and impart religious instruction.

Main details
of the
system.

Compulsory
clauses.

In each school four hours at least are set apart during each school day for secular instruction, two hours of which are to be before, and two hours after, noon. Secular instruction, in the case of children over nine years of age, includes the teaching of some recognised lesson books on the laws of health and lessons from some recognised temperance lesson books. Parents and custodians of children, not less than 6 nor more than 13 years of age, are required to procure such children to attend a State school at least two hours before or after noon for at least 75 per cent. of the days on which school is open. Non-attendance may be excused for either of the four following causes:—(1) If the child is receiving efficient instruction in some other manner; or (2) has been prevented from attending by sickness, fear of infection, temporary or permanent infirmity, or any unavoidable cause; or (3) is 12 years of age and has been educated up to the standard, or has been excused by a general or particular order of the Minister; or (4) that there is no State school within 1, 2, 2½, or 3 miles in the case of children under 7, between 7 and 9, between 9 and 12, and over 12 years of age respectively. In regard to the latter cause, however, in cases where schools are closed through low average attendance, or where the number of children would warrant the department in establishing a school, allowances are made by the department for the conveyance of children to the nearest school. The amount of the allowance is 3d. per day for children over 6 and under 12 who

reside between $2\frac{1}{2}$ and 3 miles from the nearest school, or 4d. per day for all children over 6 and under 15 who reside 3 miles or over from the nearest school. Parents and custodians who fail to make a child attend as provided may be summoned and fined 5s. for the first, and between 5s. and £1 for each subsequent offence, or in default 7 days' imprisonment; and truant officers are appointed to see that the compulsory provisions are carried out. There are at present 398 school districts, in each of which a Board of Advice is elected every three years by the ratepayers in the district, the members of such Boards being 7 or 5 according to the size or importance of the district. The main functions of a Board of Advice are:—To report on the condition of schools and premises, whether new ones are required, and as to books, furniture, gymnastic appliances or other requirements; to suspend teachers for misconduct, and report cause to the Minister; to visit schools, record the number present, and its opinion as to the general condition and the management of the schools in the district; and to endeavour to induce parents to send their children regularly to school, to compare the attendance with the roll, and report names of parents who fail to comply with the compulsory clauses. The following are the subjects instruction in which is absolutely free:—Reading, writing, arithmetic, grammar, geography, history, drill, singing, drawing, elementary science, manual training, gymnastics, and swimming where practicable; lessons on the laws of health and on temperance previously mentioned; and sewing, needlework, cookery, and domestic economy for girls. For instruction in other branches, fees are charged to the parents, and the teacher is entitled to such fees if the inspector is satisfied with the instruction imparted. The following are the extra subjects and the fees chargeable:—Latin, French, German, and painting, for which the fee must not exceed one shilling weekly; natural science, euclid, algebra, trigonometry, fancy work, elocution, and shorthand, fee not exceeding sixpence weekly; and book-keeping and calisthenics, fee not exceeding threepence weekly; and such other subjects as may be approved by the Director. The instruction in extra subjects must not be given so as to interfere with the ordinary free instruction. Yearly examinations are held to determine the teachers' results and the standard of education of children who present themselves. The subjects are—reading, writing, spelling, composition, and arithmetic; and any child under 13 years of age who wishes exemption from further compulsory attendance may be so exempt on passing this test. Half-yearly examinations are also held for the examination of children not attending State schools who desire to prove that they are educated up to the standard. Male teachers are divided into eight classes and female teachers into seven classes, there being no female

Boards of Advice.

Free subjects.

Extra subjects.

Standard of education.

Teachers' remuneration and classification.

teachers in the first class. (The salaries for males, excluding pupil teachers, range from £70 to £288, and those for females, excluding pupil teachers and sewing mistresses, £56 to £138. In addition to these fixed salaries, a sum equal to one-half the amount of each salary is obtainable by way of results; the efficiency of the instruction imparted by the teacher being gauged by an inspector's examination of every scholar who has attended the school during any part of the two weeks preceding the visit, the examination being restricted to the free subjects. It was intended to abolish the system of payments by way of results by Act No. 1777, which provided for the repeal as from 31st August, 1902, of the provision contained in Sec. 23 of the principal Act, empowering the Governor-in-Council to make regulations for these payments. A substitute was provided by a subsequent Act, which, however, was afterwards withdrawn. The repeal of the power to make regulations for these payments did not affect the validity of the regulations then in force, and these payments are being continued for the present. In addition to the head and assistant teachers, there are four classes of male and female pupil teachers, with salaries ranging from £30 to £60 and £24 to £48 respectively, and monitors are appointed, males receiving £12 and females £10 per annum. Sewing mistresses receive £30 yearly.

College for training teachers.

There is a college for the training of teachers, studentships entitling classified teachers who have passed the pupil teachers' course or pupil teachers who have passed their course to free instruction on competitive examination. The course of instruction in the Training College includes history, theory and practice of teaching, English language and literature, history of the British Empire, mathematics, Latin, and science.

Scholarships and exhibitions.

Any person may collect, raise, or give a sum of money towards founding a scholarship or exhibition in connection with any particular State school; and money or land, or both, may be bequeathed for that purpose. There are 40 departmental scholarships, each of the annual value of £10, tenable for three years, open to 6th class scholars under 14 years, upon competitive examination. The conditions are that after the award of scholarship the scholar shall at the next ensuing session become a student in one of the approved secondary schools or colleges; shall continue to attend, and shall obtain at the end of each year a favourable report from the authorities of the same; and shall pass an annual examination in proof of his progress. The holders of departmental scholarships under 17 years of age, who have attended regularly at an approved secondary school or college for the preceding two years, from the authorities of which good reports have been obtained, and

who have passed the matriculation examination at the University, are eligible to compete for twenty exhibitions annually awarded by the department. The exhibitions are allotted on competitive examination in English, algebra, and geometry, and any two of the four following languages:—Latin, Greek, French, or German; the examination being on the basis prescribed for the preceding matriculation. Each exhibition is of the annual value of £40, tenable for three years at technical schools, or for four years at the Melbourne University. An exhibitioner who passes four years without failure is entitled to continue for a year extra.

The following statement shows the progress as regards State schools, teachers, and scholars since 1872. The figures relating to the number of schools and teachers refer to 30th June, and those relating to the number of scholars to the financial year ended 30th June, for the latest year, and to the 31st December for all previous years:—

State schools, teachers, and scholars, 1872 to 1902.

Year.	Number of Schools.	Number of Instructors.	Number of Scholars.		
			Enrolled during the year.	In Average Attendance.	Distinct Children (estimated).
1872 ...	1,049	2,416	136,055	68,456	113,197
1880 ...	1,810	4,215	229,723	119,520	195,736
1890 ...	2,170	4,708	250,097	133,768	213,886
1898 ...	1,877	4,618	238,357	134,976	212,164
1899 ...	1,892	4,808	239,732	143,844	214,522
1900 ...	1,948	4,977	243,667	147,020	218,240
1901-2 ...	2,041	5,066	257,355	150,939	228,241

The falling off in the number of schools in 1898, as compared with 1890, was due to the closing of a number of small schools and the amalgamation of others. The decrease in the scholars enrolled during the same period was entirely due to the non-enrolment since 1892 of children under 4½ years of age, and to payments for conveyance being restricted to those between the ages of 5 and 13. Since 1898, however, there has been an annual increase in the number of schools, and a very satisfactory annual increase in the number of scholars. There has also been an increase in the number of teachers to keep pace with the growing number of scholars.

Increase of schools and scholars.

Ages of State
school
scholars.

The following are particulars of the number and percentage of distinct children attending State schools, below, at, and above the school age (6 and under 13) during the year 1901-2:—

Ages.	Distinct Children Attending—					
	Day Schools.		Night Schools.		Total.	
	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
Under 6 years ...	13,350	5·91	...	...	13,350	5·85
6 to 13 ...	171,233	75·79	...	...	171,233	75·02
13 years and upwards ...	41,339	18·30	2,319	100·0	43,658	19·13
Total ...	225,922	100·00	2,319	100·0	228,241	100·00

Private
schools
1872 to
1901-2.

The number of private schools, instructors in same, and individual scholars in attendance in 1872, the year before the adoption of the present secular system, for a number of subsequent years, and for the latest year available, was:—

Year (4th Quarter).	Number of Schools.	Number of Instructors.	Number of Individual Scholars.
1872 ...	888	1,841	24,781
1880 ...	643	1,516	28,134
1890 ...	791	2,037	40,181
1898 ...	945	2,440	43,926
1899 ...	901	2,417	48,854
1900 ...	884	2,348	48,483
1901-2 ...	872	2,379	43,182

Scholars
attending
State and
private
schools.

On comparing the number of scholars with the number attending State schools, as shown in the preceding paragraph, it is seen that 16 per cent. of the scholars attending school during 1901-2 attended private schools, and the balance, 84 per cent., attended State schools.

Ages of
scholars
at private
schools.

Of the 43,182 scholars attending private schools during 1901-2, 68½ per cent. were at the compulsory school age (6 and under 13), 10 2-3 under 6, and 20 5-6 per cent. were 13 and upwards. As compared with the ages of State school scholars shown in the preceding table, it will be seen that there is a larger percentage under and above the compulsory age, but a smaller percentage at that age.

Education
of the peo-
ple, cen-
sus 1901.

The following statement, taken from the returns of the census of 1901, shows the number and percentage of persons

(excluding Chinese and Aborigines) in the State at different ages who could read and write, who could read only, or who were unable to read:—

Ages.	Numbers living in 1901.				Number in every 100 living at each age in 1901.		
	Able to read and write.	Able to read only.	Unable to read.	Total.	Able to read and write.	Able to read only.	Unable to read.
Under 6 years ...	4,811	5,237	146,796	156,844	3·07	3·34	93·59
6 to 13 years ...	175,797	8,046	11,251	195,094	90·12	4·12	5·76
13 „ 15 „ ...	50,547	65	220	50,832	99·44	·13	·43
15 „ 25 „ ...	222,076	239	1,245	223,560	99·34	·10	·56
25 „ 35 „ ...	187,879	288	1,512	189,679	99·05	·15	·80
35 „ 45 „ ...	155,206	650	1,994	157,850	98·32	·41	1·27
45 „ 55 „ ...	76,480	1,120	2,350	79,950	95·66	1·40	2·94
55 „ 65 „ ...	52,808	1,986	2,994	57,788	91·38	3·44	5·18
65 years and upwards	54,809	3,776	4,865	63,450	86·38	5·95	7·67
Unspecified adults ..	1,647	27	45	1,719	95·81	1·57	2·62
All ages ...	982,060	21,434	173,272	1,176,766	83·46	1·82	14·72
15 years and upwards	750,905	8,086	15,005	773,996	97·02	1·04	1·94
21 „ „ „	613,018	7,936	14,335	635,289	96·49	1·25	2·26

The number of children from 6 to 13 years of age includes those children whose ages were not specified, the total figures exclude those whose educational attainments were not returned, and in the ages 15 years and upwards are included the adults whose ages were unspecified.

The numbers of persons in every 10,000 of the population who could read and write, and who were unable to read, at the last two enumerations, were as follow:—

Education
1891 and
1901.

	In 1891.	In 1901.	
At all ages ...	8,318	8,528	could read
„	8,029	8,346	could write
„	1,682	1,472	could not read
Between 6 and 13 (school age)	9,389	9,424	could read
„	8,769	9,012	could write
„	611	576	could not read
At 15 and upwards	9,771	9,806	could read
„	9,573	9,702	could write
„	229	194	could not read
At 21 and upwards	9,728	9,774	could read
„	9,491	9,649	could write
„	272	226	could not read

A marked improvement is noticeable at all ages, and in regard to children at school age the proportion entirely illiterate was only 576 per 10,000.

Education
of boys and
girls 1891
and 1901.

A comparison of the results of the censuses of 1891 and 1901 in every 10,000 children of school age, i.e., between 6 and 13 years of age, indicates that the educational attainments of both boys and girls had materially improved, as there were proportionately more children able to read in 1901 than there were in 1891. This will be readily seen by an examination of the following figures:—

1891.		1901.	
Boys.	Girls.	Boys.	Girls.
9,357	9,421	9,398	9,454 could read.
8,686	8,852	8,971	9,056 could write.
643	579	602	546 could not read.

It is always a noticeable fact that in Victoria girls are much more forward in regard to the rudiments of education than are boys. Whether it is owing to the fact of a closer application to lessons, of less distractions caused by sports and games, or of quicker natural abilities, it is hard to determine. This relative backwardness of boys is not a condition peculiar to Victoria, but is just as noticeable in the other States.

Education
of children
of different
sects.

The degree of education of children differs somewhat according to religious denomination, as will be seen by the following figures taken at the census of 1901:—

Religious Denominations.	Number aged 5 to 15 years.			Proportion per cent.		
	Able to read and write.	Ab'e to read only.	Unable to read.	Able to read and write.	Able to read only.	Unable to read.
Church of England ...	84,406	4,797	9,914	85.16	4.84	10.00
Presbyterian ...	36,808	2,032	4,232	85.46	4.72	9.82
Methodist ...	40,769	2,036	4,102	86.92	4.34	8.74
Other Protestants ...	18,022	858	2,028	86.20	4.10	9.70
Total Protestants ...	180,005	9,723	20,276	85.72	4.63	9.65
Roman Catholics ...	46,468	2,849	6,253	83.62	5.13	11.25
Jews ...	1,026	56	79	88.37	4.82	6.81
Residue ...	3,657	198	497	84.03	4.55	11.42
Total ...	231,156	12,826	27,105	85.27	4.73	10.00

In addition to these, there were 5,770 children between the ages of 5 and 15 whose education was unstated.

Education
of children
at census,
1901.

At the census of 1901 the number of children at school age (over 6 and under 13 years) resident in Victoria was 197,704, and of these 184,200 were receiving instruction, whilst the balance, 13,504, were not under instruction nor receiving any education whatsoever. There were also 43,353 children either

above or below the school age, making a total of 241,057 children under instruction. Of every 1,000 of these, 783 were educated at State schools, 33 at colleges and grammar schools, 72 at denominational schools, 63 at private schools, and 10 at unspecified schools, whilst the balance of 39 were educated at home. Of the 13,504 at school age who were returned as not receiving any instruction at all, 4,608 were in Melbourne and suburbs, 2,209 in country cities, towns, and boroughs, and 6,687 in rural districts. Of the children at school age resident in Melbourne and suburbs, 6.13 per cent., of those in country towns, &c., 7.03 per cent., and of those in rural districts 7.34 per cent. were not receiving instruction.

As a measure of the progress of education under the free, compulsory, and secular system, it may be mentioned that 90.12 per cent. of children of school age (6 to 13 years) at the census of 1901 were able to read and write, as against 87.69 at that of 1891, 81.70 in 1881, and 65.60 in 1871, just before the introduction of the system. The percentage just mentioned as being able to read and write at the census of 1901 (viz., 90.12) is considerably higher than that in any other State in the Commonwealth, the percentage being, at the 1901 census, 84.42 in Queensland (Australian born children only), 82.05 in Western Australia, 82.00 in South Australia, 80.35 in New South Wales, and 78.77 in Tasmania.

Education of children. Progress and comparison with other States.

The proportion of either sex who showed their want of elementary education, by signing the marriage register with a mark instead of in writing, is given in the following table for each fifth year from 1875, and for the years 1898 to 1902:—

Signing with marks.

Year.	Men.	Women.	Mean.
	Per cent.	Per cent.	Per cent.
1875	5.48	9.43	7.46
1880	4.18	4.09	4.13
1885	2.56	2.62	2.59
1890	1.50	1.53	1.52
1895	.89	.67	.78
1898	.73	.62	.67
1899	.85	.68	.76
1900	.66	.85	.76
1901	.56	.50	.53
1902	.67	.54	.60

It will be observed that in proportion to the total numbers married, a very satisfactory increase has taken place during the 20 years ended with 1895 in the numbers of both sexes signing the marriage register in writing, in that nearly every year, as compared with its predecessor, a smaller proportion of persons signed with their marks. Since 1895, this proportion remained at a somewhat uniform level, until the last two years, when it was the lowest. It is probable, however,

Increased numbers signing in writing.

that the irreducible minimum has almost now been reached, for a certain residuum of the population will remain illiterate even under the compulsory system of education which prevails in Victoria. This is confirmed by the results of the census of 1901, which show that the percentage of males aged 21 years and upwards (exclusive of Chinese and Aborigines) who could not write was 3·18, and that of females aged 15 years and upwards, 3·23; whereas at the age groups 15 to 20, immediately following the school period, the percentage was ·81 for males and ·45 for females, so that the persons at all ages marrying in Victoria were not only far better instructed than the general population, but were quite as well educated as those who have just completed their school life.

Compared with England and Wales, Scotland, and Ireland, where the proportions signing with marks were 2·70, 2·37, and 11·94 respectively, the elementary educational standard is very high in this State, which in this respect occupies the highest position in Australasia.

Technical
schools.

All the technical schools—schools of art and design, and schools of mines—are now under the direct control of the Education Department, which has devised and established a scheme for promoting and directing secondary education generally, by which schools will be recognized in certain authorized centres only, and State grants restricted to certain specified subjects which bear a distinct relation to the industrial arts and the success with which they are taught. In the schools of art and design, the subjects taught comprise practical geometry, mechanical and architectural drawing, perspective, model, and freehand drawing. The schools of mines, which have been established at the principal mining centres, provide both theoretical and practical instruction, not only in all the subjects in any way connected with mining pursuits, but also in the arts and sciences generally; whilst a wide range of subjects is taught at the working men's and other colleges. In 1901-2, there were altogether 18 technical schools in the State. Five of these afforded instruction in science, art, and trade subjects; 5 in art and science; 2 in art and trade; while 5 schools confine their teaching to art; and 1 to science subjects only. Five schools, viz., the Working Men's College, Melbourne, and the Schools of Mines at Ballarat, Bendigo, Bairnsdale, and Stawell, are classed as certified science schools, and are eligible to receive State school exhibitors. The Ballarat School of Mines has been affiliated to the Melbourne University since April, 1887, the privileges conferred by the affiliation, however, being restricted to matriculated students. The schools, as a whole, had, during the fourth term of 1902, an enrolment of 3,081 pupils; whilst the fees per quarter range, in the different schools, from 3s.

to £8 15s. The Government expenditure on all the institutions in 1901-2 amounted to £22,958. Of this, £15,400 was the ordinary Government grant for maintenance, which was supplemented by £1,365 for miscellaneous maintenance expenditure; £1,655 was for buildings, furniture, &c., and £4,538 was loan expenditure on buildings and equipment. Of the total amount, the Working Men's College (Melbourne) received £6,533; the Ballarat School of Mines, £5,694; the Bendigo School of Mines, £1,642; the Stawell School of Mines £1,398; and the Bairnsdale School of Mines, £1,248. These amounts are exclusive of £1,702 miscellaneous expenditure on all the technical schools.

In June, 1899, a Royal Commission was appointed to inquire into the mining, agricultural, trades, and art schools of the State, and to report as to the best method of carrying on technical instruction in such schools; to consider the advisability of the affiliation of the mining schools with the University; to report as to the adoption in the State schools of elementary instruction in sciences pertaining to mining, agricultural, dairying, and manufacturing pursuits; and generally to recommend what means should be adopted for the better provision of a systematic course of technical instruction. The Commission was under the presidency of Mr. Theodore Fink, M.L.A. Many sittings were held, and, after the issue of five progress reports, the final report was presented in August, 1901. This report deals fully with the strides made in technical education in Germany and the principal European countries, and contains a survey of the systems in force in those countries, in the United Kingdom, the United States, Canada, Japan, the Australian States, and New Zealand. A synopsis, historical and general, is also given of the system in vogue in Victoria. Some of the principal recommendations made by the Commission are:—The establishment of State continuation schools, in view of the need for some form of preparatory education bridging the gap between the State and technical schools; the abolition of the existing local councils of technical schools; and the substitution of committees representative of the best educational thought of the localities—such committees to be represented on a General Council of Education; the establishment in the suburbs of Melbourne of classes to afford working tradesmen a knowledge of drawing, geometry, and other subjects applied to their trades; a liberal provision for scholarships; the introduction of legislation for fixing the period of apprenticeship in different trades, and for affording facilities for attending technical classes during the earlier years of apprenticeship; the appointment of skilled tradesmen to supervise and report upon the instruction afforded in trade subjects; the establishment of a Central Technical Art School to afford instruction having the widest

Technical
educational,
Royal Com-
mission on.

application to the various industries of the country, and of a Technical Art Museum in connection therewith; the establishment of systematic courses in commercial education, and of a School of Domestic Economy at the Working Men's College, and the encouragement of science teaching by the secondary schools.

THE WORKING MEN'S COLLEGE.

BY F. A. CAMPBELL, ESQ., SECRETARY.

Working
Men's
College.

The Working Men's College is a technical institution and School of Mines founded in 1887. It is open to all classes and both sexes, and supplies high-class instruction. Its revenue is obtained from students' fees, supplemented by a Government grant. Over one hundred classes are held in the following departments:—Commercial, elocution and music, mathematics, engineering, architecture, chemistry, mining and metallurgy, photography, art and applied art, rural industries, household economy, and trade courses. The work is divided into—(1) day courses, and (2) evening courses and classes. In the day courses, the lower technical school prepares for the higher technical school, and also gives boys after they have left school a course of practical training, fitting them to enter intelligently on any line of industrial work. The higher technical school prepares students for the higher positions of industrial life, and has the following complete courses:—(1) Mechanical engineering, (2) electrical engineering, (3) marine engineering, (4) mining engineering, (5) sanitary engineering, (6) metallurgy, and (7) applied chemistry. To students who complete any of the above courses, pass the necessary examinations, and produce evidence of having obtained twelve months' approved practical experience, the Diploma of "Associateship" of the College is issued.

In the evening school, the following courses have been laid for Experts' Certificates:—(A) carpenters, (B) fitters and machinists, (Ba) marine engineers, (C) cabinet makers, (D) plumbers, (E) house decorators, (F) modellers and terra cotta workers, (G) lithographic artists and draftsmen, (H) photography, (I) electricians, (J) assayers, (K) geologists, (L)

metallurgists. The following figures indicate the comparative amount of work done at the college during the years 1898 to 1902:—

STUDENTS AT WORKING MEN'S COLLEGE, 1898 TO 1902.

	1898.	1899.	1900.	1901.	1902.
Students enrolled—					
Average per term	1,786	1,943	2,100	2,162	2,364
Males over 21	437	459	482	564	455
„ under 21—Apprentices	85	112	127	146	147
„ „ Others	778	887	949	979	1,164
Females	486	485	542	473	598
Fees received during the year £	3,273	4,113	5,396	6,236	7,485
Average fee per student ...	36s. 10d.	43s. 6d.	51s. 3d.	57s. 8d.	63s. 8d.
Number of classes	119	128	134	156	161
„ instructors	44	46	49	51	53
Salaries paid instructors £	3,268	4,157	5,408	6,106	7,479

The buildings of the Melbourne Public Library, Museums, and National Gallery cost £209,063. These funds were provided by the Government, as also were further moneys expended on maintenance, amounting, with the sum just named, to a total of £963,658. At the end of 1902 the library contained 143,548 volumes (excluding duplicates). It is open to the public, without payment, on week days between the hours of 10 a.m. and 10 p.m., and was visited during the year by 331,006 persons. The library consists of three distinct sections, viz.:—the Public Library, the Lending Library, and the Country Lending Library. The librarian reports that 3,716 volumes were purchased, 1,945 volumes presented, 180 volumes obtained under the “Copyright Act,” and 40,628 newspapers were added to the Reference Library during the year. The Lending Branch, which is also free to the public, issued 167,847 volumes, extending over the whole range of English literature, during 1902, and the number of persons to whom the books were lent was 8,051. Of these volumes, 62 per cent. related to fiction, 15 to history, 6 to general literature, 9 to religion, philosophy, natural science and art, 5 to arts and trades, and 3 per cent. to social science. The number of volumes in the Lending Library at the end of 1902 was 19,483, of which 1,957 were added during the year.

Melbourne
Public
Library.

The National Gallery at the end of 1902 contained 17,315 works of art, viz., 449 oil paintings, 3,470 objects of statuary, &c., and 13,396 water colour drawings, engravings, photographs, &c. It is opened at 10 a.m. and closed at 5 p.m. daily

Nationa
Gallery.

(Sundays and certain holidays excepted), also on Saturday evenings from 8 to 10 p.m. The school of painting in connexion with this institution was attended in the year by 8 male and 21 female students, and the school of design by 12 male and 42 female students. The students are encouraged to paint original works, by which means it is hoped the foundation may be laid of a school of art of purely Australian subjects.

**Industrial
Museum.**

The Industrial and Technological Museum joins the National Gallery, and was opened on the 7th September, 1870. At the end of 1902 it contained 55,162 specimens. It is opened at 10 a.m. and closed at 5 p.m. daily, Sundays and certain holidays excepted.

**National
Museum.**

The collection in the National Museum, formerly kept in a building situated on the grounds of the Melbourne University, is now located in the Public Library Buildings. It consists of stuffed animals, birds, insects, specimens of minerals, and other objects of interest, which are entered in the catalogue, labelled, and classified, and is open to the public free of charge on all week days throughout the year, except Christmas Day and Good Friday, between the hours of 10 a.m. and 5 p.m. In 1902, in addition to presentations of value and interest, purchases were made to the extent of £1,069. The payments for salaries and wages during the year amounted to £2,214.

**Patent Office
Library.**

There is a free library attached to the Patent Office, Melbourne. This contains about 7,250 volumes, consisting of the patent records of Great Britain, Victoria, New South Wales, South Australia, Queensland, New Zealand, Canada, the United States, France, Italy, Germany, &c., and other works relating to Science, Patents, and Trade Marks. About 400 models of patented inventions may also be seen on application to the officer in charge. The approximate value of the books is £4,500, and the models £300. The library is open to the public on each week day, except Saturday, between the hours of 9 a.m. and 4.30 p.m., and on Saturday from 9 a.m. until noon.

**Supreme
Court
Library.**

The Supreme Court Library at Melbourne has eighteen branches in the assize towns. It is free to members of the legal profession between the hours of 9 a.m. and 4 p.m., except on Saturdays, when it closes at noon. It is supported by fees paid under rules of court for the admission of barristers and attorneys.

**Free
libraries,
&c.**

There are free libraries, athenæums, or scientific, literary, or mechanics' institutes, in most of the suburban and country towns of the State, and some of these institutions receive books on loan from the Melbourne Public Library.

The Trustees of the Exhibition Building report that the receipts in 1901-2 amounted to £4,154, consisting of rent £1,998, Aquarium admissions £1,499, and sundries £657; and the expenditure to £3,899, viz., Aquarium £1,340, buildings and grounds—maintenance £1,288, and improvements £190, general charges, including salaries, printing, &c., £1,015, and charges in connexion with letting the building £66.

Aquarium
and
Museum in
Exhibition
Building.

THE MELBOURNE BOTANIC GARDENS.

BY W. R. GUILFOYLE, ESQ., DIRECTOR.

The Melbourne Botanic Garden is situated on the south side of the River Yarra, and is at a distance of about a mile and a half from the city. The area of the garden proper, including lawns, groups, &c., is 88 acres, whilst that of the lake, including the added elbow, or bend of the River Yarra, amounts to 12 acres in addition. This now historic garden, together with the Government House grounds (62 acres), and the Domain (150 acres), comprises a total of 312 acres. The facts as to the commencement and progress of the establishment, having been compiled from the most reliable sources, are to be found in the new illustrated "Guide Book," as published by the Government printer in 1901-2, from which the accompanying quotation has been taken:—

Botanic
Garden.

"The first site chosen for a Botanic Garden was an area of 50 acres, near to where the Spencer-street railway station is situated, and was selected by Mr. Hoddle, Surveyor-General, in 1842. Afterwards various other localities were proposed, but finally, owing mainly to the discrimination and taste of the Hon. Charles Joseph La Trobe, first Government Superintendent (afterwards Lieutenant-Governor) of the Province of Port Phillip, a portion of the present site was decided upon for the purpose. In September, 1845, Dr. Nicholson presented a petition, signed by three or four hundred of the citizens, headed by the Mayor, praying for the immediate establishment of the Botanic Garden, and the sum of £750 was thereupon voted—1845-6—for its maintenance. The first superintendent, or curator (Mr. John Arthur), was appointed 1st March, 1846, and he at once fenced in a 5-acre paddock, that portion of the gardens at present known as the Anderson-street Lawn, sloping towards the tea-house on the edge of Lake, in which he made good progress both as to cultivation and planting. Mr. Arthur, however, whose labours were much appreciated at the time, died in January, 1849. Mr. John Dallachy succeeded Mr. Arthur as curator, and insured such good results that, at the end of 1851, a progress report submitted to the Legislature showed that, in addition to an extension of cultivated ground, many kinds of exotic plants had been added to the collection, and also that the native vegetation had received attention. The various shows of the Horticultural Society were at that time held in the gardens. For several years prior to the retirement of Mr. Dallachy, a scientific arrangement of plants in a part of the gardens was undertaken by the then Government Botanist, Dr. Ferdinand Mueller (subsequently Baron Sir F. von Mueller), who had accompanied the Gregory Expedition in search of Leichhardt, the explorer. After the Baron had received the appointment as Director (1857), Mr. Dallachy was re-employed for several years as a collector of seeds and herbarium specimens for the gardens, and discovered many new and beautiful species in Queensland. The Baron held office as Director until 1873, when, with the view of enabling him to give undivided attention to his scientific labours as Government Botanist, he was relieved of control of the Botanic Gardens, and Mr. W. R. Guilfoyle was appointed to the position. Since 1873 the gardens have been entirely remodelled by him, and their area extended by more than 30 acres."

When I took charge of the grounds, I found about 3,000 species of plants growing there, and these, having been added to by me during the past 30 years, now represent no less than 14,000 species. Many of them are large and well-grown palms in great variety, also arborescent as well as other ferns—as for instance, several hundreds in the rather extensive “Gully.” There are, besides, other ornamental and utilitarian plants, together with a good-sized collection in the medicinal or herb garden.

A large “System Pavilion of Plants” was also formed, classified in their natural orders, which, like the whole of the various collections in the outer grounds, conservatory, &c., have their labels attached—giving both their scientific and common names, and also their orders, native countries, &c.

The “Museum of Plant Products” was formed some time ago, which contains many thousands of fully-named herbarium specimens; seeds in their seed vessels (or pods), fibres, and woods, representatives of plants yielding either food or articles for manufacture. Both the system pavilion and museum are largely visited by students connected with botanical classes, in colleges and schools.

It will be seen by the facts quoted that the Melbourne Botanic Garden has now had an existence of 57 years, and as a favourite resort, has become increasingly popular, being attended by many thousands of people on Sundays and holidays, whilst being on week days much used by citizens and others, including visitors from other States, colonies, &c., Great Britain, and other countries. The various grounds referred to are almost encircled by a much-used carriage way, which, having been inter-connected, comprises the Alexandra Avenue, and the South Yarra Drive, and now make one wide promenade of $2\frac{3}{4}$ miles in length.

The gardens of the Zoological and Acclimatisation Society of Victoria are situated in the centre of the Royal Park, on the northern side of the city, and distant nearly two miles from the Post Office, and can be reached by the tramcars starting every few minutes, or by rail. The ground enclosed contains 50 acres, rather more than half of which is laid out as a zoological garden and the rest in deer paddocks. The present director of the society is Mr. D. Le Souëf.

Greater Melbourne is amply supplied with public reserves and parks, the total area devoted to such purposes being 5,322 $\frac{1}{2}$ acres in 1903, as against 5,226 in 1899. The following list of these reserves, together with a statement of their respective areas, has been supplied by the Lands Department:—

Zoological
and Accli-
matisation
Gardens.

Public
reserves in
Greater
Melbourne

Municipality.	Name of Reserve.	1903. Area.
		Acres.
Melbourne City ...	Royal Park... ..	425
" ...	Yarra	155
" ...	Prince's	97
" ...	Fawkner	102
" ...	Flinders	17
" ...	Park (Model Farm)	81
" ...	Botanic Garden and Domain	178
" ...	Zoological "	55
" ...	Carlton "	63
" ...	Fitzroy "	64
" ...	Spring "	21
" ...	Flagstaff "	18
" ...	Argyle Square	3 $\frac{1}{4}$
" ...	Curtain "	3 $\frac{1}{2}$
" ...	Darling "	2
" ...	Lincoln "	3 $\frac{1}{4}$
" ...	Macarthur "	1
" ...	Murchison "	1
" ...	University "	3 $\frac{1}{2}$
" ...	University Grounds	106
" ...	Friendly Societies' Grounds	25
" ...	Industrial Schools and Board of Health Depôt	47
" ...	Melbourne Cricket Ground	9 $\frac{1}{2}$
" ...	East Melbourne "	7
" ...	Scotch College "	7
" ...	Richmond "	6
" ...	Carlton "	5
" ...	Parliament Reserve	10
" ...	Ornamental Plantations	5
" ...	General Cemetery	101
" ...	Old Cemetery	8 $\frac{1}{2}$
" ...	Military Parade Ground	5
" ...	Recreation (Brown's Hill)	7 $\frac{1}{2}$
North Melbourne Town ...	Recreation	9 $\frac{1}{2}$
Fitzroy City ...	Edinburgh Park	34
" ...	Recreation	7
Collingwood City ...	Mayor's Park	6
" ...	Recreation	7
" ...	Darling Gardens	16
" ...	Victoria Park	10
Richmond City... ..	Richmond Park	156
" ...	Horticultural Gardens	33
" ...	Barkly Square	7
" ...	Municipal Reserve	7 $\frac{3}{4}$
Northcote Town ...	Jika Park	14 $\frac{1}{2}$
South Melbourne City ...	Albert Park (part o ^c)	464
" ...	St. Vincent Gardens	7 $\frac{7}{8}$
" ...	Ornamental Plantations	2 $\frac{1}{4}$
" ...	Cricket and Recreation (Warehousemen's) Cricket Ground	8
Port Melbourne Town ...	Park and Garden	7 $\frac{1}{4}$
" ...	"	58
" ...	"	2
" ...	Ornamental Plantations	17
Prahran City	Toorak Park	7

Municipality.	Name of Reserve.	•1903. Area.
		Acres.
Prahran City ...	Victoria Gardens ...	4
" ...	Gardens (Grattan-street) ...	2
St. Kilda City ...	St. Kilda Gardens ...	16
" ...	Albert Park (part of) ...	106
" ...	Recreation ...	54
" ...	" ...	4 $\frac{3}{4}$
" ...	" ...	11
" ...	" ...	15 $\frac{3}{4}$
" ...	" (Dandenong Road) ...	22 $\frac{1}{2}$
" ...	Cemetery ...	20
Brighton Town ...	Elsternwick Park ...	85
" ...	Recreation (Elsternwick) ...	14 $\frac{1}{2}$
" ...	Beach Park ...	67
Essendon Town ...	Recreation ...	10 $\frac{1}{2}$
" ...	" ...	5 $\frac{1}{4}$
" ...	Agricultural Society's Yards ...	30
" ...	Queen's Park ...	18
" ...	Water Reserve ...	11 $\frac{1}{2}$
Flemington and Kensington Borough	Racecourse ...	301
" ...	Recreation ...	5 $\frac{3}{4}$
Hawthorn City ...	" ...	15
Kew Borough ...	Studley Park ...	203
Kew Borough ...	Lunatic Asylum ...	384
" ...	Cemetery ...	31
" ...	Recreation ...	16
Footscray City ...	Public Gardens and Recreation ...	10 $\frac{1}{2}$
" ...	" ...	2 $\frac{1}{4}$
" ...	Cricket Ground, &c. ...	5 $\frac{3}{4}$
" ...	Recreation (Yarraville) ...	5
" ...	" (Footscray West) ...	15
Williamstown Town ...	Park ...	36
" ...	" ...	20
" ...	Recreation ...	9 $\frac{3}{4}$
" ...	Beach Park ...	20
" ...	Cemetery ...	15
" ...	Rifle Range ...	332
" ...	Cricket Ground ...	6 $\frac{3}{4}$
" ...	Public Garden ...	3 $\frac{1}{2}$
" ...	Recreation (Newport) ...	13
Malvern Town ...	Park and Garden ...	8
" ...	Recreation ...	4 $\frac{1}{2}$
" ...	Park and Garden (Waverley) ...	16
Caulfield Town ...	Racecourse ...	144
" ...	Park ...	62
" ...	Park (East Caulfield) ...	17
" ...	Recreation ...	13
Oakleigh Borough ...	Recreation ...	8
" ...	Park and Garden ...	21
" ...	Cemetery ...	10
Outside urban municipalities	Yarra Bend Asylum ...	350
	Camberwell Gardens ...	7
	Williamstown Racecourse ...	190
	Total ...	5,322 $\frac{1}{2}$

Friendly Societies are regulated under the "Friendly Societies Act 1890," and amendments thereof in the Acts of 1891, 1896, and 1900, which, amongst other provisions, prescribe that each society shall furnish returns annually to the Government Actuary for Friendly Societies, and once in every five years shall cause its assets and liabilities to be valued to the satisfaction of that officer. The fees for valuation have purposely been fixed low, and average no more than three-pence per member, the result being that, although it is competent for the societies to employ outside valuers if they desire it, as a matter of fact they very rarely do so, and all the valuations are now made by the Government Actuary for Friendly Societies, Mr. Evan F. Owen, A.I.A.

Valuations
of Friendly
Societies.

The following is an epitome of the particulars furnished respecting Friendly Societies for the five years, 1898 to 1902:—

Friendly
Societies.

	1898.	1899.	1900.	1901.	1902.
Number of societies	31	29	29	29	28
„ branches ...	1,088	1,105	1,111	1,132	1,146
Average number of members	86,369	91,213	95,819	99,360	101,574
Number of members sick	18,693	21,083	18,007	20,832	20,708
Weeks for which alim-ent was allowed	160,611	165,616	157,235	169,289	168,830
Deaths of members ...	931	993	976	1,036	1,023
„ registered wives	481	442	424	393	427
	£	£	£	£	£
Income of sick and funeral fund	173,443	186,547	203,569	202,394	202,044
Income of incidental fund	150,111	159,879	164,849	169,406	181,719
Total income ...	323,554	346,426	368,418	371,800	383,763
Expenditure of sick and funeral fund	146,505	153,519	151,226	153,478	156,024
Expenditure of incidental fund	146,722	155,057	161,934	167,579	181,260
Total expenditure	293,227	308,576	313,160	321,057	337,284
Amount to credit of sick and funeral fund	1,133,156	1,166,184	1,218,527	1,267,443	1,313,463
Amount to credit of incidental fund	40,804	45,626	48,541	50,368	50,827
Amount invested—sick and funeral fund	1,059,374	1,103,433	1,141,678	1,205,151	1,249,809
Amount invested—in-cidental fund	31,459	36,026	36,784	39,522	41,793
Total invested ...	1,090,833	1,139,459	1,178,462	1,244,673	1,291,602

During the quinquennium ended with 1902, the number of members in Friendly Societies increased by 15,205, or by about 18 per cent., the amount to the credit of the sick and funeral fund by £180,307, or 16 per cent., and the total amount invested by £200,769, or 18 per cent.

Growth of
Friendly
Societies.

In proportion to the number of effective members of Friendly Societies, the amount of sickness experienced in 1902

Sickness
and death
rates.

was somewhat below the average of recent years. The days per effective member for which alimant was allowed were equal to an average of 11·6 in that year, 12·0 in 1901, 11·3 in 1900, 13·0 in 1899, and 13·0 in 1898, but the average was only 10·6 during the fifteen years ended 1897. The death rate in 1902 was slightly below the average—the death rate per 1,000 members being 10·09 in 1902, 10·45 in 1901, 10·21 in 1900, 10·92 in 1899, 10·82 in 1898, and 10·63 for the 25 years ended 1902.

The occupations of the people in 1901 were ascertained at the census. The various divisions of employment, under 28 heads, were:—

	Males.	Females.	Total.
Ministering to—			
Government, Defence, etc.	6,719	165	6,884
Religion, Charity, Science, Education, etc. ...	13,664	14,676	28,340
Board, Lodging, and Attendance	13,129	53,686	66,815
Dealing in—			
Money and Real Property	10,039	2,760	12,799
Art and Mechanic Productions	3,720	934	4,654
Textile Fabrics, Dress and Fibrous Materials	6,374	2,452	8,826
Foods, Drinks, Narcotics and Stimulants ...	18,217	3,428	21,645
Animals, and Animal and Vegetable Sub-	3,977	198	4,175
stances			
Metal or Minerals (other than those used for	2,044	162	2,206
Fuel and Light)			
Minerals, etc., mainly used for Fuel and	2,794	34	2,828
Light			
Engaged in—			
General Dealing and Mercantile Pursuits ...	16,091	4,446	20,537
Speculating on Chance Events	284	1	285
Storage	1,093	...	1,093
Transport and Communication	30,318	1,198	31,516
Manufacturers of—			
Art and Mechanic Productions	20,676	1,748	22,424
Textile Fabrics, Dress and Fibrous Materials	10,664	28,450	39,114
Foods, Drinks, Narcotics, and Stimulants ...	10,251	1,402	11,653
Animal and Vegetable Substances	5,281	85	5,366
Metals and Minerals (other than those used	14,315	88	14,403
for Fuel and Light)			
Materials used for Heat, Light, or Energy	1,035	37	1,072
Constructors of Buildings, Roads, Railways,	27,392	17	27,409
Earthworks, etc.			
Engaged in Disposing of the Dead or Refuse...	1,260	24	1,284
Ill-defined Industrial Workers (chiefly labourers)	22,653	855	23,508
Engaged on Land or with Animals, and in	140,149	24,998	165,147
Obtaining Raw Products from Natural			
Sources			
Persons—			
Of Independent Means	7,242	2,824	10,066
Dependent upon Natural Guardians	203,279	444,931	648,210
Dependent upon the State or upon Public	7,701	6,444	14,145
or Private Support			
Occupation not stated (chiefly Breadwinners)...	3,522	1,415	4,937
Total	608,883	597,458	1,201,341

The number of breadwinners and dependents were:—

	Males.	Females.	Total.	Percentage.		
				Males.	Females.	Total.
Breadwinners ...	389,381	144,668	534,049	65	24	45
Dependents ...	210,980	451,375	662,355	35	76	55
Total ...	600,361	596,043	1,196,404	100	100	100

Bread-winners and dependents, 1901.

The proportion of breadwinners was 100 to every 124 dependents, which was almost the same as at the previous census, when 100 breadwinners supported 125 dependents. It will be seen, too, that nearly one-fourth of the females in Victoria were returned as earning their own living.

Proportion of breadwinners and dependents.

Provision was made in the census schedules for ascertaining the number of persons unemployed for more than a week prior to the enumeration. The information then collected shows that 13,795 male and 2,647 female wage-earners were returned as idle at that time.

Unemployed, 31st March, 1901.

The "Factories and Shops Act 1896" (No. 1445) is an important piece of social legislation, and is to be read in conjunction with the "Factories and Shops Act 1890." A factory is defined to mean any place in which four or more persons other than a Chinese, or in which one or more Chinese are employed in any handicraft, or in preparing articles for trade or sale; or any place in which one or more are employed, if motive power be used in the preparation of such articles, or where furniture is made, or where bread or pastry is made or baked for sale. The expression handicraft includes any work done in a laundry or dyeworks. Provision is made for the registration of factories; and inspectors are appointed to inspect and examine them in order to see that the health requirements and other provisions of the Acts are complied with. A record is to be kept in every factory of the names, work, and wages of all employes, and the ages of those under 16. The employment of persons under 13 is debarred, and a strict limitation is placed on the hours of employment for other young persons; and there are special provisions to guard against accidents, for the inspection of boilers, and against the employment of uncertificated persons to control them. All shops, except chemists, news agents, eating houses, &c., must close at seven p.m. on week days and at ten p.m. on Saturdays; but municipal councils are empowered to make by-laws permitting all shops of a particular class to remain open later, or providing that such shops be closed for one afternoon in each week, on petition by a majority of the shop-

Factory legislation.

keepers of the same class; but the Act provides that all shop assistants shall have a half-holiday in each week. The working hours of Chinese are specially restricted, in order to try to prevent or lessen unfair competition. The most important provision, however, which is provided in the Act of 1896, is in regard to the formation of Boards to fix the rates of wages and piecework in various trades, for which purpose it is provided that, to determine the lowest prices or rates to be paid, the Governor-in-Council may appoint special Boards consisting of from four to ten members (half elected by employers and half by employés), who are to nominate some outside person as chairman; or if no agreement can be arrived at as to such nomination, then the Governor-in-Council shall appoint the chairman. The Board so appointed shall agree upon the rates or prices to be charged, and shall also determine the number of apprentices or improvers under 18 years of age who may be employed, and the lowest price or rate of pay; but no one shall receive less than 2s. 6d. per week in any case. Several amending Acts have been passed since the 1896 measure was placed on the Statute Book, extending to many and diverse occupations the beneficial provisions of the original Act. The Acts continued in force until 1st November, 1903, and a Bill was brought before Parliament continuing the 1896 Act and all enactments amending the same, until otherwise provided by Parliament. This was subsequently altered amending and limiting the duration of the Acts to two years, from the 31st December, 1903. The Chief Inspector of Factories reports that determinations, made by twenty-nine Boards elected under the Act, were in full operation during 1902, and furnishes figures showing the increase in average earnings consequent thereon. For instance, the average weekly wage for all employés (including boys) in the bread-making trade was £1 12s. 6d. in 1896, prior to the Wages Board being in operation, and £2 2s. 10d. in 1902, when its determination was in full force. Likewise, the average wage of persons employed in the clothing trade increased from £1 in 1896 to £1 2s. 5d. in 1902; the average wage in the boot trade from £1 3s. 2d. to £1 8s. 3d.; and in the furniture trade from £1 9s. 1d. to £1 19s. 6d. In 1900, the average wage of persons engaged in the engraving trade was 36s. 11d., and in 1902, when the determination was in force, it was 49s. 10d., or an increase of 12s. 11d. In the pottery trade the average wage was £1 8s. 1d. in 1900, before the Wages Board fixed the rates, and in 1902, when the determination was in operation it had risen to £1 16s. 4d., or an average increase of 8s. 3d. for each employé engaged in the trade.

An Act to provide for the payment of old age pensions was passed in 1900. The minimum age of a pensioner is 65 years, but pensions may be granted to persons under that age if they have been permanently disabled through having

Wages
Boards.

Effect—
rise in
earnings.

Old age
pensions.

been engaged in mining or any unhealthy or hazardous occupation. The period of residence in the State required to entitle a person to a pension is 20 years, five of which must be continuous and immediately preceding the application. A person who has deserted, without just cause, wife, husband, or children, for a period of 12 months in the preceding five years, is debarred from pension rights. The absence of serious criminal taint, to the extent of not having been imprisoned for periods amounting to five years during the whole qualifying period of residence, or to six months or upwards in the preceding five years, is insisted upon. Three convictions for drunkenness during the preceding two years is a disqualification. An applicant must be a British subject by birth, or a naturalized subject of not less than six months' standing, but Chinese and Asiatics, whether naturalized or not, and Aborigines are excluded. Relatives may be summoned to show cause why they do not support applicants for pensions, and may be ordered to do so. Originally the maximum pension was 10s. per week, but in the Amending Act of 1901 it was reduced to 8s. per week. The number who actually received pensions during 1902-3 was 15,167; 1,570 pensions were cancelled, and 1,180 pensioners died during the year—leaving 12,417 pensioners on the 30th June, 1903. The following are the amounts paid since the inception of the system on 1st January, 1901, during the last three financial years, viz.:—

In 1900-01	...	...	...	...	£129,338
1901-02	...	...	...	...	292,432
1902-03	...	...	...	...	215,755
Total					£637,525

The following statement shows the proportion of persons, aged 65 years and upwards, to the population in the three States paying old age pensions, also the proportion drawing old age pensions, and the percentage of the latter to the former:—

Proportion of population 65 and upwards receiving old age pensions in two Australian States and New Zealand.

State or Colony.	Number in Every 10,000 Persons.		Proportion of those Eligible on an Age Basis receiving Pensions.
	65 and Upwards.	Receiving Old Age Pensions.	
	1901.	1902.	Per Cent.
Victoria	552	117	21
New South Wales	344	166	48
New Zealand (including Maoris)	414	157	38

It thus appears that New South Wales is paying pensions to almost half of those eligible to receive them under the age qualification, New Zealand to nearly two-fifths, but in Victoria

Pensions paid in states compared.

only about a fifth of those so qualified are the recipients of this character of State aid.

In Melbourne and suburbs, the last Saturday and Sunday of October in each year are set apart for making collections in aid of the charitable institutions. The clergy of the various denominations take an active part in the movement, preaching sermons appropriate to the occasion, and otherwise helping it forward. The church collections on this Sunday are entirely devoted in aid of the fund. Sunday school superintendents, business firms, their employes, and others lend valuable assistance in making collections. The following are the amounts collected since the movement was inaugurated:—

1873 to 1898	...	...	...	...	£190,104
1899	...	...	...	...	5,853
1900	...	...	...	...	5,901
1901	...	...	...	...	6,034
1902	...	...	...	...	6,669
Total					£214,561

The amounts distributed to the various charitable institutions, as well as the total sums collected, from the inception of the fund, and for the year 1902, were as under:—

Institution.	Amount Distributed.		
	1873 to 1901.	1902.	Total.
	£	£	£
Melbourne Hospital	61,802	1,654	63,456
Alfred Hospital	26,903	598	27,501
Benevolent Asylum	18,614	411	19,025
Women's Hospital	18,558	569	19,127
Children's Hospital	23,125	879	24,004
Eye and Ear Hospital	10,100	290	10,390
Homoeopathic Hospital	10,064	261	10,325
Victorian Home for Aged and Infirm	6,842	149	6,991
Richmond Dispensary	1,330	35	1,365
Collingwood Dispensary	1,900	...	1,900
Austin Hospital for Incurables	10,122	581	10,703
Convalescent Home for Women	1,790	125	1,915
Convalescent Home for Men	1,275	125	1,400
Melbourne District Nursing Society	576	77	653
St. Vincent's Hospital	2,505	245	2,750
Sanatorium for Consumptives, Echuca and Macedon	790	223	1,013
Queen Victoria Hospital for Women and Children	308	106	414
Melbourne Dental Hospital	20	20	40
Total Distributed	196,624	6,348	202,972
Total Collected	207,892	6,669	214,561

Hospital Saturday and Sunday.

Distribution of moneys collected on Hospital Saturday and Sunday.

Particulars relating to the most important of the various classes of charitable institutions in the State are shown in the following table. The information relates to the year ended the 30th June, 1902, except for the Hospitals for the Insane, the Idiot Asylum, and the Industrial and Reformatory Schools, in which cases it relates to the calendar year 1902. Of the general hospitals, six are in Melbourne, the remainder in country towns, nine of the latter being also benevolent asylums. The accommodation available for indoor patients was as follows:—

Charitable
institution
—accom-
modation.

