

A
STATISTICAL ACCOUNT

OF THE

SEVEN COLONIES OF AUSTRALASIA,

BY

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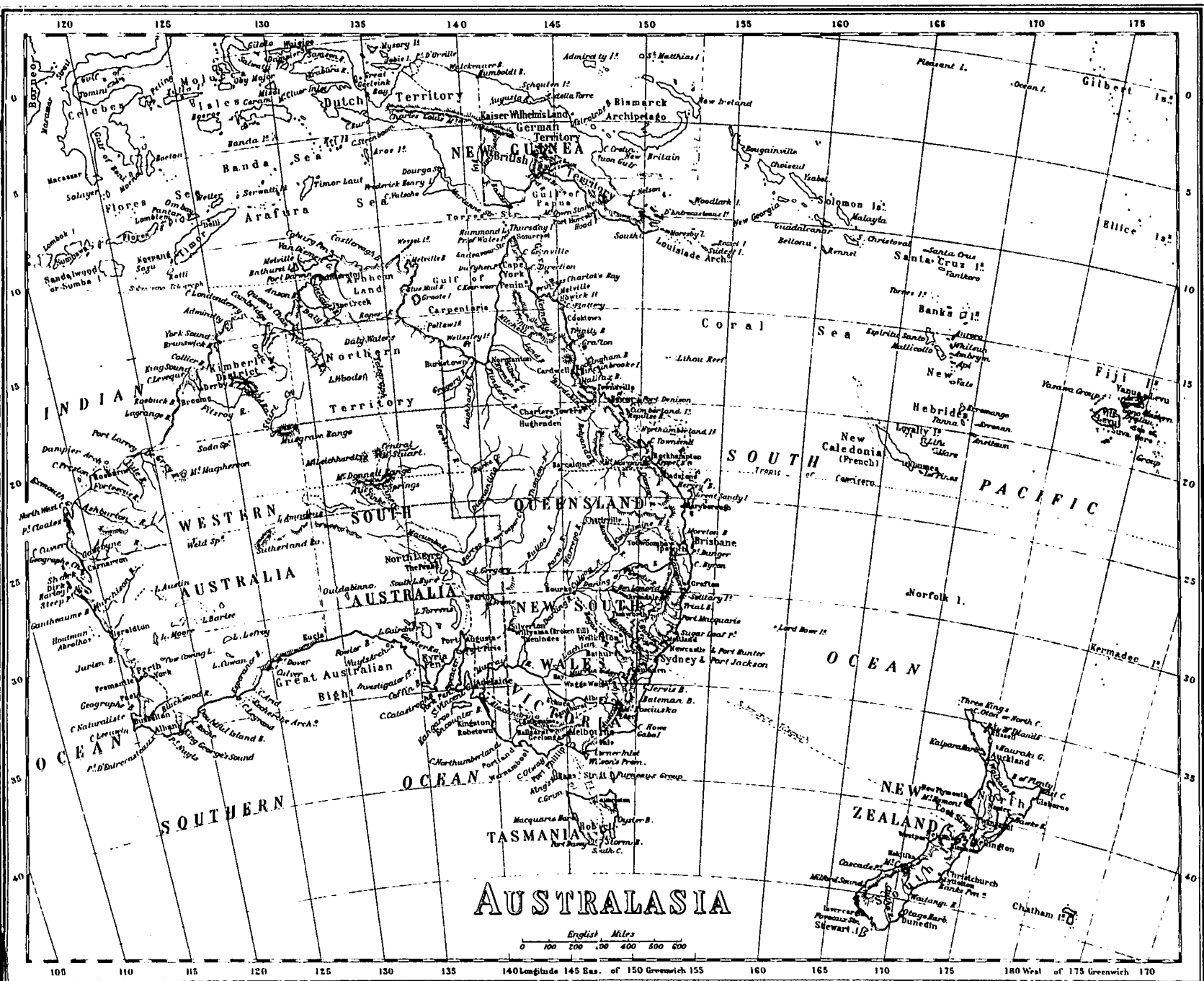
WITH MAP.

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PREFACE.

WHATEVER prevision of its future greatness may have been given to the pioneers of Australian settlement, it is doubtful whether it was anticipated, even by the most sanguine amongst them, that from the humble and apparently unpromising beginnings under Captain Phillip, there would have arisen the prosperous communities which now form the Australasian Group. To afford information by which the progress of these Colonies may be gauged is the object of the present work, which aims to exhibit at a glance the position held by each Colony individually, and by the country as a whole, with regard to all matters connected with its moral and material welfare. Such an account cannot fail to be of interest—so much has been attempted in directions in which old-world experience was of little avail, and so much has been accomplished in the development of the material resources of a new land, and the social well-being of its people. Particulars are given respecting the area, population, commerce, and natural resources—pastoral, agricultural, and mineral—of the various Colonies, together with matters relating to public and private wealth, the social and religious condition of the people; their employment, educational status, form of government, cost of living,

and other subjects of interest. Records of this nature are kept and published by each Colony individually, but this is the first time that any attempt has been made to present such information in a collective form convenient for reference and comparison. Every care has been taken to ensure accuracy, the figures in each instance being extracted from the latest-published official records of the Colony in question. It is hoped that a work of this kind will not be without a special value at the present time, when the question of the Federation of Australasia has been so prominently brought before the public mind by the Conference held in Melbourne a few weeks ago. Those who are unaware of the importance of Australasia, and the substantial basis upon which its claims for recognition amongst the nations are founded, will find much light thrown upon the subject by the figures in this book. Those who study attentively the information here recorded, and note the steady and rapid progress of these vigorous communities, will not fail to see an augury of further prosperous development.

Sydney, 22nd March, 1890.

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Map of Australasia *facing title-page*

POLITICAL DIVISIONS.

THE Australasian Colonies are comprised in the five divisions of the continent of Australia, the adjacent island of Tasmania and the islands of New Zealand. The total area is, approximately, 3,076,763 square miles, the continent of Australia alone covering an extent of about 2,946,153 square miles. The areas of the respective Colonies are :—

	Square Miles.
New South Wales	310,700
Victoria.....	87,884
Queensland	668,224
South Australia	903,425
Western Australia	975,920
Tasmania	26,375
New Zealand	104,235

Each Colony possesses a distinct constitution, and, with the exception of Western Australia, enjoys the privilege of responsible government.

New South Wales is the oldest Colony of the group, the first settlement on its shores having been effected by an expedition under the command of Captain Arthur Phillip, who landed at Botany Bay on 19th January, 1788, and formally took possession of the whole continent. Botany Bay being found unsuitable for a settlement, the fleet was brought round to Port Jackson, and the city of Sydney founded on the 26th January of the same year. Though the Colony was originally a penal settlement, free immigration existed from the first, and, after the abolition of transportation in 1840, all traces of the penal element were rapidly lost. The Constitution of New South Wales was proclaimed on the 24th November, 1855.

Tasmania, formerly known as Van Diemen's Land, was colonized from New South Wales, having been intended to serve the purpose of a subsidiary penal settlement. Lieutenant Bowen, in

charge of an expedition despatched from Sydney, took possession of the island on the 10th August, 1803, and formed a settlement on the east bank of the Derwent River, at Risdon. The government was administered from Sydney until the year 1825, when, in the month of December, Van Diemen's Land was duly constituted an independent province. The present Constitution of the Colony was framed in 1855, and proclaimed in the following year, the Act (18 Vic. No. 17) created a "Legislative Council and House of Assembly constituting the Parliament of Van Diemen's Land." The name of the Colony was formally changed to Tasmania on the 1st January, 1856.

VICTORIA.

The first attempt to settle Victoria was made in 1803. On the 10th October of that year Lieut.-Colonel Collins arrived from England with the intention of founding at Port Phillip a convict settlement similar to that which had been established at Sydney. The expedition landed on the shores of Port Phillip, near Sorrento, and several explorations of the country were made, but in the course of a few months the attempt at colonization was abandoned, as the place was believed to be unsuitable for a settlement. For twenty years the District of Port Phillip, as it was called, continued to be neglected. In 1824 Hume and Hovell undertook an exploration of the territory, and in 1826 another expedition, under Captain Wright, was sent from Sydney to form a settlement, but returned by order of Governor Darling, after one year's trial, although the reports of Hume and Hovell, and the officers of the military, were favourable to its prospects. In 1835 Batman, with a party from Hobart, and J. P. Fawcner, at the head of another party from Van Diemen's Land, obtained from the Aborigines extensive tracts of land on the shores of Port Phillip and the banks of the Yarra. In 1836, Sir Richard Bourke, then Governor of New South Wales, despatched Mr. Stewart from Sydney, with the title of "Superintendent of the District of Port Phillip," to establish a regular Government, and Captain Lonsdale arrived soon

afterwards with a party of soldiers and prisoners, as well as the necessary civil officials. The district was then formally placed under British rule. Victoria was separated from the mother colony on the 1st July, 1851, and its present constitution came into force on the 23rd November, 1855.

Western Australia was the fourth Colony established in Australia. The first settlement took place in 1826, when Major Lockyer landed at Albany in charge of an expedition from Sydney, consisting of a detachment of the 39th Regiment, and a number of prisoners. In 1829 Captain Freemantle landed near the mouth of the Swan River, and in the same year the town of Perth was founded. The territory was made a separate Colony on the 1st June, 1829, and Captain Stirling was appointed the first Governor. Western Australia still remains a Crown Colony under the direct control of the British Government.

South Australia was colonised in the year 1836, by immigrants sent from England, under the auspices of the South Australian Colonisation Company. Until a site for the capital was chosen the immigrants were landed at Kangaroo Island. Colonel Light, who was sent out to select the site for the settlement, arrived in August, 1836, and, after examining Nepean Bay, Port Lincoln, and Encounter Bay, decided upon establishing the capital where Adelaide now stands. Captain Hindmarsh, the first Governor, arrived at the close of the same year, and proclaimed the Colony on the 30th December. The new constitution of South Australia came into force on the 24th October, 1856.

New Zealand became a British Colony in 1840, but a company organized in England, styled the "New Zealand Land Company," had, during the previous year, despatched a preliminary expedition for the purpose of treating with the natives for the purchase of land. Five immigrant ships arrived in 1840, and settlements were made at Wellington and Auckland. By the treaty of Waitangi, which was signed on February 5, 1840, the native chiefs ceded the sovereignty of the islands to the British Crown.

Disturbances, however, soon occurred between the Maoris and the white settlers, and for about a quarter of a century matters were in a more or less unsettled state. The chief events may be thus summarized:—The Waira massacres occurred in June, 1843; insurrection headed by Honi Heki in July, 1844; rebellion of Wiremu Kingi in March, 1860; general war with the Maoris commenced in 1863; serious British reverses, including the Gate Pah disaster, in 1864; outbreak of the Hau-hau heresy in March, 1865; death of the chief William Thompson, which practically closed the war, in 1867; rebellion under Te Kooti in November, 1868, which was not finally quelled until July, 1870; submission of the Maori king to the British Government in February, 1875. Constitutional government was conferred on New Zealand in 1853, and a system by which the local governing power was vested in Provincial Councils, presided over by superintendents, continued till 1875, when it was abolished by an Act of the General Assembly.

QUEENSLAND.

Queensland, like Victoria, is an offshoot of New South Wales. In 1825 the first convict establishment was formed at Eagle Farm, in the Moreton Bay district. The penal settlement came to an end in the year 1842, and the district was proclaimed open to free settlement. Its separation from New South Wales took place in 1859, and the present constitution came into force on the 10th December of that year.

Thus, with one exception, all the Australasian Colonies have, for periods of from thirty to thirty-six years, enjoyed the privilege of framing their own laws. The people of Western Australia are now agitating for constitutional government, but the difficult subject of the control of the waste lands has hitherto stood in the way of a settlement of the question. However, the time cannot be distant when the demands of the West Australian people, backed up as they are by the voice of the rest of Australia, will be conceded. Recent events in the Imperial Parliament indicate a speedy solution of the difficulty.

POPULATION.

AT the end of the year 1888, one hundred years from its first settlement, Australasia had a population of 3,672,800 persons, divided amongst the various Colonies as under :—

New South Wales	1,085,740
Victoria	1,090,869
Queensland	387,463
South Australia	313,065
Western Australia.....	42,137
Tasmania.....	146,149
New Zealand	607,380

Population at
close of first
century.

If to these numbers, which are principally those of the people of European descent, there be added an estimated population of some 200,000 Australian aborigines and about 42,000 Maories, the inhabitants of Australasia will be found to be, in round numbers, 3,915,000 persons.

Compared with that of the other continents, the density of Australasia's population is not great, as it is only 1·27 persons to the square mile. According to Professor Levasseur, whose estimate is the latest available, the respective density of population of the great divisions of the globe is as follows :—

Density of Aus-
tralasian popula-
tion compared
with other part
of the world.

	Area in square Miles.	Population.	No. per square Mile.
Europe.....	3,800,000	347,000,000	88·7
Asia	16,000,000	789,000,000	49·3
Africa	12,000,000	197,000,000	16·4
North America	9,000,000	80,000,000	8·8
South America	7,000,000	32,000,000	4·5
Oceania	4,200,000	38,000,000	9·0
The World	52,000,000	1,483,000,000	28·7

DENSITY OF POPULATION.

Density of population in each Australasian Colony.

Taken by themselves the Australian Colonies stand in the following order, as regards the density of their population, aborigines not included :—

Victoria	12.40	persons per square mile.
New Zealand	5.82	„ „
Tasmania.....	5.54	„ „
New South Wales.....	3.49	„ „
Queensland.....	0.58	„ „
South Australia.....	0.34	„ „
Western Australia	0.04	„ „

Population of great colonies and foreign countries in process of settlement.

Other great colonies and foreign countries in process of extensive settlement, with which these colonies may be fairly compared, show the following density of population, according to the latest available information :—

	Year.	Population.	Area in square Miles.	No. per square Mile.
Algeria	1887	3,860,000	166,000	23.0
Argentine Republic ...	1887	3,800,000	1,095,000	3.8
Brazil	1886-87	12,000,000	3,220,000	3.8
Canada	1886-87	4,830,000	3,470,000	1.39
Cape Colony and Dependencies	1887	1,380,000	214,000	6.45
United States.....	1888	61,900,000	3,006,000	20.06

Density of population in European countries.

A comparison with the density of population in the older countries of the world is not of much practical use, unless as giving some indication of the future of Australasia, when its population shall have reached the proportions found in the old world. The latest authoritative statements give the following figures as representing the density of population in each of the countries enumerated below :—

United Kingdom	308	persons to the square mile.
France	187	„ „
Germany	227	„ „
Italy	240	„ „
Spain	90	„ „
Russia.....	47	„ „

As illustrating the progress of the population of Australasia it will be of interest to state that Captain Phillip brought with him, in 1788, an establishment of 1,030 persons, all told. Settlement soon spread from New South Wales, first to Tasmania, and afterwards to all parts of the Australian Continent and to New Zealand.

Progress of population in Australasia.

The progress of population in Australasia, and the rate of its increase for each successive period of twenty years, from 1801 to 1881, are shown in the following table :—

Years.	Population of Australasia.	Annual rate of Increase per cent.
1788	1,030	.....
1801	6,508	.....
1821	35,610	8·87
1841	251,000	10·26
1861	1,266,432	8·43
1881	2,822,046	4·09

From 1881, the date of the last general census of Australasia, to the end of 1888, the population had increased to 3,672,803 persons, or at the rate of 3·83 per cent. per annum.

In examining the various ratios of increase for each period abovementioned, the high rates which prevailed up to 1841 are easily accounted for by the smallness of the numbers operated upon; but the rate ruling from 1841 to 1861 is due to the extraordinary impetus given to immigration in the years which followed the discovery of gold in 1851. Since 1861 the increase has been normal, the gold fever having practically died away before that date.

Rates of increase for various periods compared.

Taking the year 1860 as a starting point of comparison between the various provinces, when Queensland, the last offshoot of the

NUMERICAL INCREASE.

mother colony of New South Wales, appears for the first time as an independent member of the group, the progress of the population of each Colony of the Australian family was :—

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1860	348,546	537,847	28,056	124,112	15,500	87,775	79,111
1865	409,147	621,095	87,804	156,605	20,100	95,201	190,607
1870	498,659	726,599	115,567	183,797	24,785	100,765	248,400
1875	594,297	791,399	181,288	210,422	26,709	103,663	375,856
1880	741,893	860,067	226,077	267,573	29,019	114,762	484,864
1885	957,914	971,145	315,489	313,423	35,186	133,791	575,226
1888	1,085,740	1,090,869	387,463	313,065	42,137	146,149	607,380

Numerical increase in each of the Australasian Colonies

The total numerical increase in each colony was, therefore :—

New South Wales	737,194 persons.
Victoria	553,022 "
Queensland	359,407 "
South Australia	188,953 "
Western Australia	26,637 "
Tasmania	58,374 "
New Zealand	528,269 "

The numerical increase for the whole of Australasia was 2,451,856, each colony contributing thereto in the following proportion :—

New South Wales	30·07 per cent.
Victoria	22·55 "
Queensland	14·65 "
South Australia	7·71 "
Western Australia.....	1·09 "
Tasmania.....	2·38 "
New Zealand	21·55 "
	100·00 "

The two great factors of this increase were a considerable excess of births over deaths, and an unusually large immigration.

The excess of births over deaths has contributed the following number to the population of each Colony, from 1860 to 1888 :—

Increase due to the excess of Births over Deaths.

New South Wales	414,659 persons.
Victoria	431,342 ,,
Queensland	103,079 ,,
South Australia	149,758 ,,
Western Australia	13,356 ,,
Tasmania	52,733 ,,
New Zealand	262,348 ,,

From this cause alone the population of Australasia has therefore gained 1,427,275 persons, during the years mentioned; a number equivalent to 58·21 per cent. of the total increase.

The difference between the figures just cited and the total increase during the period under examination, viz., 1,024,581 persons, represents the survivors among those immigrants who permanently settled in the Colonies in the years named, less the Australasian-born population which emigrated. These were distributed as follows :—

Increase due to Immigration.

New South Wales	322,535 persons.
Victoria.....	121,680 ,,
Queensland	256,328 ,,
South Australia	39,195 ,,
Western Australia	13,281 ,,
Tasmania	5,641 ,,
New Zealand	265,921 ,,

The information conveyed by the above figures is important, as illustrating not only the movement of population, but also the effect of local influences upon immigration; as, for example, the salubrity of the climate, the fertility of the soil, permanence of employment, liberal wages, land laws, &c. It would appear that during the period which elapsed since 1860, New South Wales has exhibited a greater power of attraction and absorption of the permanent element of immigration than any other member of the

Proportion of increase due to excess of Births and to Immigration compared. group. The two causes of increase have acted in the following proportion on the relative increase of each Colony :—

	Proportion due to	
	Excess of Births. per cent.	Permanent Immigration. per cent.
New South Wales	56·25	43·75
Victoria	78·00	22·00
Queensland	28·68	71·32
South Australia	79·26	20·74
Western Australia	50·14	49·86
Tasmania.....	90·33	9·67
New Zealand	49·66	50·34
Australasia	53·21	41·79

Present rate of increase in the population of Colonies and of Australasia. Calculated upon the basis furnished by the returns for the last five years the rate of increase of the population in each Colony is as follows :—

	per cent.
New South Wales.....	4·83
Victoria	3·43
Queensland.....	6·15
South Australia.....	0·56
Western Australia	5·86
Tasmania	2·97
New Zealand	2·40
Australasia	3·65

Proportion of excess of births, and of immigration to the present rate of increase. The excess of births over deaths, and permanent immigration, have contributed the following proportions of the above increase :—

	Excess of Births.	Immigration.
	per cent.	per cent.
New South Wales.....	2·31	2·52
Victoria	1·67	1·76
Queensland	2·05	4·10
South Australia	0·56	—
Western Australia.....	1·88	3·98
Tasmania.....	1·96	1·01
New Zealand	2·40	—
Australasia	1·90	1·75

Thus, in Australasia, births now provide 52·07 per cent. of the average yearly increase of population, whilst in South Australia

and New Zealand the increase is solely due to that cause, immigration having practically ceased to have any effect on the population. Queensland and Western Australia are still recruiting largely from abroad by means of assisted immigration, whilst in New South Wales and Victoria unassisted immigration still supplies as much as 52·15 and 51·47 per cent. respectively of their yearly increase.