Description of Institution.	Number of Institutions.	Dormitories.		Number of Beds for Inmates.	Number of Cubic Feet to each Bed.
		Number.	Capacity in Cubic Feet.		
General Hospitals	45	394	4,178,389	2,963	1,410·2
Women's Hospital... ..	1	24	142,486	93	1,532·1
Children's Hospital	1	12	59,176	79	749·1
Eye and Ear Hospital	1	8	54,680	60	911·3
Queen Victoria Hospital for Women and Children	1	3	18,084	15	1,205·6
Consumptive Sanatorium	1	18	59,000	97	608·2
Hospitals for the Insane	6	1,181	2,815,219	4,083	689·5
Idiot Asylum	1	20	114,288	276	414·1
Benevolent Asylums	6	179	1,663,766	2,437	682·7
Convalescent Homes	2	31	71,000	63	1,127·0
Blind Asylum	1	5	91,318	112	815·3
Deaf and Dumb Asylum	1	4	75,872	74	1,025·2
Orphan Asylums	7	55	533,794	1,005	531·1
Industrial and Reformatory Schools	14	...	...	...	...
Infant Asylum	1	8	38,821	54	718·9
Female Refuges	9	124	320,775	537	597·3
Salvation Army Rescue Homes	6	39	101,317	225	450·3
Total	104	2,105	10,337,985	12,173	849·2

The regulations of the Board of Public Health require an allowance of 1,200 cubic feet for each inmate in hospitals, and the above statement shows that, with two exceptions, this requirement has been complied with.

Charitable
institutions
—inmates
and deaths.

The following statement shows the number of inmates and of deaths in these institutions:—

Description of Institution.	Number of Inmates.		Number of Deaths.	Proportion of Deaths to Total Number of Inmates.
	Total during the Year.	Daily Average.		
General Hospitals ...	21,193	1,988	2,272	Per Cent. 10·72
Women's Hospital ...	1,716	66	40	2·33
Children's Hospital ...	1,294	84	101	7·80
Eye and Ear Hospital ...	805	54	2	·25
Queen Victoria Hospital for Women and Children	195	11	4	2·05
Consumptive Sanatorium	147	47	1	·68
Hospitals for the Insane	5,208	4,237	307	5·89
Idiot Asylum ...	324	287	25	7·71
Benevolent Asylums ...	3,670	2,138	414	11·28
Convalescent Homes ...	1,049	39	1	·09
Blind Asylum ...	108	95	...	...
Deaf and Dumb Asylum	77	66	...	...
Orphan Asylums ...	1,413	1,086	2	·14
Industrial and Reformatory Schools	6,636	5,700	75	1·13
Infant Asylum ...	94	51	15	15·96
Female Refuges ...	827	481	6	·72
Salvation Army Rescue Homes	564	144	2	·35
Total ...	45,320	16,574	3,267	7·21

By comparing the above table with that preceding it, overcrowding seems to exist in the Children's Hospital, the Hospitals for the Insane, the Idiot Asylum, and the Orphan Asylums, as the daily average number of inmates in those institutions was greater than the number of beds provided.

In addition to the inmates shown above, there were 45 mothers of infants in the Infant Asylum, 113 infants in the Female Refuges, and 108 infants in Salvation Army Homes during the year.

Charitable
institutions
—receipts
and ex-
penditure.

The total receipts of all charitable institutions in the year 1901-2 amounted to £455,690, of which three-fifths were contributed by Government, and the expenditure amounted to £458,882. Of the Government contribution, £201,071 was expended on the Hospitals for the Insane, the Idiot Asylum, and the Industrial and Reformatory Schools, which are Government institutions.

Description of Institution.	Receipts.			Expenditure.
	From Government.	From Other Sources.	Total.	
	£	£	£	£
General Hospitals	54,383	65,429	119,812	129,215
Women's Hospital	2,400	6,038	8,438	8,264
Children's Hospital	450	8,233	8,683	8,779
Eye and Ear Hospital	800	3,301	4,101	3,952
Queen Victoria Hospital for Women and Children	385	1,357	1,742	1,376
Consumptive Sanatorium	200	7,231	7,431	3,613
Hospitals for the Insane	130,852	15,344	146,196	146,196
Idiot Asylum				
Benevolent Asylums	22,022	12,560	34,582	34,797
Convalescent Homes	450	1,298	1,748	1,388
Blind Asylum	2,000	3,252	5,252	4,355
Deaf and Dumb Asylum	1,000	2,194	3,194	3,192
Orphan Asylums	6,550	15,537	22,087	19,635
Industrial and Reformatory Schools	70,219	1,791	72,010	72,010
Infant Asylum	255	827	1,082	1,331
Female Refuges	2,019	12,858	14,877	15,945
Salvation Army Rescue Homes	690	3,765	4,455	4,834
Total	294,675	161,015	455,690	458,882

The following statement shows the average number of inmates of the respective institutions, the total cost of their maintenance, and the average cost per annum of each inmate:—

Charitable institutions—average cost per inmate.

Description of Institution.	Daily Average Number of Inmates.	Total Cost of Maintenance.	Average Cost of Each Inmate Per Annum.		
			£	s.	d.
General Hospitals	1,988	109,029	54	16	10
Women's Hospital	66	7,216	109	6	8
Children's Hospital	84	6,866	81	14	9
Eye and Ear Hospital	54	3,502	64	17	0
Queen Victoria Hospital for Women and Children	11	1,003	91	3	8
Consumptive Sanatorium	47	2,223	47	6	0
Hospitals for the Insane	4,237	146,196	32	6	4
Idiot Asylum	287				
Benevolent Asylums	2,138	31,173	14	11	7
Convalescent Homes	39	1,233	31	12	4
Blind Asylum	95	3,034	31	18	9
Deaf and Dumb Asylum	66	3,062	46	7	11
Orphan Asylums	1,086	15,698	14	9	1
Industrial and Reformatory Schools	5,700	72,010	12	12	8
Infant Asylum	51	850	16	13	4
Female Refuges	481	12,362	25	14	0
Salvation Army Rescue Homes	144	4,249	29	10	2
Total	16,574	419,706	25	6	6

The institutions showing the lowest average cost per inmate are the Industrial and Reformatory Schools, the Orphan Asylums, and the Benevolent Asylums. As many of the children of the Industrial and Reformatory Schools cost the State nothing—maintaining themselves at service or being supported by relatives—the cost of maintenance per head shown above is somewhat misleading, the true cost per head of those supported by the State being about £17 10s. The average cost per inmate of the Infant Asylum, Female Refuges, and Salvation Army Homes would be reduced if allowance were made for mothers of infants in the first-named institution, and for infants in the two latter groups of institutions.

Conva-
lescent homes.

In addition to the hospitals, there were two Convalescent Homes—one for men, situated at Cheltenham, and the other for women at Clayton—with accommodation for 63 inmates. The number of inmates at the beginning of the year 1901-2 was 44; 1,005 were admitted, and 1,015 were discharged during the year, and 34 remained under care on the 30th June, 1902.

Free dis-
pensaries.

Two free dispensaries furnished returns for 1902. The individuals treated during the year ended 30th June, 1902, numbered 4,930. The visits to or by these persons numbered 17,533. The total receipts amounted to £679, of which £235 was from Government and £444 from other sources. The total expenditure was £1,045.

Lunatic
asylums,
1902.

The number of persons admitted to lunatic asylums during the year 1902 was 796, the number discharged recovered was 358, and relieved 55. The number of patients remaining in the asylums on the 31st December, 1902, was 4,547, or a proportion of 1 in every 265 of the population, as compared with 4,501, or 1 in every 269 of the population, in the preceding year. Of those discharged recovered in 1902, as many as 78 per cent. had been in the asylums for less than 12 months, 13 per cent. from 1 to 2 years, and 6 per cent. from 2 to 5 years. After this length of time in the asylums recoveries are not at all likely to take place. Of those who died, 41 per cent. had not been resident 12 months, 30 per cent. from 1 to 5 years, 10 per cent. from 5 to 10 years, 5 per cent. from 10 to 15 years, 3 per cent. from 15 to 20 years, 5 per cent. from 20 to 25 years, and about 6 per cent. were in longer than 25 years. These facts tend to show that mortality is heavy during the early stages of treatment, and that the death rate amongst those inmates who have a lengthened asylum residence is very light, and no doubt this result generally aids in making the large asylum population to which attention has been repeatedly directed.

Admissions,
discharges
&c., lunatic
asylums,
1848 to 1902.

Since the opening of the first asylum in 1848 up to the end of 1902, 31,693 persons have been admitted, viz., 18,198 males, and 13,495 females. The proportion who recovered was

29 per cent. of males, and 33 per cent of females, whilst 4 and 6½ per cent. respectively were relieved, 21 per cent. and 22 per cent. (including transfers) were not improved, 33 and 22 per cent. died, and 13 and 16 per cent. respectively still remain under care in the institutions.

The number of lunatics in the different Australian States and New Zealand, and their proportion to the total population of each State on 31st December, 1901, were:—

Lunatics in Australia and New Zealand.

State or Colony.	Number of Lunatics on 31st December, 1901.	
	Total.	Per 100,000 of Population.
Victoria	4,501	372
New Zealand	2,773	352
Queensland	1,752	343
New South Wales	4,475	324
South Australia	988	270
Tasmania	426	245
Western Australia	340	175

The figures of 1901 are used, as those for 1902 for all the States are not yet available.

The recoveries of patients in the Victorian lunatic asylums in 1901 were below the average of the 20 years ended with 1901. the proportion in that year being 3,888 per 10,000 admitted, as compared with 4,025 in the period stated. The proportion of recoveries in 1901 was lower than in South Australia, New South Wales, and Queensland, but higher than in Western Australia and Tasmania.

Recoveries of lunatics in Australia, 1901.

	Recoveries per 10,000 Admissions.		Recoveries per 10,000 Admissions.
South Australia	5,093	Victoria	3,888
New South Wales	4,693	Western Australia	3,830
Queensland	4,353	Tasmania	3,231

The mortality of lunatic asylum patients was higher in Victoria in 1901 than in any of the other States with the exception of South Australia. This will be seen by the following figures:—

Deaths of lunatics in Australia and New Zealand.

	Deaths per 10,000 Resident Patients.
South Australia	834
Victoria	768
New South Wales	683
Western Australia	681
New Zealand	639
Queensland	583
Tasmania	550

Industrial
and re-
formatory
schools.

There were at the end of 1902 three industrial and ten reformatory schools in the State, one of the former being a servants' training school. The State industrial schools are used merely as receiving depôts, the children being sent as soon as possible after commitment to the schools either to foster homes, or to private farm reformatories partly supported by the State. Many of the inmates of the State reformatories are either placed with friends or licensed out. The wards of the State on 31st December, 1902, numbered 5,745, and in addition, there were 34 others free from legal control, who, being incapacitated, were maintained by the State. Of the total number under control, only 343 are described as reformatory children; 199 of these were in reformatory schools, 79 were maintaining themselves at service, 64 were placed with relatives without cost to the State, and one was an inmate of a gaol. The balance, 5,402, are described as neglected children, of whom 3,753 were boarded out in foster homes, 736 were maintaining themselves at service, 762 were living with relatives without cost to the State, 140 were inmates of institutions for neglected children, 9 were in hospitals, and two in gaols.

Children
boarded
out, &c.

The welfare of the children boarded out is cared for by honorary committees, who send reports to the department as to their general condition. The rate paid by the Government to persons accepting charge of these children is five shillings per week for each child. Children from either industrial or reformatory schools may be placed with friends on probation, without wages, or at service. The number of children boarded out at the end of 1902 was 3,753, as against 3,701 in 1901, 3,331 in 1900, 3,113 in 1899, and 2,791 in 1898; the number placed with friends on probation was 825 in 1902, as against 780 in 1901, 719 in 1900, 689 in 1899, and 673 in 1898; and the number at service or apprenticed, 815 at the end of 1902, as against 851 in 1901, 842 in 1900, 820 in 1899, and 799 in 1898.

The circumstances leading to the commitment of these children are as follow, the particulars having been obtained from the orders:—The total number of children placed under care in the schools in 1902 was 894, and in only 370 cases, or 41 per cent. of the whole, were the parents held to be blameable; the father in 245, the mother in 70, and both parents in 55 cases. There were 524 cases in which the parents were held to be blameless; in 293 instances the father was dead and the mother poor, but of good character; in 21 both parents were dead; in 54 the parents were alive, but, though held to be of good character, were too poor to support their children; in 34 the father was poor and the mother dead; in 82 both parents were the victims of misfortune; in 15 the

parents were unknown; and in 25 cases the father was unknown, and the mother unable, either through sickness or poverty, to maintain her offspring.

The Government expenditure for the maintenance of neglected children amounted in 1902 to £61,262, and for reformatory school children to £6,589; the expenses of administration amounted to £4,160, making a total gross expenditure of £72,011. A sum of £1,792 was received from parents for maintenance, making the net expenditure £70,219. The average number of neglected children under supervision during the year was 5,396; of this total, 3,727 were maintained in foster homes at an average annual cost per head to the State of £14 18s. 11d., 82 were in Government receiving depôts at £35 19s. 6d. per head, and 90 were in private industrial schools costing £14 2s. 11d. per head; 736 were at service earning their own living, and 761 were with relatives and others at no cost to the State. The average number of reformatory wards under supervision during the year was 357. Of this number, 214 were maintained in private schools at an average annual cost per head of £30 15s. 10d., 79 were at service earning their own living, and 64 were with relatives at no cost to the State. The average net cost per head of neglected and reformatory school children who were maintained by the State during the year was £17 14s. 2d.

Cost of maintenance of industrial and reformatory children.

There were 827 female inmates of these refuges during the year ended 30th June, 1902; 93 were at the temporary home at Collingwood, 441 at the Magdalen Asylum, Abbotsford, 59 at the Carlton Refuge, 21 at the Ballarat Home, 16 at the Bendigo Rescue Home, 17 at the Geelong Refuge, 77 at the South Yarra Home, 73 at the Elizabeth Fry Retreat, and 30 at the House of Mercy, Cheltenham; 47 children accompanied their mothers to the Carlton Refuge, 30 to the Temporary Home for Friendless and Fallen Women, Collingwood, 17 to the Ballarat Home, 7 to the Bendigo Rescue Home, 12 to the Geelong Refuge, and 1 to the South Yarra Home. Of the total number of children, 16 died during the year. Nine women from the Magdalen Asylum, 5 from the South Yarra Home, 5 from the Elizabeth Fry Retreat, 1 from the Geelong Female Refuge, and 1 from the House of Mercy, Cheltenham, were discharged for misconduct, and 6 in the Magdalen Asylum died. The objects of these institutions are—(1) To provide a refuge for fallen women who are desirous to return to the paths of virtue; (2) to aid the reformation of these women, and fit them to again become useful members of society; (3) to assist in procuring situations, or otherwise providing for them on leaving the institution.

Refuges for fallen women.

Eighty benevolent or philanthropic societies furnished returns for the year ended 30th June, 1901. These associa-

Benevolent societies.

tions are for the relief of distressed or indigent persons, and are generally managed by ladies. The names of two of the societies indicate their connexion with the Jewish body, but no distinctive denomination is perceptible in the titles of any of the others, with the exception of the Central Methodist Mission, and Church of England Seamen's Mission. The persons relieved during the year numbered about 17,885; the receipts amounted to £17,987, of which £8,015 was from Government and £9,972 from private sources; and the expenditure to £16,362.

Night
shelters.

At Dr. Singleton's Night Shelters, Collingwood, 13,570 cases were accommodated during the year 1901-2, viz., 8,487 men, 4,899 women, and 184 children. The expenses were £82, which were defrayed out of the "General Charity Fund," but there were also numerous contributions in the shape of food.

Society for
the Pro-
tection of
Animals.

The Victorian Society for the Protection of Animals has been established for about 30 years, its objects being, by enforcement of the existing laws, to prevent cruelty to animals, to procure such further legislation as may be found expedient, and to excite and sustain an intelligent public opinion regarding man's duty to the lower animals. In the year ended 30th June, 1902, the cases dealt with by the society numbered 731, of which 481 were for cruelty to horses. There were 113 prosecutions, which resulted in 107 persons being fined, and 6 dismissed. The receipts during the year amounted to £526 and the expenditure to £419.

Victorian
Discharged
Prisoners'
Aid
Society.

Since 1872 a society has been in existence in Melbourne for the purpose of affording assistance to discharged prisoners, and offering them inducements to return to the paths of honesty and industry. Relief is afforded by gifts of money, clothes, blankets, and other necessaries, and those who desire it are supplied for a time with board and lodging in Melbourne, or are provided with means to go into the interior, or to leave the State. The society also takes charge of and distributes the sums earned by the prisoners whilst under detention. The number of individuals relieved in 1902-3 was 580. The receipts in the same year amounted to £832, including grants from Government, the Penal Department, and private sources; and the expenditure to £750.

ROYAL VICTORIAN INSTITUTE FOR THE BLIND.

BY J. THURSTON HOGART^H ESQ., SUPERINTENDENT AND SECRETARY.

Institute for
Blind.

The Royal Victorian Institute for the Blind occupies a site on the St. Kilda-road, Melbourne. The institution is strictly undenominational in its character, and its objects are to give a suitable scholastic and religious education to the

young blind of the State, and to teach them trades or professions by means of which, on completion of their term of training, they may earn an independent livelihood. It is further intended, as far as the exigencies of trade will permit, to give employment in its industrial department to blind work-people who may be unable to get work elsewhere. This, however, is restricted to the demand for the goods made. The institute is not in any sense a benevolent asylum for the indigent blind, who can not only be maintained cheaper, but can be better cared for in the ordinary institutions for the care of the destitute. The scholastic education is similar to that in the State schools, varied only in the apparatus and means employed; and examinations are held annually by the Education department, the percentage gained at the last being 100. Music is an important part of the education of the blind, and those who display exceptional talent are trained for the musical profession, and the skill of the pupils is utilised as means of raising revenue for the institution by means of concerts and band performances in various parts of the State. In the industrial branch, pupils are trained in the trades of brush, basket, mat, and matting making, the period of training varying from two to five years; and employment is then given to non-resident ex-pupils, who are paid wages at piece-work rates ruling in the various trades. Some less proficient workers have their wages supplemented by a bonus. Its outside workers are assisted in times of sickness by "The Blind Workers' Sick Benefit Society." Its funds are maintained by weekly contributions by its members, and it is subsidised by a grant from the board of management equal to the amount of the members' contributions. This society is managed by a committee of its members, assisted by the principal of the institution, and the accountant, who acts as honorary treasurer. There is now no debt on the institution. The sales in the manufacturing department amounted to £4,836, being £587 more than the previous year. The total number of pupils and workers on the roll is 96, classified as follows:— Resident pupils, 55; day pupils, 2; journeymen and non-resident workers, 39.

VICTORIAN DEAF AND DUMB INSTITUTION.

BY JNO. ADCOCK, ESQ., SUPERINTENDENT.

The Victorian Deaf and Dumb Institution occupies a site on the St. Kilda-road. At the beginning of the year there were 64 pupils on the roll. During the year, 13 new pupils were admitted, and 7 have been discharged, thus leaving the number of pupils, on the 30th June, 1902, 70 (33 boys and 37 girls). Since the year 1862, when the institution was fairly

Deaf and
Dumb
Institution.

launched, there have been received into it over 417 children, 347 of whom have been discharged, most of them being capable of maintaining themselves. The work of the school has been carried on with a great measure of success, and the combined oral and manual system of teaching has proved very satisfactory. A number of the boys are being instructed in boot-making and gardening, and the girls in domestic duties, and all are making good progress. The total receipts for the year were £3,194—the sum allotted out of the charitable vote being £1,000. Bequests, amounting to £648, were received and added to the endowment account, the total to the credit of which fund is now £11,629—most of which is invested in Government stock, the interest only being used for maintenance purposes.

ROYAL HUMANE SOCIETY OF AUSTRALASIA.

BY WILLIAM HAMILTON, ESQ., SECRETARY.

Humane
Society.

The Royal Humane Society of Australasia was established in 1874 under the name of "The Victorian Humane Society." Its objects are as follow:—(1) To bestow rewards on all who promptly risk their own lives to save those of their fellow-creatures. (2) To provide assistance, as far as it is in the power of the society, in all cases of apparent death occurring in any part of Australasia. (3) To restore the apparently drowned or dead, and to distinguish by rewards all who, through skill and perseverance, are, under Providence, successful. (4) To collect information regarding the most approved methods and the best apparatus to be used for such purposes. During the year ended 30th June, 1902, 93 applications for awards were investigated, with the result that 27 certificates and 24 bronze medals were granted. The receipts during the year amounted to £557, and the expenditure to £423. The institution has placed and maintains 426 life-buoys at various places on the coast, rivers, lakes, and reservoirs throughout all the Australasian States and Fiji. Of the honorary awards distributed in 1901-2, 19 were for deeds of bravery performed in Victoria, 14 for similar acts in New South Wales, 4 in Queensland, 4 in New Zealand, 3 in Tasmania, 1 in Fiji, and 6 in Western Australia. The society has 148 honorary correspondents, residing as follow, viz.:—45 in Victoria, 33 in New South Wales, 27 in New Zealand, 27 in Queensland, 8 in Tasmania, 3 in South Australia, and 5 in Western Australia. Owing to the appointment of these gentlemen and to the awards made by the society appearing to give complete satisfaction throughout the States, there is no urgency for forming local branches of the society in the other States.

AUSTRALIAN HEALTH SOCIETY.

BY J. G. BURROWS, ESQ., SECRETARY.

An Australian Health Society was established in Melbourne in 1875. It consists of about 300 members, and is managed by a president, two vice-presidents, a treasurer, two secretaries (one being a lady), and fifteen members of council. Its objects are:—(1) To create and educate public opinion with regard to sanitary matters in general, by the aid of the platform, the press, and other suitable means; (2) to induce and assist people, by personal influence, example, and encouragement, to live in accordance with the recognized laws whereby health is maintained and disease is prevented; (3) to seek removal of all noxious influences deleterious to public health, and to influence and facilitate legislation in that direction. To effect these objects, the society distributes pamphlets, tracts, and wall sheets, bearing upon the preservation of health; maintains a lending library of specially selected works for the use of members; and arranges for the delivery of public lectures annually. During the year 1901-2, courses of health lectures were given in Melbourne, Richmond, and Kew. In pursuance of the plan of testing the work done in the inculcation of health and temperance lessons in the State schools, an examination was arranged to be held, with the concurrence of the Minister of Public Instruction, in the Ballarat, Bendigo, Castlemaine, Geelong, Wangaratta, and Warrnambool schools. Of those pupils who presented themselves for examination, twenty-six received the Health Society's certificate. These examinations are conducted annually by the council of the society, alternately in the metropolitan and country schools. In the previous year, in the metropolitan district, 658 pupils competed, of whom 37 per cent. passed. No pecuniary aid is received from the Government, the work of the society being carried on by subscriptions ranging from 5s. per annum upwards.

Health
Society.

CHARITY ORGANIZATION SOCIETY.

BY T. C. MACKLEY, ESQ., SECRETARY.

A Charity Organization Society has been established in Melbourne since 1887, its objects being:—(1) Promotion of co-operation in charitable work; (2) adequate inquiry into all applications for assistance; (3) distribution of immediate relief in kind pending inquiry or arrangements with existing charities; (4) compilation of records of all cases for facility of reference; (5) administration of a loan fund; (6) maintenance of a wood-yard or other labour test, so that the means of earning food and shelter shall be opened to all applicants able to work; (7) to encourage charitable work where and in so far as

Charity Or-
ganization
Society.

no suitable society exists; (8) discouragement of indiscriminate alms-giving, imposture, and professional mendicity; (9) encouragement of charitable work in localities where no suitable societies are in existence. The society is managed by an executive committee elected by a council empowered to make rules and regulations for the conduct of its business. This council consists of a representative of each of the charities, and of twenty members elected at an annual meeting of subscribers of the society. The income of the year ended 30th June, 1902, including balance from the previous year, was £1,694, the expenditure £1,351, and the balance carried forward was £343. The new cases investigated by the society during the year numbered 640, the result of the inquiry being that 495 were set down as satisfactory and 145 as unsatisfactory. The society claims to have prevented a large amount of imposture, to have relieved subscribers of the annoying feeling that their benevolence was being wasted on unworthy objects, and to have stimulated and directed the flow of charity. Especially good work has been done in cases where employment has been found for those who, without the society's aid, might have degenerated into permanent burdens on public or private charity, and in the large number of cases in which relatives of indigent persons have been induced to recognize natural claims in a community where no legal obligation is entailed by relationship other than that of husband to wife and of parent to infant. The wood-yard is a very practical part of the society's work. It affords a test of the sincerity of men who ask help on the ground that they cannot get work; and it gives temporary work to those who really need it.

VITAL STATISTICS.

Marriages in Victoria can only be celebrated by a minister of religion whose name is registered in the office of the Government Statist, or by the Government Statist, or any duly appointed registrar of marriages. In order to guard against the celebration of marriages by undesirable persons, the present law provides that no person shall be registered as a minister of religion unless he ordinarily officiates as such in one of the officially recognized religious denominations, is supported by the recognized head of the denomination in Victoria, or, if there be no such head, then by at least two registered ministers; and satisfies the Government Statist that he is a fit and proper person to celebrate marriages. The Governor-in-Council may prohibit from celebrating marriages any minister who is proved guilty of any offence, misconduct, or impropriety unworthy of his calling; and the Government Statist may cancel the registration of any minister who ceases to officiate or otherwise loses his qualifications. Any clergyman or person officiating as such who celebrates a marriage without being duly registered, or any person who obtains registration by untruly representing himself as an officiating minister, or who personates a registrar, shall be guilty of a misdemeanour, punishable by a penalty not exceeding £500, or by imprisonment not exceeding five years, or by both; but if the omission were accidental, the penalty is reduced to a maximum of £20 on summary conviction. Marriages of Jews and Quakers are exempted from the above provisions, and are deemed legal and valid if celebrated according to their respective usages. To guard against the abuse of the system of matrimonial agencies, the Governor-in-Council is empowered, if deemed expedient, to prohibit ministers from celebrating marriages in any undesirable place or building. No marriage shall be invalid by reason of having been celebrated by an unqualified person, if either of the parties shall have believed at the time that such person was qualified, nor by reason of any formal defect or irregularity. Marriage with a deceased wife's sister has been legalized in Victoria since 1873; but there is no provision to validate a marriage of a woman with a deceased husband's brother.

Law as to
marriages
in Victoria.

The present official system of compulsory registration of births, deaths, and marriages in Victoria has been in force since 1853; and the registers—framed on the best models—are replete with all necessary information bearing on the family history of the people. The statutory duties under the Registration Acts are performed by the Government Statist, who

Registra-
tion.

Church
records.

has control over the local registrars of births and deaths, and (so far as regards their registration duties) of the officiating clergymen and lay registrars; and copies of all entries certified by him or by the assistant Government Statist, are *primâ facie* evidence in the Courts of Australia of the facts to which they relate. At the head office in Melbourne there is kept for reference a complete collection of all registrations effected since 1st July, 1853, as well as certified copies or originals of all existing church records relating to earlier periods, as far back as 1837. For the registration of births and deaths, the State is divided into 634 registrars' districts, for each of which a registrar is appointed, who (if not a public servant) is paid by fees at the rate of 2s. 6d. per entry, but is not prevented from following his or her own private business; whilst the marriages are recorded by the clergyman or lay registrar who performs the ceremony. Registrations of marriages are made in triplicate, and of births and deaths in duplicate—each copy bearing the original signatures of the parties married and witnesses (in case of marriage), or of the informant (in case of a birth or death), and of the registrar. One copy is retained by the registrar or clergyman; one forwarded to the Government Statist—to be kept as a permanent record; and the third (in case of marriage only) is given to one of the parties married. The parents of any child born in Victoria, or the occupier of a house wherein a birth or death occurs, is required under a penalty of £10 (£25 in the case of an illegitimate child) to give notice (either personally or by authorized agent) to the registrar of the district within 60 days after the birth, and within 15 days after the death. (As an alternative, the notice may be given by the attending doctor or nurse.) No fee is charged for registration, except in the case of a birth registered after 60 days, when 5s. is charged if within 12 months, and 12s. 6d. if over one year; and parents would save themselves much trouble and expense by promptly registering the births of their children. By an Act (No. 1835), passed on the 6th April, 1903, an illegitimate child may be legitimized after the marriage of the parents, if the birth be registered for that purpose within six months after the date of the marriage, or of the passing of the Act, provided there was no lawful impediment, at the time of the birth, to the marriage of the parents. Applicants for searches or certificates of births, deaths, or marriages should, in applying to the Government Statist, furnish particulars of the date and place of the event; also the names of the parties in the case of a marriage, or the name, age (if a death), and parentage in the case of a birth or death.

Marriages,
1898-1902.

The number of marriages celebrated in Victoria during the year 1902 was 8,477, as against 8,406 in 1901, and 8,308 in

1900, and an average of 8,190 during the last five years. During the same period the numbers show a steady increase from 7,620 in 1898 to 8,477 in 1902.

The proportion which the number of marriages bears to the total population is generally called the marriage rate. This at first gradually declined from over 8 per 1,000 of the population in the years 1860-2 to a minimum of 5·98 in 1879. It gradually recovered to over 8 in the years 1888-90, but reached the minimum again in 1893-4. Since the latter period there has been an improvement, first to a level of 6·43 in 1896-8, and then gradually to 7·02 in 1902, which was the highest since 1891. The following are the rates for the last five years:—

1898	...	...	...	...	6·44
1899	...	...	...	...	6·86
1900	...	...	...	...	6·96
1901	...	...	...	...	6·99
1902	...	...	...	...	7·02

It has been shown upon more than one occasion* that the frequency of marriage is not dependent upon the number of the total population, still less upon the number of marriageable women, but almost entirely upon the number of marriageable men the community contains, the tendency of whom to marry is modified by their occupations, and upon the view they take of their future prospects. To demonstrate this, the following table has been constructed showing the proportion of marriages to the population, to the number of single men, and to the number of single women, in each census year from 1854 to 1901:—

Year of Census.	Exclusive of Chinese and Aborigines.						
	Enumerated Population.	Number Marriageable†—		Marriages‡	Proportion of Marriages per 1,000 of the—		
		Men.	Women.		Popula- tion.‡	Marriage- able Men.	Marriage- able Women.
1854 ...	234,361	70,865	15,083	3,696	15·77	52·16	245·04
1857 ...	383,668	95,427	26,317	4,465	11·64	46·79	169·66
1861 ...	513,896	106,940	37,006	4,528	8·81	42·34	122·36
1871 ...	712,263	89,921	65,386	4,715	6·62	52·43	72·11
1881 ...	849,438	99,824	119,360	5,732	6·75	57·42	48·02
1891 ...	1,130,463	163,043	173,138	9,007	7·97	55·24	52·02
1901 ...	1,193,340	154,334	211,087	8,468	7·08	54·87	40·12

* See "Victorian Year-Book, 1899-90," pages 265 to 267; same work 1879-80, pages 103 and 104; same work 1880-81, pages 199 and 200; same work 1881-2, pages 165 and 166; and same work 1892, vol. i., pages 323 and 324.

† Comprising bachelors aged 20 and upwards, and widowers and divorced men at all ages; and unmarried women aged 15 and upwards.

‡ During the twelve months of which the date of the census was the middle.

Fluctuations
in marriage
rate.

It will thus be observed that, whilst the proportion of marriages to the population (marriage rate) and to the marriageable women has fluctuated considerably, the proportion to the marriageable men has been tolerably constant, the extremes being $57\frac{1}{2}$ in 1881, and 42.13 in 1861, and the usual range was between the narrow limits of 52 and 55. This proportion steadily diminished from $57\frac{1}{2}$ in 1881 to 55 in 1901, although the latter was higher than at any period prior to 1881. The proportion of marriages per 1,000 married women, on the other hand, has fallen off considerably. Even in the more settled times, after the gold rush, it fell from 72 in 1871 to a level of about 50 in 1881 and 1891, and still further to as low as 40 in 1901, owing to the generally increased proportion of marriageable women to men, which at the last period reached to as high as 137 per 100 men. In other words, the chances of a woman marrying in Victoria are now very much smaller than at any earlier period, the proportions having fallen from about 1 in every 4 of the marriageable women in 1854, 1 in 8 in 1861, to 1 in 20 in 1891, and 1 in every 25 in 1901.

Marriage
rates in cer-
tain age-
groups,
1881-1901.

To further investigate this subject, it will be interesting to ascertain the marriage rates amongst marriageable men and women at different periods of life, and, with this view, the rates have been computed for various age groups between 15 and 50 at each of the last three census periods, and are shown in the following table:—

PROPORTION OF MARRIAGES PER 1,000 MARRIAGEABLE MEN AND WOMEN AT EACH AGE.

Age Group.	Men.			Women.		
	1881.	1891.	1901.	1881.	1891.	1901.
15—21 ... ..	...	...	...	24.6	23.6	18.8
21—25*	57.8	44.3	44.6	118.8	106.0	87.2
25—30	114.2	85.9	90.5	105.7	100.5	84.7
30—35	82.9	75.2	82.1	73.1	66.4	57.9
35—40	56.4	51.1	62.6	53.8	46.4	37.2
40—45	30.5	33.4	39.9	32.5	27.7	22.3
45—50	21.8	25.9	29.8	22.1	17.8	14.3
50 upwards	10.5	9.1	9.1	4.9	4.2	2.4
15—45 ... ..	...	...	...	55.9	58.7†	49.0

Tendency
amongst
men to
defer mar-
riage.

In the last two periods, as compared with the first, there is every evidence of a tendency amongst men to defer marriage

* In the case of men 20—25.

† The apparent anomaly of the rate for women between 15 and 45 being higher in 1891 than in 1881, whilst the rate in each age group in 1881 is higher than that in the corresponding period in 1891, is due to the changes in the age constitution of women under 45 years of age.

to a later period in life—the turning point being age group 30-35, for there has been a marked decrease in the rates below, but an increase in the rates above that age. In 1901, as compared with 1891, however, there was a considerable increase in the rate at every age period except 20-25 and over 50.

In the case of marriageable women, there was, it will be observed, a slight fall between 1881 and 1891, but a considerable fall between 1891 and 1901 in the proportion marrying at each age group under 35; but a rapid fall from each census to the subsequent one in the proportions at ages over 35. The fall between 1891 and 1901 was almost uniformly distributed over the various age groups, and averaged about 18 per cent. In this connexion it may be noted that whilst the marriageable women between 15 and 45 increased by 25,300 during the intercensal period 1891-1901, the number of marriageable men between 20 and 50 decreased by 9,156—a decrease chiefly due to the efflux of single men to Western Australia and South Africa. Thus, there were resident in Western Australia, according to the recent census returns of that State, 17,433 adult males of Victorian birth (besides 6,909 minors) of whom 6,701 were married, and 10,732 were single.

Fall in marriage rates of women at all ages.

In the following table are shown the marriage rates per 1,000 of the population in the Australian States and New Zealand for each of the last five years, and also the mean rates for the whole period:—

Marriage rates in Australian States and New Zealand.

Year.	Victoria.	New South Wales.	Queensland.	South Australia	West Australia.	Tasmania.	Commonwealth.	New Zealand.
1898 ...	6.44	6.77	6.03	6.39	9.91	6.59	6.77	6.91
1899 ...	6.86	6.95	6.78	6.45	9.92	6.72	7.03	7.28
1900 ...	6.96	7.38	6.88	6.37	10.06	7.71	7.24	7.67
1901 ...	6.99	7.68	6.61	6.43	9.66	7.71	7.29	7.81
1902 ...	7.02	7.53	6.31	6.61	9.77	7.46	7.23	8.01
Mean	6.86	7.27	6.52	6.42	9.98	7.32	7.17	7.56

It will be observed that, according to the average of the five years, the lowest marriage rates prevailed in South Australia and Queensland, and by far the highest in Western Australia. In Victoria the rate was somewhat below, and in New South Wales slightly above the average; but in both these States the marriage rate has been steadily improving in recent years.

Marriage rates in different States compared.

Marriages in proportion to marriageable males in Australian States and New Zealand.

For reasons already explained, a better and more reliable index of the frequency of marriage in the different States is a comparison of the marriages with the number of marriageable male adults per 1,000, aged 21 and upwards, such as is contained in the following statement for the average of the three years, 1900 to 1902:—

Victoria	...	...	...	...	56·0
New South Wales	...	...	...	...	58·3
Queensland	...	...	...	...	41·6
South Australia	...	...	...	...	56·8
Western Australia	...	...	...	...	41·9
Tasmania	...	...	...	...	65·7
					55·7
Total Australia	...	...	...	...	55·7
New Zealand	...	...	...	...	55·1

Although the marriage rates are generally regarded as evidence of prosperity in a community, it can hardly be regarded as such in some of the Australian States, where the age and sex constitutions are not normal. Thus, in Queensland and Western Australia, the low rates amongst marriageable men cannot be said to be due to the absence of prosperity, as compared with the other States, or to greater disinclination on the part of the men to marry, but rather to the fact that the number of marriageable women to that of men is small in both those States.

Marriage rates in European countries.

The average marriage rate of Australia is about the same as in Norway, but is lower than in 11 out of the 15 European countries shown in the following table for the period, 1896-1900:—

Hungary	...	8·4	Holland	...	7·4
German Empire	...	8·4	Denmark	...	7·4
Belgium	...	8·3	Scotland	...	7·3
England and Wales	...	8·1	Australia (1898-02)	...	7·2
Austria	...	8·0	Italy	...	7·1
Spain	...	7·7	Norway	...	6·9
Switzerland	...	7·7	Sweden	...	6·1
France	...	7·5	Ireland	...	4·9

Marriage rates in urban and rural districts.

Formerly the marriages which were celebrated in urban and rural districts were compared with the populations of those districts respectively, but as the place where a marriage was solemnized is no guide as to domicile, the method has been abandoned, and the classification according to the usual residence of the parties adopted instead. The following table gives the average annual numbers and rates per 1,000 of the population, of brides and of bridegrooms, whose usual place of residence (if in Victoria) was in Melbourne and suburbs, other

urban districts, or rural districts respectively, or was outside the State—during the three years, 1900 to 1902:—

Usual Residence of Bridegroom.	Usual Residence of Bride.				Total Bridegrooms.	Proportion of Bridegrooms per 1,000 of Population.
	Metropolitan.	Other Urban.	Rural.	Outside Victoria.		
In Victoria—						
Metropolitan Districts	3,274	120	191	34	3,619	7·2
Other Urban. „	105	1,167	212	11	1,495	7·2
Rural „	288	261	2,318	22	2,889	5·8
Outside Victoria ...	166	52	82	94	394	..
Total Brides ...	3,833	1,600	2,803	161	8,397	6·99
Proportion of Brides per 1,000 of Population } ...	7·7	7·7	5·6	...	6·99	...

It will first be noticed that nearly $4\frac{3}{4}$ per cent. of the bridegrooms, and nearly 2 per cent. of the brides resided outside the State. The marriages of the former do not properly belong to Victoria, but the inflation of the marriage rate to that extent will probably be counterbalanced by the marriages of Victorians whilst visiting other States. But excluding non-residents, the figures show that the marriage rate—for both males and females—was the same amongst residents of the metropolitan as amongst those of the other urban districts, whilst in both cases it was considerably higher than amongst residents of the rural districts.

Lower marriage rate in rural than urban districts.

To what extent the lower rates in the rural districts are due to variations in sex, age, and conjugal condition, is a question which may be solved by an examination of the recent census returns. The first striking fact disclosed is the great preponderance of females over males in both urban districts, whilst the reverse was the case in the rural districts—there being over $111\frac{1}{2}$ females to every 100 males in the former, as compared with only $86\frac{1}{2}$ in the latter. Secondly, there was, when compared with the total population, a larger proportion of adult males, but a much smaller proportion of adult females, in the rural than in the urban districts at each of the three age groups, 15 to 21, 21 to 45, and 45 and over—the actual percentages in the case of males being 6·22 in the country, as against 5·36 in the towns at the first age group, 1·88 as against 1·72 at the second, and 10 as against 8·36 at the third; but in the case of females, 5·52 as against 6·32 at the first, 1·61 as against 2·09 at the second, and 5·40 as against 9·07 at the third age group. So that the tendency which undoubtedly existed in former years for young men starting life to leave their homes in the country and gravitate to the towns, where life is considered more attractive, and higher wages and easier

Causes of lower marriage rate in rural districts.

employment usually prevailed, has, owing to economic causes, been, at least for a time, reversed; although it still continues in the case of women, who can always readily find remunerative employment in the towns. Then again, the census returns show that there is a much larger proportion of marriageable men, but a much smaller proportion of marriageable women in the country than in either of the two urban districts—the percentage of marriageable men (aged 21 and upwards) in the total population being 14·4 in the rural, as against 11·1 in the metropolitan and 10·3 in the other urban districts; and that of marriageable women (aged 15 to 45) 11·9, as against 15·2 and 16·0 respectively. To arrive at definite results in regard to the marriage rate, it will, therefore, be necessary to compare, according to the plan already adopted, the marriages with the marriageable population of each sex in the three districts. Such a comparison shows that the disposition of men to marry is far less in the country than in the towns, but that an eligible woman in the country has—under general conditions—a better chance of marriage than one residing in the metropolis, or in the other urban districts; for, out of every 100 eligible men in the rural districts, 4 marry annually, as against nearly 7 in every 100 in the urban districts; whereas of eligible women more than one-twentieth in the rural, but less than one-twentieth in the urban districts, marry within twelve months. The following are the proportions of marriages per 1,000 marriageable persons, viz., men aged 21 or upwards, or women aged 15 to 45, in each district according to the average of the three years, 1900 to 1902:—

District.	Men.	Women.
Metropolitan	66·9	48·5
Other Urban	69·1	46·7
Rural	38·9	51·5

These results confirm those obtained when comparing the marriages per 1,000 marriageable men in the different States, when it was shown that where there was an excess of marriageable women, such rate was high, but where the proportion of marriageable women to marriageable men was abnormally low, such rate is low, but the rate for women is high.

During the twenty years, 1881 to 1900, of the 153,399 marriages celebrated in Victoria, 26·73 per cent. were celebrated in the Autumn quarter, 25·97 per cent. in the Spring, 24·00 in the Summer, and 23·30 in the Winter. In the years 1901 and 1902, the percentages were 27·58 in the Autumn, 25·15 in the Summer, 24·57 in the Spring, and 22·70 in the

Marriages
in quarters.

Winter quarter. It would thus appear that marriages are most numerous in the Autumn, and least in the Winter quarters.

The following statement shows the percentages of persons in each conjugal condition, who married at the periods specified:—

Former condition of persons married at certain periods.

Conjugal Conditions.	1871-80.	1881-90.	1891-1900.	1901-02.
Bachelors and Spinsters ...	80.59	85.84	87.22	87.35
Bachelors and Widows ...	7.10	4.72	4.23	3.95
Widowers and Spinsters ...	7.75	6.17	6.07	6.22
Widowers and Widows ...	4.56	3.27	2.48	2.48

That these percentages are now approaching somewhat those of a settled community, might be inferred from the slight alteration during the last ten years. This is corroborated by the similar percentages for England and Wales during the year 1900, which were 87.30 for marriages contracted between bachelors and spinsters, 3.27 between bachelors and widows, 5.89 between widowers and spinsters, and 3.54 between widowers and widows.

The number of divorced persons remarrying has shown a steady increase in each year since 1898. A larger number of divorced women remarry than divorced men; the ratio for the last five years being about 10 of the former to every 7 of the latter. The following are the numbers of divorced persons remarrying for the last five years:—

Divorced persons remarrying, 1898-1902.

Year.	Males.	Females.	Total.
1898 ...	20	34	54
1899 ...	25	46	71
1900 ...	40	45	85
1901 ...	41	45	86
1902 ...	34	59	93

In all civilized countries minors are not permitted to marry without the consent of their parents or guardians. The following table shows the percentages of males and females who marry under 21 to every 100 marriages, for the periods,

Marriage of minors.

1881-90, 1891-5, and 1898-1902, in Victoria, and for the period 1891-5 in England and Wales:—

	Number under 21 in every 100 Marriages in Victoria.			Number under 21 in every 100 Marriages in England and Wales.
	1898-1902.	1891-5.	1881-90.	1891-5.
Bridegroom	1·95	1·80	2·26	5·62
Bride	15·44	17·13	21·00	18·26
Mean	8·74	9·51	11·63	11·94

Marriages by principal denominations.

During the five years, 1898 to 1902, an annual average of 8,190 marriages was registered, of which only 178, or a little over 2 per cent., were celebrated by lay registrars. This proportion was as high as 7 in the ten years 1881-90, but suddenly dropped from 6·6 to 3·7 in 1894, and has since declined to 1·4 in 1902, probably owing to the competition of matrimonial agencies, which sprang up about 1894. Of the other marriages, 1,681 were solemnized according to the rites of the Church of England, 1,257 of the Presbyterians, 1,770 of the Methodists, 390 of the Baptists, 223 of the Independents, 1,374 of "other sects"—chiefly Protestants—1,292 of the Roman Catholic Church, and 25 according to those of the Jews.

Marriages at matrimonial or advertising agencies.

The number of marriages solemnized at matrimonial or advertising agencies gradually rose from 1,409 in 1898 to 1,701 in 1900, but have since fallen to 1,188 in 1902. About 20 per cent. of the total marriages were performed in such agencies in 1900, but only 14 per cent. in 1902. This accounts for the unduly large proportion of marriages celebrated by "other sects," whose clergymen acted for such agencies.

Number of births, 1902

The number of births registered in Victoria during the year 1902 was 30,461, viz., 15,583 of males and 14,878 of females—or 225 below the average of the last five years.

Births in 1902 and former years.

During the twenty years ended with 1883, the number of births remained almost stationary; but in 1884 a marked increase took place, which continued during the subsequent seven years; the number in 1891 being the highest. Since 1891, however, a rapid falling off has taken place down to the period embraced in the last five years, when the number has fluctuated at a lower level than that which had prevailed at any other period since 1886. The number in 1898 was actually the lowest since 1885, and that in 1902 the next lowest. The following are the figures for the last twelve years:—

Year.	Number.	Year.	Number.
1891 ...	38,505	1897 ...	31,310
1892 ...	37,831	1898 ...	30,172
1893 ...	36,552	1899 ...	31,008
1894 ...	34,258	1900 ...	30,779
1895 ...	33,706	1901 ...	31,008
1896 ...	32,178	1902 ...	30,461

In proportion to population, the births first decreased from 40 per 1,000 in the early sixties, when the affairs of the State were becoming more settled after the gold rushes of the fifties, to 30·06 in 1882; then increased gradually, during a period of unexampled financial and commercial activity, to the moderate rate of 33½ in 1890-1. Since the latter period, however, there has been—consistently with the depressed times—a constant and almost uninterrupted falling off to the extremely low average level of 25·69 during the last five years—the absolute minimum (viz., 25·23) being reached in 1902. The very slow rate of decrease in the last five years appears to indicate, however, that the lowest level has at last been reached, and hence an improvement may be expected in the near future. The following are the birth rates per 1,000 of the population for 1860, and each subsequent fifth year to 1890, also for the last 12 years:—

Birth rate
1860 to
1902

Year.	Birth Rate.	Year.	Birth Rate.	Year.	Birth Rate.
1860 ...	42·81	1891 ...	33·57	1897 ...	26·49
1865 ...	42·40	1892 ...	32·51	1898 ...	25·51
1870 ...	38·07	1893 ...	31·18	1899 ...	26·14
1875 ...	33·94	1894 ...	29·05	1900 ...	25·79
1880 ...	30·75	1895 ...	28·46	1901 ...	25·78
1885 ...	31·33	1896 ...	27·19	1902 ...	25·23
1890 ...	33·60				

The above rates, based upon the number of births to every 1,000 of the population, are, like marriage rates, calculated on a similar basis, apt to mislead, unless the different constituents or elements of the population bear a normal proportion to one another—especially in respect of sex, age, and conjugal condition. Thus, the high birth rate during the earlier periods is due to the abnormally large proportion of married women in the population; whilst the rate gradually fell off as the proportion of children increased, and will ultimately reach an equilibrium when this and other elements assume their proper proportions. This will be evident from the following table, which shows the birth rate computed in the ordinary manner, also the proportion of

Proportion
of births
to popula-
tion and
married
women.

births per 1,000 of the married women at the child-bearing period of life, during the last four census years:—

Year.	Enumerated Population.	Married Women under 45 years of Age.	Legitimate Births.	Proportion of Legitimate Births.	
				Per 1,000 of the Population.	Per 1,000 Married Women under 45 years of Age.
1871	731,528	88,561	26,805	36·64	302·67
1881	862,346	84,831	25,675	29·77	302·66
1891	1,140,405	120,700	35,853	31·44	297·04
1901	1,201,341	127,858	29,279	24·37	229·00

It will be observed that, although the proportion of legitimate births per 1,000 of the population fluctuated considerably during the four census periods, the proportions per 1,000 of married women remained fairly uniform during the first three census years, but showed a remarkable decline in 1901 from 297 to 229, being equivalent to nearly 23 per cent. A noticeable instance of the unreliability of the ordinary birth rate in a new country such as this, appears in the above table on comparing 1881 with 1891, for whereas the birth rate per 1,000 of the population was considerably higher (by nearly $1\frac{3}{4}$ per 1,000) in the later than in the earlier year, yet the proportion of births per 1,000 married women was actually lower. The fluctuations in the ordinary birth rate from 1871 to 1891 are, therefore, found to have been mainly due to varying proportions of married women in the community at the fruitful period of life. The exceptional fall since 1901, however, cannot be so explained, as other factors must be involved which require further investigation, and which will be dealt with in the following paragraphs.

Percentage of married women in quinquennial groups under 45 years of age.

An analysis of the minor age groups, of which the whole age group, 15 to 45, is composed, will disclose the fact that there has been a considerable falling off in 1901, as compared with previous census periods, in the proportion of married women at the younger, and more fertile ages, but a counterbalancing increase in that at the higher ages—a result chiefly brought about by a decrease in the proportion of young men at marriageable ages, through emigration, and the consequent decline of the female marriage rates at the lower age groups. Thus, the number of married women under 30 years of age fell from 53,778 in 1891 to 39,230 in 1901, or by 27 per cent., whereas the number over 35 but under 45 increased during the same period from 37,460 to 57,161, or by $52\frac{1}{2}$ per cent. Relatively to the whole number at child-bearing ages, the married women under 30 years of age fell from $44\frac{1}{2}$ per cent. in

1891 to $30\frac{1}{2}$ in 1901; whilst those at the higher ages, between 35 and 45, rose from 31 to $44\frac{1}{2}$ per cent. This will be seen in the following statement:—

Census Year.	Percentage of Married Women Under 45 Years of Age.					
	15—20.	20—25.	25—30.	30—35.	35—40.	40—45.
1871	2·03	13·04	21·14	23·07	23·32	17·40
1881	1·73	15·95	20·46	20·60	20·97	20·29
1891	1·35	15·69	27·52	24·41	17·21	13·82
1901	·81	9·90	19·83	24·96	24·92	19·58

To estimate the extent to which these changes in age distribution between the two last periods would influence the birth rate, it is necessary to ascertain the rates of natality for married women at different ages. Up to the present, the available information relating to Victoria on which such rates might be computed, has not yet been tabulated in respect to all married women, although it was done for one year in respect to newly married women.* Such rates were, however, published in the last issue of this work† for several European countries and towns, from which it is proposed to select the rates for Sweden—which it has been decided to adopt as a standard for measuring the extent of the decline in the productivity of married women in Victoria during the last ten years, owing to changes in their age constitution. The following were the rates of natality in Sweden in 1891, at each quinquennial age group under 45:—

Rates of legitimate natality at various ages in Sweden.

Age of Wives.	Births per 100 Wives.
15—20	51·8
20—25	45·1
25—30	37·5
30—35	31·2
35—40	25·0
40—45	14·2

Applying these proportions to the numbers of married women at similar age groups in Victoria in 1891 and 1901, it is found that the relative fertility of such women diminished by 9 per cent. in the interval, owing to their increased average age alone. This will, however, account for little more than a third of the fall since 1891 in the rate actually experienced. It is also found that in 1891 the rate in Victoria was only $5\frac{1}{2}$ per cent. below that of Sweden under similar age conditions,

* For particulars, see "Victorian Year-Book," 1895-8, page 663, et seq.