During 1851, the year celebrated for the finding of gold, there commenced one of the most remarkable population movements of modern times. Thousands of men in the prime of life were attracted to the shores of Australia by the hope of speedily acquiring wealth from the rich gold-fields that had been discovered, and by far the greater number of these new arrivals settled in the southern portion of New South Wales, now the Colony of Victoria, but then called the Port Phillip District. This rush, which commenced shortly before the separation of Victoria from New South Wales, continued for some years afterwards, the bulk of the immigrants, as stated, settling in the newly formed Colony. In 1850, just previous to the gold rush, the population of the northern and southern portions of New South Wales was :—

New South Wales	189,341
Port Phillip	76,162

But five years afterwards the positions were reversed, for Port Phillip, then an independent Colony, had a population considerably larger than that of its parent, New South Wales :—

Victoria	364,324
New South Wales	277,579

Victoria enjoyed the advantage in population for over thirty years, but fell behind in 1887, and although obtaining a temporary lead towards the end of 1888, owing to the attraction of the Melbourne International Exhibition, she again lost first

AUSTRALASIAN BIRTH-RATE.

place, the respective populations of the two colonies at the close of 1889 being:—

Present population of New South Wales and Victoria.	New South Wales.....	1,122,200
	Victoria.....	1,118,077

and it is unlikely that the smaller Colony will ever again attain the leading position in point of population.

Effect of the discovery of gold in Queensland and New Zealand.

Queensland and New Zealand, also, owe much of their remarkable progress to the discovery of gold. In New Zealand the gold fever broke out in 1861, when the population numbered only 99,021, and the period of its activity extended to 1881. At the census taken in the last named year the population had reached 500,910 souls, a fourfold increase in twenty years.

In Queensland the attractive force of the gold-fields came into active operation at a later date, and may still be considered a strong factor in stimulating the growth of population in that Colony.

BIRTHS AND DEATHS.

Mean birth-rate of the colonies and of Australasia.

The mean birth-rate of Australasia, calculated over a series of years, averages 35·47 per thousand of the population, being as hereunder for each colony:—

	per thousand.
New South Wales	37·80
Victoria	31·60
Queensland	37·00
South Australia ..	36·88
Western Australia	34·65
Tasmania	33·12
New Zealand	37·23
Australasia	35·47

Mean death-rate of Australasia and of each Colony.

The mean death-rate of Australasia is very low, averaging only 15·01 per thousand, and varying from 11·07 in New Zealand to 17·33 in Queensland. The mean death-rate of each separate

Colony, calculated over the same period of years as for births, is as follows :—

	per thousand.
New South Wales	15·45
Victoria.....	15·07
Queensland	17·33
South Australia	14·12
Western Australia	16·27
Tasmania	15·79
New Zealand	11·07

Compared with European countries the Colonies occupy a very favourable position in respect to both birth and death rates. The Australasian birth-rate is high, and in those countries where it is slightly higher it will be seen on reference to the subjoined table that the death-rate is so considerably in excess that the difference between the two, representing the gain to each country by natural increase, is largely in favour of Australasia. The following are the average rates taken over a series of years :—

	Births per 1,000.	Deaths per 1,000.	Excess of Births per 1,000.
New Zealand.....	37·23	11·07	26·16
South Australia	36·88	14·12	22·76
New South Wales ..	37·80	15·45	22·35
Queensland.....	37·00	17·33	19·67
Western Australia.....	34·65	16·27	18·38
Tasmania.....	33·12	15·79	17·33
Victoria.....	31·60	15·07	16·53
Australasia	35·47	15·01	20·46
Norway	31·06	16·90	14·16
Denmark	32·26	19·00	13·26
United Kingdom.....	32·15	20·30	11·85
Holland	35·04	23·20	11·84
Prussia	37·74	26·00	11·74
Sweden	29·76	18·50	11·26
Germany	37·44	26·30	11·14
Belgium	30·66	21·70	8·96
Italy	37·09	28·90	8·19
Austria.....	38·63	30·60	8·03
Hungary	44·50	37·40	7·10
Switzerland.....	29·35	22·70	6·65
Spain	36·64	30·50	6·14
France ..	24·56	22·50	2·06

Death-rate of colonies compared with other nations.

No better testimony to the salubrity of the climate of Australia could be obtained than is afforded by these figures. There are, of course, various circumstances other than climatic which would tend to make the mortality lighter in these than older-settled countries, but when all possible allowances are made for such circumstances, a comparison between these Colonies and the countries of Europe is still significantly favourable to Australasia.

MARRIAGES.

Marriage rates of Colonies and of Australasia.

The marriage-rate of the Colonies per 1,000 of the population is as follows :—

	Per 1,000.
New South Wales.....	8·03
Victoria	7·01
Queensland	8·06
South Australia.....	8·00
Western Australia.....	7·18
Tasmania	7·55
New Zealand	6·92
Australasia	7·53

Marriage-rates of Colonies compared with other Nations.

Comparisons of the marriage-rate of Australasia with that of other countries, where the social conditions are essentially different, are not of much value, but as the marriage-rate is to some slight extent an index to the relative prosperity of the people, the rates which rule in the following countries will show that the Australasian Colonies rank in this respect on a par with the leading nations of the world :—

	Per 1,000
England and Wales	7·36
Scotland	6·61
Ireland	4·31
France	7·42
Spain.....	6·46
Italy	7·94
Germany	7·76
Austria	7·87

BIRTH PLACES OF THE POPULATION.

At the last general census of Australasia (1881) the racial composition of the population was as follows:—

Racial composition of population of Colonies at census of 1881.

Nationalities.	No. of each Nation.	Per cent.
Australasia.....	1,667,376	60·80
England and Wales.....	499,922	18·23
Ireland.....	261,996	9·55
Scotland.....	151,027	5·51
Germany and Austria.....	43,714	1·59
China.....	43,430	1·58
Other British Possessions.....	14,060	0·51
Scandinavia.....	13,899	0·51
United States.....	6,274	0·23
France.....	4,401	0·16
Other Foreign Countries, not specified..	36,451	1·33
Total.....	2,742,550	100·00

Thus the Australasian-born element prevailed in the proportion of 60·80 per cent. throughout Australasia, and constituted the following percentage of the population of each Colony:—

Percentage of natives to total population.

New South Wales.....	62·18 per cent.
Victoria.....	57·89 „
Queensland.....	40·39 „
South Australia.....	59·83 „
Western Australia.....	59·83 „
Tasmania.....	69·13 „
New Zealand.....	45·60 „

The great bulk of the Australasian-born population is of British descent, and the major portion of the immigrant population is also of these races, the respective proportion for each Colony being:—

	English. per cent.	Irish. per cent.	Scotch. per cent.
New South Wales.....	14·72	9·21	3·34
Victoria.....	17·11	10·06	5·58
Queensland.....	17·51	13·25	4·65
South Australia.....	21·14	6·52	3·80
Western Australia.....	22·76	10·01	2·46
Tasmania.....	14·96	6·21	3·24
New Zealand.....	24·72	10·08	10·77
Australasia.....	18·23	9·55	5·51

The foreign element.

Among other European nationalities the Germans and Scandinavians contributed the largest numbers to the foreigners established in Australasia, being particularly numerous in Queensland and South Australia, where together they formed respectively 6·75 and 3·58 per cent. of the total population. Their total number in all the colonies was 57,613, and of these 14,399 were located in Queensland, and 10,010 in South Australia. Excluding Asiatics, the United States of America furnished the larger proportion of other foreigners represented in Australia, and the French ranked next in order. The Americans numbered 6,274 and the French 4,401, or 0·23 and 0·16 per cent. of the total population.

The percentage of foreigners, other than Asiatics in each Colony, at the census of 1881 was :—

	Germans and Austrians.	Scandinavians.	Americans (United States.)	French.
New South Wales	1·04	0·37	0·34	0·20
Victoria	1·03	0·28	0·27	0·15
Queensland	5·52	1·23	0·19	0·16
South Australia	3·21	0·37	.....	0·10
Western Australia	0·28	0·17	0·29	0·10
Tasmania	0·69	0·19	0·12	0·05
New Zealand	1·08	0·97	0·17	0·17

Chinese in the Colonies.

At the census of 1881 there were 43,430 Chinese distributed as follows throughout the various Colonies :—

	Numbers.	Percentage to total Population.	Percentage to foreign Population.
New South Wales	10,205	1·36	32·87
Victoria	11,799	1·37	31·56
Queensland	11,253	5·27	30·40
South Australia	4,151	1·48	23·84
Western Australia	145	0·49	18·75
Tasmania	844	0·73	32·31
New Zealand	5,033	1·03	22·94
Australasia	43,430	1·58	29·31

Since 1880 it has been deemed expedient by the Governments of the various Colonies to enact prohibitive laws against the immigration of Chinese, and their migration from one Colony to another. For several years a poll-tax of £10 was imposed, but now, in accordance with the most recent legislation on the subject, masters of vessels are forbidden under a heavy penalty to bring more than one Chinese to every 300 tons, and a poll-tax of £100 is charged on landing. These stringent regulations have had the effect of bringing about the almost entire cessation of this class of immigration.

In 1888 the Chinese were estimated to number 50,600 in the whole group of Colonies distributed as follows:—

New South Wales	16,800
Victoria	12,560
Queensland	8,250
South Australia	6,900
New Zealand.....	4,690
Tasmania	1,000
Western Australia	400
<hr/>	
Australasia	50,600

Chinese in the Colonies in 1888.

CITIES AND TOWNS.

The progress of the chief cities of Australasia has been no less remarkable than that of the colonies themselves, and has no parallel among the cities of the old world. Even in America the rise of great cities has been accompanied by a corresponding increase in the rural population. In these colonies, perhaps for the first time in history, is presented the spectacle of magnificent cities growing with marvellous rapidity, and embracing within their limits one-third of the population on which they depend.

The increase in the population of the chief cities of Australasia and the estimated numbers of their inhabitants at the earliest and latest obtainable dates, as well as at various census periods,

Population of capital cities of colonies at various dates.

URBAN POPULATION.

are given in the following table, which illustrates the remarkable progress referred to:—

	Earliest obtainable date.		1861.	1871.	1881.	Latest date.	
	Year.	Popula- tion.				Year.	Popula- tion.
Melbourne...	1841	4,479	139,916	206,780	282,947	1889	458,470
Sydney.....	1828	10,815	93,686	134,736	224,211	„	381,730
Adelaide...	1844	6,107	18,303	.....	103,864	„	121,735
Brisbane.....	1846	829	6,051	15,029	31,109	„	87,000
Hobart.....	1810	1,500	19,449	19,092	21,118	„	34,916
Wellington..	...	.....	.....	.....	20,563	„	33,050
Perth.....	...	.....	.....	5,244	5,822	„	9,000

Population of principal towns in colonies at latest available date.

Among other cities and towns of importance in Australasia the following may be cited in the order of their estimated population at the latest available date. In all cases the population of suburbs is included:—

City or Town.	Colony.	Year.	Population.
Auckland	New Zealand ..	1888	61,700
Dunedin	„	1886	45,518
Christchurch	„	1886	44,688
Ballarat	Victoria ..	1887	39,830
Sandhurst	„	1887	36,050
Newcastle	New South Wales	1888	27,750
Geelong	Victoria	1887	20,740
Launceston	Tasmania	1889	21,497
Broken Hill	New South Wales	1888	12,600
Parramatta	„	1888	12,000
Goulburn	„	1888	12,000
Rockhampton.....	Queensland	1886	10,793
Bathurst	New South Wales	1888	10,000
Maitland	„	1888	9,000
Castlemaine	Victoria	1887	8,900
Invercargill.....	New Zealand	1886	8,939
Townsville	Queensland	1886	7,860
Ipswich	„	1886	7,576
Toowoomba.....	„	1886	6,270
Albury	New South Wales	1888	6,000
Orange.....	„	1888	6,000

COMMERCE AND SHIPPING.

It would be only natural to suppose that the commerce of these countries would increase in an equal ratio with the population. For many years, however, the expansion of trade was far more rapid than the increase of population; and Australasia now shows a larger ratio of trade compared with population than any other country.

It has been found impossible to accurately separate the external Total Trade. trade, that is the trade with countries outside Australasia, from the internal trade during the years prior to 1861. The following table, therefore, refers to the *total* trade since 1825, with the ratio per inhabitant. The external trade for the years over which information extends will be given subsequently :—

Total Trade of Australasia.

	Value.	Value per inhabitant.		
	£	£	s.	d.
1825	511,998	10	13	11
1841	5,573,000	22	4	0
1852	23,609,585	43	7	7
1861	51,001,071	40	5	5
1871	69,093,778	35	1	5
1881	101,513,485	35	16	4
1888	122,862,353	33	9	9

The influence of the discovery of gold upon the growth of trade can be readily discerned from the figures just quoted. During the period 1852 to 1861 the average value of commerce was about twice as great, when compared with the population, as it was in the previous decade. The fall since 1861 is, to some extent, more apparent than real, for the volume of merchandise has increased Influence of discovery of gold upon Australasian trade.

though the monetary value in proportion to population has perceptibly declined; the decrease in the trade *per inhabitant* is attributable to a depreciation in the value of wool, which is now, and has always been, the staple of Australasian products.

External trade.

By far the greater part of the external trade of Australasia is with the United Kingdom; and of the remainder the far larger proportion is carried on with foreign countries, the trade with British Possessions outside Australasia having greatly declined during recent years. The figures given in the next table show the distribution of the trade since 1861, in the three divisions to which reference has been made:—

External Trade—Imports and Exports.

Trade with—	1861.	1871.	1881.	1888.	
The United Kingdom.....	Imports	£ 13,467,370	£ 12,006,419	£ 25,662,185	£ 30,137,584
	Exports	12,207,228	18,486,703	24,342,422	23,723,324
	Total...	25,674,598	30,493,122	50,104,607	58,860,908
British Possessions outside Australasia...	Imports	1,767,391	2,382,148	3,069,206	3,048,252
	Exports	3,656,065	764,652	4,243,173	1,183,213
	Total...	5,423,456	3,146,800	7,312,379	4,231,465
Foreign Countries.....	Imports	3,216,738	2,245,124	4,576,733	6,686,467
	Exports	746,490	3,843,970	2,585,869	4,414,628
	Total...	3,963,228	6,089,094	7,162,602	11,101,095
Total, External Trade	Imports	18,451,499	16,633,691	33,308,124	39,872,303
	Exports	16,609,783	23,095,325	31,171,464	34,321,165
	Total...	35,061,282	39,729,016	64,479,588	74,193,468

External Trade of each Colony.

Dividing the trade amongst the various Colonies, the following table shows the proportion nominally belonging to each. The figures appear to make Victoria and South Australia somewhat more important than they really are, as the trade of a large portion of New South Wales passes through these Colonies before it can

reach the sea, and the value of such trade is not credited to New South Wales. Queensland also suffers in a similar way, as a large export of gold is not represented in its figures, such gold being sent to New South Wales for coinage, and therefore appearing as an export of the latter Colony when shipped therefrom.

External Trade- -Imports and Exports.

	1884.	1885.	1886.	1887.	1888.
	£	£	£	£	£
New South Wales	24,522,684	24,955,990	21,239,617	19,682,708	23,449,225
Victoria	22,949,357	22,310,946	19,962,746	18,549,325	25,034,321
Queensland	4,672,180	4,831,853	4,456,032	4,743,333	5,630,936
South Australia..	8,661,016	7,210,641	5,376,276	5,795,852	7,390,723
Western Australia	533,049	599,863	898,818	805,040	1,009,669
Tasmania	1,085,895	964,127	920,207	836,187	751,092
New Zealand.....	11,528,269	11,694,794	10,408,594	10,623,808	10,927,502
Australasia	73,952,450	72,568,214	63,262,290	61,036,253	74,193,468

The relative proportions of the trade of Australasia, classified as United Kingdom, other British and Foreign, are shown below : --

	1861.	1871.	1881.	1888.
United Kingdom.....	73·23	76·75	77·55	79·34
British Possessions outside Australasia	15·47	7·92	11·34	5·70
Foreign Countries	11·30	15·33	11·11	14·96
	100·00	100·00	100·00	100·00

It appears thus that the United Kingdom has not only pre-
 served its hold upon the trade of the Colonies, but has increased
 it both in volume and proportion, notwithstanding the keen com-
 petition of foreign countries. The trade with British possessions
 shows a marked decrease, due mainly to the falling off in shipments

Trade with
 United
 Kingdom.

of coin. In the earlier part of the period under notice there were large shipments of gold regularly made to the East, principally to Singapore and Ceylon; but the export of gold to those places has greatly diminished, so that in 1888 the total value of trade, though larger in its actual amount than in 1871, was less than in 1881 or even in 1861, and was proportionately smaller than in any of these years.

Trade with
foreign
countries.

The value of the trade of the principal foreign countries with Australasia may be gathered from the following statement:—

	Imports.				Exports.			
	1861.	1871.	1881.	1888.	1861.	1871.	1881.	1888.
	£	£	£	£	£	£	£	£
France and Possessions	136,124	158,992	342,248	479,785	26,703	101,758	339,826	585,715
United States	1,080,673	616,625	1,592,044	2,680,531	76,154	307,361	1,298,905	1,791,185
Germany	109,172	3,899	222,672	1,013,230	....	....	82,415	268,691
Belgium . . . .	....	....	26,713	183,239	....	....	101,244	1,203,974
China	827,347	874,925	1,431,893	1,129,241	114,149	29,137	73,599	30,397
Other Countries ..	1,063,422	500,683	960,563	1,101,441	529,304	3,345,714	684,880	534,666
Total	3,216,738	2,245,124	4,576,733	6,086,467	746,490	3,843,070	2,585,869	4,414,623

Australasia has for many years maintained important commercial relations with the United States of America, and in 1888 America's share of the total trade of Australasia with foreign countries was 40·4 per cent. The bulk of the exports, however, are comprised under the heading of coal and specie.

Trade with the
Continent of
Europe.

The increase of the trade carried on with the continent of Europe has been very remarkable. Intercourse with European countries was, until recent years, carried on through London, but one of the principal results of the Sydney and Melbourne International Exhibitions of 1879 and 1880 was the opening up of

regular direct communication. The French, in 1884, were the first to establish direct commercial relations, the steamers of the *Messageries Maritimes*, a subsidised line, making their appearance for the first time in Australian waters in the year named. In 1887 the vessels of the *Nord Deutscher Lloyd* Company, of Bremen, commenced trading with Australasia, and in the latter part of 1888 a line of German cargo boats opened up further communication between the great wool exporting cities of Sydney, Melbourne, and Adelaide, and the ports of Antwerp and Bremen.

The effect of these efforts to establish commercial relations is evident from the increase of trade which the foregoing table discloses, and in the diversion, now rapidly being effected, in the channel by which the wool required for Europe reaches the market. The example of the South American Republics, the bulk of whose produce now finds a market at the ports of Antwerp, Havre, and Dunkirk, without passing through London, was not lost on continental buyers. It was manifest that direct shipments of wool to Europe could as readily be made from Sydney or Melbourne, as from Buenos Ayres or Monte-Video, hence the presence in increasing numbers in the local markets of representative buyers from the principal continental firms. The extent of the diversion which has already taken place, and the probabilities of further expansion, may be gauged from the following figures representing the value of wool exported in 1881 and 1888 from Australasia direct to European ports :—

Direct wool
trade with
Europe.

	Victoria.		South Australia.		New South Wales.	
	1881.	1888.	1881.	1888.	1881.	1888.
	£	£	£	£	£	£
To France	21,965	75,145	Nil.	27,192	Nil.	71,865
To Germany	39,356	91,839	13,465	11,765	988	115,553
To Belgium	92,624	389,391	.....	54,686	3,933	719,108
	153,945	556,375	13,465	93,643	4,921	906,526

The total value of wool directly exported to continental ports has increased from £172,331 in 1881, to £1,556,544 in 1888.

Imports from
Foreign States.

The value of the imports from Foreign States has doubled since 1861. The most remarkable progress in the development of Australasian trade has been made by Germany, whose exports to these Colonies have increased tenfold since the year named; the trade with France has increased fourfold, while that with the United States has doubled.

Trade with
China.

Fair progress has been made in commerce with China since 1861. In the following figures is included the trade with Hongkong, which, though a British possession, is really a distributing centre for a portion of the Australasian exchanges with the Chinese Empire :—

Imports.

From	1861.	1871.	1881.	1888.
	£	£	£	£
Chinese Empire	827,347	874,925	1,431,893	1,129,241
Hongkong	360,600	270,593	607,926	817,227
Total	1,187,947	1,145,518	2,039,819	1,946,468

Exports.