† Ibid, page 666.

whereas in 1901 the former was nearly 22 per cent. below the latter. The following are the results:—

Year.	Births per 1,000 Married Women 15 to 45.		Percentage of Victorian rate below Swedish.
	Actual.	Applying Swedish rates to Victoria.	
1891 ...	302·1	319·8	5·5
1901 ...	227·9	291·2	21·7
Decrease.	74·2	28·6	...
„ %	24·6	8·9	...

Another circumstance to account for the diminished fertility just referred to is the larger proportion in 1901 of wives whose husbands were not only absent from home, but were living out of the State at the time of enumeration—in Western Australia and elsewhere. In 1901, the approximate number of wives whose husbands were thus absent was 8,350,* or 4·6 per cent. of the total number of wives; whereas in 1891, it is estimated that the number did not exceed 4,000,† or 2·3 per cent. It may be fairly assumed that such absences were more or less prolonged—especially in 1901, and hence, to compare the results for 1901 with those for 1891, the number of married women between 15 and 45 ought at least to be reduced by the difference in the percentage, viz., 2·3, before computing the rate. Such reduced number would raise the rate for 1901 from 227·9 to 233·3—the difference being 5·4, which is equivalent to a fall of 1·8 per cent. on the rate for 1891. To sum up the results already arrived at, the following were the proximate causes of the fall in the proportion of births per 1,000 married women in Victoria between 1891 and 1901:—

Cause of Fall.	Fall in Rate since 1891.	Decrease per cent.
1. Altered age distribution ...	27·0	8·9
2. Larger proportion of husbands absent ...	5·4	1·8
3. Other causes ...	41·8	13·9
Total ...	74·2	24·6

It thus appears that of the total decrease of 74·2 in the rate referred to, about three-sevenths has been satisfactorily accounted for by the absence of husbands in other States, and, more especially, to an advance in the average age of wives—

* Including allowance—estimated at 2,460—for cases where the information was not furnished. The percentage for all cases where the husband was away from home (either in or out of the State) was 14·23 in 1901 as against 11·10 in 1891.

† The excess of wives over husbands was 3,620, but an allowance for wives absent as well as husbands would bring the total up to about 4,000.

due not to a lessened marriage rate amongst eligible men, but to the circumstance that a proportion of the younger men at marriageable ages have emigrated to Western Australia and elsewhere. There still, however, remains a balance of 42 per 1,000—equivalent to a fall of 14 per cent.—to be accounted for, and no doubt there are causes of a varied character which operate to bring about this result.

The following table gives the birth rates, calculated in the ordinary way, per thousand of the population in the Australian States and New Zealand for 1891, and for each of the last five years:—

Birth rates in Australian States and New Zealand.

Year.	Victoria.	New South Wales.	Queensland.	South Australia.	West Australia.	Tasmania	Australia	New Zealand.
1891 ...	33.57	34.59	36.35	33.92	34.85	33.37	34.23	29.01
1898 ...	25.51	27.60	28.28	25.68	29.40	27.50	27.14	25.74
1899 ...	26.14	27.34	27.31	26.64	30.70	26.84	27.27	25.12
1900 ...	25.79	27.43	30.19	25.55	30.80	28.16	27.31	25.60
1901 ...	25.78	27.60	28.28	25.09	30.32	28.40	27.05	26.34
1902 ...	25.23	27.17	27.68	24.60	30.09	28.92	26.63	25.89
Mean of 5 Years	25.69	27.43	28.35	25.51	30.06	27.96	27.08	25.74

According to the average of the last five years, the highest birth rate, viz., 30.06, prevailed in Western Australia, and the lowest rates—a little over 25½—in New Zealand, Victoria, and South Australia. Queensland and Tasmania came next to Western Australia, with rates about 28, and New South Wales next, with a rate of over 27 per 1,000.

The foregoing rates are useful for certain purposes, but, as already explained, in the case of Victoria cannot be relied on as an index of the productiveness of married women, which can be more closely gauged by a comparison of the legitimate births with the number of married women at reproductive ages. Such a comparison is effected in the subjoined return, which shows the results for each Australian State and for New Zealand at the two last census years:—

Decline in the number of legitimate births.

State.	Proportion of Legitimate Births per 1,000 Married Women, aged 15 to 45.		Decrease per cent.
	1891.	1901.	
Victoria ...	302.1	227.9	24.6
New South Wales	298.9	235.6	21.2
Queensland	315.0	251.0	20.3
South Australia	311.1	235.0	24.5
Western Australia	352.8	244.0	31.1
Tasmania	315.9	254.6	19.4
New Zealand	279.1	246.1	11.8

It will be seen from these figures that between 1891 and 1901 there was a pronounced decline in the percentage of legitimate births to married women under 45 years of age in the different States, varying from 31 per cent. in Western Australia, and 24 in Victoria and South Australia, to about 20 in Queensland and Tasmania, and to nearly 12 per cent. in New Zealand.

Causes of fall in birth rates in Australasian States.

Following the plan already adopted in the case of Victoria, it may at least be ascertained for the other States what proportion of the decline thus shown was due to alterations in the age distribution of married women at reproductive ages, and what proportion to other causes; and the results are embodied in the following table:—

State.	Decrease in Proportion of Births per 1,000 Married Women due to—			Decrease per cent. Due to—		
	Altered Age Distribution.	Other Causes.	All Causes (Total).	Altered Age Distribution.	Other Causes.	All Causes.
Victoria ...	27·0	47·2	74·2	8·9	15·7	24·6
New South Wales ...	15·9	47·4	63·3	5·3	15·9	21·2
Queensland ...	20·3	44·2	64·5	6·4	13·9	20·3
South Australia ...	16·1	60·2	76·3	5·2	19·3	24·5
Western Australia ...	9·7	99·3	109·0	2·8	28·3	31·1
Tasmania ...	17·0	44·3	61·3	5·4	14·0	19·4
New Zealand ...	2·7	30·7	33·4	·9	10·9	11·8

It is thus seen that a decrease of from 11 per cent. in the case of New Zealand to 28 per cent. in the case of Western Australia is due to causes other than altered age distribution. The unsettled condition of Western Australia, however, necessitating in a greater degree than in other States a more or less prolonged separation of husband and wife, may be added as a contributing cause in that State—a cause which has already been found to prevail to some extent in the case of Victoria. In Western Australia, the proportion of wives whose husbands were absent at the time of the census of 1901 was 15·2 per cent., as against 14·2 per cent. in Victoria. In New South Wales, the proportion has remained fairly constant at about 14½ per cent. at the two last census periods.

By comparing the actual rates experienced with corresponding rates computed on the basis of the Swedish rates of natality at various ages, it may be ascertained what proportions the rates which prevailed in 1891 and 1901 were above, or below, the Swedish rate under similar age conditions; and, by applying those proportions to the average Swedish rate as computed for an age distribution similar to that which

prevailed amongst married women in South Australia in 1891* as a standard, it will also be possible to compute for comparative purposes an "Index of Natality," from which differences due to varying age distribution have been eliminated. The results appear in the following statement, in the last two columns of which will be found the "Index of Natality"—i.e., the proportion of births per 1,000 married women between the ages of 15 and 45—assuming uniform age distribution for every State on the same basis:—

State.	Swedish rates—varying with different age distributions.		Percentage of actual above (+) or below (-) Swedish rates.		Index of Natality.	
	1891.	1901.	1891.	1901.	1891.	1901.
Victoria ...	320	291	-5.5	-21.7	291	241
New South Wales ...	320	303	-6.6	-22.1	289	241
Queensland ...	326	305	-3.4	-17.7	298	254
South Australia ...	309	293	+1.0	-19.8	312	248
Western Australia ...	326	317	+8.3	-23.0	335	238
Tasmania ...	317	300	Equal	-15.0	308	263
New Zealand ...	305	302	-8.5	-18.6	282	251

It will be observed that in 1891, the rates in Queensland, South Australia, and Tasmania approximated closely to the rate in Sweden, but that in the other States they varied from $5\frac{1}{2}$ per cent. in the case of Victoria, to $8\frac{1}{2}$ per cent. in the case of New Zealand, below that rate; whilst in Western Australia it was 8.3 per cent. in excess of the Swedish rate.

In 1901, however, owing to a most unprecedented and wide-spread fall in the rates throughout the whole of Australasia, the differences as compared with the Swedish rates were much more pronounced—varying from 15 per cent. below that rate in Tasmania, to 22 or 23 per cent. below it in the case of Victoria, New South Wales, and Western Australia.

The "Index of Natality" shows that, in 1891, the degree of fertility amongst married women was lowest in New Zealand, but highest in Western Australia, South Australia, and Tasmania, where the rate closely approximated to that in Sweden, whilst the central position was occupied by Victoria, which, however, was but little in advance of New South Wales. In 1901, Tasmania stood easily at the head of the list; but Western Australia, which had the highest birth rate per 1,000 of the total population, occupied absolutely the lowest position, in which respect it was closely followed by New South Wales and Victoria; whilst New Zealand rose from the lowest to the third highest place. The following is the order of the

* The proportion per 1,000 married women at each of the six minor age groups in the State named were as follow:—11, 131, 244, 253, 205, and 156 respectively.

States in each year—the State with the highest degree of natality being placed first:—

Order in 1891.	Order in 1901.
1. Western Australia.	1. Tasmania.
2. South Australia.	2. Queensland.
3. Tasmania.	3. New Zealand.
4. Queensland.	4. South Australia.
5. Victoria.	5. Victoria.
6. New South Wales.	6. New South Wales.
7. New Zealand.	7. Western Australia.

The following is a statement of the birth rates in the principal European countries for the year 1901, also the average birth rates for the 25 years, 1876-1900, arranged in order according to the rates in 1901:—

Country.	Births per 1,000 of Population.		Decline per cent.
	1901.	1876-1900.	
Hungary	37·8	42·9	12
Austria	36·9	37·8	2
Prussia	36·2	37·7	4
German Empire	35·7	37·4	4½
Spain	34·7	35·9	3
Italy	32·6	36·6	11
Holland	32·3	34·2	6
Denmark	29·9	31·3	4½
Norway	29·8	30·7	3
Scotland	29·5	32·2	8½
Belgium	29·4	30·1	2
Switzerland	29·1	28·9	1 (increase)
England and Wales	28·5	32·3	12
Sweden	26·8	28·7	7
Ireland	22·7	23·8	5
France	22·0	23·7	7

It will be seen that there was a decline in the birth rates for 1901 as compared with the averages of the 25 year period in all the countries named with the exception of Switzerland. The decline was relatively greatest (viz., 12 per cent.) in the case of England and Wales, and of Hungary (where the birth rate is still the highest in Europe), and was also very marked in Italy, with a fall of 11 per cent., in Scotland (8½ per cent.), Sweden (7), France (7), Holland (6), and Ireland (5), whilst the fall was less than 5 per cent. in all the other countries shown. The average rate in the Commonwealth of Australia for the past five years was lower than the rate for 1901 in any of the European countries except Sweden, Ireland, and France; but, as already explained, there are exceptional reasons why the rate in Australia is so abnormally low. By a comparison of the birth and marriage rates in European countries, it is found that a high birth rate is generally concurrent with a high marriage rate and vice versa. A notable

exception to this is France, in which a high marriage rate is co-existent with a lower birth rate than in any other European country.

The following table shows the number of births per 1,000 of the population in the metropolitan, the other urban, and the rural districts, for 1875 and each subsequent fifth year, and the averages of the years 1898-02:—

Birth rates in town and country.

Year.	Number per 1,000 of the Population.			
	Metropolitan District.	Other Urban Districts.	Rural Districts.	Victoria.
1875	33.63	38.63	31.54	33.94
1880	31.19	34.21	28.72	30.75
1885	34.94	31.87	28.12	31.33
1890	37.71	34.43	28.93	33.60
1895	29.46	34.03	25.49	28.46
1898-02	25.03	31.73	23.86	25.69

It will be noticed that in the last five years, as compared with 1890, the birth rate in the metropolitan district fell off by as much as 33 per cent., in the rural districts by 17 per cent., and in the other urban districts by only 8 per cent.

The subjoined table shows the number of births per 1,000 of married women under 45 years of age in each sub-district of Greater Melbourne, for the year 1902; and the average for the previous ten years:—

Births per 1,000 married women under 45 years in Greater Melbourne.

Sub-Districts.	Proportion per 1,000 of Married Women Under 45.		Sub-Districts.	Proportion per 1,000 of Married Women Under 45.	
	1902.	Average of Ten Years, 1892-1901.		1902.	Average of Ten Years, 1892-1901.
Port Melbourne	231	241	St. Kilda	172	202
Richmond	226	236	Boroondara	157	188
Caulfield	169	181	South Melbourne	183	221
Melbourne	184	199	Essendon	188	239
Brighton	196	214	Hawthorn	165	209
Brunswick	211	233	Fitzroy	174	222
Northcote	237	261	Williamstown	179	229
Footscray	236	262	Coburg	181	232
Flemington and Kensington	215	241	Kew	159	206
North Melbourne	227	254	Oakleigh	293	386
Malvern	179	205	Preston	188	254
Prahran	189	218	Total District	189	218
Collingwood	198	229			

It will be observed that in all the sub-districts there has been a falling off, and in some, a very considerable decline in the rates for 1902, as compared with the average of the preceding ten years—the total decrease for the whole district between the two periods being equal to 13·1·3 per cent.

Fall in birth rate in Melbourne and suburbs, partly due to altered age constitution.

But on a closer examination of the census returns, it is found that even in the age groups, 15 to 45 years, the married women in Melbourne and suburbs were on the average about $2\frac{1}{4}$ years older in 1901 than 1891, owing chiefly to the altered age constitution of wives. From this circumstance alone the relative fertility of women at the reproductive period diminished by about 10 per cent. during the decade. The percentages of married women at each age group under 45 years at the censuses of 1891 and 1901 were:—

Census Year.			15—20.	20—25.	25—30.	30—35.	35—40.	40—45.
1891	...	...	1·3	16·5	28·8	24·0	16·3	13·1
1901	...	...	·8	9·9	19·6	24·9	25·4	19·4

These figures show a decline in the percentage at each age group up to 30 years, amounting to 16·3, and exactly a corresponding increase at the older age groups. Taking the above results, and comparing them with those for the whole State, it will be seen that the decline in the marrying ages, which contributes so materially to a diminishing birth rate, is common to the different divisions of the State—metropolitan, urban, and rural.

Causes of reduced birth rate in Melbourne.

If the results for 1901 be compared with those for 1891, a still greater decline will be noticeable, as the birth rate in the metropolitan district fell off from 36·64 to 24·85 per 1,000 of the population, or by nearly 32 per cent.; the legitimate birth rate from 33·81 to 22·75, or by nearly 33 per cent.; and the proportion of legitimate births per 1,000 married women aged 15 to 45 from 274·0 to 188·9, or by over 31 per cent. This serious decline was evidently not, to any marked extent, attributable to a diminished proportion of married women at the reproductive period of life; but, on a closer examination of the census returns, it is found that a large share of it was due to a diminution of the proportion of such women at the lower ages (under 30), and a corresponding increase at the higher and less fertile ages (35 to 45), whereby their average age was increased by about $2\frac{1}{4}$ years. Thus the percentages of married women under 30, between 30 and 35, and between 35 and 45 respectively, to the whole number under 45, were 46·6, 24·0, and 29·4 in 1891, as compared with 30·3, 24·9, and 44·8 in 1901. From this circumstance alone, the relative

fertility, it has been computed, naturally diminished 10 per cent. Hence of the total fall of $32\frac{3}{4}$ per cent. in the birth rate since 1891, over 12 is due to the reduced proportion, and increased age, of married women at reproductive ages, the balance of $20\frac{1}{2}$ is due to other causes. The following are the results which have been arrived at:—

Year.	Legitimate Births per 1,000 of—	
	Total Population.	Married Women, 15—45.
1891	33·81	274·0
1901	22·75	188·9
Total Decrease ...	11·06 = 32·7%	85·1 = 31·2%
Decrease due to—		
1. Reduced proportion of married women 15—45	·74 = 2 1·5%	...
2. Increased age of ditto	3·38 = 10%	27·4 = 10%
3. Other causes ...	6·94 = 20·5%	57·7 = 21·2%

The number of illegitimate births registered in Victoria during the year 1902 was 1,677, which gives a proportion of 5·50 to every 100 births registered, as compared with 5·58 in 1901, which was identical with the average of the five years ended with 1902. This proportion has been fairly constant during the last twelve years, when it was decidedly higher than at any earlier period within the last 30 years. The proportion in Victoria was much lower than in Queensland and New South Wales, and slightly lower than in Tasmania, but higher than in any other of the Australian States or New Zealand; it was also lower than in Scotland, but much higher than in the other portions of the United Kingdom; it was also lower than in 13 out of 18 countries on the continent of Europe, respecting which particulars are available, in six of which the rates run as high as from 10 to 15 per cent.* The following are the proportions of illegitimate births to every 100 children born in the Australian States and New Zealand, for the five years ended with 1902, and in the United Kingdom for the ten years, 1891-00:—

Illegitimate
births and
rates.

<i>Australasia—</i>				<i>Australasia—</i>			
Victoria ... ..	...	...	5·6	South Australia ... ..	...	...	4·0
New South Wales ...	...	...	6·9	<i>United Kingdom—</i>			
Queensland ... ..	...	...	6·0	Scotland ... ..	...	...	7·2
Tasmania ... ..	...	...	5·7	England ... ..	...	...	4·2
Western Australia ...	...	...	4·5	Ireland ... ..	...	...	2·6
New Zealand ... ..	...	...	4·4				

* For particulars, see edition of this work for 1895-8, page 654.

Illegitimacy
in town and
country

It will readily be supposed that a larger proportion of illegitimacy prevails in Melbourne and suburbs than in any other district of Victoria, and that the proportion in country districts is the smallest of all. In 1902, in the metropolitan district, about 1 birth in 12; in the other urban districts, about 1 in 18; and in the rural districts, only 1 birth in 44 was registered as illegitimate. During the last five years, the averages were 1 in 12, 1 in 19, and 1 in 39 respectively. Of 32 foreign cities, respecting which the information was given in a previous issue of this work, each is burdened with a larger amount of illegitimacy than that prevailing in Melbourne.

Fall in ille
gitimate
birth rate

Although the proportion of illegitimate births to the total births, as already stated, has varied so little for several years past, yet the proportion of such births to the number of unmarried women and widows, between the ages of 15 and 45, shows the same remarkable decline between 1891 and 1901, amounting to 29 per cent., as has already been observed in the proportion of legitimate births to married women at similar ages. With the exception of altered age distribution, which in this instance is estimated to account for less than $1\frac{1}{4}$ per cent. of the fall, the many causes, which have contributed so largely to the decline in the legitimate birth rate, have no doubt operated—but in a major degree—to bring about a reduction in the illegitimate birth rate per 1,000 single women, which will be seen on comparing the rate for 1901 with that of the previous census, 1891, as given in the sub-joined statement:—

Period.	Single Women Aged 15 to 45.	Illegitimate Births.	Illegitimate Births Per 1,000 Single Women.
1891	142,443	2,064	14·49
1901	167,760	1,729	10·31

Deaths.

The number of deaths during the year 1902 was 16,177—9,152 males and 7,025 females—a result somewhat under the average of the last five years, when the total was 16,514—the males 9,327, and the females 7,187. According to the experience of the five years, 1898-1902, the Summer quarter of the year, i.e., that ending 31st March, is the most fatal, the next in order being the quarter ending 31st December. These positions, however, were not maintained in the year under review, when the greatest number of deaths occurred in the September quarter, and the next in the December quarter. A gradual increase is observed in the death rate since 1900, but it was lower in 1902 than in 1899, and much

lower than in 1898, when, however, the mortality was exceptionally high, owing to the outbreak of epidemics of measles, typhoid fever, and diarrhoeal diseases.

The following return shows the number of deaths—males and females—which took place, also the quarters in which they were registered and proportion per 1,000 of the population, for the years 1898-1902:—

Year.	Total Deaths.	Sex.		Quarter of Registration.				Death Rate per 1,000 of the Population.
		Males.	Females.	March.	June.	September.	December.	
1898	18,695	10,533	8,162	5,444	4,773	4,144	4,334	15·80
1899	16,578	9,286	7,292	4,153	3,806	3,717	4,902	13·97
1900	15,215	8,627	6,588	4,113	3,393	3,758	3,951	12·74
1901	15,904	9,035	6,869	4,129	3,844	4,120	3,811	13·22
1902	16,177	9,152	7,025	3,886	3,930	4,281	4,080	13·40
Average	16,514	9,327	7,187	4,345	3,949	4,004	4,216	13·82

For purposes of comparison the death rates per 1,000 of the population for each of the Australian States and New Zealand are shown in the following statement, for a period of five years from 1898 to 1902:—

Death rates in Australian States and New Zealand.

Year.	Victoria	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania	Australian States.	New Zealand.
1898	15·80	12·69	12·67	13·58	16·07	14·17	14·11	9·84
1899	13·97	11·92	12·07	12·65	13·79	12·91	12·90	10·24
1900	12·74	11·16	11·72	10·68	12·65	11·02	11·77	9·43
1901	13·22	11·68	11·88	11·22	13·36	10·45	12·17	9·81
1902	13·40	11·95	12·08	11·86	13·63	10·90	12·45	10·50
Average	13·82	11·88	12·34	11·98	14·04	11·88	12·66	9·98

It will be noticed that all the Australian States were affected by a wave of high mortality in 1898, probably due to the prevalence of epidemics similar to those which have been already stated to have occurred in Victoria. Although the death rate of Victoria, according to the average of the five years, was higher than in any other State, except Western Australia, this result is due, as will be shown later on, to the larger proportion of persons aged 60 years and over, amongst whom the death rate is very high.

The following were the maximum, minimum, and mean death rates per 1,000 of the population, in the principal European countries during the five years ended with 1900,

Death rates in European countries.

also the average of the 25 years ended with the same year. It is remarkable that, with the exception of Sweden, Austria and Hungary, Spain and Italy, the minimum rate during the five year period almost invariably occurred in 1896, and the maximum in 1900. In all, except Ireland, there has been a noticeable decrease, and in Austria, Hungary, Switzerland, Germany (including Prussia), Holland, and Italy, a considerable decrease in the recent five year period, as compared with the average of 25 years. The countries are arranged in order according to the average rate of mortality in the more recent period:—

Country.	Five Years 1896-1900.			Average of 25 Years.
	Max.	Min.	Mean.	
1. Norway	15·8	15·2	15·7	16·6
2. Sweden	17·7	15·1	16·1	17·1
3. Denmark	17·3	15·5	16·4	18·3
4. Holland	17·8	16·9	17·2	20·3
5. England and Wales	18·2	17·0	17·7	19·1
6. United Kingdom ..	18·4	17·0	17·8	19·0
7. Scotland	18·5	16·6	17·9	19·2
8. Ireland	19·6	16·6	18·1	18·2
9. Belgium	19·3	17·2	18·1	20·1
10. Switzerland	19·3	17·6	18·1	20·6
11. France	21·9	19·5	20·7	21·9
12. Prussia	21·8	20·0	21·0	23·7
13. Germany	22·1	20·5	21·2	24·2
14. Italy	24·0	21·8	22·9	26·4
15. Austria	26·4	24·9	25·6	28·8
16. Hungary	28·9	26·9	27·9	32·3
17. Spain	29·9	28·6	29·2	30·6

Death rates of European and Australian States compared.

Comparing this statement with a previous one, it will be noticed that the death rate of Western Australia—the highest in Australasia, is considerably lower than that in Norway—the lowest in Europe. And although, owing to the fact that emigration from the old to the newer countries tends to raise the death rate in the former, but to lower it in the latter, the death rates, calculated on the total population, would naturally be on a higher level in Europe than in Australasia, yet it may be safely affirmed that the true rate of mortality, allowing for differences in the age constitution of the people, is lighter in

Australasia than in any States in Europe, except, perhaps, Norway, Sweden, and Denmark.

In every country the death rate is higher in towns than it is in the country districts. This circumstance, although no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further, that outside of charitable institutions many persons die who have come from the country on the approach of a serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In the ten years ended with 1890, the rate in the metropolitan district was higher than in the other urban districts, but in more recent years was much lower, in consequence of a marked decrease in the rate in the former district; whilst in the rural districts the rate has remained fairly constant, at about 9 per 1,000, or much less than half the rate in the extra-metropolitan towns. The year 1898, for which the rates were so high, was characterized by epidemics of measles and typhoid fever, although their influence was not nearly so marked in the rural as in the urban districts. The following are the figures for the last five years, and the means for the periods, 1881-90 and 1891-5:—

Death rates
in town and
country.

Annual Mean.				Metropolitan District.	Other Urban Districts.	Rural Districts.
1881-90	...	...	...	20·65	19·90	8·90
1891-5	...	...	...	16·74	20·63	9·02
1898	...	...	...	18·34	25·23	10·18
1899	...	...	...	15·39	22·99	9·34
1900	...	...	...	14·32	19·38	8·46
1901	...	...	...	15·09	19·54	8·73
1902	...	...	...	14·93	20·86	8·77

The misleading results arrived at by a comparison of the ordinary death rates of different countries, or of the same country at different periods, unless the age distribution is identical, have often been pointed out in former editions of

Unreliability
of ordinary
death rate.

this work. This applies more especially to such a comparison of newly-settled communities—such as the Australian States—with one another, and with the old-established countries of (say) Europe. In the former, the population is, on the average, younger than in the older countries, and is, moreover, constantly being strengthened by immigrants at the younger adult ages, at which the mortality is low; whereas in the latter, not only is the age distribution more constant from year to year, but there is relatively a much larger proportion of elderly people, amongst whom the death rate is very high, concurrent with a smaller proportion of the younger and middle-aged adults, at the most vigorous period of life. Some idea of the differences of age distribution at present existing between European countries and the Australian States (as a whole) will be obtained by the following comparison of the proportions of the population living at various age groups in Sweden—as representative of the former—and in Australia:—

Age Group. (Years).	Percentage of Population Living at each Age Group in—	
	Sweden in 1890.	Australia in 1901.
Under 1 year	2·55	2·47
1 to 5	9·25	9·05
5 to 15	21·10	23·60
15 to 20	9·50	10·04
20 to 25	8·20	9·36
25 to 30	6·70	8·50
30 to 35	6·00	7·79
35 to 40	6·00	7·25
40 to 45	5·60	5·88
45 to 55	9·40	7·29
55 to 65*	7·70	4·76
65 to 75	5·40	3·01
75 to 85	2·34	·89
85 and over	·26	·11
Total	100·00	100·00

It will be observed that the most striking differences occur between the ages of 20 and 40—the migratory period—under which ranged 33 per cent. of the population in Australia, as against only 27 per cent. in Sweden; and at ages over 45, at which the preponderance was in favour of Sweden, where there were 25 per cent. over that age as against only 16 in Australia.

Index of
mortality.

Several methods have been proposed at various times as a basis for computing a death rate, which would fairly allow

* At age 55 to 60 the proportion in Sweden was 4·20, and in Australia 2·54 per cent.

for important differences in age distribution, amongst which the four following are worthy of notice:—

Method.	By whom and when proposed.	Short description.*
1. Absolute Death-rate.	Government Statist of Victoria. 1885.	Applying the ascertained death-rates at 10 age-groups under 75 (quinquennial groups to 25, and then decennial groups to 75) to a population assumed to have an equal number living at every age. (Abandoned in favour of No. 3).
2. "Health Standard."	Government Statist of Tasmania. 1887.	A simple comparison of the whole number of deaths under the age of 60 with the population under 60—thus eliminating the "Healthy Old Age-element."
3. Adjusted Death-rate.	Government Statist of Victoria. 1887.	As in No. 1, but adopting as a Standard Population one having the same age distribution as in England in 1881.
4. Index of Mortality.	International Institute of Statistics.	Applying the ascertained death-rates at five age-groups (viz., under 1, 1 to 20, 20 to 40, 40 to 60, and 60 and over) to a Standard population, whose age distribution corresponds with that of Sweden in 1890.

The third method is that which has been followed in Victoria for several years, and the only difference between it and the "Index of Mortality" of the International Institute of Statistics is that the number of age groups in the latter has been reduced from 10 to 5, and the population of Sweden is substituted for that of England as the standard. The former being based on more numerous age subdivisions is naturally the more reliable; whilst the latter is more readily computed, and might, under ordinary conditions—such as prevail in European countries—be expected to afford a fair basis for comparison. The age group 60 and over is, however, too large for new countries, where the average age of the population over 60 may vary considerably. For, if the population over 60 in any country is on the average younger than in Sweden, the death rate of the whole group would naturally be lower, although age for age, the rates of mortality might be identical. For example, if uniform death rates of (say) 30, 55, 120, and 500 at four minor age periods of 60-65, 65-75, 75-85, and 85 and over respectively be applied first to the Swedish, and then to the Australian population at similar age groups, it will be found that the death rate for the major group, 60 and over, will average 69·1 per 1,000 for Sweden, but only 61·9 for Australia; and if these again be applied to the

* For further particulars of the three first methods, see "Victorian Year-Book 1884-5," paragraph 563; for 1886-7, paragraphs 19 et seq.; and for 1892, Vol. I., paragraph 655 et seq.

standard proportion over 60, viz., 115, the indices of mortality for that age group will be 7·95 and 7·12 respectively, thus showing under exactly the same conditions of mortality an apparently lower rate in Australia of nearly 1 (or ·83) per 1,000 in the mortality at all ages, which was not really the case.

With this reservation, the "Index of Mortality" will be used, since it was adopted (but not unanimously) by a Conference of Australasian Statisticians, held in Hobart in 1902. The following is an example of the method of computing it—the result showing the Index of Mortality for Victoria in 1901 to be 15·63:—

Age.	Standard Population per 1,000. (Sweden, 1890.)	Death Rate per 1,000 at each Age in Victoria, 1901.	Index of Mortality for Victoria, 1901.
0—1	25·5	112·55	2·88
1—20	398·0	4·19	1·67
20—40	269·6	6·21	1·68
40—60	192·3	13·19	2·54
60 and over	114·6	59·81	6·86
Total	1,000·0	13·22	15·63

In order to compare with the proportion in Sweden, as shown in the second column of the previous table, as well as to afford a basis for the computation of the "Index of Mortality," the proportions per 10,000 living at the same five age groups in each Australian State and New Zealand, for the year 1901, are given in the following table for both sexes, and also for males. The great preponderance of population at the age groups between 1 and 40, and the large and increasing deficiency at age groups over 40, are the characteristic features of the Australian populations when compared with the Swedish. Amongst the Australian States, Victoria is conspicuous in having by far the largest proportion of persons aged 60 and over—an age group which has an important influence in determining the death rate. On the other hand, Victoria has, with one exception, the lowest proportion of both sexes between 1 and 20, and also, with one exception, the lowest proportion of males between 20 and 40—at which age groups the death rate is lightest:—

Mode of computing index of mortality.

Proportions of population at five age-groups in Australian States and New Zealand.

PROPORTIONS LIVING AT FIVE AGE-GROUPS IN AUSTRALIAN STATES AND NEW ZEALAND, 1901.

State.	Proportion per 10,000 of Total Population Living at the Age Period—					Total.
	Under 1 Year.	1 to 20.	20 to 40.	40 to 60.	60 and over.	
Both Sexes.						
Victoria ...	236	4,163	3,272	1,531	798	10,000
New South Wales ...	253	4,382	3,210	1,597	558	10,000
Queensland ...	260	4,348	3,309	1,601	482	10,000
South Australia ...	227	4,445	3,054	1,641	633	10,000
Western Australia ...	273	3,324	4,548	1,529	326	10,000
Tasmania ...	267	4,519	3,118	1,488	608	10,000
Australia ...	247	4,269	3,290	1,571	623	10,000
New Zealand ...	238	4,195	3,295	1,596	676	10,000
Males Only.						
Victoria ...	120	2,093	1,585	795	434	5,027
New South Wales ...	127	2,210	1,664	915	324	5,240
Queensland ...	132	2,201	1,910	1,016	302	5,561
South Australia ...	116	2,234	1,527	897	312	5,086
Western Australia ...	140	1,704	2,994	1,073	219	6,130
Tasmania ...	135	2,297	1,639	802	323	5,196
Australia ...	125	2,154	1,723	890	350	5,242
New Zealand ...	124	2,117	1,692	906	415	5,254

The "Index of Mortality" has been computed for each Australian State and New Zealand for the year 1901, with the following results, which is contrasted with the death rate per 1,000 of the total population for the same year. The death rates for 1901 differ but slightly from the average of the 3 years, 1900-2:—

Index of mortality in Australian States, 1901.

State.	Ordinary Death Rate.	"Index of Mortality."
Victoria ...	13.22	15.63
New South Wales ...	11.68	15.33
Queensland ...	11.88	15.24
South Australia ...	11.22	14.30
Western Australia ...	13.36	17.89
Tasmania ...	10.45	13.82
Australia ...	12.17	15.41
New Zealand ...	9.81	12.42

Although the order of the States is but slightly affected by the new method, Western Australia is shown to have really

a far higher rate of mortality than that indicated by the ordinary method; but Victoria only a slightly higher rate than in the two other principal Australian States—New South Wales and Queensland—and probably even this small difference in favour of the latter States would disappear if the old age group 60 and upwards were subdivided as suggested. New Zealand enjoys the enviable position of supremacy—its death rate not only being the lowest Australasian, but probably the lowest of any country in the world for which statistics are available.

“Adjusted”
death rates,
1871 to 1902.

The “Index of Mortality” has not yet been computed for earlier years, or for other countries, except Sweden (where it was, in 1900, 16·72); but an equally fair comparison is available for Victoria, for three successive decades, and for the triennial period 1900-2, by means of the “Adjusted”* death rates, already alluded to, and these are embodied in the following table for each sex, together with the ordinary death rates, based on the total population of either sex, irrespective of age variations:—

Period.	Ordinary Death Rate.†		Adjusted Death Rate:‡	
	Males.	Females.	Males.	Females.
1871 to 1880 ...	16·45	14·15	16·48	14·64
1881 to 1890 ...	16·65	13·56	15·97	13·85
1891 to 1900 ...	15·47	12·36	14·14	12·04
1900 to 1902 ...	14·80	11·43	13·05	10·75

Diminishing
rate of mor-
tality in
Victoria.

The “adjusted” rates indicate that there has been a considerable falling off in the true rates of mortality at each successive decade, more especially the last, at which the rate was about $2\frac{1}{2}$ per 1,000 lower than in the first decade, and over $1\frac{3}{4}$ lower than in the second one. A further fall occurred during the last three years, when the mortality was exceptionally low, being more than 1 per 1,000 below that of the ten years, 1891-00.

Proportion
of deaths at
each age to
population.

The following are the death rates at various age groups in Victoria, according to the average of the ten years, 1891-00, and of the three years, 1900-2. The population on which the rates in the last column but one are based is the mean of the populations enumerated at the censuses of 1891 and 1901; and the population, according to the census of 1901, taken at the

* For the method of calculating the “Adjusted death rate” see “Victorian Year Book, 1892,” Vol. I., paragraph 665 *et seq.*

† Per 1,000 of the actual population.

‡ Per 1,000 of the standard population.

end of March, was used for computing the rates in the last column:—

Ages.	Deaths.		Deaths per 1,000 Living at each Age.	
	Average of Ten Years, 1891-1900.	Average of Three Years, 1900-2.	Average of Ten Years, 1891-1900.	Average of Three Years, 1900-2.
<i>Males—</i>				
Under 5 years ...	2,794	2,282	39.29	34.07
5—10 ...	231	195	3.36	2.70
10—15 ...	139	142	2.20	2.10
15—20 ...	191	184	3.28	3.11
20—25 ...	274	249	4.79	4.90
25—35 ...	672	579	6.60	6.25
35—45 ...	633	742	9.03	8.81
45—55 ...	671	655	15.32	15.34
55—65 ...	1,200	910	32.90	29.86
65—75 ...	1,460	1,724	62.99	61.57
75 and upwards ...	1,032	1,276	145.05	141.59
All Ages ...	9,297	8,938	15.47	14.80
<i>Females—</i>				
Under 5 years ...	2,367	1,900	34.09	29.10
5—10 ...	209	186	3.12	2.63
10—15 ...	128	128	2.06	1.92
15—20 ...	202	175	3.43	2.92
20—25 ...	289	237	4.81	4.10
25—35 ...	676	608	6.89	6.00
35—45 ...	543	642	8.68	8.32
45—55 ...	476	454	12.12	11.48
55—65 ...	693	635	23.64	21.49
65—75 ...	785	994	45.87	45.07
75 and upwards ...	673	868	124.33	122.77
All Ages ...	7,041	6,827	12.36	11.43

It will be observed that the rate of mortality in the last three years was lower at every age group in the case of females, and at all age groups except two—20 to 25 and 45 to 55—in the case of males. Low mortality in 1900-2.

A still greater improvement is noticeable on comparing the rates for the decade, 1891-00, with those for the previous one;* for in the case of males, there was a much diminished rate of mortality at every age group below 55, and only a slight increase in the groups over that age, and, in the case of females, a considerable decrease at every age group except 55-65. Decreased mortality at various ages, 1881-90 to 1891-1900.

* See "Victorian Year Book," 1895-8, page 685.

The mortality of infants in 1902, in proportion to the number born, was higher than in the two preceding years, but a little lower than the average of the ten years ended with 1900. The total number under 1 year of age who died in 1902 was 3,308, and as the births numbered 30,461, it follows that 1 infant died in every 9·2 births, or 10·86 infants to every 100 births. In the ten years ended with 1900, the proportion of infants dying before completing their first year was 11·11 to every 100 births.*

Particulars of the deaths of illegitimate infants under 1 year were ascertained, for the first time, for the year 1901. The number of such deaths was 441, which gives an average of 25·5 deaths to every 100 illegitimate children born, which is more than two and a half times the rate for legitimate children during the same year, viz., 9·39 per 100.

In classifying the deaths of infants, those are distinguished which occur at under the age of one month, at from 1 to 3 months, at from 3 to 6 months, and at from 6 to 12 months. The annual numbers of these during the ten years ended with 1900, and the triennial period, 1900 to 1902, are shown in the following table, together with the proportion of deaths at each of those periods of age and the number at each such period to every 100 births—after making due allowance for immigration. It will be noticed that in the last three years the mortality of infants under 1 month was above, but that of those at every other age period was below, the average of the ten years ended with 1900:—

Ages.	Average Annual Deaths at under 1 year of Age.					
	Ten Years—1891 to 1900.			Three Years—1900-2.		
	Number.	Percentage at each Age.	Number per 100 Births.	Number.	Percentage at each Age.	Number per 100 Births.
<i>Boys.</i>						
Under 1 month	650	31·7	3·79	604	34·7	3·83
1 to 3 months	355	17·3	2·07	312	17·9	1·98
3 to 6 „	445	21·7	2·59	367	21·1	2·33
6 to 12 „	600	29·3	3·50	459	26·3	2·91
Total ...	2,050	100·0	11·95	1,742	100·0	11·05
<i>Girls.</i>						
Under 1 month	488	28·7	2·98	467	33·3	3·12
1 to 3 months	301	17·7	1·84	220	15·7	1·47
3 to 6 „	385	22·6	2·35	310	22·1	2·07
6 to 12 „	528	31·0	3·23	406	28·9	2·70
Total ...	1,702	100·0	10·40	1,403	100·0	9·36

* See next table but one.

Infantile mortality 1902.

Infantile mortality of illegitimates.

Deaths of infants at different ages.

During both periods referred to in the table, the mortality of male infants in proportion to the number born exceeded that of female infants at each of the age periods—more especially in the first month of life, when the excess was about one-fourth. During the period of ten years, the births of male infants were in the proportion of about 105 to every 100 female infants; but as the numbers shown above indicate a proportion of $120\frac{1}{2}$ deaths of the former to 100 of the latter, the proportion alive at the end of the first year is reduced to $102\frac{1}{2}$ males to every 100 females.

More deaths of male than female infants at all ages.

In the same period of ten years, nearly a third of the male and nearly two-sevenths of the female infants who died before they were a year old died in the first month after birth; over a sixth of both males and females in the next two months; between a fourth and a fifth of both males and females in the next three months; and about three-tenths in the next six months.

Periods at which infants die.

Of infants of both sexes who died, under 12 months, 47·8 were under 3 months, 22·1 were from 3 to 6 months, and 30·1 per cent. from 6 to 12 months. In England and Wales, for the same period, the percentages were—under 3 months, 48·4; 3 to 6 months, 20·9; 6 to 12 months, 30·7. In New South Wales the percentages were 50·3, 22·6, and 27·1 respectively.

Infantile mortality in Victoria, England and New South Wales.

According to the experience of the ten years 1891-00, it appears that of every 20,000 newly-born boys and girls in equal numbers, 379 of the former and 298 of the latter may be expected to die before they are a month old; 207 more boys and 184 more girls may be expected to die between one and three months of age; 259 more boys and 235 more girls between three and six months; 350 more boys and 323 more girls between six and twelve months. At the end of a year it is probable that 1,195 of the boys and 1,040 of the girls will have died, and 8,805 of the former and 8,960 of the latter, or 17,765 of mixed sexes, will be still living. In the previous ten years, the proportion surviving the first year was 8,652 males and 8,816 females. Hence there has been an improvement in the rate of infantile mortality in the last decade, as compared with the previous one, which has resulted in the saving of 148 lives in every 10,000 infants of both sexes.

Probable mortality of infants.

The following table shows the proportion of deaths of infants under one year to the total births in each Australian

Infantile mortality in Australian States and New Zealand.

State and in New Zealand for each of the last five years, and the average for the ten years ended with 1900:—

Year.	Deaths Under 1 Year per 100 Births.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania	New Zealand.
1891—1900 ...	11.11	11.22	10.34	10.54	14.48	9.58	8.38
1898 ...	13.41	12.19	11.05	13.94	16.61	11.59	7.96
1899 ...	11.09	11.87	10.94	11.13	13.99	11.61	9.59
1900 ...	9.53	10.32	9.84	9.93	12.61	7.99	7.51
1901 ...	10.29	10.37	10.19	10.01	12.89	8.90	7.14
1902 ...	10.86	10.97	10.02	9.40	14.20	7.91	8.29

It will be observed that the average rate for the ten years, 1891-00, was far higher in Western Australia, and much lower in New Zealand and Tasmania, than in any other Australasian State. Next to Western Australia, New South Wales and Victoria—which in this respect were nearly on a level—had the highest rates; and next South Australia and Queensland.

Of all the countries respecting which information is available, infantile mortality is highest in Russia, Austria, and some of the German States—where at least one out of every four infants born die within twelve months—whilst it is lower in Tasmania and New Zealand than in any of the European countries, and lower in all the Australian States than in any except Sweden and Ireland. The following table shows the various rates:—

Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.		
Russia ...	...	30.0	Italy ...	...	19.0	Victoria ...	...	11.1
Bavaria ...	...	27.0	Belgium ...	...	17.0	South Australia ...	...	10.5
Austria ...	...	25.0	France ...	...	17.0	Queensland ...	...	10.3
Wurtemberg ...	...	25.0	Great Britain ...	...	15.0	Sweden ...	...	10.0
Prussia ...	...	21.0	Greece ...	...	15.0	Ireland ...	...	10.0
Holland ...	...	20.0	Western Australia ...	...	14.5	Tasmania ...	...	9.6
Roumania ...	...	20.0	Denmark ...	...	14.0	New Zealand ...	...	8.4
Switzerland ...	...	19.0	New South Wales ...	...	11.2			

NOTE.—The information respecting all the countries except the Australasian States is for the year 1895 and was obtained from "Mulhall," (page 685). That respecting the Australasian States is based on the average of the ten years ended with 1900.

In the year 1902 deaths of male children under 5 years of age numbered 2,348, and deaths of female children under that age numbered 2,013—the former being in the proportion of about 26 per cent., and the latter of about 29 per cent., to the total number of deaths at all ages. These proportions are much below the average of former years. Comparing the

Infantile mortality in various countries.

Death of children under 5.

averages of the last three decades, a marked falling off took place, from period to period, in the mortality of children relatively to that of persons of all ages, and the following table shows the annual number of such deaths at each year of age, and their proportion to the deaths at all ages, in each of the last three years and during the three decennial periods ended with 1880, 1890, and 1900, respectively:—

Period.	Years of Age at Death.					Total Under 5 Years.	
	0	1	2	3	4	Number.	Proportion Per 100 Deaths at all ages.
Males.							
1871-80 ...	1,783	508	206	148	119	2,764	39.41
1881-90 ...	2,158	464	161	114	92	2,989	34.28
1891-1900 ...	2,050	432	143	93	76	2,794	30.05
1900 ...	1,645	319	85	53	56	2,158	25.01
1901 ...	1,788	317	90	77	58	2,330	25.79
1902 ...	1,793	345	106	67	37	2,348	25.65
Females.							
1871-1880 ...	1,482	482	198	139	106	2,407	46.06
1881-1890 ..	1,805	423	151	105	84	2,568	39.61
1891-1900 ...	1,702	385	129	82	68	2,366	33.61
1900 ...	1,291	271	84	67	53	1,766	26.81
1901 ...	1,404	308	100	61	48	1,921	28.11
1902 ...	1,515	285	110	52	51	2,013	28.65

The average number of male and female children at each year of age under 5 living, during the period of ten years ended with 1900, is compared in the next table with the average number of deaths of children of the same sexes at those ages which occurred annually during that period:—

Number of children under 5 and their deaths.

Age last Birth-day.	Males.				Females.			
	Mean Number Living, 1891 and 1901.	Annual Deaths, 1891 to 1900.		Deaths per 1,000 Children Living.	Mean Number Living, 1891 and 1901.	Annual Deaths, 1891 to 1900.		Deaths per 1,000 Children Living.
		Number.	Per-centage.			Number.	Per-centage.	
0	15,516	2,050	73.38	132.12	15,089	1,702	71.94	112.80
1	14,124	432	15.46	30.59	13,783	385	16.27	27.94
2	13,981	143	5.11	10.23	13,428	129	5.45	9.61
3	13,780	93	3.33	6.75	13,667	82	3.47	6.00
4	13,698	76	2.72	5.55	13,437	68	2.87	5.06
Total	71,099	2,794	100.00	39.29	69,404	2,366	100.00	34.09

Proportion
of infants
dying
annually.

Of every 1,000 boys under 1 year of age, 132, and of every 1,000 girls under 1 year of age, 113, died annually in the decade under notice; the corresponding proportions for the previous ten years being 152 and 130 respectively. These proportions are naturally higher than those quoted in the table showing the comparison of deaths of children under 1 with the births, the proportions in which were 120 deaths of male infants and 104 deaths of female infants to every 1,000 births of infants of those sexes respectively during the recent decade, and 135 and 118 respectively during the previous one.

More boys
died than
girls.

In proportion to their respective numbers in the population, more boys than girls died at every year of age, the difference per 1,000 living being as much as 19 at under 1 year, but only about 2-3 at from 1 to 2, and less than 1 at subsequent ages.

Boys and
girls dying
under 1.

According to the figures, deaths of boys under 1 year of age furnish a larger proportion to the total deaths of boys under 5 than deaths of girls under 1 do to the total deaths of girls under 5, but the reverse is the case at each of the years of age after the first.

Proportion
of deaths
of children
at each age.

Of the whole number of children who died before they attained the age of 5, nearly three-fourths, viz., 73 per cent. of the boys, and 72 per cent. of the girls, were under 1 year of age; less than a sixth of the boys and about a sixth of the girls were between 1 and 2; about 1 in 19 of the boys and about 1 in 18 of the girls were between 2 and 3; 1 in 33 of the boys and 1 in 28 of the girls were between 3 and 4; 1 in 37 of the boys and 1 in 35 of the girls were between 4 and 5.

Probable
mortality
of children
under 5.

It results from actuarial calculations, based upon the figures for the decade 1891-00 in the last table, that of every 20,000 boys and girls in equal numbers born in Victoria, 1,195 boys and 1,040 girls may be expected to die before they complete a year of life, 265 more boys and 247 more girls before they complete 2 years, 81 more boys and 84 more girls before they complete 3 years, 63 more boys and 52 more girls before they complete 4 years, and 47 more boys and 43 more girls before they complete 5 years. At the end of that period it is probable that 1,651 of the boys and 1,466 of the girls will have died; and 8,349 of the boys and 8,534 of the girls will be still living. The average result for both sexes is 8,441 per 10,000, which is more favourable than that deduced from the mortality of either of the two previous decades 1881-90, and 1871-80, which showed the number of survivors at the end of the first five years of life to be 8,211 and 8,103 respectively.

Out of every 10,000 infants born in Victoria, there will on the average be 5,120 boys and 4,880 girls—being in the ratio of 105 of the former to every 100 of the latter. These, according to the results just arrived at, will be reduced at the end of 5 years to 4,275 boys and 4,165 girls—or in the ratio of 102½ of the former to every 100 of the latter. Thus, one-half of the excess of males over females at birth is neutralized in the first five years.

Tendency of the sexes towards equality in the first 5 years after birth.

The number of survivors at the age of 5 out of every 1,000 children born has also been computed in this office for New South Wales and New Zealand, and the results are compared with those given in "Mulhall's Dictionary of Statistics" for several European countries, as follow. It will be noticed that a larger number of infants survive the first five years in New Zealand, New South Wales, and Victoria than in any European country:—

Survivors at age 5 out of every 1000 born.

No. of Survivors.			No. of Survivors.		
New Zealand ...	...	889	Denmark ...	...	755
New South Wales ...	...	850	France ...	...	751
Victoria ...	...	844	Switzerland ...	...	748
Norway ...	...	838	Prussia ...	...	684
Ireland ...	...	837	Italy ...	...	632
Sweden ...	...	783	Austria ...	...	614
Scotland ...	...	780	Hungary ...	...	598
England and Wales ...	...	762	Spain ...	...	571
Belgium ...	...	756			

It is remarkable that those countries (with the exception of France) in which the greatest infantile mortality occurs are those which possess a high birth rate, and on the contrary those countries which have a low birth rate have also the lightest mortality. It is evident, therefore, that there is an intimate association between the birth rate and the infantile mortality, and in view of the importance at present attaching to the subject of the declining birth rate, both by medical men and economists, the figures shown above should prove of some interest. So great indeed is the mortality per 1,000 births in the high birth rate countries that the ultimate gain to the population of those countries at the expiration of five years is in some cases below that of the low birth rate countries, and it is highly probable that could the mortality have been traced for a year or two beyond that period, it would be found that the supremacy rests with the low birth rate countries. The following statement shows the birth rate per 1,000 of the

Connection between infantile mortality and birth rate.

population, and the number surviving their fifth year similarly estimated:—

Country.	Birthrate.	Surviving the 5th Year.
Hungary	39.4	23.6
Austria	37.2	22.8
Prussia	36.5	25.0
Spain	34.8	19.9
Italy	33.9	21.4
Holland	32.1	25.6
Norway	30.3	25.4
Denmark	30.0	22.7
England	29.2	22.2
Belgium	28.9	21.9
Switzerland	28.4	21.2
New South Wales	27.4	23.3
Sweden	26.9	21.1
New Zealand	25.7	22.8
Victoria	25.7	21.7
France	22.0	16.5

Thus it will be seen that the superiority of the birth rate of European States, so far as population is concerned, has for the most part disappeared at the end of five years.