To	1861.	1871.	1881.	1888.
	£	£	£	£
Chinese Empire	114,149	29,137	78,599	30,397
Hongkong	343,398	138,414	320,582	365,202
Total	457,547	167,551	399,181	395,599

It will be observed that the exports have decreased in value since 1861, and that they are small compared to the imports. The difference between the imports and exports was :—

1861.	1871.	1881.	1888.
£ 730,400	£ 977,967	£ 1,640,638	£ 1,550,869

The intercolonial trade of Australasia is increasing in a slightly higher ratio than does the population. The following figures represent the total value of this important branch of the general trade, as well as the value per inhabitant :—

Year.	Total.	Value per Inhabitant.
	£	£ s. d.
1861	15,939,789	12 11 9
1871	29,364,762	15 5 1
1881	37,033,897	13 10 1
1888	48,668,885	13 5 0

The amount for 1888 represents 40 per cent. of the total trade of Australasia, which in that year reached £122,862,353 ; but these figures not only include the value of the produce of one Colony exchanged for that of another, but also of goods passing through for foreign countries, and goods imported from abroad and re-exported, and must, therefore, not be taken as affording definite information as to the extent of legitimate internal trade.

The following table illustrates the total trade of each Colony for the quinquennial period, 1884–1888. It will be observed that 1886 was the worst year of the series for the whole of the colonies, but there has been a gradual improvement since, until the total trade of 1888 showed a fair advance upon that of 1884. The figures are given to the nearest thousand pounds.

Total Foreign and Intercolonial Trade.

		1884.	1885.	1886.	1887.	1888.
		£	£	£	£	£
New South Wales	Imports	23,161,000	23,738,000	20,974,000	18,806,000	20,885,000
	Exports	18,577,000	16,750,000	15,556,000	18,497,000	20,860,000
	Total	41,738,000	40,488,000	36,530,000	37,303,000	41,745,000
Victoria	Imports	19,202,000	18,044,000	18,531,000	19,022,000	23,972,000
	Exports	16,050,000	15,552,000	11,795,000	11,351,000	13,854,000
	Total	35,252,000	33,596,000	30,326,000	30,373,000	37,826,000
Queensland	Imports	6,382,000	6,423,000	6,103,000	5,822,000	6,647,000
	Exports	4,674,000	5,243,000	4,934,000	6,454,000	6,126,000
	Total	11,056,000	11,666,000	11,037,000	12,276,000	12,773,000
South Australia	Imports	5,749,000	5,548,000	4,853,000	5,096,000	5,414,000
	Exports	6,624,000	5,636,000	4,489,000	5,331,000	6,984,000
	Total	12,373,000	11,184,000	9,342,000	10,427,000	12,398,000
Western Australia	Imports	521,000	650,000	758,000	832,000	786,000
	Exports	406,000	447,000	630,000	605,000	650,000
	Total	927,000	1,097,000	1,388,000	1,437,000	1,466,000
Tasmania	Imports	1,656,000	1,757,000	1,756,000	1,597,000	1,611,000
	Exports	1,476,000	1,314,000	1,332,000	1,449,000	1,334,000
	Total	3,132,000	3,071,000	3,088,000	3,046,000	2,945,000
New Zealand	Imports	7,664,000	7,480,000	6,759,000	6,246,000	5,942,000
	Exports	7,091,000	6,520,000	6,673,000	6,866,000	7,767,000
	Total	14,755,000	14,000,000	13,432,000	13,112,000	13,709,000
Australasia	Imports	64,335,000	63,640,000	59,734,000	57,421,000	65,257,000
	Exports	54,898,000	51,762,000	45,409,000	50,553,000	57,605,000
	Total	119,233,000	115,402,000	105,143,000	107,974,000	122,862,000

TOTAL TRADE.

As already explained, the figures include intercolonial and re-export trade; and, though misleading, if used for purposes of comparison as regards the total Australasian trade and that of other countries, they are not without use in estimating the relative commercial transactions of the colonies. From the foregoing table it will be readily seen that an excess in the value of imports over exports is a prominent feature of the trade of Australasia taken as a whole, although in some colonies the reverse is the case. The surplus of imports is due to two causes: (1) the importation, by the Governments of the various colonies, of money to cover the cost of construction of public works; and (2) the excess of private capital sent to Australia for investment. In most of the colonies (New Zealand and South Australia being the exceptions), the money so imported exceeds the payments for interest on public and private loans and the sum drawn from Australia by absentees. Hereunder is shown the balance of trade of each colony and of Australasia for the five years, 1884-1888, and the amount of loan money expended during the same period. There was an excess of imports over exports in all cases except those marked.

Balance of Trade and Loan Expenditure, 1884-8.

	Excess of Imports.	Expenditure from Loans.
	£	£
New South Wales	17,323,476	15,307,247
Victoria	30,168,645	8,963,036
Queensland	3,944,497	8,720,261
South Australia	*2,403,408	5,940,602
Western Australia	780,256	709,088
Tasmania	1,473,320	2,125,796
New Zealand	*1,127,654	7,648,679
Total Australasia	50,159,138	49,414,709

* Excess of exports.

Exports of
various
countries.

The information furnished by the following tables will enable a comparison, based upon export trade, to be instituted between the Australasian Colonies and the principal countries of Europe. The value of exports is given in round numbers :—

Country.	Year.	Exports.	
		Total Value.	Value per Inhabitant.
		£	£ s. d.
United Kingdom	1888	256,000,000	6 16 10
France	1888	128,400,000	3 12 5
Germany	1887	156,000,000	3 5 10
Austria-Hungary	1886	50,000,000	1 5 7
Italy	1887	44,500,000	1 10 1
Russia	1888	69,100,000	0 14 2
Spain	1888	28,900,000	1 12 10
United States.....	1888	150,000,000	2 8 5
Canada	1886-7	18,390,000	3 16 2
Cape Colony	1887	7,920,000	5 15 0
Algeria	1887	7,440,000	1 18 5
Brazil	1886-7	26,350,000	2 3 7
Argentine Republic	1887	16,700,000	4 4 0
Uruquay	1887	3,730,000	7 4 0
Australasia	1888	34,321,000	9 10 2

The proportions of the direct foreign export trade due to each Colony, with the value per inhabitant for the year 1888, were :—

	Foreign Exports.	Value per Inhabitant.
	£	£ s. d.
New South Wales	11,305,515	10 12 5
Victoria	9,546,740	8 19 6
Queensland	2,056,569	5 9 0
South Australia	4,411,704	14 2 1
Western Australia	574,324	13 11 5
Tasmania	222,112	1 10 9
New Zealand	6,204,195	10 4 11
Australasia	34,321,165	9 10 2

In the foregoing pages the values of the trade of Australasia and of its various provinces have been given irrespective of the locality where the trade was produced. This information is supplied in the following table, which, nevertheless, must be taken as approximate, since the value of the home produce of some of the colonies is overstated. This is notably the case with Victoria and New South Wales—the first named colony taking credit for large quantities of New South Wales wool shipped from Melbourne as domestic produce, while in New South Wales gold coined at the Sydney Mint, refined copper and tin, no matter where produced, are, when exported, shipped as local produce. It has not been found practicable to ascertain certainly the extent of these over-statements, but an approximation has been made, and in the following table are given the values of home produce as returned to the Customs and the estimated figures after deductions have been made for the over-statements adverted to:—

	1884.	1885.	1886.	1887.	1888.
	£	£	£	£	£
New South Wales, as per Customs returns	14,505,736	12,957,881	12,884,200	15,472,361	17,289,487
New South Wales, as corrected ..	13,021,920	11,685,154	10,941,321	13,328,144	15,588,667
Victoria, as per Customs returns	13,155,484	12,452,245	9,054,687	8,502,979	10,356,633
Victoria, as corrected	11,458,841	11,039,013	7,654,583	6,437,954	9,196,657
Queensland	4,059,797	4,440,554	4,813,092	6,338,205	5,113,289
South Australia	5,292,222	4,385,599	2,822,138	3,348,561	4,070,773
Western Australia	405,692	446,601	626,524	601,186	673,521
Tasmania	1,448,714	1,290,011	1,312,416	1,425,457	1,303,908
New Zealand	6,942,486	6,591,911	6,386,682	6,551,081	7,255,128
Australasia	42,629,672	39,893,933	34,556,756	38,030,588	43,801,943

The relative producing power of the various colonies is fairly indicated by the foregoing figures, especially if read in connection

DOMESTIC PRODUCE EXPORTS.

with the statement of the exports of home produce per inhabitant during the same period, which is given below :—

Exports of Domestic Produce per inhabitant.

	1884.	1885.	1886.	1887.	1888.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	14 15 7	12 11 0	11 3 2	13 0 7	14 13 0
Victoria	12 5 4	11 10 2	7 15 0	6 6 2	8 13 0
Queensland	13 15 4	14 8 0	14 12 7	17 17 2	13 11 0
South Australia ..	17 3 0	14 0 2	9 0 2	10 14 2	14 18 7
Western Australia	12 11 0	13 2 2	16 15 2	14 13 0	15 18 4
Tasmania	11 5 7	9 16 7	9 13 7	10 3 9	9 0 7
New Zealand	12 12 9	11 12 9	10 19 4	10 19 7	11 19 7
Australasia.....	13 12 7	12 6 0	10 5 4	10 18 2	12 2 7

Domestic Pro-
duce exported

The average value of the produce of Australasia exported during the five years comprised above was £39,782,600 per annum, equal to £11 17s. per inhabitant, which latter sum is far in excess of the export of any other producing country. The average of each colony for 1884–8 was—

	Domestic Produce exported.	Per inhabitant.
	£	£ s. d.
New South Wales	12,913,040	13 4 8
Victoria	9,157,400	9 6 0
Queensland	4,954,180	14 17 0
South Australia	4,103,860	13 3 3
Western Australia	550,720	14 12 0
Tasmania	1,357,900	10 0 0
New Zealand	6,745,460	11 13 0
Australasia	39,782,560	11 17 0

Export per
inhabitant.

As stated above, the export of domestic produce compared with population is much larger from Australasia than from any other country, and for the year 1888 the gross value of such exports was greater than that from any European country, with the exception of the United Kingdom, Germany, France, Russia, and

Belgium. The following was the value per inhabitant for some of the principal countries of the world, and refers in most instances to the year 1887 :—

Domestic Ex-ports of various Countries.

Export of Domestic Produce per inhabitant.

	£
United Kingdom	6·24
France.....	3·36
Germany.....	3·42
Russia	0·63
Italy.....	1·25
Norway	3·10
Sweden	2·80
Belgium	8·30
Spain	1·70
United States.....	2·85
Australasia.....	11·85

The main article of Australasian export is wool. During 1888 the weight of this commodity exported was 553,075,285 lbs., estimated as if all the wool were unwashed, and the value thereof £19,330,868.

Since the discovery of gold in 1851 there have been every year exported large quantities of both coin and bullion. In the subjoined table the net export of gold is shown in five-year periods from 1851. The colonies of Victoria, Queensland, and New Zealand are the largest exporters, being the chief producers of the metal. The other colonies have produced little more than the quantity needed to meet the local requirements.

Export of Gold.

Period.	Value of Exports over Imports.	Average per Annum.
	£	£
1851-55	39,949,688	7,989,938
1856-60	57,522,478	11,504,496
1861-65	51,365,054	10,273,011
1866-70	46,527,832	9,305,566
1871-75	39,306,752	7,861,350
1876-80	25,868,541	5,173,708
1881-85	23,664,776	4,732,955
1886-88	9,517,319	3,172,440
1851-88	293,722,440	7,729,538

SHIPPING.

Starting from the year 1822, as being the earliest date for which reliable information under this heading is available, the expansion of the maritime trade of Australasia may be summarised as under :—

Vessels Entered and Cleared at Australasian Ports.

Year.	No. of Vessels.	Tonnage.
		Tons.
1822	268	147,869
1841	2,576	552,347
1851	5,340	1,088,108
1861	10,766	2,892,503
1871	13,733	4,395,172
1881	16,699	9,504,130
1888	18,611	14,689,766

Tonnage entered
and cleared.

An exact distribution of the tonnage amongst the various colonies can only be made since 1861. In the year 1822 all the colonies on the mainland were comprised in the designation of New South Wales, and in 1851 Queensland still formed part of the mother colony. In the following table a distribution has been made as far as practicable. The Queensland figures for 1881 are, however, greatly overstated. It was the practice formerly, in that colony, to reckon shipping at every port of call, instead of only at the terminal port. The custom has been discontinued of late years, so that the figures for 1888 give the exact state of the Queensland shipping trade.

Total Tonnage Entered and Cleared.

C	1822.		1841.		1851.		1861.		1871.		1881.		1888.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
New South Wales.....	..	.....	..	.....	1,056	292,022	2,718	745,606	4,014	1,560,479	4,357	2,780,560	5,927	4,765,410
Victoria .....	...	.....	1,404	355,896	1,370	240,431	3,598	1,090,002	4,394	1,355,025	4,248	2,411,002	5,354	4,307,883
Queensland	131	113,717	..	.....	included in N.S.W.		485	108,664	966	282,675	2,663	1,533,808	1,864	906,220
South Australia.....	..	.....	197	37,036	538	155,002	788	109,331	1,238	373,624	2,153	1,269,491	1,988	1,973,651
Western Australia ..	...	.....	No information.		247	49,352	455	115,256	400	126,948	368	285,046	520	812,393
Tasmania.....	137	34,152	975	159,415	1,569	239,152	1,580	230,218	1,283	210,160	1,383	383,762	1,565	776,278
New Zealand .....	..	.....	..	.....	560	112,149	1,142	403,336	1,438	540,261	1,527	833,621	1,384	1,057,913
Australasia.....	268	147,869	2,576	552,347	5,340	1,088,108	10,766	2,892,503	13,733	4,395,172	16,600	9,504,130	18,611	14,680,766

ENTRANCES AND CLEARANCES.

Recent increase
of tonnage.

Owing in a great measure to the utilization of steam as a motive power the average carrying capacity of vessels has increased considerably, especially during recent years. In considering the average tonnage, the year 1822 cannot be used for the purpose of comparison, as a large proportion of that year's tonnage was made up of vessels of the Royal Navy conveying men and stores to penal establishments :—

Year.	Average Tonnage.
1841	214
1851	204
1861	269
1871	320
1881	570
1888	789

It is hardly necessary to emphasise the remarkable change effected within the period 1871 to 1888; the former year inaugurated a marked expansion in the Australasian shipping trade, which has been sustained and further developed, in no small degree, by the great lines of steamships now running between Australasian and European ports.

Daily movement
of tonnage.

The following figures represent the daily movement of tonnage (entered and cleared) in Australasian ports :—

In 1822... ..	58 tons per diem.
1841.....	1,486 ,,
1851.....	2,981 ,,
1861.....	7,928 ,,
1871.....	12,041 ,,
1881.....	26,038 ,,
1888.....	40,081 ,,

that is to say, five vessels of 406 tons in the aggregate, entered or cleared every week during the year 1822, whilst in 1888 the weekly shipping movement was 357 vessels, aggregating 280,567 tons.

The subjoined figures are given for the purpose of comparing the growth of population with the expansion of shipping, though the exclusion of the year 1822 would, for the reason given in a preceding paragraph, render the comparison clearer :—

Expansion of the shipping trade.

Year.	Population.	Tonnage.	Tonnage per inhabitant.
1822	38,440	147,869	3·85
1841	251,000	552,347	2·20
1852	545,116	1,767,305	3·24
1861	1,266,000	2,892,503	2·28
1871	1,970,066	4,395,172	2·23
1881	2,822,046	9,504,130	3·37
1888	3,672,803	14,689,766	4·00

The following table shows that the shipping has increased at a much greater rate than the population :—

Compared with increase of population.

Ratio of Increase per Annum.

	Population per cent.	Commerce per cent.
1841 to 1861.....	8·43	8·63
1861 to 1881.....	4·09	6·13
1881 to 1888.....	3·84	6·42

Comparing the quantities of shipping per inhabitant of the countries for which data is available, it will be found that Australasia stands first. The following figures refer to 1887 :—

	Tons per inhabitant.
United Kingdom	1·76
Russia in Europe	0·16
Norway	2·47
Sweden	1·86
Germany	0·37
France.....	0·72
Holland	2·13
Italy	0·46
United States.....	0·54
Australasia	4·00

TONNAGE OF EACH COLONY.

Shipping trade
between
Australasia and
the United
Kingdom.

In estimating the number and tonnage of vessels engaged in the trade between Australasian ports and the United Kingdom and foreign countries, as distinguished from intercolonial trade, figures as regards the years 1884 to 1888 can only be considered, as there is no information of a sufficiently accurate character for the classification of the maritime trade prior to that period :—

Year.	Vessels.	Tons.
1884	4,457	4,881,858
1885	4,291	4,905,479
1886	4,064	4,859,183
1887	3,880	4,853,324
1888	4,358	5,913,291

Distribution of
British trade.

The tonnage was distributed amongst the various colonies in the following proportion :—

	1884.	1885.	1886.	1887.	1888.
New South Wales	1,764,126	1,753,795	1,697,436	1,658,725	2,028,740
Victoria	1,057,752	1,041,006	1,172,883	1,140,819	1,322,565
Queensland	279,720	317,046	333,776	242,677	347,632
South Australia ...	829,673	822,715	693,324	770,138	918,782
Western Australia	368,035	389,831	400,171	417,449	727,944
Tasmania	103,265	102,328	93,776	125,458	103,817
New Zealand	479,287	478,758	467,817	498,058	463,811

Although it affords an estimate of the shipping between the colonies and the outside world, the foregoing table must not be considered as absolutely correct in its details, as the tonnage credited to Western Australia and South Australia includes vessels touching at Albany and Adelaide, the destination being Sydney or Melbourne. The figures appertaining to Victoria are likewise swollen by the inclusion of tonnage on its way to Sydney.

The distribution of the shipping trade is shown by the subjoined table, specifying the tonnage entered or cleared at the principal Australasian ports :—

Sydney	3,116,697
Melbourne	4,023,570
Newcastle	1,448,635
Brisbane	809,268
Rockhampton	446,275
Townsville.....	408,757
Auckland	307,195
Wellington	216,009
Hobart	405,781
Launceston	197,303
Port Adelaide	1,526,710
Glencg	64,578

Shipping at principal ports.

To test the position in the world of commerce of the principal ports of Australasia, a comparison between them and other great ports is made in the following table, compiled from the latest available data, it being well to remember that Melbourne is in a much more prominent place than it would otherwise occupy if the tonnage of vessels calling at that place, but bound for Sydney, were deducted from the figures quoted :—

Sydney and Melbourne compared with other ports.

Port.	Year.	Tonnage.	Port.	Year.	Tonnage.
London	1888	12,941,861	Melbourne	1888	4,023,570
New York	1886	10,947,273	Le Havre	1888	3,618,424
Liverpool	1888	10,309,752	Hull	1888	3,401,692
Cardiff	1888	8,076,333	Sydney	1888	3,116,679
Hamburg	1887	7,748,710	Genoa	1887	2,953,194
Antwerp.....	1886	6,802,706	Glasgow	1888	2,548,882
Marseilles	1888	6,715,337	Boston	1888	2,203,029
Hongkong	1888	6,650,000	Stettin	1887	2,185,059
Newcastle (Eng.)	1888	5,220,892	Bordeaux	1888	2,107,693
Buenos Ayres.....	1888	4,096,020	Philadelphia	1886	2,050,552

MINERAL RESOURCES.

ALMOST all the principal metals of economic value are found in Australasia, and many are common to several Colonies. In dealing with the occurrence and value of mineral deposits, the classification into noble metals, metallic minerals, carbon minerals, soluble and insoluble salts, diamonds and other gem stones, has been adopted.

NOBLE METALS.

Gold. Gold, the most valuable of noble metals, is found throughout Australasia, and the present prosperity of the Colonies is largely due to gold discoveries, the development of other industries being, in a country of varied resources, a natural sequence to the acquisition of mineral treasure.

Discovery of gold.

Settlement in Australia was still young when many-tongued rumour spoke of the existence of gold, but it was not until the 16th February, 1823, that the Government was officially apprised of a discovery destined to be the precursor of a prosperity seldom surpassed in the history of nations. On the date mentioned Mr. Assistant-Surveyor M'Brien reported that, at a spot on the Fish River, about 15 miles east of Bathurst, he had discovered gold. Mention is made, in the early records of New South Wales, of several other finds, but it remained for Count Strzlecki and the Rev. W. B. Clarke to demonstrate the existence of the precious metal in payable quantities, and to assert their belief in its abundance, an opinion strongly supported in England by several eminent authorities, and substantiated by Hargraves' discovery in the year 1851. The gold-fields of Lewis Ponds and Summer Hill Creek had hardly been opened up when, on the day that witnessed the severance of the Port Phillip district from the mother Colony of

New South Wales, Mr. J. M. Esmond discovered gold in Victoria. Shortly afterwards, a rush set in for Ballarat, and the gold fever took possession of Australia. The following year (1852) saw gold found in South Australia and Tasmania; the rush to Canoona, in Queensland, took place in 1858; and gold was discovered in New Zealand in that year, but it was not until 1861 that a large population was, by the prospect of rapidly obtained wealth, attracted to the last-mentioned place. It would be strange if Western Australia could not also claim the possession of auriferous deposits, and, although for many years belief in the existence of gold in that Colony was simply speculative, the reports of explorers in the Kimberley District, and subsequent developments, proved that the great territory of the west has a share of the treasure.

The following table gives the weight and value of gold raised from the start of mining in the various Colonies to the end of the year 1888 :—

Weight and value of gold raised.

Colony.	Period.	Weight.	Value.
		oz.	£
New South Wales.....	1851-1888	9,972,598	37,180,817
Victoria.....	„ „	55,635,959	222,543,836
Queensland.....	1858 „	6,088,785	21,310,747
South Australia.....	1852 „	248,213	891,612
Tasmania.....	„ „	532,893	2,031,520
New Zealand.....	1858 „	11,421,817	44,843,642
Western Australia.....	1886 „	54,873	219,492
Australasia.....	1851-1888	83,955,138	329,021,666

It will be readily understood from the foregoing figures how Victoria, though comparatively small in area, achieved the foremost position amongst the Colonies, and retained that place so long as the powerful attraction of gold continued; but as the alluring dazzle of the gold-seeker's life was gradually dimmed by privation and frequent disappointment, people turned to safer, if less brilliant, fields of employment, and although the discovery of

Effect of gold discovery in Victoria.

such extraordinary deposits as those of Mount Morgan, in Queensland, may astonish the world, and give princely dividends to shareholders, the thirst for gold—so powerful in the past—cannot now entice any considerable proportion of the population from other pursuits. Notwithstanding this only a small portion of the auriferous area of the continent has been explored, and a still smaller portion fully developed.

Number of
gold-miners.

The number of men engaged in the search for gold cannot be ascertained with any degree of accuracy, as returns are not available from some of the Colonies. An approximation, based upon the number of miners and the average production per man at the date of the last census taken in the Colonies, will give a fairly reliable estimate, information to date not being available, and, with the figures obtained from the other Colonies, shows the following as the number of persons engaged in gold-mining in Australasia in the year 1888 :—

New South Wales	8,278
Victoria	25,142
Queensland	9,240
South Australia	440
Western Australia	800
Tasmania	900
New Zealand	9,370
Australasia	54,170

The weight and value of gold obtained was :—

Colony.	Weight.	Value.
	oz.	£
New South Wales	87,503	317,100
Victoria	625,026	2,500,104
Queensland	481,643	1,685,750
South Australia	16,763	66,160
Western Australia	50,000	200,000
Tasmania	39,610	147,154
New Zealand	201,219	801,066
	1,501,764	5,717,334

The average per miner may be calculated from the preceding tables, and, as the conditions under which mining is carried on greatly differ, will be found to vary considerably. In New South Wales, for example, a revival of gold-mining, especially reefing, took place during the year 1888, and there was, consequently, a considerable increase in the number of persons employed, many being engaged in developing mines which had not reached a payable stage. In Queensland and Tasmania, on the other hand, a small number of miners, working exceptionally rich ground, produce a large yield, and thus the average for those Colonies is increased.

Average amount of gold obtained.

The quantity and value of gold per miner for the year 1888 are given below, Western Australia being excluded, as the returns are not reliable :—

	oz.	£	s.	d.
New South Wales	10·57	38	6	1
Victoria	24·86	99	8	9
Queensland.....	52·09	182	6	9
South Australia.....	38·27	151	1	0
Tasmania	44·35	164	15	7
New Zealand	21·47	85	10	0

In New South Wales the average was smaller for 1888 than for previous years, owing to causes already explained, that for 1887 being 18·19 oz., valued at £65 2s. 3d. per miner.

Attempts have been made to ascertain the average yield from quartz, but the number of tests made and the quantity of stone treated are inconsiderable ; furthermore, it has not been found possible to obtain material from all the principal mining centres. The results obtained in 1887 and 1888 are given below :—

Yield of quartz.

	New South Wales.			Victoria.			Queensland.			Tasmania.		
	oz.	dwt.	grs.	oz.	dwt.	grs.	oz.	dwt.	grs.	oz.	dwt.	grs.
1887	0	9	4·93	0	9	9·95	1	15	10	1	5	21
1888	1	0	18·22	0	9	17·96	1	14	11	1	5	2

The data on which the estimate for Queensland is based are probably below the mark; as the Mount Morgan returns are not included in the calculations. It is not pretended that the above figures have any great statistical value, but they may, nevertheless, be accepted as giving an approximate idea of the average yield of quartz-reefs.

Alluvial deposits are generally richer than those in reefs; but the precious metal is so unevenly distributed that any attempt to obtain a reliable average would be futile.

Large nuggets.

A notice of gold-mining would be incomplete without some reference to the remarkably large finds made at various times. Information on this point is meagre, and not altogether reliable, as doubtless many nuggets were unearthed the weight and value of which were never published, or, being merely ascertained from report, left a wide margin for exaggeration. Victoria's record is the best, and includes the following nuggets:—

Victorian nuggets.

	lb.	oz.	dwt.
"The Welcome Stranger," found 9th February, 1869...	190	0	0
"The Welcome," found 9th June, 1858	184	9	16
One found at Canadian Gully, 31st January, 1853.....	134	11	0
		98	1 17
		93	1 11
		84	3 15
And others of the following weights	69	6	0
	52	1	0
	30	11	8
	30	11	2

Nuggets found in New South Wales.

New South Wales can boast of having produced some splendid specimens. In 1851 a mass of gold was found on the Turon, weighing 106 lb.; another, from Burrandong, near Orange, produced, when melted at the Sydney Mint, 1,182 oz. 6 dwt. of pure gold; and a third, the "Brennan," was sold in Sydney, in 1851, for £1,156. During 1880-82 several nuggets were discovered at Temora, weighing from 59 to 1,393 oz., and others, of 357, 347 (the "Jubilee"), 200, 47, and 32 oz. respectively, were found during the year 1887 in various parts of the Colony. Veins of gold of extraordinary richness have been worked in New South

Wales. In January, 1873, at Beyers and Holterman's claim, at Hill End, 1.02 cwt. of gold was obtained from 10 tons of quartz, and a mass of ore, weighing 630 lb., and estimated to contain £2,000 worth of gold, was exhibited. The Mint returns during the year 1873, for this mine, were 16,279.63 oz., valued at £63,234 12s., obtained from 415 tons of stone. From Krohman's claim, at Hill End; gold, to the value of £93,616 11s. 9d., was obtained during the same year. The foregoing figures are, however, insignificant when compared with the enormous yield of the Mount Morgan Mine, in Queensland, which has already paid over £1,000,000 in dividends, and may be designated one of the wonders of the world. It is a huge mound of ore, highly ferruginous, and contains gold to the extent of several ounces to the ton, the peculiar formation, in the opinion of the Government Geologist of Queensland, being due to the action of thermal springs.

The Mount Morgan mine.

The greatest development of quartz-reefing is found in Victoria, some of the mines being of a great depth. Lansell's, at Sandhurst, is down 2,640 feet, the "Magdala-Moonlight," at Stawell, is worked to a depth of 2,409 feet, whilst the "Victorian Quartz Mine," the "Victory and Pandora," and the "New Chum and Victoria" have, respectively, shafts extending 2,302, 2,300, and 2,228 feet below the surface.

Deep mines in Victoria.

The gold-mining industry is at present in a vigorous state in Queensland and Victoria, but is in a somewhat languishing condition in the other colonies.

Platinum and iridosmine, though not specially sought for by miners, have been found in New South Wales and New Zealand, but no effort has been made to ascertain whether either mineral can be extracted with satisfactory commercial results.

Platinum and iridosmine.

The same remarks apply to the noble metal tellurium which is found in New Zealand, associated with gold and silver (petzite) and with silver only (hessite).

Tellurium.

Silver.

Silver has been discovered in all the Colonies, either alone or in the form of sulphides, antimonial, and arsenical ores; chloride, bromide, iodide, and chloro-bromide of silver, or argentiferous lead ores, the largest deposits of the metal being found in the last-mentioned form.

Barrier Ranges
and Broken Hill
silver-lead
mines.

The argentiferous lead ores of the Barrier Ranges and Broken Hill districts of New South Wales have, more than any other, attracted the attention of capitalists. This rich silver-field, which was discovered in 1883 by Charles Rasp, a boundary-rider on Mount Gipps Run, extends over 2,500 square miles of country, and has developed into one of the principal mining centres of the world. It is situated beyond the river Darling, and on the confines of the neighbouring Colony of South Australia. Numerous leases have been taken up, and many ventures floated into public companies, giving rise to a large amount of speculation in shares in the mining exchange of Silverton, and the capital cities of the Australian colonies, recalling the old days of gold discoveries. In the Barrier Range district the lodes occur in silurian metamorphic micaceous schists, intruded by granite, porphyry, and diorite, and traversed by numerous quartz-reefs, some of which are gold-bearing. The Broken Hill lode is the largest as yet discovered. It varies in width from 10 feet to 200 feet, and may be traced for several miles, the country having been taken up all along the line of the lode, and subdivided into numerous leases, held by mining companies and syndicates.

Broken Hill
Proprietary
Company.

The Broken Hill Proprietary Company hold the premier position. They have erected on their lease a complete smelting plant on the latest and most approved principles, and have enlisted the services of competent managers, whose experience has been gained in the celebrated silver-mining centres of the United States. From the commencement of mining operations in 1885 to the beginning of June, 1889, the company treated 208,657 tons of silver and silver lead ores, producing 9,352,500 oz. of silver and 37,450 tons of lead, valued in the London market at £2,055,000. They

have paid dividends to the amount of £1,144,000, and have assigned to their shareholders properties valued at £1,744,000, so that the total value of payments made has reached £2,888,000.

The ores are generally shipped to Europe for treatment, as it has been found difficult to economically and profitably reduce them in the colonies. The value of metal exported in the years 1885 and 1886 was greatly in excess of that of the ore shipped ; but the reverse is now the case—the value of the ore in 1888 being nearly three times that of the silver.

The following table gives the quantity and value of silver and silver-lead exported from New South Wales :—

Exports of silver and silver-lead.

Year.	Silver.		Silver lead Ore.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
Up to	oz.	£	Tons cwt.	Tons cwt.	£	£
1881	726,779	178,405	191 13	.....	5,025	183,430
1882	38,018	9,024	11 19	.....	300	9,384
1883	77,005	16,488	136 4	.....	2,075	18,563
1884	93,660	19,780	9,167 11	.....	241,940	261,720
1885	794,174	159,187	2,095 16	190 8	107,626	266,813
1886	1,015,433	197,544	4,802 2	.....	294,485	492,029
1887	177,308	32,458	12,529 3	.....	541,952	574,410
1888	375,064	66,068	29,841 12	.....	1,075,737	1,142,405
Total.....	3,298,101	679,554	68,776 0	190 8	2,269,200	2,948,754

It will be seen that the production of silver has, during the past few years, considerably increased. Since the important discoveries of silver deposits were made sufficient time has hardly elapsed to enable all the principal mines to be properly developed ; but it may be confidently expected that, as new deposits are opened, and the mines first discovered are brought into full working order, the exports of this metal will rapidly increase.

Probable increase of silver mining.

Capital value of
the New South
Wales silver
mines.

A recent calculation, based on the price of stock, gives the nominal capital value of the principal New South Wales silver-mines as follows :—

Broken Hill Proprietary	£12,320,000
Central.....	1,706,000
British	1,320,000
Block 10	1,275,000
South	1,350,000
Block 14	1,012,000
Junction	637,500
North	255,000
Round Hill.....	184,000
Sunny Corner	200,000
Block 5	162,500
Lewis Ponds	23,500
Toms Lewis Ponds	55,000
Total... ..	£20,477,000

Total production
of silver in
Australasia.

This industry is also carried on in Queensland and Western Australia. The total value of metal and ore extracted up to the end of the year 1888 amounted to :—

New South Wales	£2,948,754
Victoria.....	87,618
Queensland	358,572
Western Australia	320,381
Tasmania	800
South Australia	2,800
New Zealand.....	124,792
Australasia	£3,843,717

About one-half of the total just given represents the production of the years 1887 and 1888 (£1,861,848); and the output of silver is rapidly increasing from year to year, with the development of the numerous and valuable properties in the Barrier and Broken Hill Districts.

Persons
employed in
silver-mines.

There were 4,215 persons employed in this industry in New South Wales during the year 1888. In Queensland, according to the census of 1886, 178 silver-miners were at work. The foregoing are the only figures obtainable on this point. The average value of mineral ore per miner is about £271 yearly.

METALLIC MINERALS.

Lead is found in all the colonies, but is worked only when found Lead. associated with silver. In the colony of Western Australia, however, the quantity of silver mixed with the lead, which occurs in the form of sulphides and carbonates of great richness, is very small. The lodes contain so little gangue that the ore can be very easily dressed to 83 or 84 per cent. The Government offered £10,000 for the first 10,000 tons of lead smelted in the colony. Works were erected, but up to the present with not much success. Western Australia has, since 1845, exported 31,105 tons of lead ore.

Mercury, in the form of sulphides or cinnabar, is found in New Mercury. South Wales, Queensland, and New Zealand. Few attempts, however, have been made to ascertain whether the deposits are of sufficient value to warrant the expenditure of capital in this direction.

Copper is known to exist in all the colonies, but has been mined Copper. for most extensively in South Australia, New South Wales, and Queensland. The discovery of copper had a marked effect upon the fortunes of South Australia at a time when the young and struggling colony was surrounded by difficulties. The Kapunda Mines were opened up in the year 1843, and two years afterwards the celebrated Burra Burra, for a long time the richest copper-mine in the world, was discovered. In 1860 the Wallaroo, and in 1862 the Moonta Mines were first worked. Altogether copper has proved one of the richest resources of that colony; the value of the ore raised in the Wallaroo and Moonta Mines alone reached £6,584,520.

In New South Wales this branch of mining industry, though New South
Wales copper. it attracted considerable capital, never affected the progress or prosperity of the Colony in the same degree as in South Australia. Copper lodes were discovered in 1858 at Cobar, in a district then

considered a barren wild. For some years the industry languished, until, in 1876, a smelting plant was erected at the Great Cobar mine with most satisfactory results. Other mines were discovered giving sufficient promise to warrant the expenditure of capital; works were established at Lithgow, Newcastle, and Sydney, at which the ore from the smaller mines was treated or refined; but of late years, owing to the depressed state of the market, cost of carriage, local scarcity of fuel, and other causes, work at the Cobar mine has been stopped. The construction of a railway now under consideration, connecting Sydney with the Broken Hill district *via* Nyngan, Cobar, and Wilcannia would, it is confidently expected, lead to the reopening of the Great Cobar works.

Copper in
Queensland.

Cupriferos deposits abound in the Colony of Queensland, and at one time there was considerable speculation in copper-mining stock. Peak Downs and Mount Perry acquired great celebrity in the Australian mining market, but afterwards suffered reactionary depression, and were ultimately abandoned, the result, in a large measure, of over speculation. In Northern Queensland copper is found throughout the Cloncurry district, in the upper basin of the Star River, and near the rivers Palmer and Kennedy. The great distance of the Queensland mines from ports of shipment, and the lack of suitable fuel for smelting purposes, renders the economic treatment of the ore difficult or impossible, and the progress of the industry is consequently retarded.

Victorian
copper.

Copper mining has not attained any great proportions in Victoria, although deposits have been found in several parts of the colony, particularly in the Beechworth district, where they have been traced over an area of some 50 square miles.

The metal is sometimes found in the Australasian mines in a virgin state, of which beautiful specimens have been exhibited at different times, but occurs generally in the form of oxidized copper ores, carbonates, sulphates, phosphates, and silicates of copper. The museums of South Australia, Victoria, and New

South Wales contain striking samples of azurite and malachite, magnificent blocks of which have been shown from time to time at exhibitions, not only in the colonies, but also in Europe and America.

Copper sulphides and arsenides of copper are generally found in deep sinkings. The metal has also been found associated with tin in the form of *stannine*.

In Western Australia copper deposits have been worked for some years, and form with lead the principal elements of the mineral production of that Colony. Very rich lodes of both metals have been found in the Victoria district, from Geraldine on the Lower Murchison River almost to Champion Bay. The export of copper since 1845 has been 7,917 tons.

Copper in Western Australia

The copper deposits of New Zealand have been worked to a small extent only.

New Zealand copper.

The number of miners employed in this industry is 1,213 in New South Wales, and 1,623 in South Australia. Figures relative to the other colonies are not available.

The total value of copper produced in Australia to the end of the year 1888 is given below :—

	£
New South Wales	5,438,262
Victoria	191,022
Queensland	1,655,804
South Australia ..	19,186,163
Western Australia	514,605
New Zealand.....	17,862
Australia	27,003,718

Tin was known to exist in Australasia almost from the first years of colonization, the earliest mention of the mineral appearing in a report of a discovery by Surgeon Bass on the north coast of Tasmania. In the form of cassiterite (oxide of tin) it occurs in all the colonies, but the richest deposits have been found in

Tasmania—the Mount Bischoff being the most celebrated tin-mine in Australasia. The wealth of Queensland and the Northern Territory of South Australia in this mineral, according to the reports of Mr. Jack, the Government Geologist of the former colony, and the Rev. Tenison-Woods, appears to be very great.

The stanniferous deposits of New England.

The stanniferous deposits of the New England district of New South Wales are very rich, and have added greatly to the value of the mineral production of the Colony.

Fluctuations in the price of tin.

The tin-mining industry may be said to have been started in the year 1872, and has been subject to frequent fluctuations, especially of late years. The value of the metal in the European market was £159 per ton in 1872, £52 in 1878—reached as high as £114 in 1880 and 1882, and fell to £72 in 1884. The highest price—£168 per ton—was attained in the year 1887 owing to the speculations of French syndicates. At present the price is £94 per ton.

The production of tin for the period 1872–1888 was valued as follows :—

	£
New South Wales	8,510,372
Victoria	665,710
Queensland	5,138,919
South Australia	1,057
Tasmania	4,366,483
	<hr/>
Australasia	18,682,541

The number of persons engaged in tin-mining in 1888, within the colonies of New South Wales and Tasmania, was 5,411. Figures for the other colonies for that year are not available, but there were in Queensland in 1886 tin-miners to the number of 877.

Titanium.

Titanium, of the varieties known as octahedrite and brookite, is found in New South Wales, with diamonds, in alluvial deposits.

Wolfram (tungstate of iron and manganese) occurs in some Wolfram. colonies, notably New South Wales, Victoria, and New Zealand. Scheelite, another variety of tungsten, is also found in the last-mentioned colony. *Molybdenum*, in the form of molybdenite (sulphide of molybdenum), is found in New South Wales and Victoria, associated in the former colony with tin or bismuth in quartz-reefs. The above minerals—titanium, tungsten, and molybdenum—have not been systematically mined for.

Zinc ores, in the several varieties of carbonates, silicates, oxide, Zinc. zinc sulphide, and sulphate of zinc, have attracted little attention.

Iron is distributed throughout Australasia, principally in New Iron. South Wales, Victoria, Queensland, and New Zealand.

Magnetite, or magnetic iron, the richest of all iron ores, is found in abundance near Wallerawang in New South Wales. The proximity of coal-beds now being worked should accelerate the development of the iron deposits, which contain 41 per cent. of metal.

Works for the treatment of local titanite iron ore were erected some years ago at Taranaki, on the west coast of New Zealand, but it was found that the cost of smelting left no margin for profit, and the works were consequently abandoned.

Goethite, *limonite*, and *hematite* are found in New South Extent of Deposits of iron ore. Wales, at the junction of the Hawkesbury sandstone formation and the Wainamatta shale, near Nattai, and are enhanced in value through being in proximity to coal-beds. Near Lithgow extensive deposits of limonite or clay-band ore are interbedded with coal. Some years ago these deposits were treated by a local company, and, as they contain about 50 per cent. of iron, a successful issue was anticipated, but from causes ascribed to a number of local impediments the works at Eskbank have been closed for some time.

Siderite or *spathic* iron (carbonate of iron) and *vivianite* (phosphate of iron) are found in New Zealand. The latter also occurs in New South Wales, intermingled with copper and tin ores.

Pyrites.

Sulphuretted iron ores (pyrites) are of little intrinsic value, but are often of considerable worth on account of the other minerals with which they are associated, common pyrites being often auriferous. *Mispickel* differs from other pyrites inasmuch as it contains arsenic, sometimes gold and silver, and is frequently associated with tin and copper ores; but the extraction of gold is rendered difficult on account of the presence of the arsenic. These minerals (pyrites) are common to all the Colonies.

Nickel.

Nickel, so abundant in the island of New Caledonia, has, up to the present, been found in only one of the Australasian Colonies—Queensland; but no attempt has been made to prospect systematically for this valuable mineral.

Cobalt.