The death rate of women in childbed is usually ascertained by comparing the number of deaths of parturient women with the total number of births. Such deaths are classified in two ways. If the death is supposed to occur merely from the consequences of childbearing without specific disease, it is set down under the head of childbirth, Class VI., Sub-class 9; but, if it should arise from puerperal fever, it is placed under that head, Class I., Sub-class 6. The proportion of deaths of child-bearing women has fallen decade by decade from 64 per 1,000 in 1871-80 to 56 in 1891-00. In the years 1901 and 1902, however, the rate was as high as in the decade 1871-80. This rise was no doubt partly attributable to the increased average age of mothers, previously referred to. The proportions which prevailed in the last two years, and the averages of previous periods back to 1864, are shown in the following table:—

Period.	The Number of Women who Died Annually of—			Deaths of Mothers to every 10,000 Children Born Alive.
	Child Birth.	Puerperal Fever.	Total.	
1864-70	108	20	123	49.06
1871-1880	127	46	173	64.38
1881-1890	121	64	185	59.19
1891-1900	117	66	183	56.01
1901	130	71	201	64.82
1902	131	68	199	65.32

Deaths in childbed.

PREVALENCE OF TUBERCULOSIS IN VICTORIA.

BY D. A. GRESSWELL, M.A., M.D., OXON., PERMANENT HEAD OF THE HEALTH DEPARTMENT, AND CHAIRMAN OF THE BOARD OF PUBLIC HEALTH.

In June, 1902, in reporting to the Board of Public Health on "Measures to be adopted for the prevention and cure of Tuberculosis," I furnished a table showing the average yearly death rates per 100,000 of the population for successive triennial periods between 1862 and 1902, from phthisis and other tubercular diseases in the metropolitan and the extra metropolitan districts as follows:—

AVERAGE YEARLY DEATH RATES PER 100,000 OF THE POPULATION IN TRIENNIAL PERIODS BETWEEN 1862 AND 1902.

Locality.	(a) From Phthisis.												
	1863-65	1866-68	1869-71	1872-74	1875-77	1878-80	1881-83	1884-86	1887-89	1890-92	1893-95	1896-98	1899-1901
Metropolitan Dis- tricts	216	205	223	202	221	224	226	231	217	<u>188</u>	<u>181</u>	<u>164</u>	<u>144</u>
Extra-Metropolitan Districts	93	83	78	82	85	87	93	92	100	99	103	95	96
	(b) From Other Tubercular Diseases.												
Metropolitan Dis- tricts	84	69	58	50	65	56	56	58	65	61	<u>44</u>	<u>45</u>	<u>42</u>
Extra-Metropolitan Districts	43	47	30	30	32	22	19	20	19	20	20	23	22

From this it will be seen that the rates for the 9 years preceding 1902 were lower than those for any of the previous years in regard both to phthisis and to other tubercular diseases. In the same report I also furnished a chart showing that the mortality in Victoria from tuberculosis in all its forms during the 14 years prior to 1902 had fallen fairly steadily from 180 to 149 per 100,000 of the population, a rate, it may be added, that still further fell during the year 1902.

Striking as these facts are, and conclusive as they may appear to be in deciding the question whether the prevalence of tubercular diseases can properly be said to have diminished or not in Victoria, it was pointed out in the report that there were considerations to be entered upon before that conclusion

could be definitely accepted. Some of them were in part discussed in the report referred to, but in this place it will be possible to add somewhat to the discussion in the light of other data that have since been put together.

First, it may be asked whether the selection of Victoria as a place of residence for consumptives from other States or other countries has of late years been materially checked. But, though unable to give evidence in support of a negative reply, there is, it should be said, an impression in the minds of the Port Health Officers that there has been some reduction in the number of consumptives arriving in Victoria.

Secondly, the question may be put whether the fall is due to any excess in the number of deaths from other diseases. To supply the answer to this question, it will be necessary to refer to the mortality as a whole, and to the mortality from diseases that may be thought of as having taken the place of tuberculosis as a cause of death.

Table A shows that the general mortality has fallen somewhat markedly, and especially during the last ten years, so that the table cannot be used as an argument in support of the view that the fall of the tubercular death rate has been due to excess of deaths from other causes, nor can it be adduced for that purpose unless it be shown that certain concurrent changes took place in the age constitution of the population and in that of the groups that died.

When the different fatal diseases are brought under consideration, there are similar difficulties to be dealt with, such as I have pointed out in my report. For instance, influenza in its epidemic prevalences has, in the opinion of many, caused large numbers of deaths among consumptives, and so, from time to time, has more or less cleared the field, as it were, of persons that would later have died of consumption; and when dealing in the report with the great fall of mortality from tubercular diseases that has taken place in the metropolis, I gave data concerning influenza and respiratory diseases, serving to suggest that the fall may have been in part a matter of compensation.

It has been suggested that possibly more definite conclusions might be arrived at on examination of the mortality from the diseases just mentioned during trienniads, the middle third of each of which was a census year, and accordingly several tables, B, C, D, E, F, G, and H, have been prepared for the triennial periods 1870-2, 1880-2, 1890-2, and 1900-2.

It will be seen that in the first three of these trienniads there was a progressively increasing mortality from respiratory

diseases and influenza, both among males and females, and with one or two small exceptions, for each age group, and that in the fourth trienniad there was both among males and females, and with one or two small exceptions, for each age group, a very considerable fall. It will also be seen that among females the mortality from phthisis rose in the second trienniad for all of the age groups, and that it fell in the third, and still further, except in regard to one age group, in the fourth; and that among males the mortality in all but one of the age groups rose in the second, and in some age groups rose further in the third trienniad, and that in the fourth trienniad it fell for all but two of the age groups. Other tubercular diseases may in this connexion be almost ignored, but it may be mentioned that for persons from 1 to 15 years of age, i.e., for the group in which those diseases are most fatal, both among males and females, the same order of facts is revealed.

Speaking generally, it may be said that the mortality from phthisis, the mortality from other tubercular diseases, and the mortality from respiratory diseases and influenza, increased during the first three trienniads under consideration, and diminished during the fourth, the latest, trienniad. This is practically shown also in Table E, which sets out the death rates for different age groups from consumption and other tubercular diseases, together with influenza and respiratory diseases; and it may be argued that had it not been for the influenzal outbreaks, the reduction in the fourth period would not have occurred. In other words, my argument put out in the report cannot, on the further data here furnished, be dismissed, though it cannot, I think, be said that those data afford any material aid in solving the problem; while there still remain for reflection the widespread and fatal epidemics of influenza that took place in years not coinciding with the periods under review.

Brief reference may now be made to the marked fall in the tubercular mortality that has occurred of late years in the metropolis, and to the question whether this similarly can be accepted as showing removal of conditions that favoured the spread of tubercular diseases; and here the same order of questions arises as was presented when dealing with Victoria as a whole.

In the report already several times adverted to, I drew attention to the fact that the table showed a very considerable fall of mortality during the last 9 to 12 years in the metropolitan districts both from phthisis and from other tubercular diseases, and but little change of mortality during that period from those diseases in the extra metropolitan districts, at the

same time noting that as the mortality from phthisis and from other tubercular diseases was only rarely half as high in the extra metropolitan as in the metropolitan districts, there had not been the same room for improvement in the former as in the latter, though in some parts of the former high death rates from consumption had ruled for years, as, for instance, in the great mining centres of Ballarat* and Bendigo,* and I invited attention to the chart, which showed that the tubercular mortality in the metropolis had presented an almost continuous yearly fall from 27·8 in 1888 to 19·8 in 1901 (here I may add to 18 in 1902) per 10,000 of the population.

As just said, the question as to the full meaning of this reduction raises the same order of questions as was dealt with in regard to Victoria as a whole.

First, it may be asked whether of late years any large migration of tubercular patients has taken place countrywards from the metropolis, or whether any large customary migration to the metropolis of such patients has of late years been much reduced. I know of no data to support the view that there has been any such great change in the place of residence of the consumptives of Victoria at the time of death, though I am inclined to think that there has been some such change. Moreover, seeing that the population of the metropolis constitutes almost one-half of that of the State, there is for special notice the fact already mentioned that, while the metropolitan mortality from tuberculosis has fallen greatly, the extra metropolitan has not sensibly, if at all, changed.

Secondly, the question already dealt with may again be put, whether the selection of Victoria as a place of residence for consumptives from other States and other countries has of late years been materially checked, a question to which I am not able to give an affirmative reply, though there is a belief that consumptives have of late years arrived in Victoria in somewhat smaller numbers than previously. The general mortality, too, cannot be

* The average yearly rate per 10,000 of the population during the 13 years prior to 1902 was 24·8 in the case of Bendigo and suburbs, and 16·9 in that of Ballarat and suburbs, the excess of these rates being no doubt attributable in part to mining operations, and in the case of Bendigo to the selection of that city as a place of residence by consumptives.

adduced as evidence that there has been no abolition of the factors favourable to the dissemination of tuberculosis. But, as stated in my report several times referred to, "Comparison of the mortality from respiratory diseases and influenza on the one hand, with that from consumption and all tubercular diseases on the other, will serve, I think, to suggest that the fall in the latter may have been in part a matter of compensation."

Statistics in this connexion are as follow:—"In successive quinquennial periods from 1864 to 1898, both years included, the average yearly death rates in Melbourne and suburbs per 100,000 of the population were—(1) in the case of phthisis, 206, 211, 221, 227, 227, 191, and 170; (2) in the case of respiratory diseases and influenza, 165, 155, 199, 225, 227, 227, and 198; and (3) in the case of all tubercular diseases, 282, 264, 283, 282, 288, 250, and 214."

Of course the question of age constitution of the population needs also to be considered, but until the age constitution is known, both of the population in general and of those that died during the period under review, no absolutely definite conclusion can be arrived at. At the same time, while allowing that the view I expressed in my report as to the fall having been, in part, a matter of compensation, is not set aside by the further data brought to bear on the discussion, there is nothing to show that there has not been an absolutely material reduction of the factors fostering tuberculosis in the metropolis, while it can scarcely be supposed that the reports distributed by the Board of Public Health to the municipal councils, as the local sanitary authorities, and the placards of information that have been distributed by the Board throughout the State, reports and placards that have, during the past 13 years, numbered some hundreds of thousands, and the action taken by the councils thereon, have failed to produce any beneficial results.

The object of this inquiry will be further prosecuted with the aid of statistics of mortality and age constitution for the successive years of the period reviewed in this report, and with the aid also of statistics as to immigration of consumptives into the State during the same period.

A.

RETURN SHOWING MALE AND FEMALE DEATH RATES PER 1,000 OF
THE POPULATION OF VICTORIA FOR EACH YEAR, 1861-1902.

Year.	Death Rate per 1,000 of the Population.		Year.	Death Rate per 1,000 of the Population.	
	Males.	Females.		Males.	Females.
1861	18·84	20·47	1882	16·91	13·57
1862	18·28	18·56	1883	15·52	12·95
1863	17·34	16·25	1884	15·49	13·18
1864	15·52	14·67	1885	16·47	13·39
1865	17·74	16·29	1886	16·49	13·72
1866	19·82	19·16	1887	17·14	14·18
1867	18·39	17·99	1888	16·80	13·91
1868	15·95	14·23	1889	19·19	16·20
1869	16·40	14·32	1890	17·59	14·44
1870	15·59	13·41	1891	17·74	14·63
1871	14·49	12·21	1892	14·99	12·15
1872	15·42	13·14	1893	15·69	12·35
1873	15·91	13·99	1894	14·60	11·47
1874	16·78	14·48	1895	14·58	11·74
1875	20·40	18·29	1896	14·73	11·77
1876	18·25	15·64	1897	14·22	11·34
1877	17·17	14·26	1898	17·57	13·99
1878	16·57	14·22	1899	15·48	12·43
1879	16·04	12·93	1900	14·34	11·11
1880	14·80	12·48	1901	14·90	11·48
1881	15·38	12·77	1902	15·13	11·66

B.

DEATH RATES IN VICTORIA PER 10,000 FROM INFLUENZA.

Age Group.	Males.				Females.			
	1870-2.	1880-2.	1890-2.	1900-2.	1870-2.	1880-2.	1890-2.	1900-2.
0—15 ...	0·69	·34	2·50	1·10	·52	·34	1·86	1·15
15—20 ...	...	·07	·64	·34	—	—	·92	·83
20—25 ...	...	...	1·20	·59	—	—	1·28	·69
25—35 ...	0·05	·07	1·50	·79	·07	·07	2·35	·89
35—45 ...	0·05	...	3·04	1·31	—	·08	4·11	1·86
45—55 ...	0·09	·24	5·12	3·20	·17	—	5·39	2·02
55—65 ...	0·67	·24	12·65	5·25	·39	·62	11·46	5·53
65 upwards ...	1·09	2·36	27·13	17·02	·84	3·18	35·22	16·02
All ages ...	0·33	·25	3·94	2·30	·28	·24	3·72	2·13

C.

DEATH RATES IN VICTORIA PER 10,000 FROM RESPIRATORY DISEASES.

Age Group.	Males.				Females.			
	1870-2.	1880-2.	1890-2.	1900-2.	1870-2.	1880-2.	1890-2.	1900-2.
0-15 ...	22.65	29.02	28.52	16.53	18.50	24.18	24.13	13.85
15-20 ...	3.45	3.30	2.92	2.70	1.88	2.02	3.52	2.34
20-25 ...	5.70	5.34	4.88	4.85	3.54	4.23	3.05	3.34
25-35 ...	4.69	8.31	6.85	5.94	4.51	5.72	5.65	3.75
35-45 ...	10.28	15.80	13.55	9.49	7.94	12.53	11.55	7.68
45-55 ...	20.43	26.59	25.18	18.04	7.87	13.63	17.01	11.80
55-65 ...	41.79	51.65	56.51	38.37	22.97	29.15	32.10	27.42
65 upwards ...	108.11	136.54	141.07	112.38	73.10	116.12	112.38	86.78
All ages ...	17.29	24.48	24.30	18.66	12.63	17.08	17.62	13.28

D.

AVERAGE YEARLY DEATH RATE PER 10,000 PERSONS DYING FROM TUBERCULAR DISEASES (PHTHISIS EXCEPTED) DURING THE YEARS 1870-2, 1880-2, 1890-2, 1900-2.

MALES.

Ages.	Death-rate per 10,000 persons during—			
	1870-2.	1880-2.	1890-2.	1900-2.
0-15 ...	7.53	7.98	10.36	5.64
15-20 ...	.64	.81	1.17	1.12
20-25 ...	1.80	1.23	.89	1.77
25-35 ...	.70	.66	.84	1.91
35-45 ...	.77	.88	.77	1.39
45-55 ...	.95	.85	.67	1.64
55-65 ...	.88	1.07	.78	2.40
65 and over ...	1.09	2.36	.56	1.17
All ages ...	3.46	3.55	4.02	2.99

FEMALES.

0-15 ...	5.89	7.28	8.43	5.33
15-20 ...	.82	1.30	1.27	1.95
20-25 ...	.52	.69	1.23	2.09
25-35 ...	.54	.41	.83	1.98
35-45 ...	1.04	.70	.42	1.77
45-55 ...	.17	.67	.34	1.01
55-65 ...	.39	.62	.69	.71
65 and over ...	1.69	1.19	.64	.71
All ages ...	3.10	3.39	3.58	2.91

F.

DEATHS FROM PHTHISIS IN VICTORIA FOR THE YEARS 1860-1902.

Year.	Deaths from Phthisis.		Year.	Deaths from Phthisis.	
	Total Number.	Number per 10,000 Persons Living.		Total Number.	Number per 10,000 Persons Living.
1860 ...	772	14.46	1898 ...	1,520	12.85
1865 ...	741	12.12	1899 ...	1,339	11.29
1870 ...	888	12.45	1900 ...	1,387	11.62
1875 ...	1,027	13.04	1901 ...	1,416	11.77
1880 ...	1,175	13.82	1902 ...	1,412	11.69
1885 ...	1,384	14.46			
1890 ...	1,631	14.58	Sum and		
1895 ...	1,567	13.23	Mean of	49,579	13.15
			43 Years		

G.

DEATH RATES IN VICTORIA FROM PHTHISIS AT DIFFERENT AGES AT FIVE CENSUS PERIODS, 1860-2, 1870-2, 1880-2, 1890-2, 1900-2.

MALES.

Ages.	Annual Mortality from Phthisis per 10,000 of the Population.				
	1860-2.	1870-2.	1880-2.	1890-2.	1900-2.
0-15 ...	2.55	1.22	1.74	.90	.38
15-20 ...	7.72	5.71	6.88	3.41	5.06
20-25 ...	12.23	18.75	21.19	18.29	14.35
25-35 ...	16.53	22.21	30.33	23.70	20.31
35-45 ...	21.63	21.83	25.11	28.28	22.07
45-55 ...	23.14	22.24	28.65	31.17	25.05
55-65 ...	25.63	27.86	31.41	36.48	35.75
65 and upwards ...	23.20	19.56	18.08	25.40	31.07
All ages ...	13.33	12.89	15.33	15.73	13.51

FEMALES.

0-15 ...	3.70	.98	1.76	1.43	.93
15-20 ...	14.07	12.37	12.50	9.51	8.18
20-25 ...	18.95	19.28	21.00	18.49	12.79
25-35 ...	24.76	22.02	26.56	21.77	18.15
35-45 ...	25.62	21.65	24.06	22.53	17.74
45-55 ...	25.01	19.60	20.72	16.13	14.41
55-65 ...	22.59	10.51	14.26	12.35	12.52
65 and upwards ...	18.03	12.61	13.12	8.25	8.18
All ages ...	14.46	10.62	12.75	11.51	9.72

H.

AVERAGE YEARLY DEATH RATES IN VICTORIA FROM INFLUENZA AND
RESPIRATORY DISEASES (COMBINED) PER 10,000 LIVING AT
DIFFERENT AGES, DURING 1870-72, 1880-82, 1890-92, AND
1900-1902.

Age Group.	1870-72.	1880-82.	1890-92.	1900-02.
MALES.				
0—15	23·34	29·36	31·02	17·63
15—20	3·05	3·37	3·56	3·04
20—25	5·70	5·34	6·08	5·44
25—35	5·74	8·38	8·35	6·73
35—45	10·33	15·80	16·59	10·80
45—55	20·52	26·83	30·30	21·24
55—65	42·46	51·89	69·16	43·62
65 and upwards	109·20	138·90	168·20	129·40
All ages	17·62	24·73	28·24	20·96
FEMALES.				
0—15	19·02	24·52	25·99	15·00
15—20	1·88	2·02	4·44	3·17
20—25	3·54	4·23	4·33	4·03
25—35	4·58	5·79	8·00	4·64
35—45	7·94	12·61	15·66	9·54
45—55	8·04	13·63	22·40	13·82
55—65	23·36	29·77	43·56	32·95
65 and upwards	73·94	119·30	147·60	102·80
All ages	12·91	17·32	21·34	15·41

AGRICULTURE, MINING, &c.

The latest return from the Lands Department shows the total area of the State to be 56,245,760 acres. Of this, 24,058,181 acres are private lands, 20,618,981 acres being alienated in fee simple, and 3,439,200 acres in process of alienation. The balance, 32,187,579 acres, comprises the following:— Roads in connexion with lands alienated and in process of alienation, 1,587,289 acres; agricultural college reserves, &c., 446,737 acres; State forests and timber reserves, 4,679,540 acres; State education endowment, temporarily reserved, 1,592,400 acres; other reserves, 595,631 acres; unsold land in towns, &c., 2,476,682 acres; in occupation under grazing area leases, 3,209,321 acres; Mallee pastoral lands, 8,257,142 acres; all other leases, 120,139 acres. The land available for occupation on 31st December, 1902, was 9,222,698 acres, and is thus described by the officers of the department:—Good grazing or agricultural, 50,000 acres; agricultural and grazing combined, 140,000 acres; grazing, 1,860,000 acres; inferior grazing, 73,000 acres; pastoral (large areas), 3,544,700 acres; swamp or reclaimed, 20,510 acres; lands that may be sold by auction (not including swamp or reclaimed lands), 12,474 acres; auriferous, 1,017,800 acres; and Mallee lands, 2,504,214 acres.

Private and
Crown
lands.

During 1898, 305,697 acres were alienated in fee simple, including land selected in previous years; 694,508 acres in 1899; 494,752 acres in 1900; 406,145 acres in 1901; and 523,477 acres in 1902; the purchase money being £318,474 of that in 1898; £727,493 in 1899; £526,650 in 1900; £438,363 in 1901; and £555,538 in 1902. The Crown lands absolutely or conditionally sold during the last five years were:—65,319 acres in 1898; 74,353 in 1899; 232,783 in 1900; 523,464 in 1901; and 306,806 acres in 1902. The Crown lands under pastoral occupation on 31st December, 1902, are thus described:—

Number of Licences and Leases	...	...	20,771
Area (acres)	...	...	17,196,092
Annual Rental	...	...	£54,662

The "Torrens System," whereby persons acquiring possession of land may receive a clear title, was introduced into Victoria in 1862. The system was originated previously in South Australia by the late Sir R. R. Torrens, and has been the means of simplifying procedure in connexion with the transferring of land; gives a title to the transferee free of any latent defect; and cheapens the cost of dealing in real estate by reason of the simplicity of the procedure. All land parted with by the Crown since 1862 is under the operation of the "Transfer of Land Act," and the Crown grant issues

"Transfer of
Land Act."

through the Titles Office; but to bring under the Act land that was parted with prior to that year, application must be made accompanied by strict proofs of the applicant's interest in the property. During 1902 there were 663 applications to bring under the Act land amounting to 70,145 acres in extent, and to £1,003,834 in value, whilst the land brought under the Act during the year by application amounted to 51,702 acres in extent, and to £791,637 in value.

“Statistics
Collection
Act 1902.”

In December, 1902, the “Statistics Collection Act” authorized the collection by the police of agricultural and manufacturing statistics, which had previously been done by the municipalities. The new system has been fruitful of good results, even in the year of its inception. It will probably work still more satisfactorily in the future. To prevent omissions and duplications, copies of maps showing the boundaries of the various police sub-districts are now provided for the collectors.

Area under
cultivation

The area under cultivation, exclusive of permanent artificial grass, increased from 441,929 acres in 1862-3 to 765,250 acres in 1872-3; 1,756,271 in 1882-3; 2,737,001 in 1892-3; and 3,738,873 in 1902-3; of which 162,008 acres in 1862-3, 326,564 in 1872-3, 969,362 in 1882-3, 1,342,504 in 1892-3, and 1,994,271 in 1902-3 were under wheat for grain alone.

Cultivated
holdings.

The number of cultivated holdings returned during the last five years was 39,877 in 1898-9, 40,160 in 1899-00, 39,831 in 1900-1, 41,153 in 1901-2, and 40,859 in 1902-3. In addition, the number of holdings where dairying exclusively was carried on was 2,605 in 1901-2, and 2,913 in 1902-3.

Cultivation
per head
in Austral-
asia.

The average area in cultivation (exclusive of artificial grasses) to each person, in each of the Australian States and New Zealand, on 31st December, 1902, was as follows:—

Victoria	...	3·10 acres	Western Australia	...	1·06 acres
New South Wales	...	1·99 „	Tasmania	...	1·56 „
Queensland	...	·93 „	New Zealand	...	2·04 „
South Australia	...	8·61 „			

Principal
crops.

The principal crops grown are wheat, oats, barley, potatoes, and hay.

Wheat.

Wheat was first grown in 1836. There was a continual increase in the area under this cereal to 1899-1900, when 2,165,693 acres were sown. In 1900-1, there was a decrease

to 2,017,321 acres, and in the following year to 1,754,417 acres. In 1902-3, however, there was a recovery to 1,994,271 acres. The yield during the last five years shows a decrease from 19,581,304 bushels in 1898-9 (the highest on record) to 2,569,364 bushels in 1902-3, the fall from 1901-2 to 1902-3 being over nine and a half million bushels—a result of the disastrous drought of the latter year, which particularly affected the principal wheat-growing districts. A previous devastation through drought occurred in the four years preceding 1898-9. The total in 1893-4 was 15,255,200 bushels, 11,445,878 in 1894-5, 5,669,174 in 1895-6, 7,091,029 in 1896-7, and 10,580,217 in 1897-8.

The area under oats in 1902-3, 433,489 acres, is the largest, Oats. that of 1896-7 being next, with 419,460 acres. The average yield per acre in 1902-3 was, however, the lowest since 1896, being only 10·16 bushels per acre. The yield for the year was 4,402,982 bushels.

Although an increase is shown in the area under barley, Barley. the average yield was only 14·88 bushels per acre in 1902-3, as against 21·40 in the preceding year. The total yield for 1902-3 was 561,144 bushels.

Potatoes yielded in 1902-3 168,759 tons from an area of Potatoes. 49,706 acres. In only five previous years has the area under potatoes been greater, viz., 1886-7, 1890-1, 1891-2, 1894-5, and 1899-1900. Higher results were obtained in only six years, 1886-7, 1887-8, 1890-1, 1891-2, 1894-5, and 1899-1900—the yield of 204,155 tons in 1891-2 being the greatest.

That potatoes should have given so splendid a return this year, when so many other crops failed, is due to the fact that the potato-growing districts are situated on the south side of the Dividing Range, where the drought was not so severely felt.

Although the area under hay in 1902-3, 580,884 acres, was Hay. the highest, with the exception of 1901-2, the average, 1·04 tons per acre, was the lowest since 1896. The yield was 601,272 tons. The land under maize and other crop used as green fodder was 30,720 acres.

The following is a return showing the area under each of these crops, and the gross and average produce during the last five years:—

Year.	AREA.				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Acres.	Acres.	Acres.	Acres.	Acres.
1898-9	2,154,163	266,159	47,859	41,252	565,345
1899-00	2,165,693	271,280	79,573	55,469	450,189
1900-1	2,017,321	362,689	58,853	38,477	502,105
1901-2	1,754,417	329,150	32,423	40,058	659,299
1902-3	1,994,271	433,489	87,716	49,706	580,884
	TOTAL YIELD.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1898-9	19,581,304	5,523,419	1,112,567	161,142	723,299
1899-00	15,237,948	6,116,046	1,466,088	173,381	596,193
1900-1	17,847,321	9,582,332	1,215,478	123,126	677,757
1901-2	12,127,382	6,724,900	693,851	125,474	884,369
1902-3	2,569,364	4,402,982	561,144	168,759	601,272
	AVERAGE YIELD PER ACRE.				
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1898-9	9.09	20.75	23.25	3.91	1.28
1899-00	7.04	22.55	18.42	3.13	1.32
1900-1	8.85	26.42	20.65	3.20	1.35
1901-2	6.91	20.43	21.40	3.13	1.34
1902-3	1.29	10.16	14.88	3.40	1.04

In connexion with the export of wheat, information was collected in 1901 showing the prices realized for this grain in London from 1898 to 1901, the cost of its shipment by sailing vessels from the port of Melbourne to the United Kingdom, and the proportion per bushel of charges upon realizing. These are here given:—

MARK LANE PRICES OF VICTORIAN WHEAT, 1898 TO 1901.

Year.	Highest Price per Bushel.	Lowest Price per Bushel.	Average Price per Bushel.	Remarks.
1898 ...	6s. 4d.	3s. 4d.	4s. 5 $\frac{3}{4}$ d.	Abnormal price— Cuban War
1899 ...	3s. 8d.	3s. 3d.	3s. 4 $\frac{1}{2}$ d.	Normal
1900 ...	3s. 10d.	3s. 4d.	3s. 6 $\frac{1}{4}$ d.	„
1901 ...	3s. 8d.	3s. 4d.	3s. 5 $\frac{1}{4}$ d.	„

Area under principal crops.

Export of wheat.

COST PER BUSHEL OF REALIZING ON VICTORIAN WHEAT BY SAILEP,
FROM THE PORT OF MELBOURNE, IN THE UNITED KINGDOM.

Year.	Rate of Freight per Ton by Sailer, with 5 per cent. Primage.	Rate of Insurance per £100.	Selling Commission per £100.	All Other Incidental Charges per £100.	Total Charges of Selling One Bushel of Wheat.	Net Return for One Bushel of Wheat.
1898 ...	21s.	22s. 6d.	50s.	22s.	9½d.	3s. 8½d.
1899 ...	26s. 3d.	20s.	50s.	22s.	10½d.	2s. 6¼d.
1900 ...	35s. 3d.	20s.	50s.	22s.	13¼d.	2s. 5d.
1901 ...	21s.	20s.	50s.	22s.	8¾d.	2s. 8½d.
Four Years' Average...					10¾d.	2s. 10d.

PROPORTION OF CHARGES UPON REALIZING ON ONE BUSHEL
OF WHEAT.

Particulars.	1898.	1899.	1900.	1901.
	d.	d.	d.	d.
Freight per Bushel ...	6 75	8 43	11 33	6 75
Insurance " ...	0 6	0 39	0 42	0 41
Commission " ...	1 3	1 01	1 04	1 03
All other Charges " ...	0 6	0 42	0 47	0 45
Total Charges for realizing on One Bushel of Victorian Wheat in London }	9 25	10 25	13 26	8 64

Although the gain in weight on Victorian wheat shipped to the United Kingdom from Melbourne varies from one-half to one and three-fourths per cent., the average gain may be computed at one per cent. in weight. This is accounted for by the wheat being shipped from a dry to a humid climate. From the dryness of the Victorian wheat, the value in the London market is reckoned at about 4 per cent. above the average Mark Lane quotations for the wheat of other countries.

The occupations of persons settled on the land have heretofore been collected only in the census years. In 1891, the number engaged in agricultural pursuits was 82,482; in 1901, 95,920 persons. In the former year there were 15,296 persons engaged in pastoral and dairying pursuits, and 30,920 in 1901.

Occupations of persons settled on the land.

The number of persons ordinarily employed on agricultural and dairying farms was 109,325, viz., 70,319 males, and 39,006 females.

With the exception of 1895, the breadstuffs produced in the twenty-six years ended 1902 have been more than enough

Population and breadstuffs.

to supply home consumption. Wheat has, therefore, been exported each year, with the one exception. The maximum export was 10 2-3 million bushels in 1899. The following table shows, for 1898 and each subsequent year, the mean population of Victoria; the stocks of old wheat and flour on hand at the beginning of each year; the quantity of wheat grown; the quantity (after deducting imports) of wheat, flour, and biscuit exported; and the breadstuffs left over and available for home consumption. In addition to the quantity required for food consumption, a stock is required for seed purposes, equal, on an average, to three-quarters of a bushel per acre:—

Year.	Mean Population.	Stocks of Old Wheat and Flour on hand (1st January).	Wheat harvested for season ended March in each year.	Wheat, Flour, and Biscuit.	
				Exported, after deducting Imports.	Available for Home Consumption.
		Bushels.	Bushels.	Bushels.	Bushels.
1898 ...	1,172,950	330,224	10,580,217	1,855,951	9,054,490
1899 ...	1 186,265	1,282,902	19,581,304	10,662,011	10,202,195
1900 ...	1,193,338	2,121,700	15,237,948	7,011,242	10,348,406
1901 ...	1,202,960	1,872,000	17,847,321	10,248,093	9,471,228
1902 ...	1,207,110	1,525,288	12,127,382	3,899,246	9,753,424
1903 ...	1,205,335 (30th June).	903,616	2,569,364	(Not Available.)	(Not Available.)

Consumption of breadstuffs.

The manner in which the breadstuffs available for home consumption have been disposed of in each of the years under review is as follows:—

Year.	WHEAT AND FLOUR.				
	Quantity Available for Home Consumption.	How Disposed of—			
		Stocks on Hand on 31st December.	Required for Seed.	Used for Food, &c.	
			Total.	Per Head.	
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1898 ...	9,054,490	1,282,902	1,770,941	6,000,647	5·12
1899 ...	10,202,195	2,121,700	1,772,602	6,307,893	5·32
1900 ...	10,348,406	1,872,000	1,696,000	6,780,406	5·68
1901 ...	9,471,228	1,525,288	1,529,249	6,416,691	5·33
1902 ...	9,753,424	903,616	1,616,946	7,232,862	5·99

The following return shows the yield of the principal crops in the various Australian States and New Zealand for each of the five years ended March, 1903:—

Yield, Australian States and New Zealand.

Year Ended March.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
<i>Wheat.</i>	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1899 ...	19,581,304	9,276,216	607,012	8,778,900	870,909	2,303,512	13,073,416
1900 ...	15,237,948	13,604,166	614,414	8,453,135	966,601	1,101,303	8,581,898
1901 ...	17,847,321	16,173,771	1,194,088	11,253,148	774,653	1,110,421	6,527,154
1902 ...	12,127,382	14,808,705	1,692,222	8,012,762	956,886	963,662	4,046,589
1903 ...	2,569,364	1,585,097	6,165	6,354,912	970,571	876,971	7,457,915
<i>Oats.</i>	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1899 ...	5,523,419	278,007	4,047	304,002	55,854	2,271,070	16,511,388
1900 ...	6,116,046	627,904	10,712	218,331	73,556	1,148,160	16,325,832
1901 ...	9,582,332	593,548	7,855	366,229	86,433	1,406,913	19,085,837
1902 ...	6,724,900	687,179	42,208	469,254	163,653	1,702,659	15,045,233
1903 ...	4,402,982	351,758	520	620,823	161,714	1,752,745	21,766,708
<i>Barley.</i>	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1899 ...	1,112,567	64,094	34,865	234,135	29,295	184,225	1,677,908
1900 ...	1,466,088	132,476	118,443	188,917	56,587	142,721	1,585,145
1901 ...	1,215,478	114,228	127,144	211,102	29,188	116,911	1,027,651
1902 ...	693,851	103,361	277,037	243,362	34,723	167,483	855,993
1903 ...	561,144	18,233	3,595	317,155	45,778	201,133	1,136,232
<i>Potatoes.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1899 ...	161,142	61,900	16,413	14,445	5,698	88,166	298,561
1900 ...	173,381	81,337	22,675	19,716	8,373	101,670	222,124
1901 ...	123,126	63,253	20,014	14,566	4,835	93,862	169,042
1902 ...	125,474	39,146	22,402	15,059	5,739	114,704	206,815
1903 ...	168,759	30,732	3,257	28,312	6,200	163,518	193,267
<i>Hay.</i>	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1899 ...	723,299	334,297	70,235	258,518	77,297	82,448	151,240
1900 ...	596,193	546,850	103,409	229,800	70,078	51,123	136,468
1901 ...	677,757	526,260	78,758	353,662	103,813	94,198	136,046*
1902 ...	884,369	472,621	122,039	346,467	89,729	88,125	125,968*
1903 ...	601,272	243,289	23,181	308,825	91,593	89,210	†

Of every 1,000 acres under cultivation during 1902-3, 533 acres were under wheat, 116 under oats, 10 under barley, 13 under potatoes, 156 under hay, and 172 under other crops and

Proportion of land under each crop.

* Estimated. † Not available.

land in fallow. The proportion of the land under each crop to the total area under tillage during the last five years, was:—

Year ended March—	Proportionate Area to Total Cultivated Land under:— (Exclusive of Area under artificial grass.)					
	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Tillage.
1899	57.78	7.13	1.28	1.11	15.17	17.53
1900	59.05	7.39	2.17	1.51	12.27	17.61
1901	54.28	9.75	1.58	1.08	13.51	19.85
1902	48.09	9.02	.89	1.11	18.07	22.82
1903	53.34	11.59	1.01	1.33	15.54	17.19

Proportion of land under tillage.

For the years 1899-1903, the total area under cultivation, and its proportion to the area of the State, 56,245,760 acres, were:—

Year ended March—	Area under Tillage (exclusive of area under artificial grass).		Proportion to Area of Victoria.	
	Acres.		Per Cent.	
1899	3,727,765		6.63	
1900	3,668,556		6.52	
1901	3,717,002		6.61	
1902	3,647,459		6.48	
1903	3,738,873		6.65	

Hops.

In 1883-4 there were 1,758 acres planted under hops, when the yield was 15,714 cwt. This is the highest on record. The industry, however, shows a steady decline since that time, and in 1902-3 there were only 44 growers of hops in the State, 210 acres cultivated, and the produce 1,572 cwt.

Tobacco.

The following is a return showing the number of growers of tobacco in the State; the area of land cultivated; and the produce for the five years, 1898-9 to 1902-3:—

Year.	Number of Growers.	Area.		Produce.	
		Acres.		Cwt.	
1898-9	31	78		190 (dry).	
1899-1900	28	155		1,365 "	
1900-1	16	109		311 "	
1901-2	17	103		345 "	
1902-3	24	171		781 "	

For several years past, a parasitic fungus, locally called "blue mould," has caused serious damage to the tobacco crop, compelling many growers to abandon the industry. It is considered by experts that if this scourge were removed, and the

farmers instructed in the proper method of curing the leaf, a prosperous future would be in store for the industry, more especially as there are large tracts of land in the north-eastern and other parts of the State which are well suited for tobacco cultivation. The maximum quantity grown was in 1880-1, when 17,333 cwt. of dry leaf was produced. In the years 1895-6, 1896-7, and 1897-8 the produce was respectively 15,223 cwt., 7,890 cwt., and 3,419 cwt., but since 1898 the industry has shrunk very considerably, until in 1903, when the number of growers was only 24, the area cultivated 170 acres, and the produce 781 cwt.

The area under vines shows a steady increase from 4,284 ^{Vines.} acres in 1879-80 to 30,307 in 1894-5. In 1900-1, the area under vines was 30,634 acres, but in the last two years a decline is shown. The check in the development of this industry was caused by the outbreak of the phylloxera disease. The result of five years' operations is as follows:—

Year.	Number of Growers.	Area.	Produce.			
			Grapes Gathered.	Wine Made.	Raisins Made.	Currants Made.
			Cwt.	Galls.	Cwt.	Cwt.
1898-9	2,453	27,568	468,887	1,882,209	17,979	1,033
1899-0	2,382	27,550	298,920	933,282	17,847	3,315
1900-1	2,486	30,634	631,912	2,578,187	29,370	3,715
1901-2	2,469	28,592	497,269	1,981,475	27,533	2,546
1902-3	2,347	28,374	444,966	1,547,188	35,534	3,722

The grapes gathered steadily increased in quantity up to the year 1896-7, when the crop was 601,053 cwt. In the three following years a decline took place, but in 1900-1 the return was 631,912 cwt. A falling off again occurred in the two last years, when the yields of grapes were respectively 497,269 and 444,966 cwt. The largest quantity of wine produced was in 1896-7, when 2,822,263 gallons were made. The making of raisins and currants, although dependent upon the crop of grapes, continues to make steady progress, the produce last season being the largest recorded.

The wine industry received a temporary check some years since, in consequence of an outbreak of the disease called phylloxera vastatrix,* which was then found to be confined to one district in the State (Geelong), where it was promptly stamped out by the eradication of all vines for a distance ranging from 20 to 30 miles from the centre of that district. The disease has unfortunately obtained a footing in other parts of the State, with the result that many valuable vineyards have, in terms of the "Vine Disease Act," been destroyed,

* An account of the visitation of the phylloxera in Victoria, and of the measures taken for its suppression, will be found in the "Victorian Year-Book, 1888-9."

and for which compensation has been paid by Government amounting to £36,794. Payment of compensation has now been abolished. Experimental stations have been established in various parts of the State to test the adaptability of phylloxera resistant stocks to our soils and climatic conditions, as well as to discover their grafting affinities. These data will be of immense value in the reconstitution of vineyards in the near future. Large quantities of these vines have already been distributed amongst vignerons of the State. In older viticultural countries, reconstitution with resistant vines has apparently proved the only solution of the phylloxera difficulty.

The area under orchards growing fruit for sale increased steadily from 5,800 acres in 1872-3, 10,048 in 1882-3, 31,370 in 1892-3, to 44,502 acres in 1902-3. The area in 1901-2 was the largest, with 45,885 acres. Details of the produce from orchards growing fruit for sale are as follow:—

Orchards
growing
fruit for
sale.

Year.	Number of Fruitgrowers.	Area Under Gardens and Orchards.	LARGE FRUITS GATHERED.			
			Apples.	Pears.	Quinces.	Plums.
		Acres.	Cwt.	Cwt.	Cwt.	Cwt.
1898-9 ...	4,868	37,033	199,265	47,634	25,630	49,788
1899-00 ...	5,208	40,714	217,128	39,571	19,383	51,019
1900-1 ...	5,400	44,688	279,193	89,780	25,574	64,675
1901-2 ...	5,693	45,885	203,914	42,408	22,909	75,484
1902-3 ...	5,301	44,502	282,454	88,582	32,733	57,792

Year.	LARGE FRUITS GATHERED.—Continued.						
	Cherries.	Peaches.	Apricots.	Oranges.	Lemons.	Figs.	Others.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
1898-9 ...	30,096	58,992	70,433	7,796	15,456	7,267	4,032
1899-00 ...	25,042	81,395	70,022	10,658	12,433	6,589	2,437
1900-1 ...	35,636	54,614	77,590	12,948	19,633	7,403	3,373
1901-2 ...	37,963	96,463	79,427	20,945	22,038	6,153	3,226
1902-3 ...	34,781	58,837	57,118	8,082	15,421	6,519	2,734

Year.	SMALL FRUITS GATHERED.					NUTS GATHERED.			
	Rasp- berries.	Straw- berries.	Goose- berries.	Currants. (Red, Black and White).	Others.	Al- monds.	Wal- nuts.	Fil- berts.	Chest- nuts.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Lbs.	Lbs.	Lbs.	Lbs.
1898-9 ...	9,892	1,889	6,541	845	1,001	67,164	17,694	2,987	4,392
1899-00 ...	12,831	3,109	7,832	1,078	1,423	90,025	10,432	3,698	6,670
1900-1 ...	20,396	4,246	12,431	1,794	882	66,837	25,294	6,818	6,469
1901-2 ...	13,610	4,435	10,436	1,383	968	72,528	18,435	3,469	6,990
1902-3 ...	20,185	3,101	11,573	1,456	1,126	41,551	19,378	3,437	8,262

In addition, large quantities of melons, rhubarb, and tomatoes were produced in orchards, and the following were the quantities returned for 1902-3:—Melons, 14,786 cwt.; rhubarb, 65,786 doz. bundles; and tomatoes, 23,079 cwt.

The area under market gardens for the year 1902-3 was 7,937 acres. In view of the fact that these gardens are generally situated near large centres of population, and the producers are consequently able to dispose of the bulk of their goods with a minimum of loss from waste, &c., an average return of £25 per acre is regarded as a fair estimate. On this basis, the total value of the produce may be stated as close upon £200,000. This does not include crops grown upon land of greater area than one acre, such crops being returned separately. Market gardens.

In addition, there are 5,976 acres laid down in private fruit gardens. No return of the produce of this area is made. Private orchards.

The quantity of dried fruit (weight after drying) was for the first time collected in 1895-6, when 179,460 lbs. were returned, and it increased to 305,857 lbs. in 1897-8. The details for the last five seasons are:— Dried fruit.

Season.	Apples.	Prunes.	Peaches.	Apricots.	Figs.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1898-9 ...	6,289	8,026	59,222	275,026	39,175	387,738
1899-00 ...	11,876	12,595	133,680	290,224	101,948	550,323
1900-1 ...	28,944	35,931	97,254	411,526	62,639	636,294
1901-2 ...	42,218	33,789	90,328	328,599	66,472	561,406
1902-3 ...	27,113	28,996	70,759	110,666	69,069	306,603

The quantity of apples returned in 1902-3 includes 8,935 lbs. of pears, and the quantity of peaches includes 1,575 lbs. of nectarines. Of the total quantity gathered, 96 per cent. in 1898-9, 92 per cent. in 1899-00, 86 per cent. in 1900-1, 77 per cent. in 1901-2, and 87 per cent. in 1902-3, was dried at Mildura.

ECONOMIC ENTOMOLOGY.

BY C. FRENCH, F.L.S., F.R.H.S., GOVERNMENT ENTOMOLOGIST.

In the year 1889 the Government of the day, the Hon. J. L. Dow being then Minister of Agriculture, decided to follow the American system and appoint an entomologist to take charge of a new branch of the Department of Agriculture, and I had the honour to be selected from many other applicants both from Australia and from foreign parts. It was decided to term the new office "the Entomological and Ornithological Branch of the Department," and as there was no building

available, some offices were rented from the Exhibition Trustees, and inside these walls may be said to have been made the first systematic attempt to deal with the various insect and bird pests of the State, the nucleus of the library and collections having been lent by me until such time as a departmental collection could be got together.

As times progressed, and after much trouble had been experienced by careful growers, a Vegetation Diseases Act was, in 1896, brought into force, and inspectors appointed to supervise the orchards through the State, and also to advise growers as to the best methods to be employed in combating the pests in the orchards and elsewhere, and, as showing the strides made, it may be mentioned that in 1889 there was but one small spray pump in the State, and I had to journey to South Australia to purchase a small hand spray pump for the use of the branch. Spraying materials can now be obtained from many makers, and large sums have been spent by orchardists and others in their purchase.

The discovery by Professor Coquillet, of America, that cyanide gas could be successfully used against scale on citrus trees especially, has revolutionized former treatment for insect pests generally, and in some instances this treatment has largely superseded the spraying. The department has a complete plant of this material working here and there, and as circumstances require, it is used in various parts of the State.

One great advantage of the "Vegetation Diseases Act" is that its provisions compel the careless grower to take reasonable precautions to keep his orchard free from pests, as the presence of the latter is always a menace to the careful man who does his best to present his fruit wares in a sound condition to the purchasing public. We have had many prosecutions, but so far there has been comparatively little, if any, friction between the department and the grower, the object of the Government being to educate, and advise growers as to the necessity of marketing sound fruit.

The inspection of all nursery stock has been the means of compelling many of the more careless nurserymen to send out none other than clean trees, the certificate being withheld if the nursery will not pass muster; this is a great boon to orchardists, as once a pest is introduced on a tree or other plant the chances of its permanent introduction and establishment in the orchard are great, far more so than by means of fruit, no matter from whence it came.

The fruit imports and exports are of late years assuming large proportions, and three inspectors are permanently engaged in attending to this work, all citrus fruits from New

South Wales now having to be fumigated at the port of shipment. Those terrible pests, the "fruit flies," have fortunately not so far made their appearance in Victoria. We use every care and precaution in the inspection and examination of oranges, peaches, and bananas, as these are the chief fruits by which the fruit fly may be introduced, whilst in the larval stages, and we hope that by this means we may escape a visitation of the pest. All suspected fruit is rejected, and is either destroyed or towed outside Port Phillip Heads and thrown overboard.

Experiments, with the view of assisting growers to deal with their insect pests, are constantly being made, the latest being with the codlin moth trouble, and we have proved to the satisfaction, alike of ourselves and the growers, that by following out our advice, which plan is both cheap and effective, growers can save from ninety to ninety-five per cent. of marketable fruit, and as a consequence of this teaching, spraying work may be seen regularly going on in every well-regulated orchard throughout the State.

The economic collection of insects and birds is both large and valuable, and each of the latter are probably more extensive than anything of the kind in Australia. The great value of an economic collection is to the entomologist what the museum is to the pathologist, and is of course indispensable.

The publication of important literature bearing on the work of the branch has been kept well up to date; three volumes of text with beautifully coloured plates have been issued, and met with a large and ready sale; Vols. I. and II., of which 8,000 copies were issued, having been nearly sold out. Pamphlets, too, have been circulated far and wide with good results, the latest publications on the subject being embodied in the "Journal of Agriculture," published by the department, and contributed to by various officers of the department and others.

Lectures have been delivered by the inspectors and myself in various parts of the State, and have been well attended and greatly appreciated, this being a direct and convenient method of imparting, in a plain and easily understood manner, information on the subject generally.

Field work, owing to pressure of other matters, has not had the attention which so important a subject deserves, still between myself and my assistant much good work in this direction has been done. I am glad to be able to say that friendly correspondence is still kept up between entomologists

in the States, also in other parts of the world, and myself, and with, I trust, mutual advantage.

As my annual reports, together with figures, &c., of imports and exports of fruit, plants, &c., &c., have just been finished, I will not take up more space, but would like to say, in conclusion, that we endeavour to be up to date, and as the various exchanges of books and ideas are constantly going on, it must follow that the work of the past, no matter how good it may have been, must if possible be improved, in accordance with all new thoughts and writings on the subject.

Ensilage.

The quantity of ensilage made has seriously declined during the past five years. In 1898-9, ensilage was returned as having been made on 224 farms, using 8,764 tons of material; in 1899-1900, on 139 farms, using 9,116 tons; in 1900-1, on 131 farms, using 5,834 tons; in 1901-2, on 125 farms, using 5,065 tons; and in 1902-3, on 111 farms, using 4,703 tons. This means of preserving food for stock in dry seasons is very important. A substantial recovery and extension of this most useful and necessary adjunct of the farming and dairying industries is earnestly to be hoped for.

Manure.

The quantity of manure used for fertilization has, in the last five years, considerably increased. In 1898, 7,318 farmers used 143,586 tons of natural, and 16,052 tons of artificial manure, on 225,830 acres of land; in 1901, 11,439 farmers used 153,611 tons of natural, and 23,535 tons of artificial manure, on 556,777 acres; whilst in 1902, the increase was still greater, 18,537 farmers using 206,676 tons of natural, and 36,630 tons of artificial manure, on 1,099,686 acres.

Bee-keeping.

The returns for 1902-3 show that there were 4,402 beekeepers, owning 15,532 frame and 16,594 box hives, and producing 911,691 and 287,640 lbs. of honey respectively, and 23,061 lbs. of beeswax.

The number of bee hives has increased from 17,729 in 1900-1, to 32,126 in 1902-3.

In 1891-2, the quantity of honey returned was 1,128,283 lbs. After a decline in the next two years, the quantity gathered in 1894-5 was 1,323,982 lbs. A further falling off is recorded from that year to only 195,163 lbs. in 1897-8. A fair recovery has since been made, the return for 1902-3, the third largest, indicating that the industry is now making good progress.

Prices of agricultural produce.

This information is procured by the collectors, when making their annual visits, in January, February, and March. The prices are those prevailing in the localities where the

crops are grown. The following is the average price for each of the last five years:—

Year.	Average Price in February and March.													
	Wheat.		Oats.		Barley.				Maize.		Hay.		Potatoes.	
	s.	d.	s.	d.	Malting.		Other.		s.	d.	s.	d.	s.	d.
1899 ...	2	2	1	7 $\frac{3}{4}$	4	2 $\frac{1}{2}$	2	2 $\frac{1}{4}$	2	11 $\frac{1}{2}$	34	5	73	0
1900 ...	2	5	2	1	3	2 $\frac{1}{2}$	2	3 $\frac{1}{4}$	2	4 $\frac{1}{4}$	40	9	41	11
1901 ...	2	5 $\frac{3}{4}$	1	6 $\frac{1}{2}$	2	10 $\frac{3}{4}$	1	11 $\frac{1}{4}$	2	8	39	4	73	11
1902 ...	2	10 $\frac{1}{4}$	2	4	3	9 $\frac{1}{4}$	2	9 $\frac{1}{4}$	2	10 $\frac{1}{2}$	55	5	77	7
1903 ...	6	0	3	2 $\frac{3}{4}$	4	5 $\frac{3}{4}$	3	8	5	1 $\frac{3}{4}$	100	1	91	3

Of the total farmers (43,768) in the State in 1902-3, 36,000 were interested in the dairying industry, of whom 2,909 were engaged exclusively in dairying. Each of the 36,000 dairy farmers had on an average 14 cows, 6 calves, and 4 pigs, and obtained 3,884 gallons of milk—an average of 273·9 gallons per cow. One farmer in every five had a cream separator.

The average yield per cow steadily increased from 236 gallons in 1895-6 to 335 gallons in 1900-1, but it fell to 322·3 gallons in 1901-2, and to 273·9 gallons in 1902-3—a result in all probability due to droughts.

The total yield in 1902 was 30 per cent. larger than in 1898-9, but 13 per cent. smaller than in 1900-1, when the maximum yield was attained.