Cobalt occurs in New South Wales and Victoria, and efforts have been made in the former Colony to treat the ore, the metal having a high commercial value; but the results have not been of an encouraging nature, and the development of this industry is in abeyance. The manganese ores of the Bathurst district often contain a small percentage of cobalt, sufficient, indeed, to warrant further attempts in this direction.

Manganese.

Manganese probably exists in all the Colonies, deposits having been found in New South Wales, Victoria, Queensland, and New Zealand, the richest specimens being in New South Wales and New Zealand. Little, however, has been done to utilise the deposits, the demands of the colonial markets being extremely limited, but in event of the extensive iron ores of New South Wales being worked on a large scale the manganese, plentiful as it is in that colony, will become of commercial importance. The ore generally occurs in the form of oxides, manganite, and pyrolusite, and contains a high percentage of sesquioxide of manganese.

Chrome Iron or chrome ore has been found in New Zealand ^{Chrome.} and Tasmania, but the only attempt to work this mineral in this part of the world is that made at New Caledonia.

Sulphur exists in large quantities in the volcanic regions of New ^{Sulphur.} Zealand, where it will doubtless some day become an article of commerce. Professor Liversidge, in his work on the minerals of New South Wales, states that sulphur occurs in small quantities at Mount Wingen, in the Upper Hunter district of that Colony, and also at Tarcutta, near Wagga Wagga, and on Louisa Creek, near Mudgee.

Arsenic, in its well known and beautiful forms, orpiment and ^{Arsenic.} realgar, is found in New South Wales and Victoria. It usually occurs in association with other minerals, in veins.

Antimony is met with in New South Wales, where it is fre- ^{Antimony.} quently found in association with gold. It also occurs in Victoria, Queensland, and South Australia. In New Zealand it is mined for on a fairly extensive scale. The value of the antimony, produced in the several colonies during the year 1888, was :—

	£
New South Wales	2,918
Victoria	19
Queensland	229
South Australia	1,973
New Zealand	6,246
Australasia	11,385

The antimony produced in New South Wales alone, up to the end of 1888, was valued at £70,157. In Victoria, from 1851 to the end of 1857, antimony was raised to the value of £191,021, but during the last few years the production has fallen off very greatly; indeed in that Colony this industry may almost be looked upon as a thing of the past.

Bismuth is known to exist in all the Australian Colonies, but up ^{Bismuth.} to the present time has been mined for in New South Wales alone.

It is usually found in association with tin and other minerals, but in one instance a mass of native bismuth, weighing 30 lb., was found in the Colony mentioned. The principal mine is situated at Kingsgate, in the New England District, where it is generally associated with molybdenum and gold. Bismuth to the value of £3,911 was produced in New South Wales during the year 1888, and up to the end of that year the total production of bismuth in that Colony, since the industry was started, amounted to £24,487.

CARBON MINERALS.

The Australian Colonies have been bountifully supplied by nature with mineral fuel. The eastern portion of the continent possesses a coal formation, extending in a broken line almost along its whole extent from north to south. It occurs in the form of brown coal or lignite in Gippsland (Victoria). In New South Wales it appears as ordinary coal, from Jervis Bay to the basin of the Hunter River, and extends inland beyond the Blue Mountains as far as Dubbo. It reappears in the north-eastern part of the Colony, where the Clarence River series occupies a large area, extending into Queensland, where deposits of this mineral are known to exist, cropping out from place to place along almost the whole of the eastern coast. A systematic description of the occurrence of carbon minerals in these Colonies will be given in the following paper, in which they will be dealt with in their natural order.

The Diamond.

Of all the mineral forms of carbon the diamond is the purest, but as it is usual to class this precious substance under the head of gems that custom will be followed in the present instance.

Graphite.

Graphite, or plumbago, which stands second to the diamond in point of purity, has been discovered in New Zealand, in the form of detached boulders of pure mineral. It also occurs in impure masses where the coal measures come into contact with the graphite. This mineral, up to the present time, has not been

discovered in any of these colonies except New Zealand, but a kind of carbonaceous clay has been found in New South Wales, which has sometimes been mistaken for plumbago by unscientific persons.

In the excellent work of Messrs. Cox and Ratte, upon *Mines Coal and Minerals*, published for the Technical Education series in New South Wales, to which we have been much indebted in this compilation, a classification is given with regard to the occurrence of the principal minerals in the Australasian Colonies. It is stated that five distinct varieties of black coal, forming well characterised types, may be distinguished, which form, with the two extremes of brown coal, or lignite, and anthracite, a perfectly continuous series. For statistical purposes, however, they are all included under the generic name of "coal," and therefore these minerals will be considered here under the three main heads—lignite, coal, and anthracite only.

Brown coal or lignite occurs principally in the Colonies of New Zealand and Victoria. Attempts have frequently been made to use this mineral for ordinary fuel purposes, but the inferior quality of this class of coal has prevented its use extending beyond the mere locality where it is produced. The fields of lignite in New Zealand are roughly estimated to contain about 500,000,000 tons.

Black coal forms one of the principal mineral resources of New South Wales, and in New Zealand the rich deposits of this valuable substance are rapidly being developed. That they will form an important source of commercial prosperity cannot be doubted, as the known areas of the coal-fields of this class have been roughly estimated to contain about 500,000,000 tons of coal. New Zealand also possesses a superior quality of bituminous coal, which is found on the west coast of the Middle Island. An estimate of the probable contents of these coal-fields is given as 200,000,000 tons. Coal has been discovered in Victoria, and raised in small quantities for some years past, principally from

Tasmanian coal. Crown lands ; but the industry is still, in that Colony, in its experimental stage. Excellent steam coal has been found in Tasmania, and coal-mining in that Colony is becoming a well established industry. From time to time reports have been raised of the discovery of coal in South Australia, but no very definite or satisfactory information on the subject has been brought forward, such as would warrant the employment of capital, except in the direction of prospecting researches. Coal of a very fair description was discovered in the basin of the Irwin River, in Western Australia, as far back as the year 1846, but it does not appear that much attention was paid to the fact. It has been ascertained from recent explorations that the area of carboniferous formation in that Colony extends from the Irwin northwards to the Gascoyne River, about 300 miles distant, and probably all the way to the Kimberley District. It is also reported that coal has been discovered on the Fitzgerald or Phillips River, about 100 to 150 miles east of Albany, in the south-western part of the Colony. According to the Rev. Tenison-Woods the extent of the coal-beds in Queensland is unknown. Mr. Jack, the Government Geologist of that Colony, considers them practically unlimited, and is of opinion that the carboniferous formations extend to a considerable distance under the Great Western Plains. It is roughly estimated that the coal measures at present practically explored extend over an area of about 24,000 square miles. Coal-mining has been an established industry in that Colony for some years, and is progressing satisfactorily.

Discovery of coal.

Coal was first discovered in New South Wales in the year 1797, near Mount Keira, by a man named Clark, the supercargo of a vessel called the "Sydney Cove," which had been wrecked in Bass's Straits. Later in the same year Lieutenant Shortland discovered the River Hunter with the coal-beds situated at its mouth. Little or no use, however, was made of the discovery, and in 1826 the Australian Agricultural Company obtained a grant of 1,000,000 acres of land, together with the sole right, conferred upon them by charter, of working the coal-seams that were known to exist in

the Hunter River district. Although the company held this valuable privilege for twenty years very little enterprise was exhibited by them in the direction of winning coal, and it was not until the year 1847, when the company's monopoly ceased, and public competition stepped in, that the coal-mining industry began to show signs of progress and prosperity. The total amount raised by the company in 1847 was 40,732 tons of coal, from which the quantity has increased to 3,203,444 tons raised in 1888, valued at £1,455,198.

The coal-fields of New South Wales are situated in three distinct regions—the Northern, Southern, and Western coal districts. The first of these comprises the mines situated in the Hunter River and the Clarence River districts; the second includes the Illawarra district and, generally, the coastal regions to the south of the Metropolis; the third consists of the mountain district on the Great Western Railway line, extending as far as Dubbo. The number of coal-mines registered in New South Wales in 1888 was 71, giving employment to 9,301 persons, of whom 7,622 were employed under ground, and 1,679 above ground. The average quantity of coal extracted per miner, calculated upon the basis of the output for the last ten years, is 474 tons, which at the mean price of coal at the pit's mouth, is equivalent to £217 5s. This amount of production compares favourably with the results attained by miners in the principal coal-raising countries of the world, as the following table, extracted from Mulhall's works, will show :—

The coal-field of New South Wales.

Production to each miner.

Country.	Tons of coal raised per miner.	Value at the pit's mouth per ton.	Total value of coal raised per miner.
		£ s. d.	£ s. d.
New South Wales.....	474	0 9 2	217 5 0
Great Britain	303	0 7 0	106 1 0
United States	295	0 9 0	132 15 0
Germany	270	0 5 0	67 10 0
France	190	0 11 0	104 10 0
Belgium	168	0 7 8	64 8 0
Austria.....	192	0 6 0	57 12 0

Wages of coal-miners.

In the absence of information as to the average amount of wages paid to coal-miners in other countries an exact comparison is not possible, but it is abundantly clear, that whatever may be the drawbacks to a miner's lot in the Australian Colonies in no other country is it so satisfactory. The foregoing table proves this, for on the improbable supposition that the miner everywhere receives in wages the same proportion of the value of the coal as in New South Wales, that is, about 40 per cent. of the selling price at the pit's mouth, the average earnings in each country would be :—

Country.	Coal per miner.	Wages per ton of coal.			Earnings of miner per annum.		
	tons.	£	s.	d.	£	s.	d.
New South Wales	474	0	3	7	84	18	0
Great Britain	303	0	2	10	42	18	0
United States.....	295	0	3	7	52	17	0
Germany	270	0	2	0	27	0	0
France	190	0	4	5	42	0	0
Belgium	168	0	3	1	25	18	0
Austria.....	192	0	2	5	23	4	0

Export of coal from New South Wales.

The Colony of New South Wales requires annually about 1,280,000 tons, or 40 per cent. of the coal it produces; in this quantity are included 200,000 tons of bunker coal supplied to ocean-going steamers; the remaining 60 per cent. is exported to various parts of the world, the other Australasian colonies taking the largest share. Notwithstanding their own local production, the colonies of New Zealand, Tasmania, and Queensland require in addition a considerable quantity of coal to supply their necessities, which they obtain from New South Wales.

The chief customers of New South Wales for coal in the years 1887 and 1888 will be found in the following table, from which an idea may be derived of the extent to which the Colony has developed this branch of its resources.

Countries to which Coal was exported during the years
1887 and 1888.

Country or Port.	1887.		1888.	
	Quantity.	Value.	Quantity.	Value.
	Tons.	£	Tons.	£
Victoria	723,676	379,206	744,425	406,744
United States	299,802	164,983	495,300	282,059
New Zealand	150,399	81,478	140,882	74,841
Chili	53,133	28,750	119,505	67,073
South Australia	127,370	62,715	94,886	51,370
Hongkong	86,092	47,448	48,061	26,868
Tasmania	43,375	23,631	39,999	20,755
India	54,214	30,248	36,143	20,593
Java	51,974	28,739	35,653	19,766
Phillipino Islands.....	38,821	21,355	34,000	18,908
Celebes .....	.....	.....	1,367	752
Sandwich Islands.....	10,720	5,897	23,124	12,749
Singapore	32,040	17,807	21,568	12,194
Western Australia	13,837	7,429	12,296	6,485
New Caledonia	15,153	7,928	11,816	6,303
China	23,187	14,301	10,656	6,439
Peru	9,368	5,578	9,921	5,455
Fiji	21,081	12,067	8,941	4,857
Mauritius	9,916	5,627	7,323	4,076
Queensland	18,613	10,625	7,276	4,098
South Sea Islands.....	1,701	1,053	5,786	3,343
Canada .....	.....	.....	4,413	2,437
Mexico	2,310	1,169	2,193	1,206
Ceylon	1,741	1,300	1,685	927
Penang .....	.....	.....	1,535	1,151
Bolivia .....	.....	.....	1,351	743
Sumatra .....	.....	.....	1,130	621
Equador .....	.....	.....	1,039	585
Kaiser Wilhelm's Land..	909	650	603	444
Panama	577	317	.....	.....
British New Guinea.....	.....	.....	485	340
Cape of Good Hope	433	238	.....	.....
Durban .....	.....	.....	400	220
Borneo .....	.....	.....	110	70
Total.....	1,790,442	960,539	1,923,872	1,064,472

Very little coal is exported from New Zealand and Tasmania, the greater part of that entered as an export being consumed on the steamers trading between those islands and the colonies of continental Australia, or the United Kingdom. New Zealand, Coal exported from New Zealand and Tasmania.

however, exports some of her bituminous coal, which is of superior quality for gas-works and foundries, to the Australian markets, but this trade is as yet of very limited proportions.

Total production
of coal in
Australasia.

The total quantity of coal produced in the Australasian Colonies up to the end of 1888 is shown by the following table, which represents the value of the production of each Colony:—

	£
New South Wales	21,154,307
Victoria	25,278
Queensland	903,041
Tasmania	179,650
New Zealand.....	2,668,480
	<hr/>
Australasia	£24,930,756

The quantity of coal extracted annually in these Colonies has now reached over 4,000,000 tons, approaching in value £2,000,000 sterling. In 1888 the quantity raised amounted to 4,170,328 tons, valued at £1,935,776, to which aggregate each Colony contributed in the amounts given in the following table:—

	Tons.	£
New South Wales	3,203,444	1,455,198
Queensland	311,412	127,947
Tasmania	41,577	16,413
New Zealand.....	613,895	336,218
	<hr/>	<hr/>
Australasia	4,170,328	£1,935,776

Victorian coal.

No return was furnished from Victoria for 1888, though no doubt some small quantity of coal was procured during that year. In the year 1887 about 16,510 tons of this mineral were raised in that Colony, at an estimated value of £4,230.

During the year 1888 this industry gave direct employment, Number of miners employed. in and about the mines, to the following number of persons in the several Colonies:—

	Persons.
New South Wales	9,301
Queensland	651
Tasmania	104
New Zealand	1,752
Australasia	11,808

The average price of coal per ton varies in the Colonies in Average prices. proportion to the quality of the mineral, and the facilities of access. In New South Wales, from 1829 to 1888, the average price obtained was 9s. 9·3d., but the mean of the last ten years is a little below these figures. In 1888 the average price per ton of coal delivered at the mines in the Australasian Colonies was as follows:—

	£	s.	d.
New South Wales	0	9	1
Queensland	0	8	2½
Tasmania	0	7	10½
New Zealand	0	10	0

Anthracite is found on the island of Tasmania. It is a hard Anthracite. and heavy mineral, burning with difficulty, and it possesses very little economical value in countries where a superior description of fuel abounds.

Kerosene Shale (torbanite) is found in several parts of the Colony Kerosene shale. of New South Wales. It is a species of cannel coal, somewhat similar to the Boghead mineral of Scotland, but it yields a much larger percentage of volatile hydrocarbons than can be obtained from the Scottish mineral. The richest quality of Australian kerosene shale yields upwards of 150 gallons of crude oil per ton, or 18,000 cubic feet of gas, with an illuminating power of 38 or 40 sperm candles. The New South Wales Oil and Mineral Company, at Joadja Creek, not only raise kerosene shale for export, but also manufacture from it petroleum oil and other products. Since the year 1865, when the mines were first opened, the quantity and value

of the kerosene shale raised amounts to 516,121 tons, worth £1,156,782. The average price realised during that interval was £2 4s. 10d. per ton. The prices ruling in 1888, when 34,869 tons were extracted, averaged £2 2s. 3d. per ton, representing a total value of £73,612, for the production of that year.

Ozokerite. *Ozokerite*, or mineral wax, is reported to have been found at Coolah, in New South Wales.

Elaterite. *Elaterite*, mineral caoutchouc, or elastic bitumen, is said to have been discovered in New South Wales and South Australia. In the last-named Colony a substance very similar to elaterite has been discovered in the Coorong Lagoons, and it has received the name of Coorongite. Up to the present time neither the extent of these finds nor their commercial value has been ascertained.

Bitumen. *Bitumen*, is known to exist in Victoria, and it is reported to have been found near the township of Coonabarabran, in New South Wales.

Kauri Gum. *Kauri Gum*, a resinous substance somewhat resembling amber in appearance, and like that production an exudation from trees, is found only in New Zealand, where it is included under the head of minerals, although more logically entitled to be considered as a vegetable product. In that Colony kauri gum forms the object of an extensive and lucrative commerce. It is computed that the total value of this product obtained from 1853 to the end of 1888, was £4,686,534. In the year 1888 the quantity obtained represented a value of £380,933.

SALTS.

Rock Salt. Common *Rock Salt* has been found in New South Wales in rock crevices in several parts of the Colony, but it is not known to exist in large deposits so as to be of commercial importance.

Natron. *Natron* is said to occur in the neighbourhood of the Namoi River, in New South Wales. It appears as a deposit from the mud-wells of that region.

Epsomite, or epsom salt (sulphate of magnesia), is seen as an Epsom Salt. efflorescence in caves and overhanging rocks of the Hawkesbury sandstone formation, and is found in various parts of New South Wales.

Alunite, or alum stone, is also found in New South Wales. Alum Stone. Large deposits are said to occur near Bullah Delah, in the neighbourhood of Gloucester. Fluor spar has been found in New South Wales.

EARTHY MINERALS.

Marble is found in many parts of New South Wales, New Marble. Zealand, and Tasmania. In New South Wales marble quarries have been opened in several districts, and some very fine specimens of the stone have been obtained.

Lithographic stone has been found in New Zealand, where Lithographic Stone and Omaru Stone. another beautiful species of limestone known as the *Omaru stone* is also procured. This stone has a fine, smooth grain, and is of a beautiful creamy tint. It is in great demand for public buildings, not only in the Colony where it is found, but in the great cities of continental Australia, which import large quantities of this stone for the embellishment of their public edifices.

Gypsum is found crystallised in clay-beds in New South Wales, Gypsum. and in isolated crystals in the Salt Lakes of South Australia, where a small proportion of sulphate of lime is present in the water. It is also found in portions of Victoria. This mineral is of commercial value for the manufacture of cement and plaster of Paris. It is found in the form of an insoluble salt in New South Wales, Victoria, and New Zealand.

Apatite, another mineral of considerable commercial importance, Apatite. and very valuable as a manure, occurs in several districts of New South Wales, principally on the Lachlan River, at the head of the Abercrombie, and in the Clarence River district.

QUARTZ AND SILICA.

- Quartz. *Quartz* is of common occurrence in all parts of Australasia. Rock crystal, white, tinted, and smoky quartz are frequently met with, as well as varieties of crystalline quartz, such as amethyst, jasper, and agate, which possess some commercial value.
- Opals. Common *Opals* are frequently found in the basaltic formations of Australasia. The precious, or noble opal, which might be included under the head of precious stones, comes chiefly from Queensland and the northern portions of New South Wales.
- Chalcedony, carnelian, &c. *Chalcedony, carnelian, onyx, and cat's eye*, are found in New South Wales; probably also in the other colonies, particularly Queensland.
- Tripoli. *Tripoli*, or rotten stone, an infusorial earth, consisting of hydrous silica, which has some value for commercial purposes, has been found in New South Wales, Victoria, and New Zealand.
- Meerschaum. *Meerschaum* is reported to have been discovered near Tamworth, in New South Wales.
- Mica. *Mica* is also found in granitic country, chiefly in the New England and Barrier districts.

CLAYS.

- Kaolin and other clays. *Kaolin, fire-clays, and brick-clays* are common to all the colonies. Except in the vicinity of cities and townships, however, little use has been made of the abundant deposits of clay. Kaolin, or porcelain clay, although capable of being used for commercial purposes, has not as yet been utilised to any extent.

GEMS AND GEMSTONES.

Many descriptions of gems and gemstones have been discovered in various parts of the Australasian Colonies, but no systematic search has been made for any but the diamond.

Diamonds are found in New South Wales, Victoria, and Queensland, but only in the first-named Colony have any attempts been made to work the diamond drifts. The principal diamond-fields are situated at Bingera, near Inverell, in the New England district. The Government of New South Wales has, on various occasions, obtained the services of experts to report upon the fields, as well as the gems which have been from time to time extracted from them, and these reports have generally been of an encouraging nature.

The number of diamonds found in the Colony to the end of 1887 is estimated at 75,000, the largest one being of $5\frac{3}{4}$ carats, or 16.2 grains. The diamonds occur in old tertiary river drifts, and in the more recent drifts derived from them. The deposits are extensive, and have not yet been thoroughly prospected. The New South Wales diamonds are harder and much whiter than the South African diamonds, and are classified on a par with the best Brazilian gems. During the year 1887 the diamond companies at Cope's Creek, near Bingera, produced about 23,000 diamonds, weighing 5,151 carats; but in 1888, owing to the severe drought which occurred, the search for diamonds had to be temporarily abandoned. With efficient methods of working this industry bids fair to become a profitable one.

Under the generic name of *Corundum* are included the most valuable gems known to commerce, next to the diamond. The sapphire, which is the most common of these gems, is found in all the Colonies.

Oriental emeralds are found in New South Wales, and in Gippsland in Victoria.

The yellow corundum, or Oriental topaz, has been found in New South Wales. Oriental amethysts also have been found in that Colony, and the red corundum, or ruby, the most valuable of all these gems, has been found in Queensland, as well as in New South Wales.

Miscellaneous
gems.

According to an authority on the subject of gem-stones, rubies, Oriental amethysts, emeralds, and topaz have been chiefly obtained from alluvial deposits, but have rarely been met with in a matrix from which it would pay to extract them.

Chrysoberyls have been found in New South Wales; spinel rubies, in New South Wales and Victoria; white topaz, in all the Colonies; and yellow topaz, in Tasmania. Zircon, tourmaline, garnet, and other gem-stones of little commercial value, are found in all the Colonies.

In South Australia some very fine specimens of garnet were found, which caused some excitement at the time, as the gems were mistaken for rubies. The stones were submitted to the examination of experts, whose reports disclosed the true nature of the gems, and dispelled the hopes of those who had invested in the supposed ruby-mines of South Australia.

MINERAL WEALTH OF AUSTRALASIA.

Summary of the
mineral re-
sources of
Australasia.

The Australasian Colonies may be said to possess invaluable mineral resources, because, although enormous quantities of minerals of all kinds have been won since their first discovery, the deposits, with the exception, perhaps, of gold, have only reached the first period of their exploitation. Vast beds of silver, tin, copper, and coal are known to exist, the development of which must be left to future generations, and the value of which is absolutely beyond computation. The following table gives, in a succinct form, the total value of the principal minerals raised in Australasia from their first discovery to the end of 1888, and it will present to the reader a fair idea of the mineral wealth of these Colonies. With the exception of coal the development of other minerals in Australia was the outcome of the discovery of gold. The figures given below would, therefore, practically represent the mineral production of Australasia from 1852 to 1888 inclusive, if the value of the coal extracted up to the end of the year 1851 is deducted.

Colony.	Gold.	Silver and Silver Ore.	Copper.	Tin.	Coal.	Shale.	Total.
	£	£	£	£	£	£	£
New South Wales	37,1£0,817	2,948,754	5,438,262	8,510,372	21,154,307	1,156,782	76,389,294
Victoria	222,543,836	87,618	191,022	665,710	25,278	.....	223,513,464
Queensland	21,310,747	358,572	1,655,804	5,138,919	903,041	.....	29,367,083
South Australia	891,612	2,800	19,186,163	1,057	.....	.....	20,081,632
Western Australia	219,492	320,381	514,605	.....	.....	.....	1,054,478
Tasmania	2,031,520	800	.....	4,366,483	179,650	.....	6,578,453
New Zealand.....	44,843,642	124,792	17,862	.....	2,668,480	.....	47,654,776
Australasia.....	329,021,666	3,843,717	27,003,718	18,682,541	24,930,756	1,156,782	404,639,180

Total value of
minerals.

It is difficult to obtain much information with regard to other minerals raised in most of the colonies, but if to the total just given be added some £405,167 worth of sundry minerals produced in New South Wales, and £4,857,866, nearly the whole of which represents the total value of kauri gum extracted in New Zealand up to the end of 1888, the grand total will be raised to £409,902,213. Deducting therefrom the sum of £279,923, which represents the value of coal raised in New South Wales prior to the year 1852, the difference, £409,622,290, practically shows the total value of the mineral wealth produced by the Australasian colonies from 1852 to 1888 inclusive, and during a period of 37 years, the average yearly production amounted to £11,070,873.

In the year 1888 the total value of minerals raised in each colony and in Australasia was as follows:—

	£
New South Wales	3,856,187
Victoria	2,503,925
Queensland	2,066,979
South Australia	369,014
Western Australia	206,847
Tasmania	520,878
New Zealand	1,531,014
Australasia	11,055,444

The mineral production of Australasia for the year 1888 thus very closely approximates to the average above calculated. It will, however, be easily understood that the proportion of mineral wealth extracted per head of the population is much less than it was during the prevalence of the gold fever. In comparison with that of the years 1851 to 1871 the production of the precious metals is considerably reduced. Nevertheless the search for gold led to the expansion of the mining industry into other channels, and although the gold-mining population has decreased, the number of miners engaged in the extraction of other minerals has largely increased, and it is a question whether the total number of persons who gain their livelihood by mining pursuits at the present time is not equal to the number who were so engaged at the time when gold and coal alone were the great elements of the mineral wealth of the Australasian colonies. The resources known to exist, and yet to be developed in these colonies, are likely to maintain, for many generations to come, a large and prosperous mining population.

FOOD SUPPLY AND COST OF LIVING.

CONSIDERING the comparatively high rate of wages which prevails, food of all kinds is fairly cheap, and articles of diet which in other countries are almost within the category of luxuries, are largely used, even by the poorest classes. The average quantities of the principal articles of common diet annually consumed in the various Colonies of Australasia are given below :—

Average
consumption
of food in
Australasia.

Consumption of Foods, &c., in Australasia.

Article.	New South Wales.	Victoria.	South Australia.	Queensland.	Tasmania.	New Zealand.	Australasia.
Wheat .....lb.	405	384	...	366	371	443	374
Rice .....lb.	12·5	15	4·5	24	9	8·5	13
Potatoes .....lb.	215	282	195	250	389	412	279
Sugar .....lb.	94	100	87	59	86	78	89
Tea .....lb.	8·2	7·2	6·4	8·7	6·4	6·7	7·5
Coffee .....oz.	13	17	21	14	8	10	14
Cheese .....lb.	5·7	...	...	..	...	4·5	5·2
Butter .....lb.	16	...	...	...	...	16	16
Salt .....lb.	38	...	...	43	20	29	35
Meat—Beef .....lb.	157	155	...	280	...	...	175
Mutton .....lb.	80	98	...	90	...	...	89
Pork, &c. ....lb.	12	12	..	...	...	...	12
Tobacco and Cigars.....lb.	3·4	2·7	2·1	3·5	1·8	2·0	2·8

It will be seen that the consumption of wheat ranges from 366 lb. in Queensland to 443 lb. in New Zealand, the average being 374 lb. per head. Rice, which is almost entirely imported, varies greatly in the quantity used, only 4·5 lb. being the consumption of South Australia as against 24 lb. in Queensland. The use of tea is universal, New South Wales and Queensland being the largest consumers, with 131 oz. and 139 oz. respectively. Sugar is also

extensively used, the average being 100 lb. per head in Victoria and 94 lb. in New South Wales. Coffee is not much in favour as a beverage in Australasia, the consumption being scarcely more than one-tenth of that of tea. It is used most extensively in South Australia, where the annual average amounts to 21 oz. per inhabitant.

Consumption of Meat.

The consumption of meat has been determined with exactness for only three colonies, but these may be taken as fairly representing the whole group. The average quantity of beef consumed in the year amounts to 175 lb. per head, that of mutton to 89 lb., and of pork 12 lb.; in all, 276 lb. It would, therefore, appear that each inhabitant of these colonies requires daily about three-quarters of a pound of meat, and that during the year two sheep are killed for each member of the community, and one bullock to every four persons.

Consumption of food in Australasia as compared with other countries.

Judged by the standard of the food consumed, the population of Australasia must appear remarkably prosperous, compared with that of other countries. This will more clearly be seen from the following table, the particulars given in which, with the exception of those referring to Australasia, have been taken from Mulhall's History of Prices:—

Articles of Consumption.	Australasia.	Great Britain.	France.	Germany.	United States.
	lb.	lb.	lb.	lb.	lb.
Grain	374	330	455	166	305
Meat	276	105	74	69	120
Sugar	89	72	21	21	23
Salt	35	40	30	25	39
Butter.....	16	26	7	12	18
Potatoes.....	279	315	550	1,060	150
	oz.	oz.	oz.	oz.	oz.
Tea	120	73	1	1	21
Coffee	14	15	52	83	115

Comparative thermo-dynamic effect of food.

Taking only the principal articles of the foregoing list, namely, grain, meat, sugar, butter, and potatoes, and reducing them to a

common basis of comparison, it will be found that the amount of thermo-dynamic power capable of being generated by the food consumed is largely in favour of Australia. For purpose of comparison the figures of Dr. Edward Smith, F.R.S., in his well-known work on Foods, have been used, the heat developed being reduced to the equivalent weight lifted 1 foot high :—

Thermo-dynamic effect of Foods per day.

	Tons lifted 1 foot high.
Australia	3,179
Great Britain	2,695
France	1,947
Germany	2,797
United States	1,931

The substances included in this estimate are largely supplemented both in America and Europe by other foods, but not more largely than in these colonies ; and in the table just given will probably be found a fair view of the comparative quantity and food-value of the articles of consumption in each of the countries mentioned. The comparison will appear much more in favour of Australasia when we take into consideration the average amount of work which each individual in the community is called upon to perform. In Australasia, too, the proportion of women and children engaged in laborious occupations is far less than in Europe or America, and the hours of labor of all persons are lighter, so that the amount of food energy required is not nearly so great.

The most remarkable feature of the diet of the Australasian people is the large quantity of meat they use. The consumption per inhabitant in Germany is 69 lb., in Australia it is four times that quantity, while in the United States, a meat exporting country, the consumption is considerably less than half that of Australasia. It is notorious that there is a very great waste of meat in all the Colonies, and the existence of a large surplus supply has made this waste possible. The people of Australasia in ordinary years consume by far the greater portion of the meat

Meat consumption of Australasia.

Increase of
Stock.

produced in the country, and even in the most abundant season the surplus exported forms but a small fraction of the quantity raised. The total increase, both of cattle and sheep, averages about 10·4 per cent. per annum, and of this there is needed for the ordinary requirements of food supply, excluding exports, 9·4 per cent. of cattle, and 6·8 per cent. of sheep, so that the net increase of the herds of Australasia is about 1 per cent. per annum, and of the flocks about 3·6 per cent. Under the most favorable conditions, that is, if there were no losses from failure of grass or water, the increase of sheep would be about 24·3 per cent. and of cattle 24·9, giving a net surplus of 17·5 and 15·5 per cent. respectively. Unfortunately, conditions are not always favorable, and droughts are by no means infrequent, so that the actual increase of sheep is scarcely more than 20 per cent. of what is possible, and that of cattle scarcely more than 6 per cent. Although it is improbable that these Colonies could under any circumstances find sustenance for a continued increase of stock at the maximum given above, there is still an ample margin between the rates of increase which are possible and those now obtained, in saving a portion of which capital might be profitably invested.

Waste of stock.

If it were possible by water and food conservation to save one-fourth of the natural increase of the stock, the lavish use of meat which now obtains could be continued, while any increase above that named would be available for export. Unless, however, steps are taken to mitigate the effects of the frequent droughts which afflict the country, and to save part of the astonishing and unnecessary waste of animal life, the demand for beef will eventually exceed the supply. But even in such a contingency it will always be possible to again overtake the demand, if measures be taken to minimize the disastrous effects with which a failure of the season is now attended. With regard to sheep the case is different, the supply is never likely to be seriously trenched upon, and a very large surplus will always be available for meet- in the requirements of markets outside Australia.

In the table at the commencement of this chapter the consumption of tobacco is shown as well as that of food. The use of tobacco appears to be more prevalent in Queensland and New South Wales than in any of the other Colonies, while the smallest consumption is in Tasmania. Compared with other parts of the world the average consumption of Australasia will not appear excessive. The following figures are from the "Dictionary of Statistics":—

Annual consumption of Tobacco per inhabitant.

	oz.		oz.
United Kingdom	23	Spain and Portugal	32
France	29	Switzerland	82
Germany	72	United States	59
Russia.....	24	India ..	30
Austria	80	Japan	39
Italy	22	Brazil	70
Holland and Belgium ...	84		
Turkey	70	Australasia. ..	45

Taking Australasia as a whole it compares very favourably with most European countries in regard to the quantity of intoxicants annually consumed by each inhabitant, as the following statement shows. The figures would look even more favourable to Australasia were the fact of the large preponderance of males over females in these colonies made a feature in the comparison :—

Consumption of Alcohol in various countries—in Proof Gallons.

Country.	Consumption.	Country.	Consumption.
	gallons		gallons
United Kingdom	3·57	Portugal.....	3·00
France	5·10	Holland ..	4·00
Germany	3·08	Belgium	4·00
Russia	2·02	Denmark	5·00
Austria.....	2·80	Scandinavia	4·36
Italy	3·40	United States	2·65
Spain.....	2·85	Australasia	2·85

Consumption of Alcohol in each Colony.

The following table shows the consumption for all the colonies. The figures for New South Wales and Victoria refer to 1888, and for the other colonies to 1887. The largest consumption of spirits per inhabitant is in Queensland, Victoria being second. Wine is used most freely in South Australia and Victoria, and beer in the same two colonies. The average consumption of alcohol in all the colonies amounts to 2·85 gallons of proof spirit per inhabitant, ranging from 4·10 gallons in Victoria to 1·83 gallons in New Zealand. The total for Victoria shows a large increase over the consumption of previous years, and is nearly 50 per cent. larger than that of New South Wales. It may be that the occurrence of the International Exhibition in Melbourne during the year to which the figures refer tended to raise the consumption above the normal average. The consumption of alcohol in Victoria during 1886 was 3·68 proof gallons, and in 1887, 3·77 :—

Consumption of Intoxicants in the Australasian Colonies.

Colony.	Spirits.		Wine.		Beer, &c.		Equivalent in Alcohol (proof) per inhabitant.
	Total.	Per inhabitant.	Total.	Per inhabitant.	Total.	Per inhabitant.	
	galls.	galls.	galls.	galls.	galls.	galls.	galls.
New South Wales	1,104,975	1·10	805,861	0·76	11,713,000	11·01	2·88
Victoria	1,257,835	1·24	1,166,959	1·14	19,202,080	19·41	4·10
Queensland	619,846	1·75	198,282	0·56	3,472,613	9·79	3·21
New Zealand	459,007	0·77	117,959	0·20	4,563,086	7·65	1·83
South Australia	143,975	0·46	496,477	1·58	4,443,746	14·11	2·77
Tasmania	87,216	0·62	26,684	0·19	1,352,785	9·67	1·93
Total and Means	3,732,854	1·03	2,812,222	0·77	44,747,310	12·33	2·85

Strength of Australian Wines and Beers.

It is popularly supposed that Australian wines and beers are not heavily charged with spirit as compared with the imported articles; this belief is erroneous. Several descriptions of Australian wines have a natural strength of 30 per cent. of proof spirit, while from analyses it would appear that the strength of these wines offered for sale varies from 24 to 37 per cent. of spirit, and that imported beers range from 13·88 to 15·42 per cent. in

the case of English, and from 9·58 to 11·76 per cent. of proof spirit in Lager, while the local manufacture varies according to the make from 11·21 to 15·12, the average being a little short of 13·75 per cent.

Sufficient data are not available to enable calculation to be made of the cost of living in all the colonies, but with the materials to hand an estimate can be arrived at for New South Wales. The conditions of life and style of living are much the same in the Colony named as in the other colonies of the group, and the following figures may be taken as fairly indicative of the state of things obtaining in Australasia generally.

It appears that out of £54,000,000, the total income of persons living or holding property in New South Wales, about £48,700,000 were absorbed in meeting the actual expenses of living, leaving a balance of £5,300,000, which represents the annual savings of the people and the income drawn from the Colony by persons whose property is in New South Wales, but who reside abroad. Grouped under comprehensive heads the expenditure may be set down as:—

Distribution of Expenditure of the Population of New South Wales.

Food and non-alcoholic beverages	£15,750,000
Fermented and spirituous liquors	4,680,000
Tobacco	780,000
Clothing and drapery	7,470,000
Furniture	900,000
Rent or value of buildings used as dwellings	6,000,000
Locomotion	1,640,000
Fuel and light	1,780,000
Personal attendance and service	1,990,000
Medical attendance, medicine, and nursing	920,000
Religion, charities, education (not including State expenditure)	860,000
Art and amusement	1,050,000
Books, newspapers, &c.	600,000
State services, postage, telegrams, succession dues	730,000
Household expenses not included elsewhere	1,550,000
Miscellaneous expenses	2,000,000
	<hr/>
	£48,700,000

Cost of living in
the Australasian
Colonies.

Cost of living in
New South
Wales.

DAILY EXPENDITURE PER HEAD.

Comparative Ex-
pense per diem.

The yearly expenditure, as shown in the foregoing statement, amounts to £45 15s. 3d., or at the rate of 2s. 6½d. per day. According to Mulhall the expenditure per head in the leading countries of Europe and in the United States is :—

Daily Expenditure per head in various countries.

Countries.	Expenditure per head.
	pence.
United Kingdom.....	20·8
France	15·4
Germany	12·8
Russia	6·6
Austria	10·1
Italy	7·6
Spain	8·4
Belgium and Holland.....	13·8
Scandinavia	11·1
United States	15·6
Australasia (New South Wales)	30·1

Earnings of the
People.

The table just given affords but a partial view of the question of the cost of living ; for if the total earnings of the countries above enumerated be considered as an element of comparison, it will be found that few countries approach Australasia in the small proportion of income absorbed in providing food for the people. The following table, given on the same authority as the preceding, shows that, while the actual cost of food and drink is £19 4s. in the Colony of New South Wales, as against £13 9s. in Great Britain and £6 3s. in Russia, the earnings required to pay for this food are not larger proportionately than in the United States or Great Britain, the countries which show most favourably in the table.

The number of working days in the year is assumed to be 300, Expenditure and allowing for thirteen days' sickness and fifty-two Sundays :— earnings.

Comparative Cost of Food and Beverage.

Country.	Average cost per inhabitant yearly.	Ratio of Food to earnings per cent.	Days of Work equal to Food.
	£ s. d.		
United Kingdom	13 9 0	37·8	113
France	10 8 0	40·6	122
Germany	9 5 0	51·8	155
Russia	6 3 0	60·2	180
Austria	8 8 0	53·1	159
Italy	6 6 0	53·3	160
Spain	7 11 0	56·4	169
Belgium and Holland	10 14 0	45·5	136
Denmark	11 8 0	50·6	152
Scandinavia.....	8 6 0	50·0	150
United States.....	10 9 0	37·0	111
Australasia (New South Wales)	19 4 0	37·8	113

DEFENCE.

Military and Defence Forces of Australasia.

IN all the Colonies small permanent military forces are maintained ; these consist for the most part of artillery and submarine miners. The greater portion of the Colonial forces is, however, maintained by a system of partial payment, which affords a cheap and effective defence force without the disadvantages and expense of a standing army. Under this system the men receive a fixed amount of pay, which compensates them for loss of wages during the time they are away from their employment for the purposes of military instruction. In New South Wales and Victoria the remuneration amounts to £12 per annum to each man, and in Queensland and South Australia to about half that sum. It is computed on the basis of a certain number of whole or half-day parades or night drills at the rate of 10s. per day in the first two Colonies named, 6s. a day in Queensland, and 5s. a day in South Australia. In addition to the remuneration the partially-paid, in common with all the other military forces, receive free rations when in camp or on active service. There has been a marked tendency in all the Colonies to discourage the services of volunteers, as the system was found to work unsatisfactorily, especially in the country districts. In New Zealand alone is the volunteer system the mainstay of defence. The following is the strength of the forces maintained by each province :—

	Total Forces.	Paid.	Partially Paid.	Unpaid.
New South Wales	6,131	488	2,954	2,689
Victoria	9,552	303	3,080	6,169
Queensland	3,016	105	2,193	718
South Australia.....	2,912	58	1,022	1,832
Western Australia	624	2	622	.....
Tasmania	2,073	34	645	1,394
New Zealand	7,490	340	.....	7,150
Total, Australasia..	31,798	1,330	10,516	19,952

Among the Volunteers in New South Wales, Victoria, and Tasmania are included the rifle clubs or companies of a strength of 1,431, 4,401, and 1,394 men respectively. By means of a liberal extension of these clubs it is expected that there will be a large number of men, trained to the use of the rifle and not unaccustomed to drill, who in time of need may be available to fill the ranks of the regular forces.

The relative strength of the various arms in the Colonies may be summarized as follows :—

Staff, Medical Staff, Instructors, &c.....	641
Artillery (Garrison, field and horse).....	3,954
Engineers, Submarine-miners and Torpedo Corps ..	779
Cavalry	1,174
Mounted Infantry and Mounted Rifles	2,111
Infantry	15,913
Rifle Companies	7,226

or, a total strength of 31,798 men.