The following are the particulars respecting dairy farms Dairy farms. in each of the last five years:—

Year.	Number of Cow-keepers.	Number of—			Milk Yield in Last Calendar Year.		Number of Cream Separators in use.
		Dairy Cows (wet and dry).	Calves Under 12 Months.	Pigs.	Average per Cow (wet and dry).	Total Quantity (000's omitted).	
1898-9 ...	29,633	357,078	179,207	143,666	Gallons. 301·0	Gallons. 107,535,	2,799
1899-00 ...	31,132	465,469	243,593	227,309	316 6	147,367,	3,446
1900-1 ...	30,787	472 940	257,429	234,572	335·5	158,677,	4,131
1901-2 ...	33,070	483,650	264,434	173,553	322·3	155,880,	5,626
1902-3 ...	36,000	510,546	233,110	147,029	273·9	139,838,	7,308

The numbers of horses, cattle, sheep, and pigs in the various Australian States and New Zealand, according to the latest returns, are:—

—	Horses.	Cattle.		Sheep.	Pigs.
		Milch Cows.	Other.		
Victoria	392,237	521,612	1,080,772	10,841,790	350,370
New South Wales	450,125	351,287	1,389,939	26,649,424	193,097
Queensland	399,122	2,543,471		7,213,985	77,202
South Australia	164,625	75,011	138,332	4,880,540	82,777
" Northern Territory	14,788	627	303,193	42,122	1,014
Western Australia	80,114	437,588		2,697,897	52,765
Tasmania	33,465	33,316	135,069	1,679,518	52,092
New Zealand	286,955	428,773	1,031,890	20,342,727	193,740

It has not been the practice in Victoria to collect the numbers of the live stock, except in those years in which the census was taken; and the figures now supplied are those returned at the census of 1901. In the new agricultural and pastoral schedule, which will be brought into use for the collection of the 1903-4 statistics, provision is made for this collection annually.

GENERAL REMARKS ON LIVE STOCK OF VICTORIA.

BY JOHN R. WEIR, ESQ., CHIEF INSPECTOR OF STOCK.

In by far the major portion of this State, the outlook for stock generally at the opening of the present year was gloomy, and would have been much worse had it not been for Gippsland and the Western Districts affording sustenance for several months to the stock from not only the dry portions of this State, but to well nigh 2,000,000 sheep and 50,000 cattle and horses from the southern portions of Riverina. In fact, it may be safely asserted that 75 per cent. of the Riverina flocks and herds were introduced into Victoria during the period which elapsed between August of last year and March of the present. Then came rains in New South Wales, and the stock was conveyed back by train to the border crossings for export once more. Our own dry areas received fresh life from showers which fell in the autumn, and the apparently grassless and wind-swept lands soon were clothed with a plentiful supply of grass. The losses which had been going on through the past dry seasons had in many cases reduced the stock on holdings so much that but few are left to participate in the renewed life the herbage seems to have gained, the result being that what has been left on such holdings will this year have a chance to recuperate.

The continuous drain upon the horse market during the Boer war, while it brought big prices to the sellers, has served to deplete this State of a large number of horses. In the case of geldings this was not a matter of much moment, but with mares the case was different, as so large a number of useful animals was taken away, that it will be many years before there will be sufficient of the right stamp from which to breed. To the numbers that were taken away for military purposes for South Africa, must be added also the higher class mares that are yearly sent to India for remount purposes. When it is remembered that there are not nearly so many persons now engaged in horse breeding as in former years, and that even with careful selection of sire and dam the progeny is not always to be depended on to turn out up to the expectations of the breeder, it is clearly evident that horses of a good class must command a high figure for several years to come. Many of our most fashionable sires that would mate with a fair mare are also purchased and taken out of, not only the State, but the Commonwealth.

Light horses

Draught horses are not bred in such numbers as they were some years ago, and while the quality of this class of stock has improved within the past decade, the price has likewise advanced in proportion. Large numbers of our nuggety draughts, both colts and fillies, are shipped yearly to Western Australia, and recently some fine animals have been exported to New Zealand.

Draught horses

The horses from the Wimmera district are held in high repute by West Australian buyers, and deservedly so, as some magnificent specimens of wiry useful animals, accustomed to shifty herbage, and endowed with plenty of vigour, are bred on our western limestone plains.

With the advent of the factory system of dairying, and the cutting up of the large estates, the breeds of cattle in this State have undergone great changes during the past twenty years.

Dairy cattle

Our old-time breeds of Shorthorn and Hereford, with an occasional mob of Polled Angus, have to a great extent been supplanted by the Ayrshire, Jersey, and other dairying breeds, or crosses from one or other of the dairying types with the Shorthorn, and recent importations of milking strains of Shorthorns have been made by several gentlemen in the State.

In Jerseys, the Messrs. Chirnside have recently introduced some splendid specimens of this famous dairy breed. The introduction of high-class animals, noted at once, not only for their milk-producing qualities, but at the same time for the amount of butter fat contained in such milk, must have a

beneficial effect on the dairying breeds taken as a whole. With the limited areas now at the disposal of the diaryman, only animals which will give the best returns are suited to his requirements, and he finds the cow which gives but a poor return is just as hard to keep as that which gives a good profit on the food she consumes. This means the keeping possibly of fewer animals, and at the same time ensures better treatment for those kept, in the shape of accommodation from the winter's cold, and providing food capable of maintaining the milk supply when the natural pastures fail. Furthermore, the system of payment by results adopted by the butter factories induces a spirit of healthy rivalry among suppliers thereto, to produce milk containing a high percentage of butter fat. While it is not in any sense aimed to assert the superiority of one type of cattle over another, for the purpose of milk producing, it is well to point out that in every breed of cattle kept there has been a marked improvement in our dairy herds, unprofitable strains have been culled out, and the class of animals now kept, while, perhaps, not yet perfect, are well suited to a country which, like Victoria, has such widely varying climatic conditions. In addition to the previously mentioned breeds, chiefly used for dairying purposes, there are a few small herds of Kerry, Dexter Kerry, Devon, Friesian, and Holstein Friesian, but these are small in number and in the hands of a few proprietors.

As previously stated, the large estates, having been cut up and subdivided for dairying purposes, the rearing of cattle suited only for their beef-producing qualities has received a check. Where formerly pastures were devoted solely to fattening for the owner, under the present conditions many families are earning comfortable livelihoods dairying, and while not so many fat cattle are turned off these lands, and the quality of such as are sold as fat is not as good as formerly, the national wealth has been augmented by the increased riches obtained from the land. This is notably the case in the Western District, where, in past years, large numbers of high-class shorthorn and Hereford bullocks were fattened. Though some of the large landed proprietors still use their estates for fattening in various parts of the State, and splendid animals are sent from them, the tendency to rear animals adapted solely for beef producing is declining—the reason being that the land is too valuable to be used for fattening purposes only. The result is that the greater proportion of the cattle sold as fats now are of a nondescript class, and the preponderance of old cows to be found in our markets is very noticeable.

The heavy-weight bullocks, common enough in years past, are the exception now, and in their place lighter animals are

to be found, which, while prime enough in quality, would never attain a heavy weight. High prices for fat stock have ruled during the past two years, and these prices must continue; as, while there may not be a great disparity in the numbers offered for sale, the gross weight of meat offered is much less. Our export trade relieves any slight surplus which, under other circumstances, would accumulate and lower the price of fat stock.

The sheep breeders in this State may fairly claim to have kept abreast of those in any portion of the Commonwealth or of the world by the care and discrimination with which they have mated their flocks. Steadily, and with fixed purpose, they have striven to produce a higher class of animal, whether for fleece or carcase. The principal breeds in Victoria are the merino, crossbreeds of Lincoln, and Leicester, and Shropshire, with a few small lots of Southdown, Romney Marsh, and Hampshire. Sheep.

Judging the merino of to-day by his prototype of a quarter of a century back, one is sensibly astounded by the great change in the animals. That such a change could be brought about by judicious selection seems almost incredible, but by being constantly united with fresh strains possessing in a more or less marked degree the qualities which the various flock-masters thought would produce animals of a type suited to their requirements, that is, by increasing not only the weight and density of fleece with fineness of combing and fulness of staple, they have at the same time bred an animal with greater weight of carcase, without impairing its juicy qualities.

The Victorian merino seen on some of our noted breeders' estates is an animal of which their owners may justly feel proud. The crossbreeds before mentioned have many admirers, being not so timid as the merino, and consequently better adapted for lands close to towns or roads where there is great traffic.

Within the past few years large numbers of Shropshires from some of the best strains in the United Kingdom have been introduced, with a view to the breeding of lambs suitable for export. This strain is crossed generally with one of the other breeds, and the result is a lamb which grows rapidly, is hardy, and highly valued by exporters in the frozen meat trade.

Prices for pigs of all classes have, during the past year, been exceptionally high. In the early part of the year the failure of the milk supply, owing to the drought, in all the north and north-eastern areas, precluded breeders from keeping Swine.

up their usual numbers, and in many instances the breeding sows were fattened off and sold. In consequence of this, feeders were unable to keep up their ordinary number through no stores being available. Following this, the disease known as contagious pneumonia, hog cholera, pig typhoid, or swine fever, assumed an epidemic form, causing the deaths of a great number of suckers, slips, and well-grown stores. It is to be noted in passing that all the eastern States were attacked almost simultaneously by this form of disease, and later South and Western Australia also. That this contributed in a slight degree to the continued high prices there is but little doubt, as owing to necessary restrictions the movement of store pigs was checked to a very great extent, for a considerable time.

The breeds most favoured in this State are Berkshire and Yorkshire, or a cross between the two.

Within the past few years the quality of the pigs kept on farms has sensibly improved, and breeders of this animal have not been slow to improve the type kept by them. The Tamworth has its fanciers, and Mr. Chirnside, whose strains of this particular breed are noted throughout the Commonwealth, has recently added three fine specimens of this class to his herd at Werribee. Happily there seems every prospect of the trouble mentioned among swine subsiding in the State, and as they are such prolific breeders, their numbers will, it is to be hoped, be in a year or two again on a par with requirements. In the meantime, high prices will rule, and breeder and fatterer alike will reap the benefit of the shortage in numbers.

Summary.

At present the outlook for stock owners is bright, on account of abundance of feed for all classes of stock, and the high prices ruling for anything fit for disposal. In horses, India and Java (the former for light animals of the better class, and the latter inferior ones) are the principal markets coveted by exporters, while Tasmania, New Zealand, and West Australia absorb the surplus draughts. Butter commands profitable prices for the exporter, as also does frozen meat, and this serves to keep down the quantity of fat stuff on the local market, and regulates prices to a great extent for beef and mutton, as when a surplus is threatened, the carcasses, instead of being boiled down, as was formerly the case, are now exported in a frozen state, thus benefiting the consumers who patronise this class of meat, by supplying them with a good article at a reasonable rate, and at the same time acting as a potent agent in keeping up fair prices, at all times, for fat meat locally.

Hides of a proper class command good prices, and the wool market is opening well, with every prospect of being well

sustained throughout the sales, good shafty merino especially evoking spirited competition from both English and continental buyers.

The crop of wool will certainly be lighter on account of the hardness of the season, and the privations endured by the sheep, to say nothing of the losses sustained through deaths, but this will be balanced in some degree by the higher rates obtained for what is placed upon the market.

GENERAL REMARKS ON DISEASES PREVAILING IN THE LIVE STOCK OF VICTORIA.

BY A. A. BROWN, ESQ., M.B., B.S., INSPECTOR OF FOOD FOR EXPORT,
DEPARTMENT OF AGRICULTURE.

Horses are particularly free from malignant infectious disorders. Glanders and farcy do not prevail anywhere in Australia. Pneumonia and strangles are the principal infectious disorders to which they are subject. Tuberculosis does not have a place in the category of Victorian horse-diseases. Stringhalt, a condition concerning which no definite pathological knowledge at present exists, is prevalent in many districts. Horses.

The common parasitic diseases of our horses are:—
(1) Bots—The larvae of the gad fly (*Gasterophilus Equi*) inhabit the stomach, and another variety (*Gasterophilus Haem* or *Loidalis*) inhabit the rectum. (2) Round worms—The *Spiroptera Megastoma* produces tumours in the stomach of the horse. The *Strongylus Armatus* is found in the mature state in cysts in the intestines, and in an immature state in aneurisms of arteries of the abdominal cavity, particularly the anterior mesenteric. A large round worm (*Ascaris megalocephala*), and a small thread worm (*Oxyuris curvula*), inhabit the intestines. (3) A tape worm (*Taenia Perfoliata*) is frequently observed.

The infectious diseases observed in our cattle are Tuberculosis, Actinomycosis, Anthrax, Symptomatic Anthrax (black-quarter), and Pleuro-Pneumonia. Cattle and swine.

Rinderpest, Eczema. Epizootica (foot and mouth disease), Texas Fever, or tick fever (a disease dependent upon a malarial organism), *Pyrosomnum Bigeminum*, and introduced into the blood of cattle by the cattle tick (*Ixodes Bovis*), do not exist in the State.

Tuberculosis does not prevail to any great extent in our cattle. Not more than 6 per cent. suffer from tubercle. Mr. Robertson, the superintendent of the City of Melbourne abattoirs, who has had vast facilities for observing the disease

in cattle brought for slaughter, maintains that not more than 4 per cent. are tuberculous. Of the affected animals not more than 1 per cent. are condemned as unfit for food.

In oxen and swine the disease has a tendency, from mildness of climate, if the animals are properly fed and sheltered, to undergo spontaneous cure. The cattle practically live constantly in the open, and this continuous existence in the open is conducive to health and to the cure of the disease. Tubercle is extremely rare in calves. It occurs in pigs, but not more than 2 per cent. are affected. It prevails to a limited extent in poultry—the birds contracting the disease from their surroundings, and, in every case observed, the cause has been assigned to the ingestion of infective material.

Parasitic diseases are rare in Victorian cattle. The stomach fluke (*Amphistoma conicum*), and liver fluke (*Distomum Hepaticum*), are occasionally seen. Measles (*Cysticercus Bovis*), the hydatid stage of the *Taenia Mediocanellata* (a large tape worm in man), and warbles, caused by the *Hypoderma Bovis*, or ox gad fly, do not exist in our herds.

Sheep.

The infectious diseases prevailing are Multiple Abscess, or Pseudo-tuberculosis, Malignant Oedema, Foot-rot, Tetanus, and Anthrax. Tuberculosis does not occur in our sheep.

The parasitic diseases are fluke (*Distoma Hepaticum D. Lanceolatum*), stomach worms (*Strongylus Contortus*), lung worms (*Strongylus Rufescens* or *Filaria*), and tape worm (*Taenia Expansa*). Scab (*Dermatodectes ovis*) and sheep gad fly (*Oestrus ovis*) do not exist.

Swine.

Swine Fever, Tuberculosis, and Actinomycosis, are the contagious diseases in our swine. As regards parasitic diseases hydatids (*Echinococcus Veterinorum*) are occasionally seen. Trichinosis (*Trichina Spiralis*) and measles (*Cysticercus Cellulosae*), the hydatid stage of the tape worm *Taenia solium* of man, do not exist here.

Dogs.

Rabies (*Hydrophobia*) does not exist in Victoria. Distemper is the chief infectious disorder prevailing. Worms (round and tape varieties) are common parasites.

Poultry.

Tuberculosis, Roup, Avian Diphtheria, and Fowl Cholera are the infectious disorders.

The common parasitic diseases are hen mite (*Dermanyssus Avium*) round worms (*Ascaris Inflexa*), and tape worms (*Taenia Proglottina* and *T. Infundibuliformis*).

Fowl tick (*Argas Americanus*) prevails in limited areas.

There are no infectious diseases prevailing in goats in Goat Victoria.

The return of the stock slaughtered, which is furnished by the municipal authorities, has not hitherto been complete, as some municipalities failed to furnish an estimate of the number slaughtered privately on farms and stations. The numbers returned by the municipalities for the last five years are:—

Year.	Numbers Slaughtered.		
	Sheep and Lambs.	Cattle and Calves.	Pigs.
1898	2,352,694	244,319	164,505
1899	2,557,858	249,177	193,095
1900	2,371,415	248,797	231,752
1901	2,469,797	251,477	261,479
1902	2,827,938	233,206	224,431

Stock
slaugh-
tered.

The purposes for which the carcasses of the slaughtered animals were used were:—

Year.	For Butcher and Private Use.			For Freezing.			For Preserving and Salting.			For Boiling Down.		
	Sheep.	Cattle.	Pigs.	Sheep.	Cattle	Pigs.	Sheep.	Cattle	Pigs.	Sheep.	Cattle	Pigs.
1898	2,102,654	243,213	77,596	215,639	141	1,020	22,520	588	85,884	11,881	377	5
1899	2,035,706	246,534	88,254	475,579	2,418	450	26,200	..	103,831	20,373	225	560
1900	1,921,284	244,571	119,137	437,332	3,808	..	9,181	115	112,604	3,618	303	11
1901	2,106,863	249,079	134,276	431,740	980	..	10,087	937	127,145	11,107	481	58
1902	2,337,262	229,728	106,390	378,029	2,293	..	13,211	485	117,984	99,436	700	67

Active operations for the destruction of rabbits on Crown lands were first undertaken by the Government in 1880, and from that date to the middle of 1902 sums amounting to £398,181 had been expended with that object. The following are the amounts spent in each year:—

State expen-
diture on
rabbit
destruc-
tion.

£			£		
1879-80	...	1,280	1891-2	...	39,535
1880-81	...	2,600	1892-3	...	30,595
1881-2	...	12,890	1893-4	...	12,514
1882-3	...	9,883	1894-5	...	8,909
1883-4	...	10,063	1895-6	...	11,831
1884-5	...	22,177	1896-7	...	13,425
1885-6	...	24,833	1897-8	...	14,303
1886-7	...	21,065	1898-9	...	14,753
1887-8	...	20,551	1899-00	...	14,480
1888-9	...	17,621	1900-01	...	15,300
1889-90	...	24,860	1901-2	...	16,800
1890-91	...	37,913			

Rabbit extermination.

The whole of the State, with the exception of portions of Gippsland, is more or less infested with rabbits and other vermin. In addition to the expenditure of £398,181, referred to above, a loan of £150,000 was allocated to shires in 1890 for the purchase of wire netting to advance to landholders, repayable in ten years, and in 1896 a loan of £50,000 was advanced on similar terms, except that 3 per cent. interest was added. The expenditure for 1901-2 was £16,800, portion of which represented the salaries of 28 rabbit inspectors.

Rabbits and wildfowl sent to market in Melbourne.

The number of couples of rabbits and brace of wildfowl received at the Melbourne fish market, the number sold, and the number condemned, during the last five years, were as follow:—

Year.	Number of Couples of Rabbits.			Brace of Teal and Duck.		
	Sold.	Condemned.	Total.	Sold.	Condemned.	Total.
1897-8	373,452	23,209	396,661	35,372	209	35,581
1898-9	324,598	4,350	328,948	39,902	490	40,392
1900	480,519	5,727	486,246	35,610	728	36,338
1901	596,610	2,717	599,327	59,156	930	60,086
1902	471,964	4,472	476,436	32,756	232	32,988

In 1902 there were also received at the Melbourne market 2,401 brace of hares—of which 37 brace were condemned, and the others sold. In addition, the following passed through the Melbourne Council's refrigerating works during the twelve months ended 31st December, 1902, for export only:—2,085,520 pairs of rabbits, 5,416 brace of hares, and 1,183 brace of game.

Wool production—Victoria.

The total production of wool, being the quantity made up in manufacturing in the State, and that returned by the Customs Department as having been exported, is given for the years 1898-1902. The quantity and value of wool imported and exported, and the quantity and value of that used for home consumption, are also shown:—

Year.	Wool Imported.		Wool Exported.		Wool Used in Manufacture in the State.			Wool Production—Greasy and Scoured.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Rate per lb.	Value.	Quantity.	Value.
	lbs.	£	lbs.	£	lbs.	s. d.	£	lbs.	£
1898 ..	65,626,395	1,808,492	131,850,560	4,036,968	2,685,803	0 9	100,717	68,909,968	2,329,193
1899 ..	63,067,135	2,351,059	121,877,604	5,701,410	2,867,884	1 0	143,394	61,678,353	3,493,745
1900 ..	62,527,987	1,927,677	102,205,965	4,217,018	3,045,292	0 6	76,132	42,723,270	2,365,163
1901 ..	61,796,450	1,840,066	131,623,062	4,350,285	3,408,526	0 6	85,213	73,235,138	2,595,432
1902 ...	38,008,765	1,141,715	100,516,094	3,473,372	3,473,835	0 8	115,794	65,981,164	2,447,451

The quantity and value of wool produced in 1902 in the various Australian States and New Zealand, estimated on the same principle, were:—

Wool production—
Australasia

	Quantity.		Value.
	(Greasy, Washed, and Scoured.)		
	lbs.	£	
Victoria ...	65,981,164	2,447,451	
New South Wales ...	188,277,477	7,341,072	
Queensland ...	29,655,078	1,304,200	
South Australia ...	34,566,500	1,075,395	
Western Australia ...	12,932,271	458,078	
Tasmania ...	9,512,564	301,051	
New Zealand ...	161,113,523	3,377,713	



Bonuses for the promotion of the agricultural, dairying, and other industries were provided by the Government, and, up to the end of June, 1898, the sum of £313,370 had been expended out of the general revenue, as shown in a previous portion of this work. In 1898-9 there was a further expenditure of £27,333, in 1899-00 of £29,750, in 1900-1 of £1,556, and in 1901-2 £1,146, making a total up to the end of June, 1902, of £373,155. The balance available for expenditure on 1st July of the last-named year was £3,137, which was made up as follows, viz.:—£2,157 for the importation of new varieties of seeds and plants, and £980 for other miscellaneous votes. In addition to the above expenditure, there was a sum of £35,000 authorized under the "Treasury Bonds Act 1896," £100,000 authorized under Act 62 Vict. No. 1566, and £100,000 under Act 59 Vict. No. 1440. Of the £35,000 above referred to, the sum of £29,976 had been spent up to the 30th June, 1902, leaving a balance available on that date of £5,024. The amounts authorized out of that sum (£35,000) for green fruits exported; honey exported; raisins, currants, and figs made; assistance to wineries, and for viticultural education, have been practically exhausted; but there still remains £2,682 to promote the growth of broom corn, £1,436 as bonuses for the production of vegetable oils, and £757 as bonuses for manufacture of flax, and hemp fibres. Of the £100,000 authorized under Act No. 1566, the expenditure up to the 30th June, 1902, amounted to

Expenditure
on agricul-
ture and
other
bonuses.

£50,961, and of that under Act No. 1440 to £62,000. Particulars appear in the following table in respect to all bonuses granted under various Loan Acts:—

Subject of Bonus.	Period during which Bonus operated.	Rate of Bonus.	Amount Authorized.	Expenditure to 30.6.1901.	Expenditure to 30.6.1902.
<i>Under Treasury Bonds Act 1896.</i>					
			£	£	£
Green fruit exported	{ prior to 24.7.96 after 6.11.96	2s. per case	5,500	3,863	5,404
Honey exported ...		1s. „			
Raisins, currants, and figs made	prior to 9.11.95 1895	1d. per lb.	61	61	61
Vegetable oil manufactured		£5 per ton	2,134	2,134	2,134
Flax and hemp fibre produced	...	1s. per gall.	1,500	50	63
General vegetable products grown	1895	£5 per ton	1,000	236	243
Wineries (assistance in building machinery and appliance producing 60,000 gallons of wine in three years)	...	£2 per acre	5,000	3,081	3,318
Viticultural education	...	£2,000 each	8,000	8,000	8,000
Fruit pulp exported	...	...	8,000	7,999	7,999
	...	...	3,805	...	2,754
Total ...	...	...	35,000	27,283	29,976
<i>Under Act 62 Vict. No. 1566.</i>					
			£	£	£
District Co-operative Wineries and Viticulture Industry			20,000	7,481	11,560
Dairy Schools, Experimental Stations, purchase of Live Stock, Machinery, Implements and other Appliances and Technical Agricultural Education			30,000	18,994	29,006
Development of the Export trade	...	...	32,500	3,175	5,773
Bonuses for the encouragement of the Cultivation, Manufacture, and Export of Fruit, Tobacco, Flax, Hemp, Silk, and of other Rural Industries	...	...	17,500	3,384	4,622
Total ...	...	...	100,000	33,034	50,961
To Beet Sugar Factory under Act No. 1440	...	...	100,000	62,000	62,000
Grand Total ...	...	...	235,000	122,317	142,937

Gold miners,
1898 to 1902.

The number of miners actually at work on the goldfields is estimated annually by the Mining Department, and the figures for the five years ended with 1902 are subjoined:—

Year.	Alluvial Miners.	Quartz Miners.	Total.
1898 ...	15,308	15,496	30,804
1899 ...	14,123	15,991	30,114
1900 ...	12,836	16,199	29,035
1901 ...	12,886	14,891	27,777
1902 ...	11,963	14,140	26,103

There has been a gradual falling off in the number of gold miners in the last decennium—the difference between the first year of that period and the last amounting to no less than 4,700 men. Decrease of gold miners.

According to the estimate of the Mining Department, the gold raised in Victoria in 1902 was 777,738 ozs., which is less than the quantity obtained in 1901 by 11,824 ozs., representing, at £4 per oz., a decreased value of £47,296. The following are the figures for the two years:— Gold raised, 1901 and 1902.

QUANTITY AND VALUE OF GOLD RAISED IN 1901 AND 1902.

Year.	Gold raised in Victoria.	
	Estimated Quantity.	Value, at £4 per oz.
1901 ...	ozs. 789,562	£ 3,158,248
1902 ...	777,738	3,110,952
Decrease ...	11,824	47,296

From 1871 to 1891 the quantity of gold raised gradually diminished, with little intermission, from over 1,300,000 ozs. to only 576,000 ozs., but since then there has been a steady annual increase, until 854,500 ozs. was raised in 1899, which was the largest production since 1882. However, since 1899, the production has decreased each year to 777,388 ozs., in 1902. The subjoined figures give an estimate of the quantity of gold raised in 1871 and each subsequent year:— Gold raised, 1871 to 1902.

ESTIMATED QUANTITY OF GOLD RAISED, 1871 TO 1902.

1871 ...	1,368,942	1879 ...	758,947	1887 ...	617,751	1895 ...	740,086
1872 ...	1,331,377	1880 ...	829,121	1888 ...	625,026	1896 ...	805,087
1873 ...	1,170,397	1881 ...	833,378	1889 ...	614,838	1897 ...	812,766
1874 ...	1,097,643	1882 ...	864,610	1890 ...	588,560	1898 ...	837,257
1875 ...	1,068,417	1883 ...	780,253	1891 ...	576,399	1899 ...	854,500
1876 ...	963,760	1884 ...	778,618	1892 ...	654,456	1900 ...	807,407
1877 ...	809,653	1885 ...	735,218	1893 ...	671,126	1901 ...	789,562
1878 ...	758,040	1886 ...	665,196	1894 ...	716,954	1902 ...	777,738

Carrying on to the end of 1902, the calculations given in previous years, the following may be estimated as the total quantity and value of the gold raised in Victoria from the period of its first discovery, about the middle of 1851. The figures give an average per annum during the whole period of Gold raised 1851 to 1902.

about 1,267,575 ozs., which is over 60 per cent. more than the quantity raised in 1902:—

ESTIMATED TOTAL QUANTITY AND VALUE OF GOLD RAISED IN VICTORIA, 1851 TO 1902.

Gold Raised in Victoria.	Estimated Quantity.	Value.
Prior to 1902 ...	ozs. 65,136,174	£ 260,544,700
During 1902 ...	777,738	3,067,204
Total ...	65,913,912	263,158,467

Gold raised in Australasian States.

Since the first discovery, in 1851, of gold in Australasia, more than 123 million ozs. have been raised in the various States, over one-half of which was got in Victoria. Prior to 1898, Victoria was almost invariably the leading gold-producing State of the group, but in 1902 its yield was about 83,000 ozs. less than in Queensland, and 1,400,000 ozs. less than in Western Australia, which has in recent years increased its production by leaps and bounds, from 110,000 ozs. in 1893 to over two million ounces in 1902. The following is a statement of the quantity recorded as having been raised in the respective States at different periods:—

GOLD RAISED IN AUSTRALASIAN STATES, 1851 TO 1902.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
1851-55...	10,281,303	1,920,200	...	...	...	...	...
1856-60...	13,052,960	1,360,763	4,127	...	...	...	35,845
1861-65...	8,694,194	2,233,001	52,580	...	...	...	2,288,088
1866-70...	7,582,372	1,309,911	512,803	...	...	3,504	3,218,916
1871-75...	6,036,776	1,612,227	1,319,952	24,685	...	25,296	2,412,446
1876-80...	4,119,521	639,435	1,668,819	59,910	...	154,883	1,596,899
1881-85...	3,992,077	624,835	1,327,366	88,366	...	235,973	1,237,456
1886-90...	3,111,371	546,726	2,598,254	130,218	46,967	169,017	1,028,571
1891 ...	576,399	153,336	576,439	35,533	30,311	48,769	251,996
1892 ...	654,456	156,870	615,558	30,218	59,548	45,110	238,079
1893 ...	671,126	179,288	616,940	42,905	110,891	37,230	226,811
1894 ...	716,954	324,787	679,511	42,795	207,131	58,059	221,615
1895 ...	740,086	360,165	631,682	37,054	231,513	54,964	293,491
1896 ...	805,087	296,072	640,385	31,504	281,265	62,591	263,694
1897 ...	812,766	292,217	807,928	33,900	674,994	71,131	251,645
1898 ...	837,257	340,493	920,048	31,961	1,050,184	74,233	280,175
1899 ...	854,500	496,196	946,894	23,122	1,642,877	83,992	389,558
1900 ...	807,407	345,650	963,189	24,087	1,580,950	81,175	373,616
1901 ...	789,562	267,061	835,553	36,958	1,879,390	74,835	455,561
1902 ...	777,738	190,316	860,453	28,199	2,177,442	70,996	508,045

Gold produce of Australasia, 1851 to 1902.

According to the foregoing table, the total quantity of gold raised in each State, from 1851 to 1902, has been as follows:—

SUMMARY OF GOLD RAISED IN AUSTRALASIA, 1851 TO 1902.

	ozs.
Victoria	65,93,912
Queensland	16,578,481
New Zealand	15,572,507
New South Wales	13,649,549
Western Australia	9,974,463
Tasmania	1,351,758
South Australia	701,415
Total	123,742,085

At Bendigo eight mine shafts were over 3,000 feet in depth on 31st March, 1903, namely, the Victoria Quartz, 3,750 feet; the Lazarus New Chum, 3,777 feet; the New Chum Railway, 3,408 feet; the Shenandoah, 3,226 feet; the New Chum and Victoria, 3,200 feet; Lansell's No. 1, 3,354 feet; New Chum Consolidated, 3,099 feet; and the Eureka Extended, 3,060 feet. Mining—
deep shafts.

There was a large increase in the number of men employed in coal mines in 1902, as compared with the four preceding years. This will be seen by the following figures:— Coal miners,
1898 to
1902.

Year.	Number of Miners at Work.
1898	857
1899	880
1900	807
1901	877
1902	1,303

The coal raised in Victoria in 1902 amounted to 225,164 tons, as compared with 242,860 tons in 1898, showing a decrease in 5 years of 17,696 tons, making a total yield up to the end of 1902 of 2,173,057 tons, valued at £1,198,208. The following statement shows the progress of the industry since 1898, also, for comparison, the quantity and value of coal imported in the five years:— Coal.

Year.	Raised in State.		Imported.		
	Quantity.	Value.	Quantity.	Value.	
				Official.*	Actual.†
	tons	£	tons.	£	£
1898	242,860	103,099	562,329	257,688	393,630
1899	262,380	113,522	532,676	276,137	352,898
1900	211,596	101,599	690,567	403,723	578,350
1901	209,329	147,191	710,918	446,058	595,394
1902	225,164	155,850	656,656	428,904	533,533

* Value according to Customs Return found by adding 10 per cent. to value in New South Wales as given by importers.

† Estimated value found by adding to cost at Newcastle the actual freight, insurance, Primage, &c.

Coal raised
in Austral-
asian
States.

At the present time, with the exception of South Australia, coal is raised in all the States in the Commonwealth, and in the colony of New Zealand. The total increase in the production of coal for the last five years was 2,360,672 tons. The following are the quantities returned as brought to the surface in each of those States and colony of New Zealand during a series of years:—

Year.	Tons of Coal raised in—					
	New South Wales.	Queensland.	Western Australia.	Tasmania.	Victoria.	New Zealand.
1876	1,319,918	50,627	...	6,100	1,095	...
1877	1,444,271	60,918	...	9,470	2,420	...
1878	1,575,497	52,581	...	12,311	Nil	162,218
1879	1,583,381	55,012	...	9,514	Nil	231,218
1880	1,466,180	58,052	...	12,219	3	299,923
1881	1,769,597	65,612	...	11,163	Nil	337,262
1882	2,109,282	74,436	...	8,803	10	378,272
1883	2,521,457	104,269	...	8,872	428	421,764
1884	2,749,109	129,980	...	7,194	3,280	480,831
1885	2,878,863	209,698	...	5,334	800	511,063
1886	2,830,175	228,656	...	10,391	86	534,353
1887	2,922,497	238,813	...	27,763	3,357	558,620
1888	3,203,444	311,412	...	41,577	8,573	613,895
1889	3,655,632	265,507	...	40,300	14,596	586,445
1890	3,060,876	338,344	...	53,812	14,601	637,397
1891	4,037,922	271,603	...	45,524	22,834	668,794
1892	3,780,968	257,803	...	35,669	23,363	673,315
1893	3,278,328	264,403	...	34,042	91,726	691,548
1894	3,672,076	270,705	...	30,922	171,660	719,546
1895	3,738,589	323,068	...	33,349	194,227	740,827
1896	3,909,517	371,390	...	43,548	226,562	792,851
1897	4,383,591	358,407	...	42,530	236,277	840,713
1898	4,706,251	407,934	3,250	49,116	242,860	907,033
1899	4,597,028	494,009	54,336	43,113	262,380	975,234
1900	5,507,497	497,132	118,410	50,811	211,596	1,093,990
1901	5,968,426	539,472	117,836	49,176	209,329	1,227,638
1902	5,942,011	501,531	140,884	49,898	225,164	1,362,702

Melbourne
water-
works.

In 1891 the waterworks for the supply of the City of Melbourne and suburbs, which comprise an area of 71,300 acres, with a population, on the 5th April, 1891, of 477,891, and rateable property of the annual value of about £6,600,000, were transferred to the control of the Melbourne and Metropolitan Board of Works. The main source of supply is the Yan Yean Reservoir, in which are stored the waters of the eastern branch of the Plenty River and Jack's Creek, from the southern slopes of the Great Dividing Range, and those of Wallaby and Silver Creeks, brought over the range in an aqueduct from the northern slopes. These streams are collected in the Toorourong Reservoir and taken thence in a pitched channel to the

Yan Yean Reservoir. A minor supply is brought to Melbourne by means of the Maroondah aqueduct, which conveys water from the Maroondah River, the Graceburn, and Donnelly's Creek, but without, at present, any provision for storing the surplus winter waters thereof, except the small service reservoirs in the suburbs at Preston, Essendon, Caulfield, Kew, and Surrey Hills. By means of these systems Melbourne is provided with an ample supply of pure water at a high pressure. The Yan Yean is an artificial lake situated 22 miles from the city, 602 feet above sea level. It covers an area of 1,300 acres, or rather more than two square miles, and receives water from a drainage area of 29,000 acres. The total length of aqueduct and mains is 263 miles, and of reticulation pipes (under 12-inch diameter) 940½ miles. The storage capacity of the main reservoir is 6,400 million gallons, and of the eight subsidiary reservoirs 108 million gallons.

The total expenditure to the 30th June, 1902, on the construction of the Melbourne Waterworks was £3,731,256. The gross revenue received since the opening of the works at the end of 1857 has amounted to £5,005,952, whilst the expenses of maintenance and management amounted to only £827,323 and interest to £2,145,526. During 1901-2 the revenue received amounted to £171,889 as against £163,212 in the previous year; and the expenditure on maintenance and management (exclusive of repayments) to £40,156, as against £38,548 in the previous year. The net revenue in 1901-2 was thus £131,733, being equivalent to 3·5305 per cent. of the mean capital cost, as compared with £124,664, or 3·3555 per cent., in 1899-1900. The loans outstanding (£2,632,336) for the construction of the works now bear an average nominal rate of only 3·87 per cent. The aggregate net profits up to the end of 1901-2, after paying all interest and expenses, has amounted to £2,033,103.

Revenue and expenditure of Melbourne waterworks.

The following is the average daily consumption of water for all purposes for each month of the last five years in the water district of Melbourne and suburbs. In 1901, during which the highest figures for consumption have been reached, the mean daily consumption per head for the whole year was

Water consumption in Melbourne, 1898-1902.

59 gallons, varying from 48 gallons in July to 77 gallons in December, as against an average in the last five years of 58 gallons:—

Month.	1898.	1899.	1900.	1901.	1902.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
January ...	37,821,998	33,125,839	36,760,484	32,280,097	37,719,710
February ...	41,630,304	38,943,644	37,619,571	34,396,071	37,264,428
March ...	32,332,218	33,339,968	31,146,903	31,781,548	33,610,839
April ...	25,707,596	24,491,527	22,983,633	26,181,767	28,562,900
May ...	22,866,125	21,054,260	21,290,290	27,147,129	24,732,194
June ...	22,477,404	19,429,806	21,272,000	24,986,933	22,342,064
July ...	21,048,262	20,707,049	22,245,484	23,901,258	24,349,226
August ...	20,634,585	22,486,903	26,580,548	26,561,387	25,342,064
September ...	20,815,493	23,210,708	26,942,833	27,135,733	23,386,000
October ...	25,610,150	22,742,968	27,027,161	29,047,355	27,185,032
November ...	31,389,021	29,346,967	31,711,533	31,666,700	34,956,667
December ...	37,593,705	36,710,677	33,773,451	38,276,258	30,073,097
Mean for Year	28,327,238	27,132,526	28,279,491	29,446,853	29,127,018

The maximum consumption for one day in 1898 was 57,000,000 gallons, and the minimum was 17,000,000 gallons. These records have not been exceeded up to the end of 1902.

Rainfall in
Victoria.

The average rainfall over the whole surface of Victoria for the last five years was:—

Year.	Rainfall over Surface of Victoria.		Monthly Average.			
	Average.	Volume of Water Represented by—	Highest.		Lowest.	
			Month.	Rainfall.	Month.	Rainfall.
1898 ...	Inches. 21·22	Cubic Miles. 29·5	June	Inches. 3·68	January	Inches. 0·25
1899 ...	24·34	33·8	June	4·47	December	0·64
1900 ...	25·22	35·0	August	3·57	February	0·25
1901 ...	22·02	30·6	June	3·37	February	0·38
1902 ...	19·32	26·8	Dec.	3·94	April	0·39

GENERAL REMARKS ON THE METEOROLOGICAL YEAR, 1902.

BY P. BARACCHI, ESQ., GOVERNMENT ASTRONOMER.

General
remarks.

The predominant meteorological characteristic of the year 1902 was a disastrously long period of drought, which extended from March to December, with consequent loss of stock, failure of crops, and great suffering among the settlers of many districts, especially those in the far northern areas, who were

brought to the verge of a water famine, and to whom water for necessary domestic purposes had to be carried from great distances on the railways, even throughout the winter months. Among other remarkable occurrences which did serious damage in various parts of the State may be mentioned the fierce gales and bush fires in January and February, the unusually severe storms in June, the Gippsland floods in October, and the great dust storms of November, which were accompanied by a display of ball lightning on such an extraordinary scale that a panic was caused by it in some districts. In other respects the climatic conditions throughout the year were exceedingly favourable for the enjoyment of health and out-door life. The summer was generally cool, the winter mild, sunny, and dry; the autumn and spring approached closely to the ideal conditions of a normal year, in regard to all meteorological elements excepting rainfall. There were no extremes of severe heat and cold, and the duration of fine settled weather was above the average of previous years.

In regard to rainfall, the year commenced well, with fair promise of copious rains. By the end of March the general rainfall over the southern half of the State was far above the average, the excess amounting to 5 per cent. for the western districts, 37 to 66 per cent. for the whole of Gippsland and South Gippsland, 70 per cent. for the counties around Port Phillip Bay and all other districts between the ranges and the sea. Over the northern areas, the monthly average was generally exceeded in March; but only partially in the other two months, and the totals for the first quarter brought out a slight deficiency of from 9 to 13 per cent. The April rains are, as a rule, the most important in determining the success or failure of the year in regard to pastoral and agricultural interests in Victoria. In some years scarcity of rain in this and earlier months has been to a certain extent remedied by a wet May; but when the drought extends beyond May, a bad year is the almost certain result. Unfortunately this was the case in the year under review. The April rains failed almost entirely in every part of the State. There was a deficiency of 8 per cent. in the western districts, 50 per cent. on the Tambo and Snowy River watersheds, 64 to 73 per cent. in the remaining southern districts, and 95 per cent. in all the northern regions, between the ranges and the Murray.

The drought continued throughout the month of May with equal severity. An improvement occurred late in June; but with the exception of some parts of Gippsland, where the average rainfall for June was exceeded by 23 per cent., a general deficiency was experienced of from 1 to 27 per cent. The total rainfall for the second quarter of the year ranged from 25 to 62 per cent. below average.

In ordinarily good years the rainfall of the third quarter is of little consequence to the land. As a rule, a relatively dry winter is not to any considerable extent injurious to either stock or crops, and is exceedingly salubrious and pleasant to all; but when it follows a drought of three months, owing to which water-holes, tanks, and reservoirs are empty, rivers and creeks dry, and water even for mere domestic necessities scarce and expensive, rain becomes a very pressing need whatever be the time of the year. The northern half of Victoria was in this need by the beginning of the third quarter of the year 1902, but the drought continued throughout the coldest months. The rainfall over this part of the State was from 70 to 73 per cent. below average in July, 65 to 83 per cent. in August, and 50 to 59 per cent. in September. The total for the whole of the third quarter showing a deficiency of 65 to 70 per cent.

The only districts which had a surplus of rain in the month of July were those comprised between the La Trobe and Mitchell rivers, where the average was exceeded by 25 per cent.; but this was followed by a deficiency of 70 per cent. in August, and of 4 per cent. in September. In the western districts and all other regions south of the Dividing Ranges, the rainfall was from 25 to 64 per cent. below average in July and August, and from 13 to 19 per cent. in September; South Gippsland being close to the average in this month.

It is well known that in any year, including those years in which rainfall has been abundant and well distributed during the first 9 months of the year, failure of the early spring rains may entirely ruin the grain crops. This is one of the reasons why the month of October is considered as the turning point in the year, in which rain is most anxiously awaited by the farmers. At this time of the year 1902, all prospects of any kind of harvest had long vanished. The country, however, was in extreme need of rain for other more urgent necessities. The difficulty and cost of keeping starving stock alive, and of providing water for the northern settlers, had by now become very great. But no break of the drought came in October nor in November. These two months were indeed among the driest on record in any year, for all districts north of the ranges.

The rainfall in October was 7 per cent. below average over the watersheds of the Tambo and Snowy rivers, and from 24 to 51 per cent. below average in all other parts of the State. The deficiency of the November rains was general and most severely felt, being from 37 to 64 per cent. below average for the southern, and 75 per cent. below average for the northern

divisions. Copious rains came at last in December, and reduced the deficiencies for the whole of the last quarter of the year to less than 20 per cent.

In the total rainfall for the year 1902, the watersheds of the Tambo and Snowy rivers just reached the average, all other southern districts being from 7 to 22 per cent. below average, and the northern regions 44 per cent. below average.

The year's rainfall for the whole State was 19·32 inches, 7·36 inches below the average of the previous 47 years of record. This is equivalent to a loss of $10\frac{1}{4}$ cubic miles of water, or about 9·4 billions of gallons. Total rainfall.

For eight successive years, since 1894, the annual rainfall has not reached the average, and the deficiency of the year 1902 was the greatest. The year commenced well and ended well, but the long intervening period of 9 months will be remembered for many years as one which forms the worst record of rainfall for northern Victoria.

A fuller account of the monthly distribution of rainfall over 26 watersheds and regions into which the State is appropriately divided for the purpose of rainfall statistics, together with the computed percentages above and below the average for each month, quarter, and year, the annual rainfall recorded over these watersheds for the successive years of the decade, 1893-1902, will be found in the Statistical Register of 1903. The information is based on returns from 800 stations, which are well distributed over the whole area of the State. Complete rainfall statistics.

The true explanation of the causes of drought cannot as yet be given. Investigators of this subject, from leading scientific men and meteorologists of the first rank, down to the reckless adventurous speculators, and incompetent persons who trade on popular credulity, have from time to time advanced theories in which the fluctuations of rainfall are ascribed to specified conditions of the sun or of the moon, or other influences outside our atmosphere. Many attempts have been made to discover a law of periodicity by comparing rainfall statistics with solar or lunar phenomena; but the conclusions arrived at have in no case been sufficiently convincing to command general acceptance. Were it possible to ascertain satisfactorily the periodicity of dry and wet periods and its causes, we would be able to forecast the seasons at long range, and meteorology would then have gained one of the most important of its ultimate objects. We may be approaching towards this ideal, but it does not seem that we have yet come within reach of it. Causes of droughts.

As has already been remarked above, the summer temperatures of the year 1902 were generally below average. This Temperature.

was in great part the consequence of the abundant rain of the first quarter of the year, a greater frequency of southerly winds, and a shorter duration of heated land winds, than is usually experienced in normal years. The highest readings registered in the shade, so far as can be ascertained from official returns, were 110° in January, 117° in February, 105° in March, 112° in November, and 114° in December, which are, respectively, 10° , 3° , 10° , 0° , and 1° Fahr. lower than the extreme values on record for the corresponding months.

The table below gives the highest temperature of air for the five warmest months of the year 1902, and the extremes on record for the corresponding months:—

Region.	Highest Readings in 1902.					Extremes on Record.				
	Jan.	Feb.	Mar.	Nov.	Dec.	Jan.	Feb.	Mar.	Nov.	Dec.
Eastern Ranges (Mount St. Bernard)	78	82	76	80	86	94	89	78	80	86
Highlands ...	100	101	93	92	90	108	107	103	101	105
Coast ...	103	86	92	96	93	109	105	105	103	105
Intermediate Districts ...	103	95	95	101	106	112	110	106	102	111
Northern Plains ...	110	117	105	112	114	120	120	115	112	115

The lowest temperature registered at night in the coldest month of the year, July, was 19° Fahr. at Mt. St. Bernard, 20° in the highlands, 23° in the northern plains, 33° on the coast, and 31° in the intermediate districts, being respectively 2° , $3\frac{1}{2}^{\circ}$, 0° , 4° , and 4° above the absolute minimum on record for those localities.

The table below gives the lowest temperatures registered in the four coldest months of the year 1902, and the extremes on record for the corresponding months:—

Region.	Lowest Readings in 1902.				Extremes on Record.			
	May.	June.	July.	Aug.	May.	June.	July.	Aug.
Eastern Ranges ...	21	21	20	20	18	17	16	19
Highlands ...	25	22	19	20	17	19	17	19
Coast ...	34	35	33	36	31	27	27	30
Intermediate Districts ...	37	35	31	30	31	28	27	28
Northern Plains ...	30	28	23	26	28	25	23	24

The temperature of the autumn and spring months approached very closely to the average readings of normal years. A more complete account of heat and cold, humidity and rainfall, for 14 stations which may be regarded as representative

of the various different climates of the State, the monthly mean and extreme temperatures for 1902 with corresponding averages and extremes, based on all previous years of record, the monthly percentage and average of humidity, and the amount and average of rainfall, whereby some idea may be gained of the principal climatic conditions of the year 1902, as well as of their relative value in regard to normal and extreme years, will appear in the Statistical Register of 1903.

Table I. gives for each month of the year 1902:—

Meteorological conditions,
Melbourne.

1. The mean and extremes of atmospheric pressure.
2. The mean temperature of air in shade, the averaged highest temperature of the day and averaged lowest temperature of the night in each month, technically called "Mean Maxima" and "Mean Minima"; the average daily range, and the absolute highest and lowest temperatures recorded in each month, with the dates on which these extremes occurred.
3. The average and extreme monthly reading of "Solar Radiation," as shown by the black bulb thermometer in vacuo, popularly known as "heat of the sun," with the date on which the absolute maximum occurred.
4. The average and extreme monthly readings of "Terrestrial Radiation," or the temperature to which the air near the ground falls shortly before sunrise, popularly known as "ground temperature at night," with the date on which the absolute minimum occurred.
5. The average humidity or percentage of water vapour contained in the air, assuming that when this moisture is 100, the air is fully saturated.
6. The amount of water which evaporated in each month, at a free water surface in the open.
7. The average daily amount of cloud relatively to a conventional scale in which 10 represents a fully overcast sky, 5 is equivalent to the extent of cloud which is just sufficient to cover one-half of the visible hemisphere, and 0 means that the whole sky was perfectly clear.
8. Monthly rainfall and number of wet days.
9. The number of days on which fog occurred.
10. The actual monthly number of hours during which the sun was not covered by clouds, known as "the duration of sunshine."
11. The number of hours in each month during which the wind blew from eight points of the compass, with its average velocity in miles per hour.

The headings of the various columns, and the following additional explanations, will enable anyone to understand the full significance of the information supplied in this table.

(a) In regard to temperature of air in shade, the highest and lowest readings of the thermometer registered in any one day, are called, respectively, the maximum and the minimum for that day. One-half the sum of these two readings gives approximately the "mean" temperature of that day (at the Melbourne Observatory this "mean" is derived from three daily observations made at 9 a.m., 3 p.m., and 9 p.m.), and their difference gives the daily "range."

(b) If we write in four separate columns, the values of the mean, the maximum, the minimum, and the range for each day in a given month, then add all the 30 or 31 values in each column, and divide the sum by the number of days, the results are, respectively, the "mean," the "mean maximum," the "mean minimum," and "mean daily range" for that month. These are the values entered for each month in Table I. under the corresponding columns.

(c) The absolute extremes are the highest and lowest readings of the thermometer registered throughout the month. Each of the six columns dealing with temperature of air in shade, represents a distinctive and important characteristic of climate.

Under the "Amount of Spontaneous Evaporation" is given the height, in inches, of a layer of water which was lost in each month of the year, through evaporation, at the free surface of water contained in a cistern, fully exposed in the open, slightly below the level of the ground. The figures serve to give an approximate idea of the amount of water which passes from the free surface of rivers, lakes, &c., into the atmosphere, in the state of water vapour, under the conditions of the Melbourne climate.

The column "Mean Humidity" shows the average monthly amount of invisible water vapour which the atmosphere actually contained, expressed as a percentage of the maximum amount which it could have held under the same conditions of temperature. The values given in the column "Amount of Cloud" may be explained by the following example:—For January, 1902, the Table gives amount of cloud 5.7. This signifies that the average amount of cloudiness in the month of January was equivalent to 57-100ths of the total area of the visible sky remaining overcast throughout the month.

The figures in the last column represent the velocity of a steady flow which, if continued uniformly throughout the

month, would be equivalent to the total actual motion of air in that month.

Thus Table I. is equivalent to a general statement of the meteorological elements which prevailed at Melbourne in the year 1902. It now remains to show how this year compares with other years, and with the normal as well as with the extreme conditions of our climate. All the data required for this purpose are given in Table II., in which will be found the average and extreme values of the climatic elements for each month with their average and extreme fluctuations, based on records extending over an uninterrupted period of 47 years. These values are further summarized and grouped in Table III. to represent the general meteorology of the average Melbourne seasons, their range of variation, and the absolute extremes on record. A comparison of Table I. with Table II. brings out the following prominent characteristics in respect to the year 1902:—

(a) The summer was generally cooler than the average Melbourne summer.