In addition to the forces enumerated above, all the Colonies, Marine Forces. with the exception of Tasmania, have small corps of Naval Volunteer Artillery, or a partially paid force of a similar character, capable of being employed either as a light artillery land force, or to serve on board the local war vessels. In Victoria there is a permanent navy of 222 men. The marine forces are as follow :—

Colony.	Strength.
New South Wales	476
Victoria	603
Queensland	362
South Australia	190
Western Australia.....	43
New Zealand	1,269
Total	2,943

It will be seen that the combined forces of all the Australasian Colonies on their present footing are 34,741 strong; and of these Combined Australasian Defence Forces. 21,000 could be mobilised in either of the colonies of Queensland, New South Wales, Victoria, or South Australia.

No Colony with the exception of Victoria has any navy of its own, the defence of the coast being in the hands of the British ships on the Australian Station. Sydney, the head quarters of the Imperial navy on the Australasian station. fleet, ranks as a first class naval station; and extensive repairing

IMPERIAL NAVY IN AUSTRALASIA.

yards and store-houses have been provided for the accommodation of the ships of war. There are stationed in the Australasian waters eleven vessels whose armament &c., are as follows:—

Name.	Class.	Displacement.	Speed.	Guns.
Orlando	Armoured cruiser 2 screws.	Tons. 5,600	Knots. 19·25	2 92-in. 22-ton B.L.R. 10 6-in. 5-ton B.L.R. 16 Q.F., 7 M., 2 L
Royalist ...	Corvette (partial deck protected).	1,420	13·00	2 6-in. 81 cwt. B.L.R. 12 5-in. 38 cwt. B.L.R. 10 M., 2 L.
Opal	Corvette	2,120	13·13	12 64-pdr., M.L.R. 6 M., 2 L.
Rapid	Corvette (partial deck protected).	1,420	13·00	2 6-in. 81 cwt. B.L.R. 10 5-in. 38 cwt. B.L.R. 4 M., 1 L.
Lizard	Gunboat	720	13·00	6 4-in. 25 cwt. B.L.R. 4 M.
Rambler	Gunboat	835	10·66	4 20-pdr., B.L.R. 1 M., 1 L.
Raven	Gunboat	460	10·50	2 64-pdr., B.L.R. 2 20-pdr., B.L.R. 2 M.
Swinger	Gunboat	430	10·00	1 64-pdr., B.L.R. 2 20-pdr., B.L.R. 2 M.
Egeria	Sloop	940	11·30	4 20-pdr., B.L.R. 2 M., 1 L.
Stork	Gunboat	465	10·50	1 64-pdr., B.L.R. 2 20-pdr., B.L.R. 2 M.
Dart	Yacht	523	8·5	2 9-pdr., M.L. 2 M.

Special
Australasian
squadron.

An undertaking has been entered into by all the Colonies, with the exception of Queensland, for the payment of a *pro rata* subsidy for the maintenance of an auxiliary fleet. The total subvention to be paid by all the Colonies amounts to £91,000 per annum, the contributions of each being determined on the basis of population. The fleet will comprise five fast cruisers, and two torpedo gunboats as represented by the "Archer" (improved type) and "Rattlesnake" classes of the British Navy; of these three cruisers and one gunboat will be continuously kept in commission, the remainder being held in reserve in Australasian ports, but ready for commission whenever circumstances may require their use.

The agreement is to be for a period of ten years, and shall then, or at the end of any subsequent year, be terminable, provided two years' notice has been given. The vessels will be built by the British Government, but the Australasian Colonies will pay the interest on their prime cost at the rate of 5 per cent., provided such payment does not exceed £35,000. The colonies are also to pay the actual charge for maintenance as mentioned above. On the termination of the agreement these vessels will remain the property of the Imperial Government. The strength of the fleet already in Australian waters will be maintained. The vessels specified in the agreement between Great Britain and the colonies are to be in addition to these. The Australasian squadron will be commanded by the Admiral on the Australian Station, whose headquarters are in Sydney, where a residence is provided for him by the Colony. Some of these vessels have already been launched, and the construction of the others is nearing completion.

Agreement with British Government.

The Colony of New South Wales owns one wooden corvette, the "Wolverene," of 2,540 tons. Her armament at present consists of seventeen 64-pounder M.L.R., two nine and one seven pounders, and one machine gun. There are also two torpedo-boats for harbour defence.

The "Wolverene."

Victoria has a navy of her own, consisting of the following vessels :—

Victorian navy.

Name.	Class.	Displacement.	Armament.
		Tons.	
Cerberus.....	Armour-plated (twin-screw) turret ship.	3,480	4 10-in. 18-ton M.L.R., 4 M.
Nelson	Wooden frigate..	2,730	2 7-in. M.L.R., 18 64-pdr. M.L.R., 1 Q.F.
Victoria	Steel gunboat (twin screw).	530	1 10-in. 25-ton B.L.R., 2 13-pdr. B.L.R., 2 M.
Albert.....	do	350	1 8-in. 12-ton B.L.R., 1 6-in. 4-ton B.L.R., 2 M.
Batman	Iron dredge	387	1 6-in. 4-ton B.L.R., 1 Q.F.
Fawkner	do	387	1 6-in. 4-ton B.L.R., 1 Q.F.
Gannet	Tug	346	1 6-in. 4-ton B.L.R., 1 Q.F.
Lady Loch.....	Launch .....	.....	1 6-in. B.L., 2 M.

The two dredges and the tug mentioned in the table quoted have been specially built to carry heavy guns, and provision is also made by which some of the fast steamers belonging to the port could be fitted as cruisers at very short notice. Guns are kept in readiness in Melbourne in case it should be deemed necessary to put these vessels into commission. In addition to the above Victoria possesses 6 torpedo boats for the defence of the harbour.

Queensland
naval defence.

Queensland has also two gunboats, one of which, the "Palumah," is employed on survey service at the joint expense of the Queensland and Imperial Governments. The following are the particulars of the vessels available for the defence of Queensland ports:—

Name.	Class.	Displacement.	Armament.
		Tons.	
Gayundah	Steel gunboat (twin screw).	360	1 8-in. B.L. Armstrong, 1 6-in. B.L. Armstrong, 4 M.
Palumah	do	360	1 8-in. B.L. Armstrong, 1 6-in. B.L. Armstrong, 2 M.
Otter	Tender (twin screw).	120	2 guns.
Bonito	Barge (twin screw).	450	1 gun.
Stingaree	do	450	1 gun.

Expenditure of
the Australasian
colonies for
defence
purposes.

There is also one torpedo boat at Brisbane, and South Australia maintains one twin-screw steel cruiser of 920 tons. Her armament consists of 1 8-in. 11½ ton B.L., 5 6-in. 4 ton B.L., and 5 machine guns. Tasmania owns one torpedo boat. All the Colonies have spent considerable sums in works of defence, and most of the principal ports are well protected by extensive

fortifications, erected by the various Governments at great cost. The total expenditure for defence purposes during 1888 was as follows :—

Colony.	Total.	Per head of Population.
	£	s. d.
New South Wales	134,502	2 6
Victoria	175,358	3 2
South Australia	41,122	2 7
Queensland	29,336	1 6
Western Australia	3,308	1 7
Tasmania	17,365	2 4
New Zealand	90,037	2 11

Or a total expenditure for Australasia of £491,028, at the rate of 2s. 8d. for each inhabitant.

In all the colonies with the exception of Western Australia a certain amount of money has been spent out of loans on works of defence. The debt incurred by each colony for this purpose is as follows :—

Expenditure
from loans for
defence
purposes.

	Total.	Per head of Population.
	£	s. d.
New South Wales	601,164	11 1
Victoria	100,000	1 10
South Australia	187,220	11 11
Queensland	148,677	7 8
Tasmania	103,411	14 2
New Zealand	442,375	14 7
	£1,582,847	7 8

This does not represent the whole cost of the fortifications, as large sums have from time to time been expended from the general revenues of the colonies in the construction of works of defence; the amount of such payments, however, it is now impossible to determine.

FINANCE AND PUBLIC WEALTH.

Australasian
wealth.

THE first century of Australasian history closed on the 26th January, 1888. It is impossible to trace step by step the progress made during that period, as the data for this purpose are for the most part wanting. Sufficient material is, however, available, from which a comparative statement of the wealth of the colonies at different periods may be deduced. In the following figures the private wealth of the people has alone been considered, the value of the unsold lands of the State, as well as the value of public works, having been omitted. The subjoined table shows the wealth of the whole of Australasia and the increase thereof at intervals of twenty-five years from the date when this territory was first colonized :—

January.	Australasia.	
	Amount of Wealth.	Increase during 25 years.
	£	£
1788	—	Country first colonized.
1813	1,000,000	1,000,000
1838	26,000,000	25,000,000
1863	181,000,000	155,000,000
1888	1,015,000,000	834,000,000

Marvellous
increase.

The progress exhibited in this table is marvellous, and as regards ratio quite unprecedented. Though Australasia has but the population of a province of one of the great European powers, in the wealth and earnings of its people it stands before most of the secondary States, and as regards wealth and income per head of population far before any other country. The following figures are designed to illustrate this truth. Those relating to the United

States of America are computed from data derived from the last census of that country; the other figures are given upon the authority of Mr. M. G. Mulhall.

The figures in regard to the wealth of Australasia do not include the value of State property, which in these colonics consists, besides unsold land, chiefly of railways, telegraphs, water and other works, more or less reproductive. If the value of public works were included, the wealth of Australasia would be 1,270 millions, against which the gross public debt is 166 millions, or 13·1 per centum :—

Value of Public Works.

Wealth of Principal Countries.

Country.	Private Wealth.	Wealth per head.	Public Income per head.	Private Income per head.	Ratio of National Debt to Wealth.
	Millions.	£	£ s. d.	£ s. d.	per cent.
Australasia	£1,129	300	7 12 8	41 14 0	14·70
United Kingdom	8,720	249	2 9 0	35 4 0	8·75
France	8,060	218	4 3 0	25 14 0	11·30
Germany	6,323	140	0 15 0	18 14 0	3·63
Russia	4,343	53	0 16 0	9 18 0	12·70
Austria	3,613	95	1 19 0	16 6 0	11·64
Italy	2,351	82	2 7 0	12 0 0	22·22
Spain	1,593	93	2 2 0	13 16 0	24·53
Belgium	806	145	2 13 0	22 2 0	7·70
Holland	987	240	2 6 0	26 0 0	8·08
United States	9,495	180	2 2 0	40 0 0	3·49
Canada	650	148	1 8 0	26 18 0	6·15
Argentine Republic.....	332	146	2 16 0	.....	.....

PRIVATE WEALTH.

Wealth of each Colony.

Details from which the aggregate wealth can be computed are wanting for some of the colonies, but an estimate has been made which is believed to be fairly exact. In the following table will be found the estimated private wealth of each colony, the average per inhabitant, and the ratio which the public debt bears to the private wealth:—

Private Wealth.—Total and per Inhabitant in each Colony of Australasia for 1889.

Colony.	Private Wealth.		Ratio of Public Debt to Private Wealth.
	Total.	Per Inhabitant.	
	Million £	£	Per cent.
New South Wales	410	371	10·7
Victoria	386	350	9·0
Queensland	106	266	24·4
South Australia	57	182	33·6
Tasmania	26	180	17·2
New Zealand	145	235	25·5
West Australia	6	144	21·3
Total, Australasia	1,136	300	14·7

It will be seen that the ratio of the public indebtedness to private wealth in some of the colonies reaches an extraordinary figure, though in the aggregate this ratio compares very favourably with that of most countries enumerated in the preceding table.

Distribution of property.

If the number of those who leave property at death compared with the total number of deaths in any year, and the value of the estates of such persons, be taken as indicative of the distribution of wealth throughout the rest of the community, it would appear

that 13·16 per cent. of the inhabitants of Australasia have property, which is a much wider distribution than obtains elsewhere. In no colony is the proportion of persons holding property much below 11 per cent., and in two colonies it is more than 15 per cent. The distribution appears most general in South Australia and Queensland, and wider in Victoria than in New South Wales. The average value of estates is greatest in New South Wales, and least in Tasmania, as the following table shows :—

Per centage of Persons leaving Property, and Average Value of Estates, 1883-87.

Colony.	Per centage of persons leaving Property.	Average Value of Estates of deceased persons.
		£
New South Wales	11·51	2,794
Victoria	14·05	2,267
Queensland	15·13	1,591
South Australia	15·34	1,071
Tasmania	11·08	1,043
Western Australia.....	10·84	1,560
Average	13·16	2,168

The total income of the Australasian governments for the year 1888 amounted to £27,558,497, and their expenditure to £26,868,334, showing a surplus of £690,163. With the exception of Tasmania and Western Australia, all the colonies exhibit a surplus on the year's transactions. The revenue is mainly derived from taxation, which produced £10,687,319, and from public services such as railways, post and telegraphs, which yielded £10,559,504, in all £21,246,823, or 77 per cent. of the total revenue. The revenue from the sale or leasing of Crown

Income of the
Australasian
Governments.

lands has fallen considerably both in the gross sum and proportionately to the amount received. The following table shows the revenue under the various heads for each colony, as well as the total received :—

Revenue of Australasia.

Colony.	Taxation.	Land.	Public Services—Railways, Post Office, Telegraphs.	Other Sources.	Total.
	£	£	£	£	£
New South Wales	2,681,883	2,268,253	3,664,100	272,124	8,886,360
Victoria	3,071,003	656,267	3,227,021	653,307	7,607,598
Queensland	1,577,671	638,472	997,976	248,978	3,463,097
South Australia...	739,353	319,510	1,171,448	264,245	2,494,556
Western Australia	179,944	81,348	61,083	34,628	357,003
Tasmania	405,807	76,859	107,305	50,097	640,068
New Zealand.....	2,031,658	297,856	1,330,571	449,730	4,109,815
Total, Australasia	10,687,319	4,338,565	10,559,504	1,973,109	27,558,497

Revenue per head of population.

The revenue per head averaged £7 12s. 8d., varying from £4 8s. 8d. for Tasmania to £9 3s. 7d. for Queensland. The rate of each colony subdivided into the classification already adopted was as follows :—

Revenue of Australasia per head.

Colony.	Taxation.	Land.	Public Services—Railways, &c.	Other Sources.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales	2 10 5	2 2 7	3 8 10	0 5 1	8 6 11
Victoria	2 17 9	0 12 4	3 0 8	0 12 3	7 3 0
Queensland.....	4 3 7	1 13 11	2 12 11	0 13 2	9 3 7
South Australia	2 7 3	1 0 5	3 14 11	0 16 11	7 19 6
Western Australia	4 5 0	1 18 5	1 8 11	0 16 4	8 8 8
Tasmania	2 16 3	0 10 9	0 14 10	0 6 10	4 8 8
New Zealand	3 7 1	0 9 10	2 4 0	0 14 10	6 15 9
Total	2 19 3	1 4 0	2 18 6	0 10 11	7 12 8

The receipts from taxation show a fairly large increase during the twelve years which have elapsed since 1876, the proportion in the year named being about 35 per cent. of the whole receipts, while in 1888 the proportion had risen to 38·78 per cent. The increase, however, has not been general, and is due mainly to a larger proportion of revenue from taxation now obtained in New South Wales and New Zealand than formerly, as will be seen from the following statement :—

Revenue of Australasia from Taxation.

Colony.	Proportion of revenue derived from taxation.		Revenue from taxation per head.	
	1876.	1888.	1876.	1888.
	per cent.	per cent.	£ s. d.	£ s. d.
New South Wales.....	23·05	30·17	1 18 5	2 10 5
Victoria	41·16	40·37	2 5 0	2 17 9
Queensland.....	49·26	45·55	3 7 11	4 3 7
South Australia.....	34·84	29·64	2 0 9	2 7 3
Western Australia.....	56·14	50·40	3 6 8	4 5 0
Tasmania	63·00	63·40	2 0 3	2 16 3
New Zealand	37·70	49·43	3 9 8	3 7 1
Total	35·10	38·78	2 11 0	2 19 3

The expenditure of the Government of New South Wales is far larger than that of any other colony of the group ; it exceeds that of Victoria by one and a half million, and New Zealand by more than four and three quarters, and amounted to £8,778,851 out of a total of £26,868,334. The expenditure of all the colonies upon the working of railways and tramways was £5,221,459 ; on other public works and buildings, and on the postal and telegraphic service, £3,511,857 ; interest on public debt, £6,682,378 ; and on other

Expenditure of the Australasian Colonies.

AUSTRALASIAN EXPENDITURE.

Distribution of expenditure.

services, chiefly defence, education, and civil government, the expenditure was £11,452,640, the proportion under each head being :—

Working expenses of Railways and Tramways ...	19·43	per cent.
Public Works, Post and Telegraphs	13·07	„
Interest on debt	24·87	„
Other Services—Civil Government.....	42·63	„

The total expenditure for each colony under the heads given above was:—

Expenditure of Australasia.

Colony.	Railways and Tramways.	Other Public Works, including Post and Telegraphs.	Interest on Debt.	Other Services.	Total.
	£	£	£	£	£
New South Wales	1,824,291	1,657,117	1,745,695	3,551,748	8,778,851
Victoria	1,574,786	643,113	1,385,121	3,684,131	7,287,151
Queensland.....	531,144	315,763	1,015,667	1,505,831	3,368,405
South Australia...	483,207	259,859	717,906	915,427	2,376,399
Western Australia	44,080	66,917	63,820	210,313	385,130
Tasmania	88,056	190,093	184,613	246,724	709,486
New Zealand.....	675,895	378,995	1,569,556	1,338,466	3,962,912
Total	5,221,459	3,511,857	6,682,378	11,452,640	26,868,334

Details of expenditure.

It will be seen from the foregoing statement that 19·43 per cent. of the whole expenditure is for working the railways and tramways of the colonies, a service not usually undertaken by the State. The ordinary expenses of civil government amount to 42·63 per cent. of the expenditure; public works, post and telegraphs, absorb 13·07 per cent., and the interest on the

public debt 24·87 per cent. The rates of expenditure per head of population were as follow :—

	£	s.	d.
Railway and Tramways	1	8	11
Other Public Works—Post and Telegraphs	0	19	6
Interest on public debt.....	1	17	0
Other Services—Civil Government.....	3	3	5
Total.....	£7	8	10

Expenditure per inhabitant.

The details for each Colony are shown in the following statement :—

Expenditure of Australasia per head.

Colony.	Railways and Tramways.			Other Public Works, including Post and Telegraphs.			Interest on Debt.			Other Services.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
New South Wales	1	14	3	1	11	1	1	12	10	3	6	9	8	4	11
Victoria	1	9	7	0	12	1	1	6	1	3	9	3	6	17	0
Queensland	1	8	2	0	16	9	2	13	10	3	19	10	8	18	7
South Australia..	1	10	11	0	16	7	2	5	11	2	18	6	7	11	11
Western Australia	1	0	10	1	11	7	1	10	2	4	19	5	9	2	0
Tasmania	0	12	2	1	6	4	1	5	7	1	14	2	4	18	3
New Zealand.....	1	2	4	0	12	6	2	11	10	2	4	3	6	10	11
Total	1	8	11	0	19	6	1	17	0	3	3	5	7	8	10

The most remarkable feature in the preceding statement is the largeness of the amount required to pay interest on the public debt, both in regard to the rate per head and the proportion of total revenue thus hypothecated. The proportion for all colonies is slightly less than one-fourth of the total expenditure, and £1 17s. per head of population, while the proportion of expenditure for each colony was—

	Per cent.
New South Wales	19·88
Victoria.....	19·01
Queensland	30·15
South Australia	30·21
Western Australia	16·57
Tasmania	26·02
New Zealand	39·61
Mean.....	24·87

Amount of interest public debt.

Mortgaging our resources.

A casual glance at the figures quoted will lend colour to the suggestion sometimes hazarded that the colonies are too rapidly mortgaging their resources, and that the expense of the public debt will prove a greater burthen than can easily be borne. However true this may be as far as any individual colony is concerned, it is certainly erroneous as regards the whole of Australasia. Out of the sum required to pay interest, viz., £6,682,378, about two and a half millions are directly recouped by the profit on public railways, while a further amount is yielded by water supply, sewerage, and other works. Besides this, there is a large indirect revenue obtained by each colony from the opening up of its public lands, and from the construction of break-waters, light-houses, bridges, and other works of public utility. Victoria is the only colony, however, which enjoys an actual surplus of revenue over interest from works paid for out of the proceeds of loans.

Expenditure from loans.

The following table shows the expenditure of the Colonies from loans. In the case of New South Wales there was an unexpended balance of £1,703,045, which could not be distributed under the heads given:—

Expenditure of Australasia from Loans.