(b) The highest temperature in shade was 103° , or some 8° lower than the maximum reading on record. During the whole of the first quarter, which contains the hottest months of the year, the thermometer rose only twice above 100° , six times above 90° , and twelve times above 80° , and there were 70 days out of 90 in which the temperature of air in shade never reached 80° . The general mean temperature of the whole summer was 2.1° lower, and the mean of all the highest daily readings was $2\frac{1}{2}^{\circ}$ lower than the average of 47 years.

(c) The heating power of the solar rays was also below average. Solar radiation rose 7 times only above 150° , and only once above 160° , and there were 56 days during which the direct rays of the sun did not raise the thermometer reading above 140° . The maximum was 161.7° , or nearly 17° below the highest on record.

(d) Cool winds blowing from the southern quarters of the compass prevailed to a greater extent than they usually do in normal years, and the duration of winds from the heated interior was below average. This was directly due to a peculiar distribution of atmospheric pressure not frequently experienced at this time of the year, which consisted in very shallow systems of low pressure, separated by long longitudinal stretches of denser air, moving from west to east and passing successively over southern Victoria with unusually great rapidity; or, in other words, to a prevailing "festoon" arrangement of atmospheric eddies along the southern edge of the Australian continent, in which the loops representing

atmospheric depressions were very small in comparison with the elongated intervening spaces of high pressure.

(e) The total number of hours in the first quarter of the year during which the wind blew from the southern quadrants was 1,650, while the warm winds from the land blew for only 352 hours, the remaining 158 hours being accounted for by calms.

(f) Cloudiness exceeded the average by 5 per cent. February was relatively very dry and March very wet. The rainfall for the quarter was 7.92 inches, or 2.16 inches above average.

(g) The winter was relatively dry, with mild sunny days, but the cold in the hours of night was severe in comparison with other years. The lowest temperature of air was registered on the 14th of August, when the thermometer descended to 29.6° , which is only $2\frac{1}{2}^{\circ}$ higher than the minimum reading on record for 47 years. On the same night the temperature near the ground fell to 21.3° , or within one degree of the lowest ground temperature ever registered at Melbourne. August was the coldest month of the year. Its mean temperature was 3° below average. The thermometer fell on the average $3\frac{1}{2}^{\circ}$ lower during night than it usually does in normal years. In July and September the temperatures of day and of night approached generally within one degree of the average, excepting that the highest temperature registered in July was 4° below the record heat for that month. On the whole, the warmth of the winter days in 1902 was nearly the same as that of normal years, but the cold at night was comparable to that of the coldest winters on record. It must be noted, however, that the thermometer fell below freezing point only on four occasions, and remained above 40° on 57 nights, and above 50° on 6; which goes far to show the temperate character of the Melbourne winter.

(h) There were 10 foggy days, and 27 wet days. The total rainfall was 4.75 inches, most of which fell in September, and showed a deficiency of 26 per cent. on the winter average. If this rain had been collected in an open tank fully exposed to the sky, the whole of it would have passed out again into the atmosphere in the state of vapour by the end of the winter.

(i) The predominant winds were N.N.E. and S.E. in July, and between S. and W. in August and September.

(k) In autumn the average temperatures, the maxima, the minima, and the mean daily range, closely approached those of an average autumn, excepting that the absolute extremes, which ranged from 88.2° at maximum to 35.3° at minimum, were, respectively, 5.8° lower in the first case, and 7.3° higher in the second, than the highest and lowest readings on record for any previous autumn. The thermometer only once rose above 80° . It fell below 50° on 14 nights in April, 16 nights in May, and 19 nights in June; below 40° once only in May, and 10 times in June. The highest reading for solar radiation was 143° , or 9° lower than the highest record, and the lowest ground temperature at night was 26.1° , or 5.7° higher than the lowest record for autumn. April and May were dry months. Indeed the amount of rainfall registered in April was only 57 points, this being the lowest on the records of half a century, during which it was equalled only once. The rain of June exceeded the average by 32 per cent.; but there still remained a deficiency of 35 per cent. for the whole of this quarter. Cloud and sunshine were normal in May; there was slightly less cloud and more sunshine in April, more cloud and less sunshine in June, than in average years. Winds from the southern quarters prevailed in April, and north and north-east winds prevailed in June. The winds of May were generally variable.

(l) During the last three months of the year the general average conditions of temperature existed, but the absolute maximum and minimum readings were, as in the autumn, considerably more moderate than the extremes of other years. They ranged from 101.7° to 39.0° , being 9° lower in the first case and 6.9° higher in the second case than the highest and lowest readings on record for spring.

The thermometer rose above 80° twice in October, 3 times in November, and 6 times in December; above 90° 7 times in November, and 3 times in December; and above 100° only once in December. It fell below 50° on 14 nights in October, 8 times in November, and 4 times in December, and below 40° only 3 times in October. The maximum temperature of the sun's rays was 155.2° , and the minimum grass temperature at night 31.0° . These values are respectively 15.1° lower in regard to solar radiation and 6.4° higher in regard to grass temperature than the extremes on record. The rainfall for this quarter was 6.09 inches, or 1.12 inches below average, showing a deficiency of 15 per cent. Most of this rain, however, was registered in December. Only

76 points fell in October in the course of 7 days, and 98 points in November, also in 7 days, the respective averages being 2·71 inches and 13 wet days for October, and 2·25 inches with 10 wet days for November. These were decidedly droughty conditions; but they seemed insignificant in comparison with the severity of the drought then existing in the country. The duration of sunshine was 550 hours, being 73 hours less than the average. The other meteorological elements, as cloudiness, fog, humidity, and free evaporation, deviated very slightly from the normal values.

It would not be difficult to extend further this analysis of the data supplied by the tables; but what has been said may probably be found sufficient to indicate the leading climatological features of the year 1902.

It has often been asserted, and there seems to be a general impression, that the Melbourne climate is not now what it was thirty or forty years ago. Some people say that the heat of summer was then greater and the cold in winter less intense, that the north winds were more prevalent, and blew invariably for three continuous days before a change came, and so on. These ideas are generally based on personal experiences and sensations which are not always reliable, owing to the difficulty of remembering them correctly at long distances of time, and it is, therefore, advisable to consult instrumental records in order to ascertain whether such changes are real.

These records are embodied in Table II. already referred to, and are further condensed in the simpler table below, which shows at a glance the limits within which the principal meteorological elements of the Melbourne climate have oscillated during the past 47 years. It is only necessary to remark that throughout the whole range of actual values recorded each year, which are all comprised between the limits specified for each element, there appears to be no indication of any order, either progressive or periodical, in their occurrence. They go from maximum to minimum, or vice versa, irregularly, capriciously frequently, per saltum, giving no clue to the laws which govern their variations.

COMPARISON TABLE OF YEARLY METEOROLOGICAL VALUES.

Melbourne-
climate.

Meteorological Elements.	Year 1902.	Average for 47 Years.	Extreme Range of Variation of Average Values.	
			Highest Value.	Lowest Value.
Mean atmospheric pressure	29.971	29.936	...	...
Highest	30.530	30.678	...	...
Lowest	29.135	28.868	...	...
Range	1.395	1.364	1.719	1.169
Mean temperature of air in shade ...	56.9	57.4	58.7	56.3
Mean daily maximum	67.0	67.3	69.0	65.8
Mean daily minimum	49.1	49.3	51.2	47.2
Absolute maximum	103.0	102.6	111.2	96.6
Absolute minimum	29.6	31.6	33.9	27.0
Mean daily range	17.9	18.0	20.3	14.6
Absolute extreme range	73.4	74.3	82.6	66.0
Solar radiation (maximum)	161.7	139.3	178.5	108.6
Terrestrial radiation (minimum) ...	21.3	33.0	46.2	20.4
Rainfall (inches)	23.08	25.55	44.25	15.61
Number of wet days	102	132	165	102
Amount of free evaporation (inches) ...	38.611	37.25	45.65	31.59
Percentage of humidity (sat. 100) ...	73	72	76	67
Cloudiness (scale 10 overcast, 0 clear) ...	6.0	5.9	6.4	5.4
Duration of sunshine (No. of hours) ...	1,847	1,997	2,335	1,738
Number of days of fog	18	17	39	5

This table shows at once that some elements may be regarded as nearly constant, while others are subject to great variations. The mean temperature of the year has always remained within 1.3° of the average, throughout the period of record. This is the most constant element for Melbourne.

The elements next in order of constancy are the relative humidity of the atmosphere, the cloudiness, the mean daily maximum and minimum temperatures, which are the most important factors of climate, in their relation to health and physical comfort. In marked contrast with the relatively uniform regime of the above elements, we find the rainfall oscillating between a maximum of $44\frac{1}{2}$ inches and a minimum of 15.61 inches, with a variation of more than 18 inches from the average, which average very seldom happens. There have been as many as 165 wet days in some years, and only 102 in others.

The average conditions which favour spontaneous evaporation and fog are also subject to great changes.

Although the mean temperature of the year is nearly constant, the extremes of heat and cold vary considerably. The highest readings recorded each year for 47 years range from 111.2° to 96.6° , with a deviation of 14.6° from the average. The direct heat of the sun's rays shows an amplitude of variation of nearly 70° . The frequency and severity of frosts, as indicated by the yearly average values of terrestrial radiation, exhibit very large and irregular changes. The average of these values is 33.0° , which is the mean of all the lowest nightly readings registered for 47 years by a thermometer lying on top of short grass. According to this average we should regard frost as an exceptional phenomenon for Melbourne. In fact there have been years when the lowest readings of the ground thermometer did not go below 46° , but on the other hand we find years in which it fell 11.6° below freezing point. The sun remains some 4,420 hours (in round figures) above the horizon of Melbourne; but is covered by clouds for some 2,423 hours as an average; or, in other words, the average duration of sunshine in a year is 1,997 hours. This average number varies from 2,335 to 1,738 hours, which represents approximately a deviation from the mean value of 15 per cent.

The conclusions are as follow:—

(a) The yearly mean temperature of air is nearly a constant quantity.

(b) Amongst those elements which are more important in their relation to health and physical comfort, those which vary within relatively small limits are the average maximum and minimum temperatures, the absolute minimum temperatures, and the relative humidity of the atmosphere.

(c) Those which show relatively large variations are the absolute maximum and the mean daily range of temperature, the direct heat of the sun's rays, evaporation, and fog. Rainfall is the most changeable element, both as regards amount, frequency, and distribution.

The observed changes are irregular and do not appear to follow any ascertainable law, consequently there is no evidence that the Melbourne climate has been subject to progressive or periodical changes during the last half century.

TABLE 1.—MELBOURNE OBSERVATORY. METEOROLOGICAL MEANS AND EXTREMES FOR EACH MONTH OF THE YEAR 1902.

Month.	Pressure of Air.			Temperature of Air in Shade.								Solar Radiation.			Terrestrial Radiation.		
	Mean.	Highest	Lowest.	Mean.	Mean Max.	Mean Min.	Mean Daily Range.	Absolute Extremes.				Mean.	Highest	Date.	Mean.	Lowest.	Date.
								Highest	Date.	Lowest.	Date.						
January ...	29.742	30.065	29.135	66.0	77.8	55.5	22.3	103.0	31st	46.2	28th	143.5	161.7	25th	48.3	36.3	24th
February ...	29.852	30.102	29.426	62.8	74.7	54.9	19.8	95.3	9th	47.3	5th	138.0	159.6	9th	46.8	36.9	5th
March ...	29.960	30.380	29.375	61.1	70.9	53.5	17.4	95.1	7th	40.3	21st	127.9	150.1	7th	45.0	29.0	21st
April ...	30.086	30.387	29.802	57.8	67.8	50.2	17.6	88.2	19th	43.9	12th	121.8	143.0	19th	42.4	34.0	12th
May ...	30.136	30.434	29.668	54.6	62.2	47.9	14.3	71.7	5th	37.1	20th	109.8	128.0	5th	39.9	29.1	20th
June ...	30.067	30.512	29.362	48.5	56.1	42.3	13.8	60.6	30th	35.3	29-30	101.6	119.9	11th	34.4	26.1	30th
July ...	30.123	30.530	29.653	48.4	56.8	42.1	14.7	64.4	5th	31.0	15th	106.5	119.4	5th	32.9	22.4	16th
August ...	30.177	30.501	29.604	47.3	56.2	39.7	16.5	68.5	29th	29.6	14th	112.2	125.0	29th	31.1	21.3	14th
September ...	29.892	30.211	29.398	52.9	62.1	44.8	17.3	80.0	25th	35.0	17th	122.8	138.9	25th	37.8	27.1	17th
October ...	29.917	30.273	29.556	56.4	67.0	49.0	18.0	82.5	2nd	39.0	16th	125.8	144.1	28th	42.1	31.0	8th
November ...	29.913	30.193	29.291	64.1	76.8	53.7	23.1	101.4	25th	45.0	29th	136.0	155.2	25th	45.3	35.8	21st
December ...	29.782	30.072	29.354	62.9	75.5	55.6	19.9	101.7	5th	48.0	30th	136.1	160.1	5th	49.9	39.8	13th

Month.	Mean Humidity per cent. — Satn. = 100	Amount of—			Nc. of Days of—		No. of Hours of Sunshine.	Number of Hours during which the Wind blew from—								Calm.	Mean Velocity in miles per hour.
		Spontaneous Evaporation	Cloud. — Scale 0 to 10.	Rain in inches.	Rain.	Fog.		N.	N.W.	W.	S.W.	S.	S.E.	E.	N.E.		
January ...	0.62	6.125	5.7	1.53	9	0	230	78.5	17.0	94.5	146.5	179.0	121.0	25.5	53.0	29.0	9.3
February ...	0.65	4.979	5.9	0.95	8	0	193	22.0	24.5	130.5	123.5	182.0	115.0	25.0	18.5	31.0	8.6
March ...	0.70	3.998	5.5	5.44	9	1	158	67.5	34.5	52.5	135.0	248.5	122.0	24.5	37.0	22.5	9.5
April ...	0.75	2.153	5.2	0.57	5	0	156	67.0	25.0	62.0	128.0	151.0	119.0	42.5	79.0	46.5	6.5
May ...	0.79	1.405	6.1	1.05	7	4	114	147.5	51.0	115.5	107.5	104.5	28.0	44.5	98.0	47.5	6.4
June ...	0.85	2.314	7.0	2.70	14	4	76	196.0	71.5	79.5	91.5	29.5	21.0	25.0	147.5	58.5	6.8
July ...	0.77	1.274	6.2	0.57	6	5	104	241.0	80.5	53.5	29.0	25.0	126.0	28.0	110.0	51.0	8.0
August ...	0.79	1.158	5.9	0.88	9	2	128	71.5	57.5	119.0	132.5	105.5	30.0	94.0	62.5	71.5	5.7
September ...	0.73	2.345	6.4	3.30	10	1	138	83.0	72.0	168.5	109.0	95.0	40.5	30.0	88.5	33.5	7.9
October ...	0.75	3.059	6.0	0.76	7	1	155	95.5	53.5	78.0	109.0	148.5	89.5	38.0	78.0	54.0	8.4
November ...	0.62	4.913	5.8	0.98	7	0	207	98.5	29.5	92.5	133.5	166.0	86.0	16.0	63.5	34.5	8.8
December ...	0.70	4.888	6.4	4.35	11	0	188	51.0	41.5	66.5	117.5	190.0	121.0	77.5	51.5	27.5	9.2

Agriculture, Mining, &c.

TABLE II.—CLIMATOLOGICAL TABLE (BASED ON THE RECORDS OF THE MELBOURNE OBSERVATORY FOR THE PERIOD 1858-1902) FOR MELBOURNE.

Meteorological Elements.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Atmospheric Pressures—	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
Mean for each month	29·831	29·886	29·966	30·025	30·023	29·995	30·025	29·981	29·922	29·883	29·875	29·820	29·936
Highest recorded in each month	30·265	30·413	30·456	30·502	30·678	30·664	30·640	30·582	30·610	30·489	30·385	30·281	30·678
Lowest recorded in each month	29·135	29·199	29·342	29·233	29·051	29·119	29·165	29·033	29·030	29·002	29·123	28·868	28·868
Range { Average ..	0·764	0·743	0·705	0·805	0·903	0·970	0·974	0·998	0·971	0·919	0·798	0·851	1·364
{ Highest ..	1·071	0·998	1·039	1·143	1·399	1·298	1·399	1·503	1·337	1·346	1·081	1·309	1·719
{ Lowest ..	0·564	0·511	0·489	0·542	0·551	0·667	0·677	0·667	0·665	0·695	0·554	0·645	1·169
Temperature of air in Shade—	°	°	°	°	°	°	°	°	°	°	°	°	°
Mean for each month { Average ..	66·2	66·3	63·7	58·6	53·3	49·7	47·6	50·3	53·1	56·6	60·4	63·7	57·4
{ Highest ..	71·5	73·8	67·8	60·8	56·4	53·4	50·8	53·0	55·5	59·5	64·1	68·5	58·7
{ Lowest ..	60·6	62·7	59·8	54·6	50·9	46·4	45·3	47·1	50·3	53·5	56·8	57·9	56·3
Absolute Maximum for each month { Average	102·6	100·0	95·4	84·6	71·7	64·1	63·0	69·3	74·5	84·4	93·4	99·2	102·6
{ Highest	111·2	109·0	105·5	94·0	82·1	68·1	68·4	77·0	81·8	96·1	105·7	110·7	111·2
{ Lowest	94·7	89·6	86·7	74·0	66·0	57·5	58·7	61·9	71·0	73·8	83·5	86·6	96·6
Absolute Minimum for each month { Average	47·2	47·0	44·3	41·2	36·8	33·6	31·6	33·5	35·6	38·2	41·9	45·3	31·6
{ Highest	52·0	53·5	51·4	45·5	42·0	38·0	39·0	39·6	41·5	42·8	45·5	48·8	33·9
{ Lowest	42·0	40·3	37·1	34·8	31·3	28·0	27·0	28·3	32·1	32·1	36·5	40·0	27·0
Mean of daily { Average	78·1	77·8	74·7	68·6	61·4	56·9	55·5	58·8	62·6	67·0	71·3	75·4	67·3
{ Highest	85·2	86·4	79·2	73·3	67·4	61·8	58·2	61·6	65·4	71·1	78·1	81·2	69·0
{ Lowest	73·0	72·4	69·2	62·5	58·3	52·9	52·2	56·0	59·3	63·5	66·9	70·1	65·8
Mean of daily { Average	56·4	56·6	54·6	50·6	46·5	43·9	41·4	43·2	45·4	48·1	50·9	53·7	49·3
{ Highest	60·4	62·2	61·7	54·7	49·9	49·2	45·6	45·8	48·5	50·8	53·8	57·6	51·2
{ Lowest	53·2	52·5	50·3	47·4	43·4	40·7	38·8	39·7	43·1	45·4	46·6	50·4	47·2
Mean daily range in { Average	21·7	21·2	20·2	18·0	14·9	13·0	14·1	15·7	17·3	19·0	20·4	21·6	18·0
{ Highest	26·2	26·7	24·1	24·2	20·2	17·5	17·6	19·5	20·5	23·2	27·2	27·8	20·3
{ Lowest	16·8	16·4	15·9	12·4	11·1	7·7	10·3	12·7	13·7	15·6	15·1	16·2	14·6
Monthly range { Average ..	55·4	53·1	51·1	43·6	34·9	30·4	31·4	35·8	40·3	46·2	51·5	53·8	74·3
{ Highest ..	63·6	68·6	62·2	58·9	47·0	37·0	37·6	45·3	47·9	59·6	64·2	69·1	82·6
{ Lowest ..	45·2	38·4	39·6	23·8	24·8	25·3	23·4	26·0	34·6	33·4	40·9	41·9	66·0

Temperature of Air—		°	°	°	°	°	°	°	°	°	°	°	°	
Terrestrial Radiation	Average	39.6	39.3	36.6	34.7	30.8	27.7	25.7	27.5	29.5	31.4	34.9	38.1	33.0
	Highest	45.6	46.2	44.2	41.0	36.0	32.7	29.8	34.2	34.4	39.2	40.6	45.0	46.2
	Lowest	30.2	30.9	28.9	25.0	23.2	20.4	20.8	21.3	25.3	25.9	24.6	34.0	20.4
Solar Radiation	Average	158.7	155.5	150.8	140.4	127.3	116.0	117.1	125.6	133.9	142.7	149.8	153.6	139.3
	Highest	178.5	167.5	164.5	152.0	140.6	128.5	125.3	137.4	141.2	154.3	159.6	170.3	178.5
	Lowest	144.6	143.0	139.9	129.7	117.5	108.6	109.0	115.5	121.1	126.8	139.7	142.3	108.6
Monthly Amount of Registered Rainfall	Average	in. 1.90	in. 1.70	in. 2.13	in. 2.43	in. 2.13	in. 2.05	in. 1.85	in. 1.82	in. 2.32	in. 2.71	in. 2.25	in. 2.25	in. 25.55
	Highest	6.83	6.78	6.36	6.71	6.94	5.22	7.02	7.62	5.87	7.61	12.13	7.18	44.25
	Lowest	0.04	0.03	0.16	0.57	0.45	0.60	0.49	0.79	0.61	0.28	0.25	0.17	15.61
Number of Days of Rain Recorded in Each Month	Average	7	7	8	10	12	13	15	13	14	13	10	9	132
	Highest	14	15	19	19	20	21	20	18	22	21	16	20	165
	Lowest	1	1	3	5	6	7	7	7	8	7	3	4	102
Amount of Evaporation at a Free Water Surface for Each Month	Average	in. 6.39	in. 5.01	in. 3.87	in. 2.26	in. 1.50	in. 1.11	in. 1.08	in. 1.48	in. 2.28	in. 3.29	in. 4.50	in. 5.74	in. 37.25
	Highest	8.33	6.38	5.15	2.99	2.69	2.31	1.66	2.11	3.23	5.80	5.79	7.50	45.65
	Lowest	4.84	3.34	2.79	1.57	0.97	0.61	0.66	1.03	1.64	2.56	3.19	3.70	31.59
Percentage of Humidity Saturation = 100	Average	64	65	68	73	79	80	80	75	72	70	67	65	72
	Highest	72	75	75	84	86	88	88	81	81	79	75	72	76
	Lowest	57	54	61	63	70	75	74	65	63	64	59	55	67
Mean Daily Amount of Cloudiness	Average	5.1	5.1	5.5	5.8	6.5	6.6	6.3	6.3	6.1	6.0	5.9	5.6	5.9
	Highest	6.7	6.8	7.4	7.7	8.0	7.7	7.5	8.0	7.4	7.1	7.2	6.9	6.4
	Lowest	3.9	3.2	3.7	3.1	4.7	3.2	5.1	4.7	5.0	4.8	4.7	3.8	5.4
Mean Daily Duration of Sunshine in Hours	Average	h.m. 8.17	h.m. 7.37	h.m. 5.40	h.m. 4.40	h.m. 3.40	h.m. 2.57	h.m. 3.20	h.m. 4.11	h.m. 4.54	h.m. 5.40	h.m. 7.20	h.m. 7.54	h.m. 5.31
	Highest	9.57	9.12	8.19	5.56	4.59	4.5	5.16	5.32	6.21	7.18	9.1	9.57	9.57
	Lowest	6.33	5.32	4.18	2.13	2.18	1.14	2.3	2.34	3.35	4.13	6.6	6.5	1.14
Total Number of Hours of Sunshine in Each Month.	Average	257	215	176	139	114	90	104	130	149	181	198	244	1997
	Highest	309	258	241	178	154	123	164	172	191	274	266	308	2335
	Lowest	203	155	133	66	71	37	64	80	107	131	180	188	1738
Number of Days of Fog	Average	0.1	0.4	0.6	1.6	2.8	4.0	4.0	2.0	0.7	0.4	0.2	0.2	16.9
	Highest	2	3	2	7	10	14	11	8	6	2	2	4	39
	Lowest	0	0	0	0	0	0	1	0	0	0	0	0	5

Agriculture, Mining, &c.

TABLE III.

AVERAGES AND EXTREMES OF CLIMATIC ELEMENTS FOR THE SEASONS AND FOR THE YEAR DEDUCED FROM ALL RECORDS OBTAINED IN PAST YEARS AT THE MELBOURNE OBSERVATORY.

Meteorological Elements.	Spring.	Summer.	Autumn.	Winter.	Year.	
<i>Averages—</i>						
Mean pressure of air in inches ...	29·893	29·846	30·003	29·998	29·948	
Monthly range of pressure of air } Inches	0·898	0·789	0·807	0·981	0·867	
Mean temperature of air in shade. Fahr.	59·1	65·4	55·4	50·0	57·4	
Mean daily range of temperature of air in shade } Fahr.	18·9	21·6	17·7	14·3	18·0	
Mean percentage of humidity. Sat. = 100.	70	64	73	79	71	
Mean rainfall in inches ...	7·33	5·84	6·72	5·71	25·59	
Mean number of days of rain ...	37	25	30	42	132	
Mean amount of spontaneous evaporation in inches	10·07	17·17	7·63	3·63	38·31	
Mean daily amount of cloudiness } Scale 0 to 10	6·0	5·3	5·9	6·4	5·9	
Mean daily duration of sunshine ...	5 58	7 56	4 40	3 29	5 31	
Mean total No. of hours of sunshine	528	716	429	324	1997	
Percentage number of hours during which the wind blew from the various points of the compass	North ...	16·0	7·7	16·1	28·5	17·1
	North-West	9·4	4·1	7·6	13·0	8·5
	West ...	15·2	9·5	12·2	14·9	13·0
	South-West	16·8	20·4	12·6	10·8	15·2
	South ...	16·5	24·1	14·9	6·3	15·5
	South-East	9·8	19·2	14·1	5·0	12·0
	East ...	3·7	5·6	5·6	2·7	4·3
	North-East	11·2	8·1	15·2	17·3	12·9
Mean number of days of fog ...	1·3	0·7	5·0	9·9	16·9	

Extremes—

Pressure of air. Inches.	Temperature of air in shade. Fahr.
Greatest monthly range ... 1·503	Greatest monthly range ... 69·1
Smallest " " ... 0·489	Smallest " " ... 23·4
Greatest yearly range ... 1·719	Greatest yearly range ... 82·6
Smallest " " ... 1·169	Greatest mean daily range ... 27·8
Highest air pressure on record 30·678	Smallest " " " ... 7·7
Lowest " " " 28·868	Highest temperature on record 111·2
	Lowest " " 27·0
	Fahr.
Solar radiation—highest on record ...	178·5
Terrestrial radiation—lowest on record ...	20·4
	Inches.
Greatest rainfall on record ...	44·25
Smallest rainfall on record ...	15·61
	Miles per annum.
Horizontal motion of air average ...	92,221
	Miles.
Mean hourly velocity of wind ...	10·5

MANUFACTORIES.

The definition of a factory, according to an agreement Definition of a factory. which was arrived at by the statisticians of the several States, in a conference held at Hobart in 1902, is as follows:—"All establishments employing on the average four hands or upwards, also those with less than four hands where machinery is worked by power other than manual, making or repairing for the trade (wholesale or retail) or for export." It was further agreed that where two or more industries were carried on by one proprietor in one building, each industry, where possible, should be treated as a separate establishment. All the information on this subject which has been tabulated for the year 1902 has been prepared on this basis.

During that year the manufactories of the State were Number and classification of factories. returned as 4,003 in number; 2,211 of these were established in the metropolitan and 1,792 in country districts.

The following table shows the number of factories in each order of industry, the power used, the number of hands, and the value of machinery, plant, land, buildings, and improvements for the year 1902:—

NUMBER OF FACTORIES, &C.

Orders of Industry.	Number of Establishments.	Number using Machinery worked by—				Actual Horse-power of Engines used.			Average Number of Persons Employed.		Approximate Value of—		
		Steam.	Gas.	Oil, Electricity.	Water, Wind, Horse.	Steam.	Gas.	Oil and Electric.	Males.	Females.	Machinery and Plant in use.	Land.	Buildings and Improvements.
<i>Metropolitan District.</i>													
Foods and drinks	171	98	(7) 53	(4) 4	...	5,330	348	84	5,721	2,086	781,750	563,523	1,014,081
Textile and dress	778	(1) 23	(3) 102	(3) 46	...	1,039	698	204	5,900	15,661	246,835	531,152	501,807
Furniture	184	23	(2) 42	(1) 9	...	382	200	29	2,011	269	53,693	162,837	126,042
Building	55	22	7	3	2	1,072	61	12	1,265	7	87,58	85,954	82,303
Apparatus for transportation ...	177	16	26	5	...	710	71	15	3,048	35	231,183	110,067	626,853
Animal matters (not otherwise classed)	69	41	(1) 6	3	...	1,139	20	5	1,405	64	117,071	53,235	105,861
Wood and other vegetable substances	154	61	(1) 60	8	...	2,146	307	24	2,539	271	151,023	243,194	137,552
Oils and fats (animal and vegetable)	20	16	1	...	...	330	6	...	510	9	93,953	42,811	57,823
Metals and minerals	292	(2) 88	(1) 144	(7) 12	...	2,221	614	88	5,843	32	515,356	266,362	233,880
Gold, silver, and precious stones ...	44	2	14	7	...	7	38	23	565	30	12,813	48,726	28,139
Ceramics (not otherwise classed) ...	9	1	1	...	...	42	4	...	605	5	22,525	11,497	19,608
Production of heat, light, and energy	23	12	3	(1) 3	...	7,920	55	29	836	47	460,898	105,404	635,319
Explosives, ammunition, &c. ...	4	2	...	1	...	65	...	5	119	132	40,872	5,257	25,092
Art, science, and letters	187	6	(2) 130	(12) 30	...	381	566	137	3,910	1,156	442,782	299,875	305,201
Miscellaneous	44	(1) 20	(3) 12	(1) 2	...	659	72	208	970	405	111,633	59,633	123,099
Total	2,211	(4) 431	(20) 601	(29) 133	2	23,443	3,060	863	35,247	20,209	3,370,002	2,589,527	4,022,660

NUMBER OF FACTORIES, &c.—continued.

Orders of Industry.	Number of Establishments.	Number using Machinery worked by—				Actual Horse-power of Engines used.			Average Number of Persons Employed.		Approximate Value of—				
		Steam.	Gas.	Oil, Electricity.	Water, Wind, Horse.	Steam.	Gas.	Oil and Electric.	Males.	Females.	Machinery and Plant in use.	Land.	Buildings and Improvements.		
<i>Country Districts.</i>															
Foods and drinks	464	401	(6)	32	(9)	11	8	7,097	60	77	3,342	176	631,657	100,274	468,180
Textile and dress	255	9		8	...	...	...	1,441	51	...	1,368	2,832	192,146	91,071	143,693
Furniture	13	3		1	...	...	...	18	3	...	76	3	1,406	5,155	4,985
Building	113	27	...			3	60	539	...	26	858	29	39,258	21,960	34,175
Apparatus for transportation ...	167	26		9		3	1	149	31	6	1,528	5	36,296	55,705	71,829
Animal matters (not otherwise classed)	66	39	...			3	5	451	...	29	573	5	36,787	14,705	47,174
Wood and other vegetable substances	318	239	(1)	37		29	11	3,263	277	179	2,684	29	187,224	53,229	99,252
Oils and fats (animal and vegetable)	38	30	...			1	...	210	...	3	188	5	12,822	6,922	12,669
Metals and minerals	212	110	(1)	14		32	11	1,302	39	89	2,633	13	183,266	56,517	75,140
Gold, silver, and precious stones	6	...		1		1	1	...	3	3	21	...	775	1,113	1,290
Ceramics (not otherwise classed)	...	...		...		...	...	...	...	...	...	...	...	...	...
Production of heat, light, and energy	42	6		2	(2)	...	...	832	3	69	184	...	274,332	12,163	88,797
Explosives, ammunition, &c. ...	1	1	...		...	...	...	20	...	...	14	19	6,300	...	2,200
Art, science, and letters	94	6		50	(2)	13	1	29	105	45	919	79	108,467	35,450	52,425
Miscellaneous	3	...		...		1	...	...	...	6	23	1	1,285	1,500	1,500
Total	1,792	897	(8)	154	(13)	97	98	15,351	572	532	14,411	3,196	1,712,021	455,764	1,103,309

Manufactories.

NUMBER OF FACTORIES, &c.—*continued.*

Orders of Industry.	Number of Establishments.	Number using Machinery worked by—				Actual Horse-power of Engines used.			Average Number of persons Employed.		Approximate Value of—				
		Steam.	Gas.	Oil, Electricity.	Water, Wind, Horse.	Steam.	Gas.	Oil and Electric.	Males.	Females.	Machinery and Plant in use.	Land.	Buildings and Improvements.		
<i>State.</i>															
Foods and drinks	635	499	(13)	85	(13)	15	8	12,427	408	161	9,063	2,262	1,413,407	663,797	1,482,261
Textile and dress	1,033	(1) 32	(3)	110	(3)	46	...	2,480	749	204	7,268	18,493	438,981	622,223	645,500
Furniture	197	26	(2)	43	(1)	9	...	400	203	29	2,087	272	55,099	167,992	131,027
Building	168	49		7		6	62	1,611	61	38	2,123	36	126,843	107,914	116,478
Apparatus for transportation ...	344	42		35		8	1	859	102	21	4,576	40	267,479	165,772	98,682
Animal matters (not otherwise classed)	135	80	(1)	6		6	5	1,590	20	34	1,978	69	153,858	67,940	153,035
Wood and other vegetable substances	472	300	(2)	97		37	11	5,409	584	203	5,223	300	338,247	296,423	236,804
Oils and fats (animal and vegetable)	58	46		1		1	...	540	6	3	698	14	106,775	49,733	70,492
Metals and minerals	504	(2) 198	(2)	158	(7)	44	11	3,523	653	177	8,476	45	698,622	322,879	309,020
Gold, silver, and precious stones	50	2		15		8	1	7	41	26	586	30	13,618	49,839	29,429
Ceramics (not otherwise classed)	9	1		1	...	...	...	42	4	...	605	5	22,525	11,497	19,608
Production of heat, light, and energy	65	18		5	(3)	3	...	8,752	58	98	1,020	47	735,230	117,567	724,116
Explosives, ammunition, &c. ...	5	3	...	...		1	...	85	...	5	133	151	47,172	5,257	27,292
Art, science, and letters	281	12	(2)	180	(14)	43	1	410	671	182	4,829	1,235	551,249	335,325	357,626
Miscellaneous	47	(1) 20	(3)	12	(1)	3	...	659	72	214	993	406	112,918	61,133	124,599
Total	4,003	(4) 1,328	(28)	755	(42)	230	100	38,794	3,632	1,395	49,658	23,405	5,082,023	3,045,291	5,125,969

NOTE.—The figures in parentheses indicate engines worked in conjunction with those of a different description. The factories are divided into two large classes—those connected with the treatment of raw material (567) and those dealing with finished articles (3,436). The various sub-orders of these classes will be found in Part VII. of the Statistical Register for the year 1902.

Their classification according to the number of hands employed was:—

Classification	Number of factories	Number of hands
Under 4 hands	525	1,636
4 hands	398	1,603
5 to 10 hands	1,629	11,303
11 to 20 "	726	10,562
21 to 50 "	467	14,361
51 to 100 "	148	10,238
101 and upwards	110	23,360
Total	4,003	73,063

Classification according to hands employed.

Of those employed in factories with under 4 hands, 389 were employed in connexion with creameries.

Of the 73,063 hands employed, 49,658 were males, and 23,405 were females, and are described as follows:—

Working proprietors, managers, and overseers	5,427 men and 813 women
Accountants and clerks	1,987 " 283 "
Workers in factories	36,245 " 20,947 "
" at home	92 " 1,228 "
Engine drivers and firemen	1,555 " —
Carters and messengers	2,767 " —
All others	1,585 " 134 "

The following is a summary of the manufactories and works, as returned for each of the years, 1898 to 1902:—

Return of factories and works for five years.

Year.	Number of Factories.	Power Employed.				Actual Horse-Power of Engines Used.
		Steam.	Gas.	Electric, Oil, Water, Wind, or Horse.	Manual.	
1898	2,869	1,247	531	119	972	30,853
1899	3,027	1,267	603	135	1,022	33,046
1900	3,097	1,260	637	137	1,063	33,410
1901	3,249	1,282	689	160	1,118	34,548
1902	4,003	1,328	755	330	1,590	43,821

Year.	Hands employed.			Approximate Value of—		
	Males.	Females.	Total.	Machinery and Plant.	Land.	Buildings and Improvements.
1898	40,631	14,147	54,778	£ 4,500,727	£ 2,968,331	£ 4,408,227
1899	44,041	16,029	60,070	£ 4,632,629	£ 2,867,413	£ 4,471,698
1900	45,794	18,413	64,207	£ 4,710,834	£ 2,591,653	£ 4,592,462
1901	47,059	19,470	66,529	£ 4,847,130	£ 2,711,990	£ 4,739,380
1902	49,658	23,405	73,063	£ 5,082,023	£ 3,045,291	£ 5,125,969

The statistics for the year 1902 were collected for the first time by the police, under the direct supervision of the Statist. The list of the manufacturers as returned was compared with and supplemented from the list of the Chief Inspector of Factories, which was available for the first time this year.

Heretofore this information was procured through the municipal authorities, and the large increase in the number of factories returned for 1902 is mainly due to the new and more thorough system of collection made by the police, to the inclusion of cyanide works, and of establishments where the principal work done was repairing. These works (cyanide and repairing) were included amongst the factories in Victoria for the first time this year, in accordance with resolutions passed at the conference of statisticians previously referred to. The addition, 754 new works, naturally caused a large increase in the total engine power employed, and increases the approximate value of the machinery, plant, land, buildings, and improvements from £12,298,500 in 1901 to £13,253,283 in 1902.

Tanneries,
fell-
mongeries,
and wool-
washing
establish-
ments.

Although the number of these establishments decreased from 102 in 1898 to 95 in 1902, yet the horse-power of the engines used increased from 921 to 1,049 during the same period, whilst the number of hands employed decreased from 1,766 to 1,635. The approximate values of the machinery, plant, land, buildings, and improvements during the same period were:—

Year.	Approximate Value of—		
	Machinery and Plant in Use.	Land.	Buildings and Improvements.
	£	£	£
1898 ...	90,037	46,738	111,804
1899 ...	87,120	43,040	111,160
1900 ...	91,530	51,250	117,960
1901 ...	99,710	47,750	98,950
1902 ...	103,329	54,179	104,114

It is satisfactory to note that the machinery, &c., connected with this industry continues to increase in value, notwithstanding the decrease in the number of establishments in operation for the past year. The output was:—

Year.	Number Tanned of—			Sheepskins Stripped.	Wool Washed.
	Hides.	Calf Skins.	Sheep and Other Skins.		
	No.	No.	No.	No.	lbs.
1898 ...	400,262	177,739	1,271,960	1,455,674	7,545,066
1899 ...	430,809	197,514	1,280,722	1,395,626	6,918,572
1900 ...	500,549	165,802	1,395,600	1,431,811	6,866,383
1901 ...	406,260	181,522	676,930	615,614	8,511,171
1902 ...	424,786	189,886	313,166	453,660	5,279,916

The columns "Hides" and "Calf Skins" include the number of skins dealt with in small tanneries; but these are not included in the regular lists.

Of the 5,279,916 lbs. of wool washed in 1902, there were 2,620,897 lbs., valued at £125,512, exported, principally to the United Kingdom, the balance being treated in the State woollen mills, or on hand in these mills, or in private wool stores at the end of the year.

The leather of all kinds exported amounted to 43,941 cwt., and was valued at £237,391. Of this, more than half was exported to the United Kingdom.

Forest saw-mills were established for the purpose of cutting native timber at or near the place where it is grown. The number of these mills increased during the last five years from 107 in 1898 to 124 in 1902, the horse-power of the engines used from 1,492 to 1,773, and the hands employed from 1,302 to 1,467. The maximum number of hands (1,593) was employed in 1901. The approximate value of machinery, plant, land, buildings, improvements, together with the quantity and value of timber sawn during the last five years appears in the following statement:—

Year.	Approximate Value of—			Timber Sawn.	
	Machinery and Plant in use.	Land.	Buildings and Improvements.	Quantity.	Value.
	£	£	£	Super ft.	£
1898 ...	89,420	7,545	30,271	37,698,486	104,734
1899 ...	101,880	7,510	27,670	40,716,500	107,938
1900 ...	104,500	7,520	27,350	44,782,330	125,121
1901 ...	91,810	6,170	13,500	46,495,885	134,310
1902 ...	81,898	6,380	11,854	40,494,660	128,430

The result of the milling work of 1902 does not compare favourably with that of previous years, and this is to some extent accounted for by a large increase in the quantity of imported timber in the rough from £306,000 worth in 1900 to £317,900 worth in 1901, and to £357,000 worth in 1902, also to the falling off in the building trade since 1900, which would naturally leave large stocks of rough timber on the hands of the timber merchants throughout the State. The opening of the Victorian markets to the timbers of other States since federation would no doubt also slightly contribute to this result.

In all probability this industry will further decline in the future, as the facilities heretofore granted to saw-millers to

enter upon Crown lands, cut down timber, and establish mills, must of necessity be extensively curtailed in the interests of forest conservation, and the preservation of a large selection of indigenous trees, shrubs, and plants which otherwise may possibly be eradicated.

Forest con-
servation.

The area of the forest reserves is becoming so curtailed year after year by alienation, that it will not be possible to continue to grant licences for timber cutting, except under the most stringent conditions, and then only to a limited extent.

A greater danger than even the saw-mill industry is that which has been brought about in the past by the entrance of splitters upon the reserves. These men cut down the trees in ruthless fashion, and were altogether regardless of any precautions that might have been taken, and heedless of any safeguards that might have been effective in saving the forests. The danger from fire is also very great. Large areas of valuable timber are destroyed or damaged by the spread of extensive fires in the hot season. Many of these are unquestionably due to the carelessness of settlers in clearing their land, and of timber-getters in leaving their camp fires unextinguished. The danger will only be completely met when the punishment meted out to those who use fire carelessly is adequate to administer an effective check. In regard to the splitters, an important advance has been made during the past year in the working of the more valuable forests by the abolition of timber-cutters' licences and the substitution of personal permits for a fixed quantity of timber, and a specific class of tree. Stringent conditions are embodied in these permits, which are in the form of an agreement between the Crown and the holder, and can be revoked or suspended at the pleasure of the Conservator for any serious breach of the forest regulations.

It must be remembered that the climatic conditions which aid the increase and development of population are also most favourable to the growth of trees. Yet, with the advent of man into a new country, it must perforce lose its forests. The wood is necessary for fuel, for commercial purposes, for building and fencing, and for mining and railway development; whilst the land is required for cities, and markets, and manufactories, and the roads thereto, and for the cultivation of agricultural produce.

The use of forest timber in new countries is, therefore, a necessity of the situation; but the removal of the trees should be so carried out as to ensure not only the economical harvesting of the forest produce, but also the other advantages that follow therefrom.

There is little doubt as to the advantages in regard to climate of the presence of forests. Their influence on rainfall has been disputed, because it is asserted that the conditions upon which the amount of rain depends are not changed by the existence of forests. These conditions are the presence of oceans and seas, the degree of heat, and the rapidity with which the air moves over the surface of the waters. Air currents blowing landwards are year by year charged with the same amount of moisture, which precipitates as soon as the air is cooled below the point of saturation. It is argued that if the forests cause the precipitation, the regions behind are deprived of rain, because the air-currents which reach them are dry and unable to yield a further supply of water.

Forests—
influence
on rainfall

But this argument does not take into account the re-evaporation of moisture which the rain precipitates on the land, and which is very great from lakes and streams, as well as from the soil, and from the crowns of trees. Many instances can be given, not only of the baneful effects of the destruction of forests, but also of the benefits of re-afforestation. There is abundant historical evidence that in past centuries the destruction of the forests in many of the countries bordering the Mediterranean, such as Palestine, Asia Minor, Greece, Dalmatia, Italy, Sicily, Spain, and Northern Africa, was followed by marked changes in the climate, by periods of drought and flood, and by the desiccation and erosion of the soil, accompanied by loss or diminution of fertility. In Victoria the difference of rainfall in open, treeless districts, and that in thickly-clad forest regions, has been considerable, the average in the latter districts being much higher than in the former. In 1898 the Royal Commission on State Forests and Timber Reserves, from whose reports the principal facts here given are abridged, made enquiries from the various municipalities as to the effect upon the water supply in their districts, of forest clearing by settlers. In general, the answers showed that there had been a considerable diminution in the volume of water in the rivers and creeks, only a small number of districts being unaffected.

For, that one direct result of the destruction of forests is the drying up of water courses, there is no difference of opinion. The deep absorbent mould of a forest area, protected by the branches and leaves of the trees from the direct action of the sun, is a splendid receptacle for the rain-water, which it gives out again in small streams and springs. The supply for the lowlands is thus regulated by the tree-clad area, and the waste of water by its outpouring in torrents and freshets is prevented, and alternations of drought and flood checked.

The presence of forests also regulates the temperature, preventing sudden changes, and the occurrence of severe frosts and hail storms consequent upon them.

State forests
—area and
timbers.

The past history and present position of forestry in Victoria are as follow:—The area of Victoria is 56,245,760 acres, of which the forest area is about 11,797,000 acres, consisting of inaccessible mountain country and of proposed or existing reserves. The area of existing State forest reserves is only 4,341,248 acres, that of timber reserves only 338,292 acres, the two together making a total of 4,679,540 acres available for State forestry purposes. The difference between this total and the 11,797,000 acres of forest being the area of practically inaccessible mountain ranges, where economic forestry is rendered difficult. The most important timber trees in the reserves are—(1) river red gum, of which the supply on Crown reserves is very limited, being principally confined to Barmah and Gunbower forests, on the Murray; (2) red ironbark, whose product is chiefly supplied from trees of small size, the mature forests having been largely cut out; (3) grey box, which is the principal firewood for the metropolis, and flourishes in the north-eastern district, in South Gippsland, and in the easternmost portion of the State; (4) yellow stringybark, luxuriant in South Gippsland; (5) blue gum, growing chiefly in the Mount Cole reserves, Otway forest, and Western and Southern Gippsland; (6) spotted gum; (7) yellow box; and (8) messmate, which cover wide areas in various parts of the State; (9) stringybark, flourishing in the northern and north-eastern districts, and in the Yarra watershed; (10) blackbutt, found in the forests along the seaboard; (11) silvertop, an alpine and mountain-range production; (12) cypress pine, growing on the sandy and loamy ridges and hills in the Murray district, and the Mallee; (13) blackwood, a valuable fine-grained timber, attaining its best development in Southern and Western Gippsland, and in the Otway forest; and (14) evergreen beech, covering large areas in the Otway forest, and also found in the mountainous parts of Gippsland and the Yarra watershed. These two latter timbers, together with sassafras, satin box, sycamore, olive and pencil wood, found usually under high forest, are those principally used for household furniture and cabinet work generally, and for carving, veneering, and picture-frame making.

Forest
legislation.

From 1876 efforts at forest legislation have been made, but the necessities of the situation have not yet been met. In the year named, a short Forest Act provided for the creation of local forest boards. In 1879, 1881, 1887, and 1892, Bills were introduced to deal with the subject, but not one of them became law. The only forest legislation is that contained in the "Land Act 1901," which, after empowering the

Governor-in-Council to set aside and withdraw from settlement temporarily or permanently reserves of timber for sawing or splitting purposes, and reserves for the growth and preservation of timber, and to except lands or any portion thereof from occupation for business or residential or mining purposes, forbids the alienation of State forests or timber reserves, but permits the latter reserves when denuded of timber to be added to other classes of land which may be alienated or occupied for settlement. But another section gives the Governor-in-Council power to increase or diminish the area of land under these headings, and thereby nullifies the protective effect of the sections which forbid the alienation. The maintenance of all such areas, except those proclaimed as permanent reserves, is thus endangered.

Considering the unsatisfactory position occupied by forestry in Victoria, where the only protection is that afforded by a department whose policy in general is to open all lands to settlers as quickly and as freely as possible, it must be observed that the issue of every licence to cut timber in the State reserves is, more or less, a menace to forest preservation. In many districts the supply for fuel is totally insufficient to meet the home consumption. Extensive areas of the best natural forest country, such as the slopes of the Dividing Range, have long since passed from the Crown. In 1888 a Conservator of Forests was appointed, but little attention was paid to his oft-repeated warnings. Supervision has, however, been exercised by his officers, who have striven to preserve intact those limited areas which the utter neglect of forestry has now left to the State.

After a thorough investigation of the whole subject, the Royal Commission came to the conclusion that a high standard of forestry could not be successfully established until the reserves were declared inalienable by Act of Parliament, and the control and administration of the forests removed from political interference and vested in an independent Conservancy Board. In order that there might be no undue delay in carrying out this great reform they drafted, in 1901, a comprehensive Forests Bill providing for the delimitation and permanent tenure of all reserves, the protection under tree cover of all mountain watersheds and lake and river frontages, the proper regulation of timber cutting on unreserved Crown lands, the encouragement of tree planting on denuded areas, the granting of larger protective powers to the Conservator and his staff, and the institution of reasonable penalties for grave breaches of the law. Provision was also made for the establishment of an effective system of fire protection. The Bill has been highly commended as essential to the foundation of an intelligent forestry policy by competent authorities in Victoria and the

Forest con-
servation—
Royal Com-
mission.

neighbouring States to whom it has been submitted, but owing to a press of other new legislation it has not yet been dealt with by Parliament.

While the Governments of all the great nations of the world have seen the necessity of forest conservation, and of re-forestation large areas for the general purposes of forestry, the Government of Victoria has in the past done very little. Something less than a thousand acres were enclosed along the lower slopes of the You Yangs, and planted with eucalypts and conifers for timber, and with wattles for bark. Minor plantations exist at Sawpit Gully (Dividing Range), Havelock, Majorca, and Macedon. There are also two forest nurseries situated at Macedon and Creswick, which have lately been extended.

The timber plantations at You Yangs, Creswick, and Majorca have also been extended, and new plantations of the best varieties of wattle for the production of bark for tanning purposes have been formed. No forest produce yields such a good return to the State as wattle, the royalties for the stripping rights ranging from £2 10s. to £5 10s. per ton, according to the distance from the chief tanning centres. As a rule, the bark is fit for a first stripping in the sixth year after the trees are planted, but the main yield is obtained in the seventh and eighth years.

The evils of destruction, to which reference has been made, might have been to some extent mitigated by planting trees in areas where cereals do not thrive, because of poor or thin soil or excessive rainfall. There are many such areas in the neighbourhood of towns and cities, and even in agricultural districts, where trees might have been advantageously planted, and forests reserved. Unfortunately, even these areas have passed from the Crown, but doubtless suitable arrangements are possible whereby the present owners can be induced to establish plantations. There are still, however, in many parts of Victoria, unappropriated areas, on the tops and slopes of hills and mountains, and on the steep sides of river banks,

which may be reserved for forests, and planted with tree-stocks.

A lively sense of the irreparable injuries that result from the despoliation of forest areas should induce extreme caution in the further alienation of these lands.

The establishments connected with this industry increased from 24 in 1897 to 28 in 1902, and the number of hands employed from 204 in 1897 to 285 in 1902. The approximate value of machinery and plant increased from £15,750 to £29,611, and the weight of bacon and hams from 7,248,049 lbs. to 11,702,322 lbs. during the same period. Bacon and ham curing.

The following gives details of the industry between 1898 and 1902: —

Year.	Approximate Value of—			Pigs Slaughtered for Curing.	Weight of Bacon and Hams Cured.
	Machinery and Plant.	Land.	Buildings and Improvements		
	£.	£	£	No.	lbs.
1898 ...	18,250	5,730	18,950	69,140	7,135,740
1899 ...	24,265	6,870	22,205	83,661	8,895,122
1900 ...	23,210	7,680	25,200	109,619	10,267,778
1901 ...	27,900	8,690	27,670	112,428	11,696,710
1902 ...	29,611	9,231	30,625	114,539	11,702,322

NOTE.—The columns, "Pigs Slaughtered" and "Weight of Bacon and Ham Cured," include the number and quantity dealt with in small factories. These are not included in the regular list.

In addition, the following quantities of bacon and hams were returned as having been cured on farms, viz.:—1,795,372 lbs. in 1898, 2,081,192 lbs. in 1899, 2,936,769 lbs. in 1900, 3,314,906 lbs. in 1901, and 2,736,048 lbs. in 1902.

Of the 11,702,322 lbs. of bacon and hams cured in 1902, 3,387,411 lbs., valued at £129,817, were exported, principally to Western Australia. Export of bacon and hams.

The number of butter and cheese factories, exclusive of creameries, was 211 in 1902. The great majority of these employed steam power. There was a decrease of 7 from the previous year, but an increase of 102, or nearly 100 per cent., during the last ten years. Of the factories in operation in Butter and cheese factories.

1902, 177 made butter, 8 made butter and cheese, and 26 made cheese only. The number of creameries was first recorded in 1895, when there were 284. In 1902 there were 334, the maximum number being 399 in 1900. From 1898 to 1902 the horse-power of the engines used increased from 2,666 to 3,759, the number of hands employed from 1,220 to 1,403, the approximate value of machinery, plant, land, buildings, and improvements from £446,135 to £547,775. The quantity of milk received at the factories and creameries increased from 77,520,000 gallons in 1895—the first year in which a record was kept—to 80,621,245 gallons in 1902. In 1900, the return was 116,220,239 gallons—the maximum quantity received.

The output from butter and cheese factories during the last five years was:—

Year.	Butter.	Cream Sold.	Cheese.	Concentrated Milk Made.
	lbs.	gallons.	lbs.	gallons.
1898 ...	26,886,860	39,277	2,289,170	164,817
1899 ...	45,878,459	62,493	2,373,178	205,888
1900 ...	48,839,996	38,274	2,508,843	263,138
1901 ...	40,824,928	50,092	2,073,940	266,083
1902 ...	32,927,546	23,739	2,128,835	243,904

In addition to the quantity of butter and cheese made in the factories, the following quantities were returned as having been made on farms, viz.:—Butter, 7,193,450 lbs. in 1898, 7,449,126 lbs. in 1899, 6,764,122 lbs. in 1900, 6,032,644 lbs. in 1901, and 6,300,208 lbs. in 1902; cheese, 2,108,199 lbs. in 1898, 2,139,528 lbs. in 1899, 1,775,327 lbs. in 1900, 1,900,728 lbs. in 1901, and 1,720,726 lbs. in 1902.

Taking the returns of butter from all sources, the largest quantity, 55,604,118 lbs., was made in 1900. The largest quantity of cheese, 5,052,782 lbs., was made in 1895. The figures under this head have undergone only a slight variation during the last ten years, the lowest during that period being in 1893, when the return was 3,748,555 lbs.

Of the total quantity of butter made in factories and on farms, 39,227,754 lbs., 15,040,029 lbs., valued at £769,811, were

Butter and
cheese
made on
farms.

Butter and
cheese
made in
factories
and on
farms.

Export of
butter.

exported, principally to the other Australian States and South Africa.

The total quantity of cheese made in factories and on farms was 3,849,561 lbs., of which 797,438 lbs., valued at £26,978, were exported, principally to Queensland and New South Wales. Export of cheese.

The number of works for freezing and preserving meat increased from 6 in 1895 to 15 in 1902, the horse-power from 529 to 825, and the number of hands from 238 to 598. The approximate value of machinery, plant, land, buildings, and improvements shows an increase of £25,040 in the same period. Meat freezing and preserving works.
The output was:—

Year.	Frozen.			
	Sheep.	Cattle.	Rabbits.	Poultry.
	No.	Qrs.	No.	No.
1898	215,639	398	3,014,240	22,962
1899	475,579	9,608	4,477,866	5,405
1900	437,242	16,096	4,840,128	44,050
1901	417,721	6,395	3,990,460	71,490
1902	375,178	1,388	6,218,422	34,228

Year.	Preserved.			
	Beef.	Mutton.	Rabbits.	Fish.
	Cwt.	Cwt.	Cwt.	Cwt.
1898	349	2,790	22,687	2,381
1899	608	4,277	34,144	6
1900	5,593	2,198	24,874	831
1901	3,304	2,417	26,303	1,140
1902	7,705	14,913	16,537	2,134

The quantity of Victorian frozen mutton exported in 1902 was 13,320,200 lbs., valued at £185,539, of which nearly 55 per cent. was sent to the United Kingdom, and the greater portion of the balance to South Africa. The quantity of frozen beef exported was 583,500 lbs., valued at £10,135. The value of frozen poultry and game exported was £18,821. The number of pairs of frozen rabbits and hares exported was 3,274,210, valued at £160,445, 98 per cent. of which was sent to the United Kingdom. The export of preserved rabbits was 977,835 lbs., and its value was £13,528. Export of frozen meat.

MEAT FREEZING AND PRESERVING.

BY A. A. BROWN, ESQ., M.B., B.S., INSPECTOR OF FOOD FOR EXPORT,
DEPARTMENT OF AGRICULTURE.

Meat products, frozen and canned in Victoria, find their way to different parts of the world. Government supervision is exercised over slaughtering establishments and canneries where meats are prepared for export, and no unsound carcase is passed for export, and no meat from such a carcase or that has undergone any putrefactive change is permitted to be canned. Before any meat product can be placed on board a vessel for exportation beyond Australia, the consignor must make a declaration that it has been derived from healthy sources, and an expert Government official makes a careful examination before it is placed on board ship.

The fecundity of the rabbit in Victoria is marvellous, and its extermination has now become a matter of impossibility. The export trade in frozen and canned rabbits has converted what otherwise would be a serious pest into a commodity of considerable commercial value.

The rabbits of Victoria are singularly free from bacterial diseases, and the only parasitic diseases are Coccidiosis (*Coccidium Oviforme*) and Hydatids (*Cysticercus Pisiformis*).

Flour mills.

These mills decreased in number by 10 and the number of hands by 101 since 1898, whilst an increase of 314 took place in the horse-power of the engines. The approximate values of machinery, plant, land, buildings, and improvements, the wheat operated on for flour, and the quantity of flour made during the last five years, were as follow:—

Year.	Approximate Value of—			Wheat Operated on for Flour.	Flour Made.
	Machinery and Plant.	Land.	Buildings and Improvements.		
	£	£	£	bushels.	tons.
1898	295,135	60,515	185,520	7,947,381	154,722
1899	304,365	62,885	186,070	9,139,289	184,835
1900	297,880	74,442	184,470	8,387,323	169,739
1901	280,130	70,530	175,520	9,482,175	190,845
1902	256,980	76,121	171,125	8,491,224	170,696

The exports of produce from flour mills were:—

Flour, 44,783,700 lbs., valued at, £179,293.
Bran, 17,648,500 lbs. „ £51,226
Pollard, 4,439,800 lbs. „ £13,408

The two sugar refineries working in 1902 employed steam engines of 424 horse-power and 346 hands, treated 952,801 cwt. of raw (cane) sugar, and produced 879,521 cwt. of refined sugar, and 51,052 cwt. of refined treacle. The value of the machinery, plant, land, buildings, and improvements was returned at £168,500. Although there is one factory less in 1902 than in 1898, the horse-power of the engines is about the same, while the hands employed increased by 22. The output of sugar was less by 11,359 cwt., but that of treacle increased by 12,748 cwt. The value of the machinery, &c., increased by £35,670.

Sugar refineries.

The number of breweries in 1902, 44, was seven less than in 1898, but the number of hands employed increased from 1,088 to 1,112. The approximate value of the machinery, plant, land, buildings, and improvements, the quantities of materials used, and the beer made during the last five years, were:—

Breweries.

Year.	Approximate Value of—			Materials Used—			Beer Made.
	Machinery and Plant.	Land.	Buildings and Improvements.	Sugar.	Malt.	Hops.	
	£	£	£	cwt.	bushels.	lbs.	gallons.
1898 ...	177,265	447,185	282,085	109,853	606,503	713,230	15,400,017
1899 ...	189,590	447,885	281,265	109,881	595,149	676,959	15,326,289
1900 ...	204,840	230,530	269,410	111,863	598,094	648,648	16,162,550
1901 ...	212,280	236,310	271,600	113,686	608,445	650,214	16,563,068
1902 ...	211,036	228,990	273,325	115,258	625,441	677,262	17,162,680

NOTE.—The columns under "Materials Used" and "Beer Made" include those of small breweries, not included in the regular list.

The distilleries decreased from 10 in 1898 to 9 in 1902, the hands from 138 to 73, the estimated value of machinery, plant, land, buildings, and improvements from £154,990 to £147,644, whilst the horse-power of the engines increased from 170 to 198. The materials used in the manufacture of spirits were:—

Distilleries.

Year.	Wine.	Malt.	Wheat.	Maize.	Other Grain.	Sugar and Molasses.	Beer.
	Gallons.	Bushels.	Bushels.	Bushels.	Bushels.	lbs.	Gallons.
1898 ...	350,956	46,177	...	...	1,963	5,178,880	1,000
1899 ...	160,798	84,558	3,129	...	112	5,344,640	...
1900 ...	160,301	91,223	2,353	3,692	26	4,652,480	...
1901 ...	148,584	123,394	1,541	16,000	2,464	2,853,760	2,265
1902 ...	128,272	16,744	87	11,880	2,507	1,780,016	...

Spirits made by vine-growers for fortifying wine are not included in the previous table. The following quantities were

distilled during the last five years in vineyards for that purpose:—38,885 gallons in 1898, 42,625 gallons in 1899, 30,554 gallons in 1900, 38,058 gallons in 1901, and 49,867 gallons in 1902. The following are the quantities of Victorian spirits consumed (i.e., duty paid) in the years named:—192,770 gallons in 1898, 204,637 gallons in 1899, 194,345 gallons in 1900, 297,486 gallons in 1901, and 234,986 gallons in 1902.

Tobacco, &c.
manufac-
tories.

These decreased from 14 in 1898 to 13 in 1902, but there was an increase in the horse-power of the engines from 99 to 154, in the number of hands employed from 764 to 1,293, and in the value of machinery, plant, land, buildings, and improvements from £154,950 to £176,531. The quantity of material used and the output from 1898 to 1902 were:—

Year.	Manufactured Leaf.			Quantity Manufactured of—			
	Imported Duty Paid.	Operated on.		Tobacco.	Snuff.	Cigars.	Cigarettes.
		Imported.	Colonial.				
	lbs.	lbs.	lbs.	lbs.	lbs.	No.	No.
1898	970,382	1,080,580	386,148	1,066,003	1,300	8,963,737	84,149,770
1899	1,246,582	1,309,067	306,728	1,191,327	782	9,639,992	85,055,431
1900	1,743,280	1,661,632	276,407	1,722,236	794	11,584,442	111,010,705
1901	2,742,653	2,542,580	230,113	2,365,831	1,133	13,025,840	125,693,600
1902	969,602	1,379,905	205,434	1,630,510	550	11,936,455	100,817,104

The total production and consumption of tobacco, duty paid, for the same period were:—

Year.	Total (Tobacco, Cigars, Cigarettes and Snuff) Made in State, Excise Duty Paid.	Imported Manu- factured Tobacco, Duty Paid.	Total Consumption.	
			Quantity.	Average per Head.
	lbs.	lbs.	lbs.	lbs.
1898	1,287,946	1,115,076	2,403,022	2·03
1899	1,456,102	1,036,777	2,492,879	2·10
1900	1,803,550	878,473	2,682,023	2·25
1901	2,658,899	931,296	3,590,195	2·98
1902	1,653,170	552,611	2,205,781	1·83

In anticipation of the increased duty which operated in the latter part of 1901, a large quantity of tobacco was withdrawn from bond, and the amount of excise paid was consequently much larger than in previous years. Hence the consumption

per head that year appears to be higher, and in the following year lower than the real average.

These mills increased from 8 in 1898 to 10 in 1902. They were situated, one in each of the following municipalities:—
 Ballarat East, Castlemaine, Collingwood, Footscray, Williamstown, and Bungaree Shire, and two in each of the municipalities of Geelong, and Newton and Chilwell. The horse-power of the engines increased from 770 to 1,716, the number of hands from 813 to 1,122, and the approximate value of the machinery, plant, land, buildings, and improvements from £219,515 to £289,645, during the same period. The quantities of wool and cotton used, and of goods manufactured, were:—

Woollen mills.

Year.	Quantity of Scoured Wool Used.	Quantity of Cotton Used.	Goods Manufactured—			
			Tweed and Cloth.	Flannel.	Blankets.	Shawls and Rugs.
	lbs	lbs.	yards.	yards.	No. of pairs.	No.
1898 ...	1,317,953	188,000	988,067	1,031,914	23,872	2,375
1899 ...	1,634,680	154,388	1,051,832	1,108,183	33,427	3,200
1900 ...	1,831,000	178,332	971,267	1,596,120	56,340	3,500
1901 ...	2,023,509	250,184	818,975	2,229,617	49,302	4,600
1902 ...	2,149,897	273,335	708,749	2,612,343	67,609	5,718

These factories increased from 89 in 1898 to 132 in 1902, the horse-power of the engines from 282 to 461, the number of hands from 4,019 to 5,101, and the approximate value of machinery, plant, land, buildings, and improvements from £179,945 to £223,290. The following are the quantities of goods manufactured each year from 1898 to 1902:—

Boot factories.

Year.	Goods Manufactured—		
	Boots and Shoes.	Boot and Shoe Uppers for other than Factory use.	Slippers.
	No. of pairs.	No. of pairs.	No. of pairs.
1898 ...	2,611,532	53,812	95,600
1899 ...	2,929,011	50,673	96,976
1900 ...	3,446,809	18,639	66,740
1901 ...	3,125,799	66,057	92,174
1902 ...	3,613,487	72,391	216,483

NOTE.—The number of slippers returned for 1902 includes canvas shoes and house-boots, which were not returned previous to this year.

The export of boots and shoes is mainly to the neighbouring States. The quantity exported in 1902 was 757,492 pairs, and their value £186,224.

Brickyards
and
potteries.

The brickyards increased since 1898 from 94 to 107, the horse-power of the engines from 856 to 1,066, the number of hands from 1,105 to 1,451, and the approximate value of machinery, plant, land, buildings, and improvements from £212,580 to £248,186.

The number of bricks made, and the value of pottery and of pipes and tiles manufactured during the same period, were returned as follow:—

Year.	Number of Bricks Made.	Value of—	
		Pottery.	Pipes and Tiles.
		£	£
1898 ...	64,511,000	36,315	25,746
1899 ...	82,751,200	51,538	27,515
1900 ...	85,387,275	55,751	19,870
1901 ...	86,769,000	73,060	23,695
1902 ...	92,503,080	71,074	27,289

NOTE.—The number of bricks includes those made in small brick-yards.

Soap and
candle
works.

The number of soap and candle works was the same in 1902 as in 1898, viz., 22, but there were 26 in operation in 1901. Between the years 1898 and 1902 the horse-power of engines decreased from 540 (including the power of boilers in one large factory) to 290, but the hands employed increased from 425 to 486. The estimated value of machinery, plant, land, buildings, and improvements decreased steadily since 1898, but on the other hand the quantity of soap and candles shows a substantial increase, as will be seen by reference to the figures below:—

Year.	Approximate Value of—			Products Made.	
	Machinery and Plant in Use.	Land.	Buildings and Improvements.	Soap. (Including that made in small Factories.)	Candles.
	£	£	£	Cwt	Cwt.
1898 ...	100,105	48,865	66,700	128,000	41,907
1899 ...	105,145	48,950	67,590	136,424	45,848
1900 ...	95,114	42,675	58,049	133,678	46,624
1901 ...	97,260	42,870	60,940	143,140	47,313
1902 ...	91,325	39,967	56,852	165,188	49,406

The export of common soap in 1902 was 2,110,612 lbs., and its value was £17,794. The export of candles was 793,919 lbs., valued at £17,222.

The number of electric light works decreased from 10 in 1898 to 7 in 1902 (due to amalgamation of works in the city of Melbourne); the horse-power of the engines increased from 4,402 to 7,178; but on the other hand the number of hands employed decreased from 158 to 147, the maximum number employed being 199 in 1901. The approximate value of machinery, plant, land, buildings, and improvements, also the quantity of electricity supplied, are set forth in the following table for the period under review:—

Year.	Approximate Value of—			Electricity Supplied.
	Machinery and Plant.	Land.	Buildings and Improvements.	
	£	£	£	British Units.
1898 ...	156,570	16,300	37,920	4,507,176
1899 ...	152,780	16,200	37,720	4,505,351
1900 ...	145,580	16,060	37,700	6,100,519
1901 ...	220,690	15,240	86,730	6,680,214
1902 ...	204,022	10,000	67,661	6,450,560

Forty-seven gasworks were in operation in 1902, and 46 in 1898. An increase from 350 to 543 took place in the horse-power of engines in use, and from 680 to 758 in the number of hands employed. In the value of machinery, plant, and buildings, and improvements, however, a reduction from £1,230,663 to £1,201,794 is reported for the same period.

The quantities of coal used, of gas made, and of coke produced, during the period under review, are shown hereunder:—

Year.	Coal Used.	Gas Made.	Coke Produced.
	Tons.	Cubic Feet.	Tons.
1898 ...	142,411	1,457,948,000	74,778
1899 ...	149,733	1,477,450,400	75,603
1900 ...	153,455	1,516,531,100	77,255
1901 ...	159,374	1,567,649,380	84,546
1902 ...	169,356	1,642,652,799	92,308

The number of stone quarries (including stone crushing works) increased from 52 in 1898 to 79 in 1902, the horse-power of the engines from 113 to 210, the number of hands

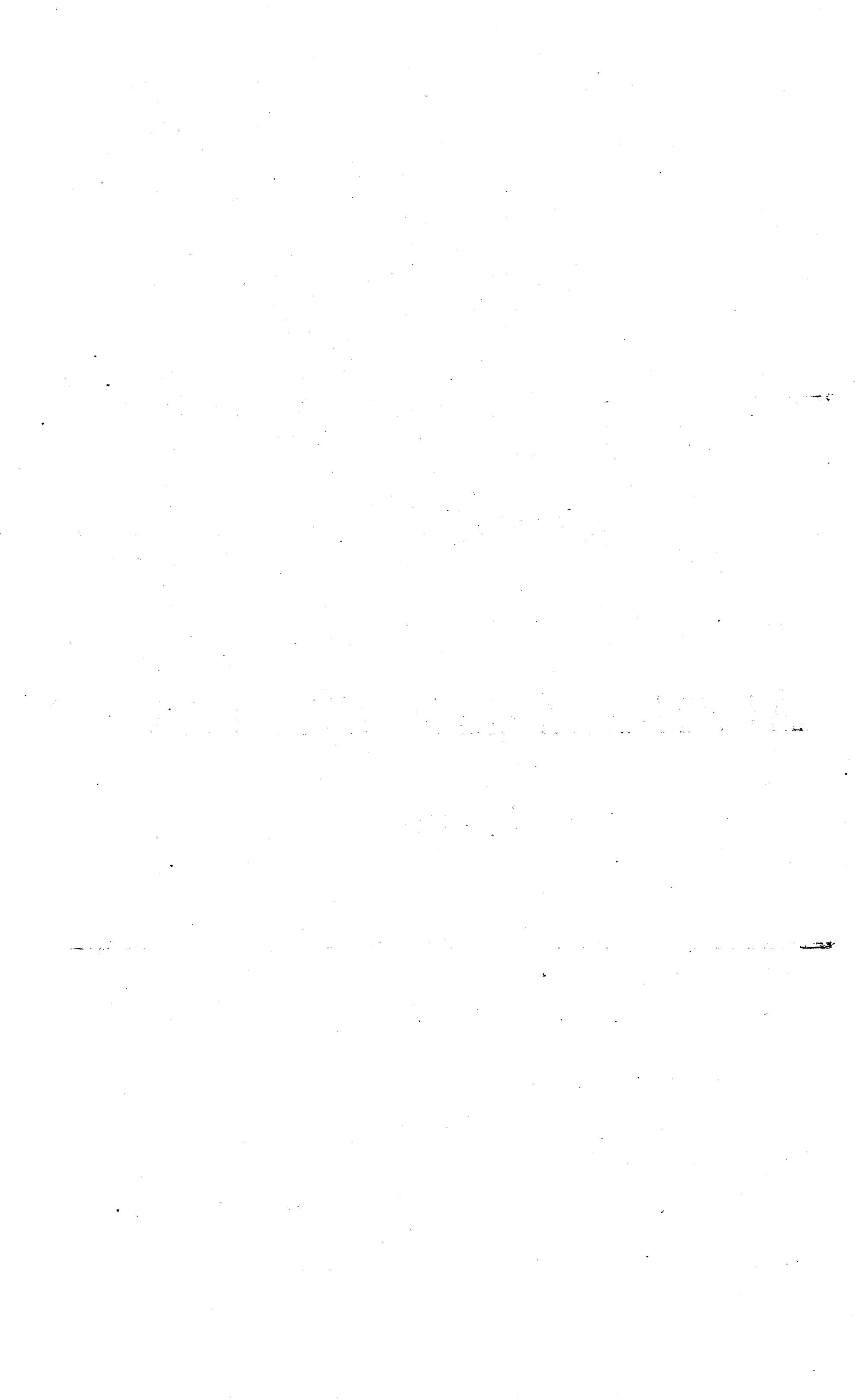
employed from 280 to 567, and the approximate value of machinery, plant, land, buildings, and improvements from £28,135 to £39,314 during the same period. The quantity and value of stone raised for the years 1898 to 1902 are set forth in the following table:—

Year.	Quantity of Stone Operated on—			Approximate Total Value of Stone Raised.
	Bluestone.	Sandstone, Freestone, Slate, &c.	Granite.	
	c. yds.	c. yds.	c. yds.	£
1898	141,112	864	306	19,182
1899	209,960	930	650	30,401
1900	252,870	1,263	400	44,513
1901	270,126	2,400	1,500	45,447
1902	323,485	5,964	3,099	53,395

APPENDIX.

AUSTRALASIAN STATISTICS,

1902.



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APPENDIX.

1.—AREA AND POPULATION, 1902.

State.	Area in Square Miles.	Estimated Population, 31st December, 1902.			Number of—		Estimated Mean Population 1902.
		Males.	Females.	Total.	Females to 100 Males.	Persons to the Sq. Mile	
Victoria ...	87,884	602,384	603,129	1,205,513	100·1	13·72	1,207,110
New South Wales...	310,700	739,290	666,160	1,405,450	90·1	4·52	1,392,575
Queensland ...	668,497	285,482	229,369	514,851	80·3	·77	513,612
South Australia—							
Proper ...	380,070	181,579	179,876	361,455	99·1	·95	359,232
Northern Territory	523,620	3,872	464	4,336	12·0	·01	4,510
Western Australia...	975,920	130,636	84,504	215,140	64·7	·22	207,142
Tasmania ...	26,215	92,034	85,043	177,077	92·4	6·75	175,652
Australia ...	2,972,906	2,035,277	1,848,545	3,883,822	90·8	1·31	3,859,833
New Zealand ...	104,471	425,908	382,021	807,929	89·7	7·73	797,793

2.—POPULATIONS AT VARIOUS CENSUSES.

State.	Census Period.				
	1861.	1871.	1881.	1891.	1901.
Victoria ...	540,322	731,528	862,346	1,140,405	1,201,341
New South Wales ...	350,860	503,981	751,468	1,132,234	1,359,133
Queensland...	30,059	117,960	213,525	393,718	503,266
South Australia (including Northern Territory)	126,830	185,626	279,865	320,431	362,604
Western Australia ...	15,100	25,270	29,708	49,782	184,124
Tasmania ...	89,977	101,020	115,705	146,667	172,475
Australia ...	1,153,148	1,665,385	2,252,617	3,183,237	3,782,943
New Zealand ...	84,536	257,810	489,933	626,658	772,719

3.—MIGRATION BY SEA, 1902.

State.	Arrivals. (As recorded.)			Departures. (As recorded.)		
	Males.	Females.	Total.	Males.	Females.	Total.
Victoria	56,984	30,573	87,557	62,963	34,970	97,933
New South Wales	54,941	26,249	81,190	36,720	21,529	58,249
Queensland	12,504	5,258	17,762	14,771	6,066	20,837
South Australia—						
Proper	24,293	12,515	36,808	25,793	14,133	39,926
Northern Territory ...	298	56	354	442	101	543
Western Australia	24,896	12,964	37,860	14,439	6,562	21,001
Tasmania	17,525	10,025	27,550	15,265	9,307	24,572
Australia	191,441	97,640	289,081	170,393	92,668	263,061
New Zealand	21,522	8,771	30,293	15,600	6,701	22,301

4. MIGRATION BY LAND, 1902.

State.	Arrivals.			Departures.		
	Males.	Females.	Total.	Males.	Females.	Total.
Victoria	12,263	8,175	20,438	9,473	6,314	15,787
New South Wales	43,432	22,344	65,776	54,910	29,246	84,156
Queensland	11,313	5,007	16,320	9,563	4,888	14,451
South Australia—Proper ...	19,908	15,178	35,086	18,661	14,223	32,884

5.—BIRTHS, DEATHS, AND MARRIAGES, 1902.

State.	Births.		Deaths.	Marriages.	Per 1,000 of Mean Population.		
	Total.	Illegitimate.			Births.	Deaths.	Marriages.
Victoria ...	30,461	1,677	16,177	8,477	25·23	13·40	7·02
New South Wales ...	37,835	2,497	16,646	10,486	27·17	11·95	7·53
Queensland ...	14,216	859	6,204	3,243	27·68	12·08	6·31
South Australia—							
Proper ...	8,927	389	4,236	2,376	24·85	11·79	6·61
Northern Territory	20	...	78	7	4·43	17·30	1·55
Western Australia ...	6,232	247	2,823	2,024	30·09	13·63	9·77
Tasmania ...	5,085	311	1,914	1,313	28·95	10·90	7·48
Australia ...	102,776	5,980	48,078	27,926	26·63	12·46	7·24
New Zealand ...	20,655	921	8,375	6,388	25·89	10·50	8·01

State.	Excess of Births over Deaths.		Males to 100 Females.		Deaths of Infants Under 1 Year.		Percentage of Illegitimate to Total Births.
	Number.	Per cent.	Born.	Died.	Total.	Per 100 Births.	
Victoria ...	14,284	88·3	104·7	130·3	3,308	10·86	5·51
New South Wales ...	21,189	127·3	104·4	134·1	4,152	10·97	6·60
Queensland ...	8,012	129·1	104·9	172·1	1,424	10·02	6·04
South Australia—							
Proper ...	4,691	110·7	105·3	120·6	837	9·38	4·36
Northern Territory	-58	-290·0	66·7	1460·0	4	20·00	...
Western Australia ...	3,409	120·8	108·4	184·9	885	14·20	3·96
Tasmania ...	3,171	165·7	105·0	120·0	401	7·89	6·12
Australia ...	54,698	113·8	104·9	138·0	11,011	10·71	5·82
New Zealand ...	12,280	146·6	106·5	140·3	1,712	8·29	4·46

6.—BIRTHS AND BIRTH RATE PER 1,000 OF THE POPULATION.

State.	Mean Annual at each Period.									
	1860-62.		1870-72.		1880-82.		1890-92.		1900-1902.	
	Births.	Rate.	Births.	Rate.	Births.	Rate.	Births.	Rate.	Births.	Rate.
Victoria	23,571	43·62	27,298	37·32	26,680	31·02	37,971	33·30	30,761	25·61
New South Wales	14,782	42·14	20,013	39·71	28,952	38·52	39,486	34·82	37,619	27·40
Queensland	1,453	48·33	5,125	41·33	8,314	38·94	15,008	38·09	14,440	28·59
South Australia	5,731	46·02	7,069	38·46	10,605	37·90	10,507	32·83	9,078	25·10
Western Australia	600	38·48	734	29·61	1,009	33·96	1,731	34·73	5,802	30·62
Tasmania	3,198	36·43	3,040	30·17	3,900	33·71	4,916	33·53	4,960	28·52

7.—MARRIAGES AND MARRIAGE RATE PER 1,000 OF THE POPULATION.

State.	Mean Annual at each Period.									
	1860-62.		1870-72.		1880-82.		1890-92.		1900-1902.	
	Marriages.	Rate.	Marriages.	Rate.	Marriages.	Rate.	Marriages.	Rate.	Marriages.	Rate.
Victoria	4,436	8.25	4,738	6.47	5,830	6.78	8,563	7.51	8,397	6.99
New South Wales	3,164	9.02	3,908	7.75	6,268	8.38	8,118	7.16	10,340	7.53
Queensland	389	12.94	991	7.99	1,761	8.24	2,958	7.51	3,318	6.57
South Australia	1,126	9.07	1,290	7.02	2,376	8.49	2,224	6.97	2,335	6.46
Western Australia	154	9.88	151	6.01	208	7.00	367	7.36	1,874	9.89
Tasmania	680	7.74	633	6.28	888	7.67	979	6.67	1,326	7.63

Australasian Statistics, 1902.

8.—DEATHS AND DEATH RATE PER 1,000 OF THE POPULATION.

State.	Mean Annual at each Period.									
	1860-62.		1870-72.		1880-82.		1890-92.		1900-1902.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
Victoria	10,887	20·15	10,389	14·20	12,529	14·57	17,498	15·35	15,765	13·12
New South Wales	6,143	17·51	6,811	13·52	11,861	15·78	14,971	13·20	15,928	11·60
Queensland	591	19·66	1,788	14·42	3,537	16·57	5,358	13·60	5,986	11·84
South Australia	2,072	16·69	2,606	14·18	4,105	14·67	3,958	12·37	4,072	11·25
Western Australia	231	14·81	323	13·03	408	13·73	780	15·65	2,533	13·33
Tasmania	1,529	17·42	1,390	13·79	1,823	15·76	2,140	14·59	1,877	10·78

9.—DEATHS IN AGE GROUPS, 1902.

State.	Age Groups.					
	Under 1 Year.	1 to 5 Years.	5 to 65 Years.	65 Years and Over.	Unspecified.	Total.
MALES.						
Victoria	1,793	555	3,628	3,165	11	9,152
New South Wales ...	2,249	706	4,218	2,348	14	9,535
Queensland	780	204	2,249	691	...	3,924
South Australia—Proper	465	234	1,009	607	1	2,316
„ Northern Territory	3	1	67	2	...	73
Western Australia ...	496	137	970	216	13	1,832
Tasmania	222	54	426	342	...	1,044
Australia	6,008	1,891	12,567	7,371	39	27,876
New Zealand	952	279	2,247	1,412	...	4,890
FEMALES.						
Victoria	1,515	498	3,065	1,942	5	7,025
New South Wales ...	1,903	643	3,061	1,502	2	7,111
Queensland	644	190	1,065	381	...	2,280
South Australia—Proper	372	178	791	579	...	1,920
„ Northern Territory	1	2	2	...	...	5
Western Australia ...	389	121	406	74	1	991
Tasmania	180	44	401	245	...	870
Australia	5,004	1,676	8,791	4,723	8	20,202
New Zealand	760	299	1,642	784	...	3,485

10.—DEATHS IN CAPITAL CITIES, 1902.

State.	Age Groups.					
	Under 1 Year.	1 to 5 Years.	5 to 65 Years.	65 Years and Over.	Unspecified.	Total.
MALES.						
Melbourne	861	253	1,744	1,147	...	4,005
Sydney	782	219	1,556	632	1	3,190
Brisbane	251	67	431	147	...	896
Adelaide	232	114	553	313	...	1,212
Perth ... ..	...	...	...	...	...	482
Hobart	55	14	110	107	...	286
Wellington	87	32	147	67	...	333
FEMALES.						
Melbourne	729	220	1,635	907	...	3,491
Sydney	675	211	1,284	577	...	2,747
Brisbane	189	58	345	120	...	712
Adelaide	207	87	455	315	...	1,064
Perth ... ..	...	...	...	...	...	271
Hobart	42	8	106	89	...	245
Wellington	85	33	128	45	...	291

11.—METEOROLOGY IN CAPITAL CITIES, 1902.

Capital City.	Mean Barometric Pressure.	Temperature in Shade.			Rainfall.	
		Maximum.	Minimum.	Mean.	Number of Days.	Amount.
	Inches.	°	°	°		Inches.
Melbourne ...	29·97	103·0	29·6	56·9	102	23·08
Sydney ...	29·90	100·0	40·0	63·0	176	43·07
Brisbane ...	30·03	108·9	39·6	70·1	86	16·04
Adelaide ...	30·09	111·4	36·9	63·4	123	16·02
Perth ...	30·08	103·7	38·5	63·6	93	27·06
Hobart ...	29·98	97·0	28·8	53·2	140	21·90
Wellington	29·93	81·0	32·0	54·1	201	38·75

12.—COMMONWEALTH REVENUE AND EXPENDITURE, 1901-2.

Heads of Revenue and Expenditure.	Transactions on Account of Each State.						Total Commonwealth.
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	
Revenue—	£	£	£	£	£	£	£
Customs and Excise	2,376,525	2,812,731	1,297,662	698,647	1,335,614	373,140	8,894,319
Posts and Telegraphs	591,470	873,312	312,905	277,812	225,752	91,610	2,372,861
Defence	7,628	1,156	263	1,374	31	205	10,657
Miscellaneous ... ..	...	6,069	304	...	...	10,000	16,373
New Revenue (proportion of)	877	998	367	265	141	127	2,775
Total	2,976,500	3,694,266	1,611,501	978,098	1,561,538	475,082	11,296,985
Expenditure—							
Customs and Excise	63,812	63,450	64,225	26,518	31,991	10,327	260,323
Posts and Telegraphs	588,888	840,685	419,964	246,752	258,570	107,056	2,461,915
Defence	316,876	309,146	185,958	58,670	34,967	29,028	934,645
New Expenditure	87,194	99,252	36,463	26,320	14,061	12,571	275,861
Balance paid to State	1,920,974	2,385,904	904,775	615,868	1,225,076	315,540	7,368,137
Total	2,977,744	3,698,437	1,611,385	974,128	1,564,665	474,522	11,300,881
Per Head of Population—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Revenue	2 9 3	2 13 7	3 3 2	2 13 8	8 0 3	2 14 6	2 18 11
Expenditure (excluding Refunds to State)	17 6	19 0	1 7 8	19 8	1 14 10	18 3	1 0 6

Australasian Statistics, 1902.

13.—NET REVENUE COLLECTED BY CUSTOMS DEPARTMENT, 1902.

State.	From Import Duties.	From Excise Duties.	From Other Sources.	Total.
	£	£	£	£
Victoria	2,013,241	400,221	44,375	2,457,837
New South Wales	2,717,260	627,096	84,352	3,428,708
Queensland	985,065	176,659	6,486	1,168,210
South Australia—Proper	571,657	88,339	4,592	664,588
" " Northern Territory	21,917	174	330	22,421
Western Australia	1,358,757	63,895	10,511	1,433,163
Tasmania	247,194	21,834	2,554	271,582
Australia	7,915,091	1,378,218	153,200	9,446,509
New Zealand	2,289,783	89,742	119,702	2,499,227

14.—COMMONWEALTH REVENUE CREDITED TO EACH STATE, 1901-2.

State.	Revenue Derived from—			Total Revenue.
	Customs and Excise.	Posts and Telegraphs.	Other Services.	
	AMOUNT.			
	£	£	£	£
Victoria	2,376,525	591,470	8,505	2,976,500
New South Wales	2,812,731	873,312	8,223	3,694,266
Queensland	1,297,662	312,905	934	1,611,501
South Australia	698,647	277,812	1,639	978,098
Western Australia	1,335,614	225,752	172	1,561,538
Tasmania	373,140	91,610	10,332	475,082
Australia	8,894,319	2,372,861	29,805	11,296,985
	PER HEAD OF POPULATION.			
	£ s. d.	£ s. d.	s. d.	£ s. d.
Victoria	1 19 4	0 9 9	0 2	2 9 3
New South Wales	2 0 9	0 12 8	0 2	2 13 7
Queensland	2 10 10	0 12 3	0 1	3 3 2
South Australia	1 18 4	0 15 3	0 1	2 13 8
Western Australia	6 17 1	1 3 2	...	8 0 3
Tasmania	2 12 10	0 10 6	1 2	2 14 6
Australia	2 16 5	0 12 4	0 2	2 18 11

15.—COMMONWEALTH EXPENDITURE, DEBITED TO EACH STATE, 1901-2.

State.	Customs and Excise.	Posts and Telegraphs.	Defences.	Refunds to State.	New Expenditure.	Total.
AMOUNT.						
	£	£	£	£	£	£
Victoria ...	63,812	588,888	316,876	1,920,974	87,194	2,977,744
New South Wales	63,450	840,885	309,146	2,385,904	99,252	3,698,437
Queensland ...	64,225	419,964	185,958	904,775	36,463	1,611,385
South Australia ...	26,518	246,752	58,670	615,868	26,320	974,128
Western Australia	31,991	258,570	34,967	1,225,076	14,061	1,564,665
Tasmania ...	10,327	107,056	29,028	315,540	12,571	474,522
Australia ...	260,323	2,451,915	934,645	7,368,137	275,861	11,300,881
PER HEAD OF POPULATION.						
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Victoria ...	0 1 1	0 9 9	0 5 3	1 11 9	0 1 5	2 9 3
New South Wales	0 0 11	0 12 2	0 4 6	1 14 7	0 1 5	2 13 7
Queensland ...	0 2 6	0 16 6	0 7 3	1 15 5	0 1 5	3 3 1
South Australia ...	0 1 6	0 13 6	0 3 3	1 13 9	0 1 5	2 13 5
Western Australia	0 3 3	1 6 7	0 3 7	6 5 9	0 1 5	8 0 7
Tasmania ...	0 1 2	0 12 4	0 3 4	1 16 3	0 1 5	2 14 6
Australia ...	0 1 4	0 12 10	0 4 11	1 18 5	0 1 5	2 18 11

16.—STATE REVENUE UNDER LEADING HEADS, 1901-2.

Heads of Revenue.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania. (31/12/02.)	Australia.	New Zealand. (31/3/02.)
	£	£	£	£	£	£	£	£
Federal Government	1,920,974	2,385,904	904,775	615,868	1,225,076	264,702	7,317,299	...
Taxation	818,274	1,148,942	276,771	267,790	173,582	105,401	2,790,760	3,113,079
Crown Lands	367,145	2,053,126	575,297	156,913	188,489	71,770	3,412,740	249,619
Railways and Tramways	3,362,030	4,390,951	1,316,828	1,107,146	1,488,574	232,744	11,898,273	1,869,489
Other Sources	529,369	1,199,291	461,391	329,715	273,729	60,046	2,853,541	920,652
Total	6,997,792	11,178,214	3,535,062	2,477,432	3,349,450	734,663	28,272,613	6,152,839
Per Head of Population	£ s. d. 5 15 9	£ s. d. 8 2 1	£ s. d. 6 18 5	£ s. d. 6 15 11	£ s. d. 17 3 10	£ s. d. 4 3 8	£ s. d. 7 7 6	£ s. d. 7 16 2

PROPORTIONS PER CENT.

Federal Government	27·45	21·34	25·59	24·86	36·58	36·03	25·88	...
Taxation	11·69	10·28	7·83	10·81	5·18	14·35	9·87	50·60
Crown Lands	5·25	18·37	16·28	6·33	5·63	9·77	12·07	4·06
Railways and Tramways	48·04	39·28	37·25	44·69	44·44	31·68	42·09	30·38
Other Sources	7·57	10·73	13·05	13·31	8·17	8·17	10·09	14·96

NOTE.—The figures for Tasmania relate to the calendar year 1902; those for New Zealand to the year ended 31st March, 1902; and for all the other States to the year ended 30th June, 1902.

17.—SOURCES OF STATE REVENUE, 1901-2.

Sources of Revenue.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania. (31/12/02.)	Australia.
From Taxation*—	£	£	£	£	£	£	£
Probate and succession duties ...	217,796	257,727	...	61,106	13,624	6,980	557,233
Other stamp duties ...	195,015	248,130	146,513	29,776	44,433	27,364	691,231
Land tax ...	97,862	306,298	...	82,738	...	41,862	528,760
Income tax ...	220,629	211,871	66,204	74,506	85,890	14,944	674,044
Other taxation ...	86,972	124,916	64,054	19,664	29,635	14,251	339,492
From Services†—							
Railways and tramways ...	3,362,030	4,390,951	1,316,828	1,107,146	1,488,574	232,744	11,898,273
Water supply ...	38,675	264,172	...	108,946	15,034	...	426,827
Sewerage ...	...	132,758	...	...	...	...	132,758
Other ...	6,938	...	...	...	...	42,305	49,243
From Land—							
Sales (including interest) ...	256,287	1,225,196	219,310	41,130	36,723	41,161	1,819,807
Occupation ...	110,858	827,930	355,987	115,783	151,766	30,609	1,592,933
Miscellaneous ...	483,756	802,361	461,391	220,769	258,695	17,741	2,244,713
Federal refunds ...	1,920,974	2,385,904	904,775	615,868	1,225,076	264,702	7,317,299
Total ...	6,997,792	11,178,214	3,535,062	2,477,432	3,349,450	734,663	28,272,613

*Exclusive of Customs and Excise Revenue now collected by the Commonwealth Government.

† „ Posts and Telegraphs Revenue „ „ „

18.—STATE EXPENDITURE UNDER LEADING HEADS, 1901-2 (EXCLUSIVE OF LOANS).

Heads of Expenditure.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania (31/12/02).	Australia.	New Zealand.
	£	£	£	£	£	£	£	£
Railways and Tramways	2,052,264	2,807,261	990,751	731,072	1,269,619	173,151	8,024,118	1,280,997
Public Instruction	690,237	852,200	328,723	182,820	102,359	70,867	2,227,206	539,317
Interest and Charges on Public Debt ...	1,941,449	2,498,750	1,480,376	995,530	465,318	331,262	7,712,685	1,803,939
All other services	2,714,882	5,032,752	1,167,151	914,156	1,314,131	275,404	11,418,476	2,271,662
Total	7,398,832	11,190,963	3,967,001	2,823,578	3,151,427	850,684	29,382,485	5,895,915
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per Head of Population	6 2 5	8 2 2	7 15 5	7 14 10	16 3 5	4 16 10	7 13 3	7 9 9
	PROPORTIONS PER CENT.							
Railways and Tramways	27.74	25.08	24.98	25.89	40.29	20.35	27.31	21.72
Public Instruction	9.33	7.61	8.28	6.48	3.25	8.33	7.58	9.15
Interest and Charges on Public Debt ...	26.24	22.33	37.32	35.26	14.76	38.94	26.25	30.60
All other	36.69	44.98	29.42	32.37	41.70	32.38	38.86	38.53

19.—STATE EXPENDITURE—EXCLUSIVE OF LOANS—1901-2.

Heads of Expenditure.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania. (31/12/02).	Australia.
	£	£	£	£	£	£	£
Interest on Public Debt ...	1,941,449	2,498,750	1,480,376	995,530	465,318	331,262	7,712,685
Railways and Tramways ...	2,052,264	2,807,261	990,751	731,072	1,269,619	173,151	8,024,118
Public Works ...	299,755	847,429	45,407	121,376	273,522	29,796	1,617,285
Mines ...	59,502	76,753	40,389	43,061	105,680	8,689	334,074
Police ...	271,561	400,953	184,873	84,874	123,724	37,806	1,103,791
Harbours, &c. ...	35,395	229,939	53,794	19,597	26,969	...	365,694
Water Supply and Sewerage ...	30,790	115,133	3,024	35,775	*	...	184,722
Education ...	690,237	852,200	328,723	182,820	102,359	70,867	2,227,206
Charitable Institutions ...	334,819	386,999	135,546	107,471	115,490	49,345	1,129,670
All Other Expenditure ...	1,683,060	2,975,546	704,118	502,002	668,746	149,768	6,683,240
Total ...	7,398,832	11,190,963	3,967,001	2,823,578	3,151,427	850,684	29,382,485

* Included under "Public Works."

20.—STATE BALANCES AT THE END OF 1901-2.

State.	Surplus.	Accumulated Deficiency.		
		Covered by—		Total.
		Treasury Bills.	Cash Overdraft.	
£	£	£	£	
Victoria ... ..	...	100,000	2,256,119	2,356,119
New South Wales ... ..	...	2,477,626	236,781	2,714,407
Queensland ... ..	...	...	431,940	431,940
South Australia ... ..	...	239,000	114,789	353,789
Western Australia	123,185	...	...	...
Tasmania (31/12/02) ... ..	...	...	212,856	212,856
Australia	123,185	2,816,626	3,252,485	6,039,111
New Zealand (31/3/02)	270,488	...	...	...

21.—STATE AND FEDERAL REVENUE AND EXPENDITURE, 1901-2.

State.	Amount of—			Average per head.					
	Revenue.		Expenditure.	Revenue.			Expenditure.		
	Total.	Raised by Taxation.		Total.	Raised by Taxation.				
£	£	£	£ s. d.	£ s. d.	£ s. d.				
Victoria	8,053,318	3,194,799	8,455,602	6 13 3	2 12 10	6 19 11			
New South Wales	12,486,576	3,961,673	12,503,496	9 1 0	2 17 5	9 1 3			
Queensland	4,241,788	1,574,433	4,673,612	8 6 2	3 1 8	9 3 1			
South Australia	2,839,662	966,437	3,181,837	7 15 8	2 13 0	8 14 5			
Western Australia	3,685,912	1,509,196	3,491,016	18 18 3	7 14 10	17 18 3			
Tasmania*	945,043	478,541	1,009,666	5 7 11	2 14 6	5 14 3			
Australia	32,252,299	11,685,079	33,315,229	8 8 3	3 0 11	8 13 9			

* Calendar Year in respect of State items.

22.—STATE EXPENDITURE FROM LOANS, 1901-2.

Hheads of Expenditure.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania. (31(12/02.))	Australia.
	£	£	£	£	£	£	£
Railways and Tramways	467,937	2,243,672	751,451	118,674	578,985	56,731	4,217,450
Roads and Bridges ... ..	...	150,777	...	185	740	55,687	207,389
Harbours, Rivers, and Lighthouses ...	...	1,698,387	21,362	14,782	182,962	16,597	1,934,090
Public Buildings	34,331	276,504	125,478	13,753	...	44,176	494,242
Water Supply	88,902	266,964	...	195,136	} 731,989	...	1,517,670
Sewerage ... ..	...	219,241	...	15,438			
Immigration ... ..	...	..	17,284	...	3,433	...	20,717
Other Public Works or Purposes ...	295,144	43,138	246,114	208,111	47,714	65,440	905,661
Total	886,314	4,898,683	1,161,689	566,079	1,545,823	238,631	9,297,219

23.—AGGREGATE EXPENDITURE FROM LOANS TO END OF YEAR 1901-2.

(Approximate only.)

Hheads of Expenditure.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania. (To 31/12/02.)	Australia.
	£	£	£	£	£	£	£
Railways and Tramways	37,898,290	45,414,483	22,434,859	13,451,493	7,547,950	4,047,908	130,794,983
Telegraphs and Telephones ... ..	...	1,294,887	1,015,222	992,214	269,308	142,410	3,714,041
Roads and Bridges	106,259	1,533,128	†	1,464,458	142,538	2,176,572	5,422,955
Harbours, Rivers, and Lighthouses ...	611,059	7,299,175	2,595,853	1,344,112	1,835,211	440,857	14,126,267
Public Buildings	752,218	3,994,247	1,356,893	829,650	63,876	805,130	7,802,014
Water Supply	8,570,030	5,919,101	†	4,128,050	} 2,329,364	...	26,001,978
Sewerage ... ..	...	4,445,937	...	609,496			
Defence Works	149,324	1,422,957	364,166	289,290	...	128,179	2,353,916
Immigration ... ..	...	194,430	2,933,062	...	27,697	235,000	3,390,189
Other Public Works and Purposes ...	2,112,258*	493,502	5,630,675	2,686,034	1,216,011	850,727	12,989,207
Total	50,199,438	72,011,847	36,330,730	25,794,797	13,431,955	8,826,783	206,595,550

* Including £1,129,112 expenditure on School Buildings.

† Included with "Other public works and purposes."

24.—SOURCES OF MUNICIPAL REVENUE, 1901-2

(EXCLUSIVE OF LOANS).

State.	From Government.	Raised by Local Taxation.	From other Sources.	Total.
	£	£	£	£
Victoria	99,304	964,240	236,990	1,300,534
New South Wales	84,866	567,789	157,954	810,609
Queensland	59,850	321,831	122,075	503,756
South Australia	24,959	150,610	101,261	276,830
Western Australia	102,872	86,314	37,562	226,748
Tasmania	93,063	18,744	33,412	145,219
Australia	464,914	2,109,528	689,254	3,263,696
New Zealand	161,010	726,009	386,787	1,273,806*

* Exclusive of £592,616 other receipts (not revenue), consisting of loans, and special grants from Government, &c.

25.—STATE FUNDED DEBT, 30TH JUNE, 1902.

State.	Loans Repayable in—								Total Funded Debt.		Treasury Bills in aid of Revenue.	Accumulated Sinking Fund.
	London.				Australasia.				Amount.	Per Head of Population.		
	Debentures.	Inscribed Stock.	Treasury Bills in aid of Public Works.*	Total.	Debentures.	Inscribed Stock.	Treasury Bills in aid of Public Works.*	Total.				
£	£	£	£	£	£	£	£	£	£	£	£	
Victoria	6,594,400	37,528,943	500,000	44,623,343	2,089,995	3,195,619	500,000	5,785,614	50,408,957	41·76	525,000	389,782
New South Wales ..	8,136,650	48,612,500	1,002,500	57,751,650	638,950	8,718,608	2,000,000	11,357,558	69,109,208	49·63	2,477,626	655,796
Queensland	9,820,100	24,838,247	..	34,658,347	3,660,280	..	..	3,660,280	38,318,627	74·61	..	..
South Australia ..	9,351,500	13,701,350	..	23,052,850	..	3,370,195	..	3,370,195	26,423,045	72·64	849,500	35,480
Western Australia ..	249,500	13,331,930	..	13,581,430	26,500	1,334,380	..	1,360,880	14,942,310	72·13	..	488,737
Tasmania	2,923,750	4,906,500	..	7,830,250	189,450	939,351	..	1,178,801	9,009,051	51·29	..	206,257
Australia ..	37,075,900	142,919,470	1,502,500	181,497,870	6,605,175	17,608,153	2,500,000	26,713,328	208,211,198	53·94	3,852,126	1,774,052
New Zealand (31.3.02)	3,085,700	43,344,426	..	46,430,126	6,067,997	468,324	..	6,536,321	52,966,447	67·25	..	1,128,816

* Included with Funded Debt, as they will, when opportunity offers, be replaced by Debentures or Stock.

26.—DUE DATES OF STATE LOANS ON 30TH JUNE, 1902.

When Repay-able.	Victoria.	New South Wales.	Queens-land.	South Australia.	Western Australia.	Tasmania.	New Zealand. 31.3.1902.
	£	£	£	£	£	£	£
1902 ..	..	411,800	..	..	..	96,557	260,100
1903 ..	1,000,000	1,003,700	..	65,000	31,500	168,794	480,000
1904 ..	5,457,000	58,000	..	62,500	..	24,840	1,448,950
1905 ..	..	2,903,800	..	72,500	17,600	179,486	1,670,800
1906 ..	..	1,224,900	..	37,500	460,280 (4)	100,419	949,766
1907 ..	4,000,000	..	..	1,037,500	..	109,843	*2,259,800
1908 ..	2,000,000	1,450,000	..	1,951,100	..	343,915	400,438
1909 ..	..	1,799,500	..	3,122,700	..	117,466	523,000
1910 ..	..	2,863,700	..	60,300	874,100	48,519	493,324
1911 ..	2,107,000 (15)	..	..	68,300	1,876,000 (20)	1,000,200	2,843
1912 ..	63,000 (10)	7,583,048	..	85,000	..	1,100	..
1913 ..	†4,746,795	..	1,466,500	46,300	..	546,650	496,300
1914 ..	..	..	..	35,000	..	800,000	331,800
1915 ..	..	..	11,728,800	35,000	4,500,000 (20)	..	3,800
1916 ..	..	..	..	‡8,617,945	1,100,000 (20)	100	12,700
1917 ..	3,195,619∞	..	..	§3,546,200	..	..	..
1918 ..	..	12,826,200	..	1,474,400	..	..	..
1919 ..	4,000,000	245,050	..	26,000	..	..	..
1920 ..	6,000,000	..	..	336,300	2,380,000 (15)	||4,756,500	..
1921 ..	{ 1,000,000 5,000,000 (5) }	..	..	..	..	184,810	..
1922 ..	..	..	..	..	..	8,252	..
1923 ..	7,280,200	..	..	..	..	..	..
1924 ..	..	16,698,065	12,973,834	1,651,300	..	..	..
1925 ..	..	222,255	..	..	..	4,000	..
1926 ..	..	..	..	839,500	..	67,600	..
1927 ..	..	..	..	..	2,500,000	..	..
1929 ..	4,559,343 (20)	..	..	200,000	..	..	29,150,302
1930 ..	..	..	3,704,800	..	..	..	..
1933 ..	..	9,686,300	..	..	..	..	..
1934 ..	..	..	..	..	975,930	..	..
1935 ..	..	9,600,000	..	..	..	..	..
1936 ..	..	..	..	332,900	..	..	..
1939 ..	..	..	..	2,719,800	..	..	..
1940 ..	..	..	..	..	..	450,000	6,161,167
1945 ..	..	..	2,000,000	..	..	..	8,032,957
1947 ..	..	..	4,498,693	..	..	..	..
1950 ..	..	..	946,000	..	..	..	..
1951 ..	..	..	1,000,000	..	..	..	..
Annual Drawings Indefinite	..	..	..	..	226,900	..	28,400
	..	532,890	..	..	..	..	..
Total Debt	50,408,957	69,109,208	38,318,627	26,423,045	14,942,310	9,009,051	52,966,447

NOTE.—The earliest date of repayment is given in all cases. When it is optional to continue the loan for a further term of years, without redemption, such period is shown in brackets after the amount. When the term is indefinite the sign ∞ appears.

* Including £500,000 (14).

† Including £746,795 (10).

‡ Including £1,560,400 (19), and £5,094,245∞.

§ Including £2,182,400 (19).

|| Including £4,456,500 (20).

27.—STATE DEBTS ON 30TH JUNE, 1902.—SUMMARY FOR
AUSTRALIA.

When Repayable.	Amount at Each Rate of Interest.						Total.
	6 Per Cent.	5 Per Cent.	4 Per Cent.	3½ Per Cent.	3 Per Cent.	Other (as indicated).	
	£	£	£	£	£	£	£
1902	10,000	399,300	13,400	..	85,657	..	508,357
1903	65,000	31,500	1,555,680	502,560	110,554 (4½ %)	3,700	2,268,994
1904	37,500	83,000	478,870	2,170	800 (4½ %)	5,000,000	5,602,340
1905	49,800	42,700	1,911,900	1,043,674	123,112 (3¼ %)	2,200	3,173,386
1906	37,500	..	224,900	1,560,699	..	..	1,823,099
1907	37,500	..	5,000,000	109,843	..	..	5,147,343
1908	11,000	..	5,690,100	100	43,815	..	5,745,015
1909	28,100	..	4,894,100	2,000	115,466	..	5,039,666
1910	60,300	..	2,863,700	902,619	20,000	..	3,846,619
1911	18,300	50,000	4,983,000	200	..	..	5,051,500
1912	35,000	50,000	2,609,349	975,097	4,062,702	..	7,732,148
1913	46,300	..	6,759,245	700	..	..	6,806,245
1914	35,000	..	800,000	..	..	..	835,000
1915	25,000	10,000	11,728,800	1,630,000	2,870,000	..	16,263,800
1916	20,000	26,000	3,477,700	100	6,194,245	..	9,718,045
1917	20,000	26,000	3,500,200	..	3,195,619	..	6,741,819
1918	9,900	26,000	1,438,500	12,826,200	..	..	14,300,600
1919 .. ..	..	26,000	4,000,000	..	245,050	..	4,271,050
1920 .. ..	..	26,000	7,300,000	3,766,800	2,380,000	..	13,472,800
1921 .. ..	..	..	..	5,149,481	1,010,611 (3¼ %)	24,718	6,184,810
1922 .. ..	..	..	..	8,252	..	..	8,252
1923 .. ..	..	..	..	7,000,000	280,200	..	7,280,200
1924 .. ..	..	..	9,840,300	21,284,834	198,065	..	31,323,199
1925 .. ..	..	..	..	4,000	222,255	..	226,255
1926 .. ..	..	..	67,600	..	839,500	..	907,100
1927 .. ..	..	..	..	1,500,000	1,000,000	..	2,500,000
1929 .. ..	..	..	200,000	..	4,559,343	..	4,759,343
1930 .. ..	..	..	..	3,704,800	..	..	3,704,800
1933 .. ..	..	..	9,686,300	..	..	..	9,686,300
1934 .. ..	..	..	975,930	..	..	..	975,930
1935 .. ..	..	..	..	..	9,600,000	..	9,600,000
1936 .. ..	..	..	..	332,900	..	..	332,900
1939 .. ..	..	..	..	2,719,800	..	..	2,719,800
1940 .. ..	..	..	..	..	450,000	..	450,000
1945 .. ..	..	..	..	2,000,000	..	..	2,000,000
1947 .. ..	..	..	..	..	4,498,693	..	4,498,693
1950 .. ..	..	..	..	46,000	900,000	..	946,000
1951 .. ..	..	..	..	1,000,000	..	..	1,000,000
Indefinite ..	..	2,700	683,490	..	..	(4½ %) 73,600	759,790
Total debt ..	546,200	799,200	90,683,064	68,072,829	43,005,687	5,104,218	208,211,198

NOTE.—The loans of New Zealand are not included in this table.

28.—RATES OF INTEREST ON OUTSTANDING LOANS, 30TH JUNE, 1902.

State.	Nominal Amount of Loans bearing Interest at—							Total.
	6 per cent.	5 per cent.	4½ per cent.	4 per cent.	3½ per cent.	3 per cent.	Other Rates.	
	£	£	£	£	£	£	£	£
Victoria ... ..	...	...	5,000,000	23,810,795	12,500,000	9,098,162	...	50,408,957*
New South Wales ...	12,300	460,000	3,700	22,067,939	32,300,197	14,265,072	...	69,109,208
Queensland ... ..	...	...	...	21,384,300	11,535,634	5,398,693	...	38,318,627
South Australia ...	533,900	290,000	...	16,302,400	3,363,000	5,933,745	...	26,423,045
Western Australia ...	...	49,100	73,600	3,005,230	4,464,380	7,350,000	...	14,942,310
Tasmania ... ..	...	100	...	4,112,400	3,909,618	960,015	26,918 (3¼)	9,009,051
Australia	546,200	799,200	5,077,300	90,683,064	68,072,829	43,005,687	26,918	208,211,198
New Zealand (31/3/02) ...	56,000	609,400	52,900	33,427,852	10,438,338	8,032,957	349,000 (3½)	52,966,447

* Excluding £525,000 Treasury Bills in aid of Revenue—£250,000 @ 4 % and £275,000 @ 3¼ %.

29.—HIGHEST OFFICIAL PRICES OF STOCK RECORDED IN LONDON
DURING THE YEAR 1902

State.	Nominal Interest.	Due Date of Loan.	Highest Prices Quoted		Interest per cent. yielded to Investor.
			Gross.	Less Accrued Interest.	
			£	£	£ s. d.
Victoria ...	4	1920	112 $\frac{1}{8}$	110 $\frac{1}{8}$	3 5 3
	4	1911	105 $\frac{3}{4}$	103 $\frac{3}{4}$	3 10 3
	3 $\frac{1}{2}$	1921	104 $\frac{3}{4}$	103	3 5 10
New South Wales ...	4	1933	117	115	3 4 9
	3 $\frac{1}{2}$	1924	106 $\frac{1}{2}$	104 $\frac{3}{4}$	3 3 11
	3 $\frac{1}{2}$	1918	105 $\frac{3}{4}$	104	3 3 8
	3	1935	97 $\frac{1}{8}$	95 $\frac{5}{8}$	3 4 5
Queensland ...	4	1915	108 $\frac{1}{2}$	106 $\frac{1}{2}$	3 7 8
	4	1924	112 $\frac{1}{2}$	110 $\frac{1}{2}$	3 6 7
	3 $\frac{1}{2}$	1921-24-30	104 $\frac{3}{4}$	103	3 6 2
	3 $\frac{1}{2}$	1945	106 $\frac{3}{4}$	105	3 5 7
South Australia ...	4	1916	109 $\frac{1}{8}$	107 $\frac{1}{8}$	3 7 5
	3 $\frac{1}{2}$	1939	106	104 $\frac{1}{4}$	3 6 0
	3	1916	95 $\frac{7}{8}$	94 $\frac{3}{8}$	3 10 6
Western Australia ...	4	1934	115	113	3 6 9
	4	1911	108	106	3 4 8
	3 $\frac{1}{2}$	1915	102 $\frac{1}{2}$	100 $\frac{3}{4}$	3 8 7
	3	1915	96	94 $\frac{1}{2}$	3 10 11
	3	1916	95 $\frac{5}{8}$	94 $\frac{1}{8}$	3 11 0
Tasmania ...	4	1920	112 $\frac{1}{2}$	110 $\frac{1}{2}$	3 4 9
	3 $\frac{1}{2}$	1920	105 $\frac{1}{4}$	103 $\frac{1}{2}$	3 5 0
	3	1920	96 $\frac{1}{2}$	95	3 7 5

30.—TOTAL INDEBTEDNESS ON THE 30TH JUNE, 1902.

State.	State Debts.		Municipal and Corporation Debts (exclusive of Loans from Government).	Grand Total.	
	Funded.	Unfunded.		Amount.	Per Head of Population.
	£	£	£	£	£ s. d.
Victoria ...	50,408,957	3,138,308	11,783,699	65,330,964	54 2 5
New South Wales	69,109,208	6,865,488	2,882,140	78,856,836	56 12 6
Queensland ...	38,318,627	2,936,890	685,967	41,941,484	81 13 2
South Australia...	26,423,045	1,088,674	101,310*	27,613,029	75 18 3
Western Australia	14,942,310	...	360,850*	15,303,160	73 17 7
Tasmania ...	9,009,051	96,835	531,536	9,637,422	54 17 4
Australia ...	208,211,198	14,126,195	16,345,502	238,682,895	61 16 9

* Figures for 1901.

31.—NET BURDEN OF STATE FUNDED DEBTS, 30TH JUNE, 1901.

State.	Total State Funded Debt.		Debts covered by—		Net Burden.	
	Amount.	Per Head of Population.	Earnings of Reproductive Works	Accumulated Sinking Funds.	Amount.	Per Head of Population.
	£	£ s. d.	£	£	£	£ s. d.
Victoria	49,546,275	41 3 9	40,539,740	208,284	8,798,251	7 6 3
New South Wales	65,478,012	47 14 4	49,153,000	386,383	15,938,629	11 12 2
Queensland	36,849,314	72 17 4	11,584,100	...	25,265,214	49 19 3
South Australia	26,423,805	72 19 2	17,993,450	26,879	8,403,476	23 4 1
Western Australia	12,709,430	67 7 9	7,705,100	429,227	4,575,103	24 5 2
Tasmania	8,551,745	49 5 2	1,392,690	183,022	6,976,033	40 3 8
New Zealand	49,590,815	63 14 11	18,131,900	1,033,494	30,425,421	39 2 2

NOTE.—The Unfunded Debt, which is not taken into account in this table—being wholly of an unproductive character—would, if added, show a corresponding increase in the net burden.

32.—POSTAL RETURNS, 1902.

State.	Number of Post Offices, on 31st December.	Letters and Post Cards Despatched and Received (000's omitted).					Newspapers and Parcels Despatched and Received (000's omitted).				
		Inland.	Inter-state.	Inter-national.	Total.	Per Head of Population.	Inland.	Inter-state.	Inter-national.	Total.	Per Head of Population.
Victoria	1,645	85,605,	9,745,	2,993,	98,343,	82	33,375,	12,107,	5,489,	50,971,	42
New South Wales	1,693	75,852,	10,232,	4,698,	90,782,	65	51,536,	9,287,	3,936,	64,759,	47
Queensland	500	17,614,	5,830,		23,444,	46	14,391,	6,493,		20,884,	41
South Australia, Proper ...	685	16,351,	3,653,	644,	20,648,	57	8,413,	2,762,	996,	12,171,	34
„ „ Northern Territory	17	87,	27,	8,	122,	27	23,	20,	6,	49,	11
Western Australia	197	13,005,	4,051,	1,095,	18,151,	88	8,305,	5,173,	1,601,	15,079,	73
Tasmania	369	6,100,	2,733,	547,	9,380,	53	5,989,	2,562,	944,	9,495,	54
Australia	5,106	214,614,	46,256,		260,870,	68	122,032,	51,376,		173,408,	45
New Zealand	1,807	52,894,	2,257,	3,866,	59,017,	73	28,151,	2,498,	6,786,	37,435,	46

33.—TELEGRAPHS AND TELEPHONES, 1902.

State.	TELEGRAPHS.								TELEPHONES.		
	Number of Stations at end of Year.	Line (Miles).	Wire (Miles).	Cables (Miles).	Number of Telegrams.				Number of Public Exchanges.	Wire (Miles).	Number of Connexions at end of Year.
					Inland (counted once).	Inter-State Received and Despatched.	Cablegrams Received and Despatched.	Total.			
Victoria	875	6,589	15,611	...	1,618,128	882,750	86,243	2,587,121	20	20,894	6,847
New South Wales ...	983	14,526	58,906	...	2,306,484	957,591	159,031	3,423,106	51	*	14,810
Queensland	476	10,247	20,695	56	1,341,026		8,260	1,349,286	15	4,912	3,296
South Australia (including Northern Territory)	287	5,301	14,040	37	523,762	565,282	171,443	1,260,487	11	4,224	1,817
Western Australia ...	167	6,112	9,104	15	878,469	306,279	30,313	1,215,061	12	4,947	2,941
Tasmania	310	2,187	3,462	428	227,215	141,536		368,751	13	1,199	1,424
Australia	3,098	44,962	121,818	536	...	...	...	10,203,812	122	...	31,135
New Zealand	1,103	7,749	22,672	316	4,559,304	...	154,050	4,713,354	70	8,727	10,633

* Included with telegraph wire.

34.—REVENUE AND EXPENDITURE OF POST AND TELEGRAPH DEPARTMENT, 1902.

State.	Revenue.				Expenditure.
	Postal Branch.	Telegraph Branch.	Telephone Branch.	Total.	
	£	£	£	£	£
Victoria	432,311	125,252	76,326	633,889	550,227
New South Wales	750,434	47,802	96,278	894,514	759,619
Queensland	204,520	85,514	24,619	314,653	420,904
South Australia—Proper	156,721	83,243	21,856	261,820	211,921
„ Northern Territory	753	1,369	69	2,191	25,611
Western Australia	203,127		29,464	232,591	257,283
Tasmania	64,834	16,892	8,704	90,430	101,431
Australia	2,172,772		257,316	2,430,088	2,326,996
New Zealand (31/3/03)	302,604	160,344	62,151	525,099	487,815

35.—MONEY ORDERS AND POSTAL NOTES, 1902.

State.	Money Orders.				Postal Notes.			
	Number.		Amount.		Number.		Amount.	
	Issued.	Paid.	Issued.	Paid.	Issued.	Paid.	Issued.	Paid.
			£	£			£	£
Victoria	217,634	306,510	706,791	1,053,313	1,387,039	1,432,734	528,381	544,979
N. S. Wales	538,796	545,861	1,761,149	1,812,063	1,409,180	1,423,369	506,159	514,048
Queensland	137,168	105,556	506,990	400,042	290,063	259,455	110,509	97,045
South Australia Proper	76,557	82,154	238,383	292,791	295,974	293,376	101,639	102,571
N. Territory	1,484	325	8,443	2,581	1,023	214	473	80
Westn. Australia	189,514	85,700	768,751	372,689	122,877	112,934	55,841	37,529
Tasmania	121,397	125,317	290,113	228,958	77,665	77,445	24,851	28,179
Australia	1,282,550	1,251,423	4,280,620	4,162,437	3,583,821	3,599,527	1,327,853	1,324,431
New Zealand	367,207	286,369	1,277,059	1,118,254	616,264	610,464	191,905	190,375

36.—EDUCATION, 1902.

State.	At the end of 1902.				Net Enrolment.			Average Attendance.
	Number of Schools.	Number of Teachers.			Males.	Females.	Total.	
		Males.	Females.	Total.				
STATE PRIMARY SCHOOLS.								
Victoria	2,041	1,917	3,149	5,066	117,303	110,938	228,241	150,939
New South Wales	2,846	2,988	2,413	5,401	129,138	114,530	243,668	153,659
Queensland	1,008	1,143	1,247	2,390	...	...	97,131	72,809
South Australia	718	411	942	1,353	...	...	63,043	43,546
Western Australia	250	261	416	677	...	...	22,605	18,448
Tasmania	338	232	446	678	10,458	9,095	19,553	14,541
Australia	7,201	6,952	8,613	15,565	...	...	674,241	453,942
New Zealand	1,708	1,415	2,289	3,704	68,901	63,361	132,262	113,711
PRIVATE SCHOOLS, &c.								
Victoria	872	404	1,975	2,379	20,027	23,155	43,182	...
New South Wales	879	589	2,806	3,395	26,035	32,904	58,939	47,195
Queensland	190	129	641	770	6,841	9,227	16,068	13,728
South Australia	230	188	493	681	4,502	4,923	9,425	...
Western Australia	80	41	253	294	2,691	3,569	6,260	4,922
Tasmania	197	...	...	...	4,428	5,535	9,963	...
Australia	2,448	...	...	...	64,524	79,313	143,837	...
New Zealand	322	...	...	1,009	8,354	10,342	18,696	16,378

37.—COST OF INSTRUCTION—STATE PRIMARY SCHOOLS, 1902
(EXCLUDING EXPENDITURE UPON SCHOOL PREMISES)

State.	Contributed by—		Total.	Per Head of Population.		Per Head of Scholars in Average Attendance.		
	State.	Parents, etc., in Fees.		s.	d.	£	s.	d.
Victoria ...	£ 688,961	£ 6,480*	£ 695,441	11	6	4	12	2
New South Wales† ...	652,860	85 230	738,090	10	7	4	16	1
Queensland...	261,317	...	261,317	10	2	3	11	9
South Australia ...	149,812	...	149,812	8	3	3	8	10
Western Australia ...	108,927	...	108,927	10	6	5	18	1
Tasmania ...	47,837	12,411	60,248	6	10	4	2	10
Australia ...	1,909,714	104,121	2,013,835	10	4	4	8	9
New Zealand ...	464,084	...	464,084	11	8	3	9	4

38.—RAILWAYS, 1901-2.

State.	Length in Miles at End of Year.	Miles Being Constructed.	Train Miles Run.	Rolling Stock.	
				Locomotives.	Vehicles of All Kinds.
GOVERNMENT RAILWAYS.					
Victoria ...	3,303	128	11,284,944	542	11,290
New South Wales ...	3,026	...	11,649,059	518	12,256
Queensland ...	2,828	213	5,511,188	336	7,660
S. Australia—Proper...	1,736	...	4,196,138	345	6,553
„ Northern Territory	146	...	30,275	6	141
Western Australia ...	1,360	160	4,507,919	274	5,545
Tasmania ...	462	...	902,918	75	1,446
Australia ...	12,861	501	38,082,441	2,096	44,891
New Zealand ...	2,235	212	5,066,360	362	13,145
PRIVATE RAILWAYS.					
New South Wales ...	81	...	220,956	19	3,084
Queensland...	146	28	...	6	78
South Australia Proper	20	...	...	...	...
Western Australia ...	629	...	477,818	43	959
Tasmania ...	158	...	206,131	22	336
Australia ...	1,034	...	...	...	...
New Zealand ...	113	...	...	...	...

* In Victoria the fees paid by parents for extra subjects are used to supplement the incomes of the teachers, and are not placed to the credit of general revenue.

† Inclusive of State High Schools.

39.—RAILWAYS—CAPITAL COST, REVENUE AND WORKING EXPENSES,
1901-2.

State.	Capital Cost of Lines Open at End of Year.	Gross Receipts.	Working Expenses.	Net Receipts.	Percentage of Net Revenue to Capital Cost.
GOVERNMENT RAILWAYS.					
	£	£	£	£	
Victoria ...	40,570,204	3,367,843	2,166,119	1,201,724	2.96
New South Wales ...	40,565,073	3,668,686	2,267,369	1,401,317	3.45
Queensland ...	20,802,110	1,288,335	914,742	373,593	1.80
South Australia—					
Proper ...	13,275,037	1,085,175	689,517	395,658	2.98
Northern Territory...	1,160,757	12,522	34,649	-22,127	-1.90
Western Australia ...	7,410,426	1,521,429	1,256,370	265,059	3.58
Tasmania ...	3,840,747	233,210	173,292	59,918	1.56
Australia ...	127,624,354	11,177,200	7,502,058	3,675,142	2.88
New Zealand ...	18,170,722	1,874,586	1,252,237	622,349	3.42
PRIVATE RAILWAYS.					
	£	£	£	£	
New South Wales ...	537,652	145,259	59,952	85,307	15.87
Western Australia ...	2,467,076	...	...	...	...
Tasmania ...	1,123,924	88,524	58,914	29,610	2.63
New Zealand ...	793,575	111,398	60,129	51,269	6.46

40.—COMMERCE, 1902.

State.	Countries Imported from or Exported to—				Total Value.	Value per Head.
	Other States of Australia.	The United Kingdom.	Other British Possessions (including New Zealand)	Foreign Countries.		
IMPORTS.						
	£	£	£	£	£	£ s. d.
Victoria ...	5,412,520	6,935,040	2,280,213	3,642,472	18,270,245	15 2 8
New South Wales ...	10,949,675	8,572,370	1,994,901	4,457,264	25,974,210	18 13 0
Queensland ...	3,618,326	2,496,851	314,587	922,774	7,352,538	14 6 4
South Australia—						
Proper ...	2,948,688	1,901,996	253,853	969,245	6,073,782	16 18 2
Northern Territory	74,812	5,911	26,053	442	107,218	23 15 5
Western Australia ...	2,046,701	3,350,644	457,969	1,363,038	7,218,352	34 16 11
Tasmania ...	1,710,129	585,750	57,326	89,540	2,442,745	13 18 2
Australia ...	26,760,851	23,848 562	5,384,902	11,444,775	67,439,090	17 9 5
New Zealand ...	1,715,295	6,851 452	854,210	1,905,766	11,326,723	14 3 11
EXPORTS.						
	£	£	£	£	£	£ s. d.
Victoria ...	7,841,188	3,433,310	4,901,245	2,034,780	18,210,523	15 1 9
New South Wales ...	7,568,922	7,102,596	2,006,275	6,866,258	23,544,051	16 18 2
Queensland ...	5,062,754	2,736,632	1,019,131	352,506	9,171,023	17 17 1
South Australia—						
Proper ...	3,967,897	1,911,116	914,819	904,682	7,698,514	21 8 7
Northern Territory	155,969	21,753	9,335	4,501	191,558	42 9 6
Western Australia ...	798,750	4,364,910	3,290,526	597,172	9,051,358	43 3 11
Tasmania ...	1,800,833	654,174	56,538	732,963	3,244,508	18 9 4
Australia ...	27,196,313	20,224,491	12,197,869	11,492,862	71,111,535	18 8 6
New Zealand ...	2,684,350	9,450,648	893,480	616,499	13,644,977	17 2 1
EXPORTS OF DOMESTIC PRODUCE.						
	£	£	£	£	£	£ s. d.
Victoria ...	6,120,850	2,137,768	4,512,570	1,052,751	13,823,939	11 9 0
New South Wales ...	5,541,380	5,979,423	1,091,127	4,636,564	17,248,494	12 7 9
Queensland ...	4,695,827	2,728,687	969,178	338,366	8,732,058	17 0 0
South Australia—						
Proper ...	2,407,024	1,491,073	430,508	440,342	4,768,947	13 5 6
Northern Territory	155,381	21,655	9,180	4,501	190,717	42 5 9
Western Australia ...	743,388	4,341,019	3,286,557	500,712	8,871,676	42 16 7
Tasmania ...	1,785,047	653,823	55,944	732,963	3,227,777	18 7 6
Australia ...	21,448,897	17,353,448	10,355,064	7,706,199	56,863,608	14 14 8
New Zealand ...	2,618,133	9,426,892	872,618	580,956	13,498,599	16 18 5

41.—IMPORTS AND EXPORTS OF WOOL, 1902.

State.	Quantity.			Value.		
	Washed.	Greasy.	Total.	Washed.	Greasy.	Total.
IMPORTS.						
	lbs.	lbs.	lbs.	£	£	£
Victoria ...	2,229,466	35,779,299	38,008,765	121,874	1,019,841	1,141,715
New South Wales ...	2,750,198	5,265,744	8,015,942	189,313	175,960	365,273
Queensland ...	25,530	169,054	194,584	1,337	4,218	5,555
South Australia—						
Proper ...	411,376	4,224,766	4,636,142	17,812	118,362	136,174
Northern Territory ...	...	...	...	...	...	...
Western Australia ...	...	...	...	...	...	...
Tasmania ...	...	...	44,158	...	...	1,008
Australia ...	...	...	50,899,591	...	...	1,649,725
New Zealand ...	17,796	80,456	98,252	920	4,003	4,923
EXPORTS.						
	lbs.	lbs.	lbs.	£	£	£
Victoria ...	7,357,830	93,158,264	100,516,094	387,525	3,085,847	3,473,372
New South Wales ...	32,728,828	162,455,234	195,184,062	2,223,609	5,457,812	7,681,421
Queensland ...	12,246,480	17,608,100	29,854,580	730,119	581,307	1,311,426
South Australia—						
Proper ...	2,962,111	36,207,260	39,169,371	147,715	1,074,688	1,222,403
Northern Territory ...	...	...	178,154	...	...	6,253
Western Australia ...	447,910	12,484,361	12,932,271	28,928	429,150	458,078
Tasmania ..	...	...	8,348,584	...	...	262,251
Australia ...	...	...	386,183,116	...	...	14,415,204
New Zealand ...	41,990,605	118,428,418	160,419,023	1,123,824	2,230,739	3,354,563
EXPORTS OF DOMESTIC WOOL.						
	lbs.	lbs.	lbs.	£	£	£
Victoria ...	5,128,364	57,378,965	62,507,329	265,651	2,066,006	2,331,657
New South Wales ...	30,014,656	157,223,829	187,238,485	2,030,251	5,276,559	7,306,810
Queensland ...	12,219,040	17,436,038	29,655,078	728,968	575,232	1,304,200
South Australia—						
Proper ...	2,615,963	31,552,383	34,168,346	130,280	931,529	1,061,809
Northern Territory ...	...	...	178,154	...	...	6,253
Western Australia ...	447,910	12,484,361	12,932,271	28,928	429,150	458,078
Tasmania ...	...	...	8,348,584	...	...	262,251
Australia ...	...	...	335,028,247	...	...	12,731,058
New Zealand ...	41,990,605	118,428,418	160,419,023	1,123,824	2,230,739	3,354,563

42.—EXPORTS OF HOME PRODUCE, 1902.

State.	Exports of Home Produce.		
	Value.	Value per Head.	Percentage of Total Exports.
	£	£ s. d.	
Victoria ...	13,823,939	11 9 0	75·91
New South Wales ...	17,248,494	12 7 9	73·26
Queensland ...	8,732,058	17 0 0	95·21
South Australia ...	4,959,664	13 12 8	62·86
Western Australia ...	8,871,676	42 16 7	98·02
Tasmania ...	3,227,777	18 7 6	99·48
Australia ...	56,863,608	14 14 8	79·96
New Zealand ...	13,498,599	16 18 5	98·93
Australasia ...	70,362,207	15 2 2	83·02

43.—IMPORTS AND EXPORTS OF BULLION AND SPECIE, 1902.

State.	Gold.		Silver.		Bronze.	Total.
	Bullion.	Coin.	Bullion.	Coin.	Coin.	
IMPORTS.						
	£	£	£	£	£	£
Victoria ...	1,245,806	114,380	1,418	28,250	2,055	1,391,909
New South Wales ...	2,791,719	833,231	336	52,587	3,007	3,730,880
Queensland ...	23,220	308,000	127	6,300	453	338,100
South Australia—						
Proper ...	3,148	...	7	900	...	4,055
N. Territory ...	...	9,000	...	...	...	9,000
Western Australia ...	...	...	...	17,340	...	17,340
Tasmania ...	...	211,345	...	12,850	480	224,675
Australia ...	4,063,893	1,525,956	1,888	118,227	5,995	5,715,959
New Zealand ...	...	346,030	322	21,402	1,253	369,007
EXPORTS.						
	£	£	£	£	£	£
Victoria ...	196,036	4,109,661	167	13,953	585	4,320,402
New South Wales ...	517,038	3,108,523	117,360	53,816	1,304	3,798,041
Queensland ...	2,457,439	207,298	86,248	6,070	...	2,757,055
South Australia—						
Proper ...	...	52,000	521,901	200	...	574,101
N. Territory ...	70,251	...	...	...	...	70,251
Western Australia ...	3,318,958	4,149,869	19,240	...	...	7,488,067
Tasmania ...	173,928	...	...	...	...	173,928
Australia ...	6,733,650	11,627,351	744,916	74,039	1,889	19,181,845
New Zealand ...	1,951,426	3,718	71,975	5,800	...	2,032,919

NOTE.—Not including Silver-lead, of which large quantities were produced in New South Wales and Tasmania. See Table 57 *post*.

44.—SHIPPING FROM VARIOUS COUNTRIES, 1902.

State.	From United Kingdom.	From other Australian States.	From other British Possessions (including New Zealand).	From Foreign Countries.
NUMBER OF VESSELS.				
Victoria	191	1,696	220	171
New South Wales	193	2,074	540	357
Queensland	54	504	137	85
South Australia—Proper ...	141	677	88	93
" " Northern Territory ...	...	32	29	...
Western Australia	110	368	161	124
Tasmania	46	778	125	15
Australia	735	6,129	1,300	845
New Zealand	85	415	67	71
TONNAGE OF VESSELS.				
Victoria	577,941	2,045,643	322,547	420,354
New South Wales	590,514	2,280,536	817,135	701,901
Queensland	108,636	672,556	109,589	144,711
South Australia—Proper ...	436,615	1,120,537	128,976	258,484
" " Northern Territory ...	...	41,104	45,366	...
Western Australia	350,212	784,547	241,867	294,543
Tasmania	168,943	477,618	216,193	24,731
Australia	2,232,861	7,422,541	1,881,673	1,844,724
New Zealand	282,035	553,738	101,680	151,726

45.—SHIPPING TO VARIOUS COUNTRIES, 1902.

State.	To United Kingdom.	To Other Australian States.	To Other British Possessions (including New Zealand)	To Foreign Countries.
NUMBER OF VESSELS.				
Victoria	183	1,852	191	60
New South Wales	153	1,719	496	634
Queensland	50	490	163	66
South Australia—Proper ...	127	792	60	60
„ Northern Territory	...	39	25	...
Western Australia	131	388	170	76
Tasmania	23	715	189	17
Australia	667	5,995	1,294	913
New Zealand	95	395	62	59
TONNAGE OF VESSELS.				
Victoria	552,277	2,279,698	355,640	184,940
New South Wales	515,774	1,971,572	786,885	1,063,827
Queensland	146,690	585,215	206,236	93,978
South Australia—Proper ...	372,352	1,370,413	79,156	192,819
„ Northern Territory	...	45,117	40,337	...
Western Australia	303,776	902,496	283,606	197,027
Tasmania	76,660	285,692	487,344	30,034
Australia	1,967,529	7,440,203	2,239,204	1,762,625
New Zealand	289,872	529,424	124,795	104,679

46.—SHIPPING (EXCLUSIVE OF COASTAL TRADE), 1902.

State.	Steam Vessels.		Sailing Vessels.		Total.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
INWARDS.						
Victoria	1,998	3,165,094	280	201,391	2,278	3,366,485
New South Wales ...	2,508	3,726,615	656	663,471	3,164	4,390,086
Queensland ... ..	...	...	...	...	780	1,035,492
South Australia—						
Proper	815	1,789,598	184	155,014	999	1,944,612
Northern Territory	...	...	...	...	61	86,470
Western Australia ...	597	1,523,839	166	147,330	763	1,671,169
Tasmania	833	823,238	131	64,247	964	887,485
Australia ... ..	...	...	...	...	9,009	13,381,799
New Zealand	410	965,993	228	123,186	638	1,089,179
OUTWARDS.						
Victoria	1,985	3,145,207	301	227,348	2,286	3,372,555
New South Wales ...	2,372	3,693,428	630	644,630	3,002	4,338,058
Queensland ... ..	...	...	...	...	769	1,032,119
South Australia—						
Proper	839	1,838,758	200	175,982	1,039	2,014,740
Northern Territory	...	...	...	...	64	85,454
Western Australia ...	596	1,531,500	169	155,405	765	1,686,905
Tasmania	814	815,538	130	64,192	944	879,730
Australia ... ..	...	...	...	...	8,869	13,409,561
New Zealand	398	934,820	213	113,950	611	1,048,770

47.—SHIPPING AND COMMERCE AT PRINCIPAL PORTS, 1902.

Ports.	Shipping.		Commerce.	
	Entered.	Cleared.	Imports.	Exports.
	Tons.	Tons.	£	£
In Victoria—				
Melbourne	3,157,524	3,086,509	15,710,289	14,733,356
Geelong	149,532	222,741	199,178	843,598
Border Towns	13,747	16,566	2,341,188	2,538,763
Other Ports	45,682	46,739	19,590	94,806
Total	3,366,485	3,372,555	18,270,245	18,210,523
In New South Wales—				
Sydney	3,283,399	2,655,975	21,459,106	17,369,502
Newcastle	970,918	1,417,820	974,562	2,047,395
Other Ports	135,769	264,263	3,540,542	4,127,154
Total	4,390,086	4,338,058	25,974,210	23,544,051
In Queensland—				
Brisbane	773,890	766,602	4,645,270	2,243,928
Rockhampton	25,664	28,523	504,088	1,337,874
Townsville	39,746	74,098	825,936	2,146,867
Bundaberg	1,478	1,717	103,813	342,676
Cairns	1,378	1,110	152,963	418,467
Bowen	13,851	15,932	15,386	229,803
Other Ports	179,485	144,137	1,105,032	2,451,408
Total	1,035,492	1,032,119	7,352,538	9,171,023
In South Australia—				
Port Adelaide	1,710,501	1,713,516	4,179,366	4,542,297
Port Pirie	82,647	159,958	174,454	1,502,058
Wallaroo	97,286	45,583	76,451	515,126
Port Augusta	13,349	7,563	6,336	20,110
Morgan (Murray River)	5,870	5,985	41,680	26,382
Other Ports	34,959	82,135	1,595,495	1,092,541
Port Darwin (Northern Territory)	86,470	85,454	107,218	191,558
Total	2,031,082	2,100,194	6,181,000	7,890,072
In Western Australia—				
Fremantle	1,045,170	1,050,201	5,184,813	6,841,947
Albany	540,910	527,562	158,922	1,336,204
Bunbury	43,640	59,507	56,508	215,962
Geraldton	1,946	7,766	127,397	155,742
Broome	24,346	11,796	40,760	169,818
Vasse	4,714	6,422	12,776	34,660
Cossack	1,140	3,550	10,913	64,311
Other Ports	9,303	20,101	1,626,263	232,714
Total	1,671,169	1,686,905	7,218,352	9,051,358
In Tasmania—				
Hobart	538,868	531,303	1,029,858	896,279
Launceston	127,679	109,689	969,268	816,655
Other Ports	220,938	238,738	443,619	1,531,574
Total	887,485	879,730	2,442,745	3,244,508
Total Australia	13,381,799	13,409,561	67,439,090	71,111,535
In New Zealand—				
Auckland	455,068	324,227	3,087,460	2,091,016
Wellington	287,168	379,539	3,124,771	2,567,268
Lyttelton	61,372	82,883	1,745,273	2,382,429
Dunedin	66,006	46,767	1,956,235	1,618,294
Bluff	136,190	153,180	341,798	938,599
Other Ports	83,375	62,174	1,071,186	4,047,371
Total	1,089,179	1,048,770	11,326,723	13,644,977
Grand Total	14,470,978	14,458,331	78,765,813	84,756,512

48.—FRIENDLY SOCIETIES.

State.	Year.	Number of Branches.	Members.		Funds.	
			Number.	Per 100 of Population.	Amount.	Average per Member.
Victoria ...	1902	1,146	102,364	8.49	£ 1,415,525	£ s. d. 13 16 7
New South Wales ...	1900	790	75,027	5.50	693,366	9 4 10
Queensland ...	1901	379	31,167	6.10	269,111	8 12 8
South Australia ...	1899	470	42,976	11.59	532,270	12 7 8
Western Australia ...	1901	146	9,919	5.09	53,142	5 7 2
Tasmania ...	1901	159	14,716	8.45	114,305	7 15 4
Australia ...	...	3,090	276,169	7.25	3,077,719	11 2 11
New Zealand ...	1901	445	41,236	5.23	804,753	19 10 4

49.—DEPOSITS IN BANKS, 1902.

State.	In Banks of Issue.	In Post Office Savings Banks.	In other Savings Banks.	Total.	Per Head of Population.
	£	£	£	£	£ s. d.
Victoria ...	30,960,224	...	10,131,604	41,091,828	34 1 9
New South Wales ...	33,059,882	7,100,108	5,325,356	45,485,346	32 7 3
Queensland ...	13,050,685	...	4,118,337	17,169,022	33 6 11
South Australia ...	5,926,113	...	3,996,192	9,922,305	27 2 6
Western Australia ...	4,919,181	1,889,082	...	6,808,263	31 12 11
Tasmania ...	3,531,813	378,236	815,662	4,725,711	26 13 9
Australia ...	91,447,898	9,367,426	24,387,151	125,202,475	32 4 9
New Zealand ...	17,529,397	6,883,787	993,090	25,406,274	31 8 11

50.—CAPITAL AND ANNUAL VALUE OF RATEABLE PROPERTY.

State.	Year.	Value of Rateable Property.	
		Capital.	Annual.
		£	£
Victoria	1902	185,101,993	10,885,087
New South Wales*	1902	130,019,800	8,080,160
Queensland	1901	43,806,448	2,737,900†
South Australia ...	1902	52,580,540	2,629,027
Tasmania	1902	20,464,094	1,023,205
New Zealand	1902-3	168,849,381	9,932,300†

* In Municipal Districts only, not for whole State.

† Estimated from capital value.

51.—LIFE INSURANCE POLICIES IN FORCE.

State.	Year.	Policies.		Amount Assured.	
		Number.	Per 100 of Population.	Total.	Average per Policy.
				£	£
Victoria	1901	196,036	16·2	28,564,889	145·7
New South Wales ...	1901	177,033	12·8	27,999,828	158·2
Queensland	1901	60,713	11·9	10,109,762	166·5
South Australia ...	1901	69,354	19·0	8,300,774	119·7
Western Australia ...	1901	21,065	10·8	4,018,960	190·8
Tasmania	1901	19,916	11·4	3,390,499	170·2
Australia ... ..	...	544,117	14·2	82,384,712	151·4
New Zealand*	1901	120,540	15·3	24,138,219	200·3

NOTE.—In Victoria there were also 310 annuities for £19,371; in New South Wales, 335 for £21,070; in Queensland, 52 for £2,737; in South Australia, 98 for £5,510; in Western Australia, 5 for £409; in Tasmania, 73 for £4,258; and in New Zealand, (?) for £33,998.

* Including 41,291 policies for £9,742,102 in the Government Insurance Department.

52.—PROBATE AND LETTERS OF ADMINISTRATION, 1902.

State.	Number of Estates.	Sworn Value of Property.
Victoria	3,976	£ 7,571,482
New South Wales	2,782	5,807,620
Queensland	590	932,854
South Australia	913	1,790,102
Western Australia	347	488,058
Tasmania (1901)	229	402,157
Australia	8,837	16,992,273
New Zealand... ..	1,439	2,714,237

53.—INSOLVENCIES, 1902.

State.	Number of Petitions.			Total Liabilities.	Total Assets.
	Compulsory.	Voluntary.	Total.		
Victoria	32	371	403	£ 359,802	£ 267,259
New South Wales	112	373	485	281,204	124,427
Queensland	28	406	434	88,311	30,321
South Australia	8	27	35	40,797	25,138
Western Australia	21	55	76	51,548	17,247
Tasmania (1901)	7	62	69	2,439	508
Australia	208	1,294	1,502	824,101	464,900
New Zealand	24	181	205	120,401	61,604

54.—AREA AND PRODUCE OF PRINCIPAL CROPS, 1902.

State.	Wheat.	Oats.	Barley.	Maize.	Other Cereals.	Potatoes.	Hay.	Vines.	Green Forage.	Land in Fallow.	Other Tillage.	Total.
AREA IN ACRES.												
Victoria ...	1,994,271	433,489	37,716	10,906	9,572	49,706	580,884	28,374	30,720	492,305	70,930	3,738,873
New South Wales ...	1,279,760	42,992	4,557	202,437	6,049	19,444	491,918	8,790	109,146	553,279	83,999	2,802,371
Queensland ...	1,880	78	430	89,923	144	4,746	20,068	1,559	51,279	202,738	105,276	478,121
South Australia ...	1,746,842	50,296	21,493	...	5,452	7,763	325,789	21,692	14,937	888,946	30,329	3,113,539
Western Australia ...	92,065	10,180	3,874	186	862	2,069	104,505	3,425	*	...	10,952	228,118
Tasmania ...	40,898	55,058	8,281	...	12,098	34,625	66,038	...	3,355	29,316	26,570	276,239
Australia ...	5,155,716	592,093	76,351	303,452	34,177	118,353	1,589,202	63,840	209,437	2,166,584	328,056	10,637,261
New Zealand ...	194,355	483,659	27,921	12,038	12,916	31,408	69,342	705	205,357	44,494	691,008	1,773,203

* Included with Other Tillage.

54.—AREA AND PRODUCE OF PRINCIPAL CROPS, 1902.—Continued.

State.	Wheat.	Oats.	Barley.	Maize.	Other Cereals.	Potatoes.	Hay.	Wine.
PRODUCE.								
	bushels.	bushels.	bushels.	bushels.	bushels.	tons.	tons.	gallons.
Victoria	2,569,364	4,402,982	561,144	750,524	163,067	168,759	601,272	1,547,188
New South Wales	1,585,097	351,758	18,233	3,049,269	73,321	30,732	243,379	806,140
Queensland	6,165	520	3,595	1,033,329	7,418	10,422	23,181	100,852
South Australia	6,354,912	620,823	317,155	...	89,654	28,312	308,825	2,145,525
Western Australia	970,571	161,714	45,778	2,498	†	6,200	91,593	†
Tasmania	876,971	1,752,745	201,133	...	235,165	163,518	89,210	...
Australia	12,363,080	7,290,542	1,147,038	4,835,620	...	407,943	1,357,460	...
New Zealand	7,457,915	21,766,708	1,136,232	607,609	429,391	193,267	138,684*	...
AVERAGE PER ACRE.								
	bushels.	bushels.	bushels.	bushels.	bushels.	tons.	tons.	gallons.
Victoria	1.29	10.16	14.88	68.81	17.04	3.40	1.04	54.53
New South Wales	1.24	8.18	4.00	15.06	12.12	1.58	.49	91.71
Queensland	3.28	6.67	8.36	11.49	51.51	2.20	1.16	64.69
South Australia	3.64	12.34	14.76	...	16.44	3.65	.95	98.91
Western Australia	10.54	15.89	11.82	13.43	†	3.00	.88	†
Tasmania	21.44	31.83	24.29	...	19.44	4.72	1.35	...
Australia	2.40	12.31	15.02	15.94	...	3.45	.86	...
New Zealand	38.37	45.00	40.69	50.47	33.24	6.15	2.00*	...

* Estimated.

† Particulars not available.

55.—DAIRY PRODUCTS.

State.	Year.	Butter.	Cheese.	Bacon and Ham.
		lbs.	lbs.	lbs.
Victoria ...	1902	39,227,754	3,849,561	14,438,370
New South Wales ...	1902	29,950,977	4,148,038	8,995,886
Queensland ...	1902	4,851,362	952,013	6,512,952
South Australia ...	1902	4,521,246	705,969	872,418
Western Australia ...	1901	336,440	3,578	333,393
Tasmania ...	1901	723,771	268,539	530,015
Australia ...		79,511,550	9,927,698	31,683,034
New Zealand ...	1901	29,758,310	15,644,944	6,267,168

56.—LIVE STOCK, 1902.

State.	Horses.	Cattle.		Sheep.	Pigs.
		Dairy Cows.	All Cattle.		
Victoria ...	392,237	521,612	1,602,384	10,841,790	350,370
New South Wales ...	450,125	351,287	1,741,226	26,649,424	193,097
Queensland ...	399,122	...	2,543,471	7,213,985	77,202
South Australia—					
Proper ...	164,625	75,011	213,343	4,880,540	82,777
Northern Territory	14,788	627	305,820	42,122	1,014
Western Australia ...	80,144	...	437,588	2,697,897	52,765
Tasmania ...	33,465	33,316	178,385	1,679,518	52,092
Australia ...	1,534,506	...	7,022,217	54,005,276	809,317
New Zealand ...	286,955	428,773	1,460,663	20,342,727	193,740

57.—MINERAL PRODUCTION, 1902.

State.	Gold.		Silver.		Silver-lead.		Copper.		Tin.		Coal.		Other Minerals	Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Value.	Value.
	Oz.	£	Oz.	£	Tons.	£	Tons.	£	Tons.	£	Tons.	£	£	£
Victoria	777,738	3,067,204	47,683	5,760	..	..	..	..	10	500	225,164	155,850	65,630	3,294,934
New South Wales	190,316	684,970	1,067,224	105,360	381,059	1,334,819	..	307,806	..	59,593	5,942,011	2,206,598	378,883	5,078,029
Queensland	860,453	2,720,639	701,312	70,145	..	..	3,784	189,200	2,085	116,171	501,531	172,286	42,159	3,310,600
South Australia—Proper ..	7,231	24,828	..	..	2,680	19,740	6,847	388,162	7	93	..	..	65,502	498,325
„ Northern Territory	20,968	70,251	..	..	2	20	141	1,813	120	5,985	..	..	74	78,143
Western Australia	2,177,442	7,947,663	82,293	9,199	36	277	2,262	8,090	620	39,783	140,884	86,188	3,380	8,094,580
Tasmania	70,996	301,573	*	*	435,524	1,075,007	*	*	2,958	206,607	49,898	28,600	47,209	1,658,996
Australia	4,105,144	14,817,128	..	..	..	..	..	..	..	428,732	6,859,488	2,649,522	602,837	22,013,607
New Zealand	508,045	1,951,433	674,196	71,975	..	..	..	..	..	..	1,362,702	741,759	456,455	3,221,622

* Included with silver-lead.

58.—CONDITION OF CROWN LANDS, 1902.

State.	Area in Acres.	During the Year 1902.					At the End of 1902.			
		Sold by Auction, Private Contract, &c.			Selected under System of Deferred Payments.	Granted Without Purchase.	Total Extent Wholly or Conditionally Alienated.	Total Granted, Sold, or in Process of Alienation.	Total Leased or Licensed.	Total Unoccupied or Reserved for Public Purposes.
		Area.	Amount of Purchase Money.	Average Price per Acre.						
		acres.	£	£ s. d.	acres.	acres.	acres.	acres.	acres.	
Victoria	56,245,760	7,304	47,657	6 10 6	299,502	97	306,903	24,058,181	17,244,278	14,943,301
New South Wales	198,848,000	51,933	115,625	2 4 6	546,542	1,835	600,310	48,507,192	131,099,305	19,241,503
Queensland	427,838,080	193,117	123,480	0 12 9	302,011	3,709	498,837	16,824,355	289,495,477	121,518,248
South Australia—Proper	243,244,800	119,989	124,467	1 0 9	..	92	120,081	13,732,985	83,705,626	145,806,189
„ Northern Territory	335,116,800	..	..	..	..	..	..	474,505	113,864,741	220,777,554
Western Australia.. .. .	621,538,800	46,928	56,488	1 4 1	550,630	1,918	599,476	9,856,592	112,086,002	502,646,206
Tasmania	16,778,000	65,137	77,407	1 3 9	..	..	65,137	4,955,550	1,518,895	10,303,555
Australia	1,902,660,240	484,408	545,124	1 2 6	1,698,685	7,651	2,190,744	118,409,360	749,014,324	1,035,236,556
New Zealand	66,861,440	17,203	12,694	0 14 9	..	57,807	75,010	24,029,976	16,254,847	26,576,617



59.—INMATES OF CHARITABLE INSTITUTIONS, 31ST DECEMBER, 1902
(NOT INCLUDING HOSPITALS):

States	Under 15 years of age.	15 years of age and over.	Total.
Victoria	1,668	3,074	4,742
New South Wales	1,703	4,530	6,233
Queensland ... ..	...	...	2,396
South Australia	674	1,039	1,713
Western Australia	446	436	882
Tasmania (1901)	12	445	457
Australia ... ..	...	...	16,423
New Zealand	234	1,124	1,358

60.—CRIME, 1902.

State.	Number of Offences brought before Magistrates on Arrest or Summons.					Result of Disposal by Magistrates.			In Superior Courts. Number—			Number of Prisoners in Gaols on 31st December.
	Against the Person.	Against Property.	Drunkenness.	Other Offences.	Total.	Summarily Convicted.		Committed for trial.	Tried.	Convicted.	Acquitted.	
						Drunkenness.	Other Offences.					
Victoria	2,121	3,882	14,540	26,337	46,880	9,394	25,213	752	708	485	223	1,071
New South Wales ...	3,896	5,962	21,577	28,938	60,373	21,472	29,304	1,271	1,226	775	451	1,835
Queensland	1,908	2,375	8,123	8,709	21,115	8,102	9,523	489	459	243	216	547
South Australia ...	252	509	2,431	3,416	6,608	2,394	3,048	209	115	80	35	303
Western Australia ...	845	1,889	3,311	10,398	16,443	2,036	9,500	335	285	165	118	369*
Tasmania (1901) ...	341	647	743	3,768	5,499	705	3,764	67	54	39	15	117
Australia	9,363	15,264	50,725	81,566	156,918	44,103	80,352	3,123	2,847	1,787	1,058	4,242
New Zealand† ...	1,114	3,083	8,311	15,568	28,076	8,244	13,881	765	437	334	103	653

* Excluding 118 Aborigines and 23 others not under sentence.

† Excluding Maoris, of whom 451 were brought before magistrates—330 being summarily convicted, and 37 committed for trial.