Colony.	Railways.	Water Supply and Sewerage.	Immigration.	Other Services.	Total.
	£	£		£	£
New South Wales	30,990,578	3,839,697	569,933	8,699,941	44,100,149
Victoria	26,575,706	5,345,150	.....	2,706,526	34,627,382
Queensland	14,467,116	541,022	2,498,433	8,334,379	25,840,950
South Australia...	10,883,928	2,726,500	.....	5,537,272	19,147,700
Western Australia	823,099	.....	20,000	432,101	1,275,200
Tasmania	1,902,224	.....	235,714	2,361,532	4,499,470
New Zealand.....	13,634,500	559,996	2,142,460	20,634,735	36,971,691
Total	99,277,151	13,012,365	5,466,540	48,706,486	166,462,542

The expenditure from loans for all the colonies amounted to £46 2s. 3d. per head; the rate for New Zealand, Queensland, and South Australia being from about £15 to £22 above the average. Of the leading colonies Victoria stands lowest on the list with an expenditure of £32 11s. 2d.; but, as already explained, this expenditure is not only not a burthen to that colony, but yields a small sum towards the general revenue. New South Wales compares very favourably with most of the colonies, and having regard to her great natural and acquired wealth the debt per head is by no means large, especially as the charge amounts to only 19·88 per cent. of the general expenditure:—

Public Debt of Australasia per head of Mean Population.

Colony.	Railways.		Water Supply.		Immigration.		Other Services.		Total.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
New South Wales	29	2 4	3	12 2	0	10 8	7	9 4	40	14 6
Victoria.....	24	19 9	5	0 6	.....	.....	2	10 11	32	11 2
Queensland.....	38	7 1	1	8 8	6	12 5	22	2 0	68	10 2
South Australia...	34	16 1	8	14 4	.....	.....	17	14 1	61	4 6
Western Australia	19	9 1	.....	.....	0	9 5	10	4 3	30	2 9
Tasmania.....	13	3 7	.....	.....	1	12 8	16	7 3	31	3 6
New Zealand.....	22	10 5	0	18 6	3	10 9	34	1 9	61	1 5
Total.....	27	10 1	3	12 1	1	10 3	13	9 10	46	2 3

The following statement shows the terms on which the principal colonies were able to borrow in the London market during the past two years:—

Loans Floated.	Amount.	Average Price.	Net Interest per cent. to Investors.
1888.			
Victoria, 4 per cent.	1,500,000	108 13 10	3 13 6
New South Wales, 3½ per cent. ...	3,500,000	103 12 2	3 7 7
Queensland 3½ per cent.	2,520,100	95 2 9	3 15 10
1889.			
Victoria, 3½ per cent.	3,000,000	103 6 0	3 7 8
South Australia, 3½ per cent.	1,317,000	100 2 11	3 9 11
Tasmania, 3½ per cent.	1,000,000	98 5 8	3 12 5
New South Wales, 3½ per cent. ...	3,500,000	102 8 0	3 8 4
Western Australia, 4 per cent.	100,000	108 15 3	3 13 4
New Zealand 3½ per cent.	2,700,000	95 16 8	3 14 0
1890.			
Queensland 3½ per cent.	2,264,000	97 15 7	3 13 10

Australasian loans in the London market.

The selling price of a loan is not perhaps the most exact test that may be applied to ascertain the credit of a country in the London markets. There are many causes which may combine to influence adversely the price obtained by tender, and it will be evident that in some of the instances given in the foregoing table the selling price of loans was influenced by circumstances entirely apart from the credit of the colonies concerned. A truer gauge of credit will be found in the selling price and interest yielded to investors by representative stock at a given date. The following table shows the interest returned by the stock of different colonies in June, 1888, due allowance being made in each case for redemption and other conditions affecting the price. Similar figures for the same month of 1868 and 1878 have been added :—

Interest
returned by
Colonial stock.

Country.	1868.	1878.	1888.
	£ s. d.	£ s. d.	£ s. d.
Canada	5 12 6	4 9 0	3 4 0
New South Wales	5 0 0	3 16 3	3 6 9
Victoria	4 17 6	4 2 6	3 7 9
New Zealand	5 1 3	4 15 0	4 2 6
Queensland	5 6 3	4 5 0	3 14 6
South Australia	5 2 6	4 2 6	3 12 0
Tasmania	5 8 9	4 12 6	3 17 6
Cape of Good Hope	5 1 3	4 11 3	3 14 6
Natal	5 11 3	4 11 3	3 17 0
Mauritius.....	5 5 0	4 8 9	3 14 6
India.....	3 13 9	3 10 6	3 6 0

Improvement of
Colonial credit.

The improvement in the credit of all the colonies is obvious, and at the rates given New South Wales could borrow £100 to-day at

the same cost as £66 could be obtained twenty years previously. In June, 1888, British consols were selling at a rate which would yield £2 12s. 6d. per cent. interest; Canadian and Indian stock were also selling at better, if only slightly better, rates than New South Wales. This is certainly anomalous, as there is nothing in the history of these countries, or in the nature of their resources, to warrant even the slight preference shown to their stock above that of the more important Colonies of Australasia.

BANKING AND INSURANCE.

The total assets of all banks trading in Australasia at the close of 1888 amounted to £154,327,046, against which there were liabilities to the extent of £108,919,015, so that the surplus provided by the banks out of their own resources was £45,408,031. The Colony showing the largest figures is Victoria, after which comes New South Wales :—

Assets and liabilities of Banks in Australasian Colonies for the last quarter of 1888.

Colony.	Assets.	Liabilities.	Excess of Assets.
	£	£	£
New South Wales	46,914,973	33,914,573	13,000,400
Victoria	53,111,387	39,749,590	13,361,797
Queensland	19,905,420	12,071,608	7,833,812
South Australia	10,757,663	6,651,262	4,106,401
New Zealand	18,039,929	11,988,755	6,051,174
Tasmania	3,859,233	3,613,777	245,456
Western Australia	1,738,441	929,450	808,991
Total.....	154,327,046	108,919,015	45,408,031

TOTAL BANK DEPOSITS.

Amount of Bank Deposits.

There were deposited during the last quarter of 1888 with the various banks trading in Australasia, £102,062,034; of the sum named, £68,311,285—not including deposits in Tasmania—bore interest. The banks of Victoria held £37,570,837 or 36·8 per cent. of the total deposits; those of New South Wales, £31,917,311, or 31·3 per cent. The figures are for the last quarter and not the average of the year:—

Total Deposits with Banks of Issue during last quarter of 1888.

Colony.	Deposits bearing Interest.	Deposits not bearing Interest.	Total Deposits.
	£	£	£
New South Wales	21,360,684	10,556,627	31,917,311
Victoria	26,393,132	11,177,705	37,570,837
Queensland	7,974,037	3,227,152	11,201,189
South Australia	4,318,642	1,838,261	6,156,903
New Zealand	7,776,227	3,261,386	11,037,613
Tasmania .....	.....	.....	3,318,455
Western Australia	488,563	371,163	859,726
Total	*68,311,285	*30,432,294	102,062,034

* Tasmania not included.

Amount of Reserves.

Compared with the total amount of currency, the reserves held by Australasian Banks are proportionately heavier than in any other country. In New South Wales the bank reserve equals the whole of the active circulation both of coin and paper; much the same conditions exist in the neighbouring colonies. The only European country approaching this proportion, is the Netherlands, where the bank reserves equal about one half the active currency of the country. The following statement shows the quantity of

coin in Banking Institutions and the Public Treasury, as well as the total value of the currency, both active and reserved, of some of the leading countries of the world :—

Countries.	Coin in Banks and Treasury.	Total amount of currency.
Australasia—	£	£
New South Wales	5,521,000	11,121,000
Victoria.....	6,838,719	.....
South Australia	1,267,037	.....
Queensland	1,856,522	.....
Tasmania	819,645	.....
New Zealand	2,342,052	.....
Argentine Republic	2,910,274	14,631,000
Austro-Hungary	20,116,937	88,487,000
Belgium	3,688,247	38,196,000
Brazil.....	.....	28,673,000
Canada and Newfoundland	1,867,735	12,217,000
Chili	491,590	6,673,000
Denmark	2,884,350	8,041,000
France	82,602,649	408,147,000
Germany	37,249,868	169,221,000
Great Britain and Ireland.....	31,607,451	179,645,000
Greece	369,000	5,974,000
India (British).....	16,063,390	225,373,000
Italy	14,218,258	109,377,000
Japan.....	5,839,829	50,992,000
Mexico	361,416	10,669,000
Netherlands	11,298,393	33,588,000
Portugal	2,402,369	9,505,000
Russia	25,421,671	132,518,000
Spain.....	5,580,911	55,516,000
Scandinavia	2,611,899	8,826,000
Switzerland	2,379,972	10,902,000
Turkey	2,976,600	17,079,000
United States of America	109,476,750	357,914,000

Extent of banking operations.

Considering the population of these colonies the banking operations of Australasia have attained enormous development. The following table from Mulhall's Dictionary shows the capital employed in banking, and the amount of deposits in some of the principal countries. The figures regarding Australasia are brought down to the latest date:—

Capital and Deposits in the Banks of Various Countries.

Country	Million £.			Amount per Inhabitant.
	Capital.	Deposits.	Total.	
United Kingdom	270	570	840	£ 25
France	55	150	205	6
Germany	85	200	285	6
Russia	45	110	155	2
Austria	36	130	166	5
Italy	31	60	91	3
Spain and Portugal	12	10	22	1
Belgium	7	20	27	5
Holland	6	20	26	7
Scandinavia	11	24	35	4
Europe.....	558	1,294	1,852	
United States.....	145	386	531	10
Canada.....	17	18	35	8
Australasia.....	45	102	147	40

Details of banking business.

The general business transacted by the banks of each Colony is summarized as follows. The reserve of coin consists almost wholly of gold, hardly more than 3 per cent. being in silver. The stock of coin held, viz., £16,991,924, was equal to about 68 per cent. of the reserve of the Bank of England at the same date. The total assets amounted to £154,327,046, and the liabilities £108,919,015, so that the proportion provided by the banks out of their own resources was £45 408,031.

Colony.	Liabilities.				Assets.					
	Notes and Bills in Circulation.	Balance due to other Banks.	Deposits.	Total Liabilities.	Coin and Bullion.	Landed Property.	Notes and Bills.	Balances due from other Banks.	Notes and Bills discounted and all other Debts due to the Banks.	Total Assets.
	£	£	£	£	£	£	£	£	£	£
New South Wales..	1,733,036	263,326	31,017,311	33,914,573	5,352,354	1,333,801	303,857	2,094,480	37,830,481	46,914,973
Victoria	1,849,070	329,083	37,570,837	39,749,590	5,604,096	1,581,854	270,648	329,230	45,325,559	53,111,387
Queensland	766,635	103,784	11,201,189	12,071,608	2,100,864	644,520	17,473	198,759	16,943,798	19,905,420
South Australia ..	442,045	52,314	6,156,903	6,651,262	1,470,702	423,677	38,527	256,307	8,568,450	10,757,663
Western Australia.	59,075	9,749	859,726	929,450	292,600	81,075	2,644	6,208	1,355,914	1,738,441
Tasmania	206,035	88,387	3,318,455	3,613,777	612,876	109,262	.....	74,539	3,062,556	3,859,233
New Zealand.....	915,940	35,202	11,037,613	11,988,755	2,309,528	543,197	33,279	101,386	15,052,530	18,039,929
Total, Australasia	5,975,136	881,845	102,062,034	108,910,015	17,743,020	4,717,392	666,428	3,060,909	128,139,297	154,327,046

Savings Banks.

In all the Colonies savings banks are provided by the State to enable the working classes to securely invest their surplus earnings. These banks have been developed to a larger extent in Victoria than any other province, and from the number of deposits it would appear that more than twenty-two persons out of every hundred in that Colony have accounts standing in their names in the savings banks. The highest average amount per depositor is in Queensland, while the amount of deposits as compared with population is greatest in South Australia :—

Colony.	No. of Depositors.	Amount of Deposits.	Average amount per Depositor.	Average amount per head of Population.	Depositors per 100 of Population.
		£	£ s. d.	£ s. d.	
New South Wales ...	128,297	4,037,675	31 9 5	3 14 4	11·82
Victoria	247,425	4,881,198	19 14 7	4 9 6	22·68
Queensland	43,003	1,611,876	37 9 8	4 3 2	11·10
South Australia	62,365	1,759,592	28 4 3	5 12 5	19·59
Western Australia ...	3,096	30,808	9 19 0	0 14 1	7·35
Tasmania	23,090	469,928	20 7 0	3 4 4	15·80
New Zealand	103,046	2,691,693	26 2 5	4 8 7	16·96
Total Australasia...	610,322	15,482,770	25 7 4	4 4 4	16·60

Total deposits.

If to the amounts deposited in savings banks as shown above be added the deposits in chartered banks it will be seen that the total sum on deposits in these institutions is equal to £32 for each inhabitant of Australasia. The largest amount on deposit as compared with population is found in Victoria with £33 18s. 4d., or 16s. above the figures for New South Wales, and 17s. higher

AMOUNT OF DEPOSITS.

than those of Queensland. The particulars for all the Colonies will be found below :—

Colony.	Deposits in Banks.	Deposits in Savings Banks.	Total Deposits.	Amount of Deposits per head of Population.
	£	£	£	£ s. d.
New South Wales	31,917,311	4,037,675	35,954,986	33 2 4
Victoria	37,570,837	4,881,198	42,452,035	33 18 4
Queensland.....	11,201,189	1,611,876	12,813,065	33 1 4
South Australia.....	6,156,903	1,759,592	7,916,495	25 5 9
Western Australia ...	859,726	30,808	890,534	21 2 8
Tasmania	3,318,455	469,928	3,788,383	25 18 5
New Zealand.....	11,037,613	2,691,693	13,729,306	22 12 1
Total.....	102,062,034	15,482,770	117,544,804	32 0 1

It has been found impossible to distinguish the progress of life Life Assurance assurance in each colony separately, for most of the companies have extended their business beyond the colony in which their chief office is established. The accumulated funds of twelve principal societies amounted at the close of 1889 to £14,742,940, of which £7,756,329 was invested in mortgage, £2,396,281 in loans on policies and personal security, £1,249,599 in Government securities, £123,478 in shares, and £1,696,014 in freehold and leasehold property; the balance, amounting to £1,521,239, being cash (principally at fixed deposit), together with interest and other debts due to the companies. The interest and other miscellaneous receipts during the year amounted to £788,548, being at the rate of 5.95 per cent.; the total increase in the accumulated funds was £1,444,657. The growth of life assurance in Australasia

Amount of
Insurance
business.

during the last nine years may be gathered from the following figures taken from the "Insurance and Banking Record." From 1881 to 1889 £14,574,964 was received from policy holders, and interest amounting to £4,640,827 was gained, making the total receipts £19,224,791. Of this sum, however, £6,228,456 was paid in settlement of claims and as bonuses, while the expenses of working totalled £3,300,608, so that £9,695,727 was saved and added to the funds of the companies during the period mentioned. It will be seen that claims and bonuses for policy holders amounted to about 32·34 per cent., and working expenses to 17·11 per cent. of the total receipts, leaving 50·55 per cent. available to meet future liabilities. The following figures, showing the existing condition of ordinary life assurance in Australia as compared with other parts of the world, are given by Mr. D. M. Luckie, the Government Insurance Commissioner of New Zealand, in his annual report for 1888 :—

Country.	Average Amount of Insurance per head of population.	Average number of Policies per 1000 of population.	Average amount insured per Policy.
	£		£
Australasia	19	65	300
Canada	9	24	376
United Kingdom	12	26	487
United States	8	15	554

Prevalence of
Life Assurance

It would therefore seem that the practice of insuring life is much more prevalent in Australia than in any of the other countries named; and although the average sum assured by each policy is less than elsewhere, the number of policies is so much greater as compared with population that the total amount assured, if divided by the number of inhabitants, is considerably higher than is the case in any other country shown in the table.

The business transacted in the various Postal Departments ^{Money Order business.} under the system of money orders has grown to very large dimensions. This increase is due mainly to the greater facilities now afforded for the transmission of money by this method, though it is also to some extent attributable to the more general appreciation of the system by the working classes. The following is a statement of the business transacted :—

Colony.	Orders issued.		Orders paid.		Total Orders.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.
		£		£		£
N. S. Wales ...	388,416	1,215,132	368,081	1,116,433	756,497	2,331,565
Victoria	246,586	762,483	226,850	697,357	473,436	1,459,840
Queensland ...	109,646	398,751	73,840	263,862	183,486	662,613
South Aus- tralia	76,646	222,340	66,363	208,133	143,009	430,473
Tasmania	58,386	144,123	49,270	114,999	107,656	259,122
New Zealand..	162,387	555,996	144,450	513,728	306,837	1,069,724
Total	1,042,067	3,298,825	928,854	2,914,512	1,970,921	6,213,337

The average amount of each money order was £3 3s. 3d., and the business done by New South Wales greatly exceeded that of any other member of the group. The average value of money orders issued in Great Britain is £2 4s. 9d.

During 1888 the largest number of insolvencies took place in ^{Insolvencies.} New Zealand, the total number for the whole of Australasia being 2,769, with liabilities amounting to £2,257,439, and assets, as shown in the insolvents' schedules, valued at £1,513,536, leaving a deficiency of £743,903 or £281 for each insolvent; no great

Assets and
Liabilities of
insolvents.

reliance can, however, be placed upon the statement either of liabilities or assets :—

Colony.	Number of Insolvents.	As shown in Insolvents' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
New South Wales	851	659,307	459,677	199,630
Victoria	479	347,658	185,871	161,787
Queensland	249	258,884	122,464	136,420
South Australia	219	80,092	58,011	22,081
Tasmania	90	44,887	13,641	31,246
New Zealand	881	866,611	673,872	192,739
Total	2,769	2,257,439	1,513,536	743,903

In the case of South Australia 121 private arrangements under the Insolvency Act are included in this total, but the liabilities and assets of such are not shown. The total number of cases dealt with by the Courts was therefore only 2,648, the average being as shown on previous page.

PASTORAL RESOURCES.

NOTWITHSTANDING the fact that the soil, climate, and indigenous herbage of Australia are admirably adapted to the multiplication and sustenance of animal life, no systematic attempt was made to test the capabilities of the land as a feeding ground for flocks and herds, until the example of Captain Macarthur had demonstrated beyond doubt that Nature favored the production in Australia of a quality of wool unsurpassed by that of any part of the world. Then the settlers began to understand and utilise the natural resources of the country, and as the indomitable spirit of exploration gradually opened up the apparently boundless plains of the interior, pastoralists extended their domain, and sheep and cattle in increasing numbers spread over the face of Eastern Australia. The expansion of the pastoral industry is gradually converting the central and western portions of the continent into holdings, devoted to the production of the greatest element of the wealth of Australasia.

Commencement
of the pastoral
industry.

The stock of animals landed by Governor Phillip with the first expedition was :—

1 bull,	1 stallion,
4 cows,	3 mares,
1 calf,	3 colts,

and a few sheep, goats, and swine.

The extension of free immigration, and the spread of settlement on what were termed "waste" lands, gave an impetus to grazing pursuits. The following figures give the number of stock in New

Impetus to
pastoral
pursuits.

Stock during
period of early
settlement.

South Wales and Tasmania (virtually colonized Australasia) at
the dates mentioned below :—

Year.	Horses.	Cattle.	Sheep.	Swine.
1800	203	1,044	6,124	.....
1810	1,134	12,442	25,888	9,544
1821	4,564	102,939	209,158	33,906

Owing to incomplete data the exact figures for the years intervening between 1821 and 1842 cannot be given, but the subjoined table shows the increase in stock in Australasia generally from the latter year :—

Year.	Horses.	Cattle.	Sheep.	Swine.
1842	70,615	1,014,833	6,312,004	66,086
1861	449,250	4,039,839	23,741,506	281,143
1871	782,558	4,713,820	49,773,584	737,477
1881	1,249,765	8,709,628	78,563,426	903,271
1888	1,504,137	9,278,540	96,580,639	1,140,205

Stock per
inhabitant.

The numbers of each class of stock per inhabitant at the same periods were :—

Year.	Horses.	Cattle.	Sheep.	Swine.
1842	0·29	4·09	25·45	0·27
1861	0·36	3·19	18·74	0·22
1871	0·41	2·45	25·86	0·38
1881	0·46	3·17	28·64	0·33
1888	0·41	2·53	26·30	0·31

Undeveloped
pastoral re-
sources.

In connection with the foregoing table it will be seen that the increase of stock from period to period has been, on the whole, equal to the increase of population, and we may therefore suppose that it will be many years before the area adapted to pastoral pursuits will be fully utilized. To illustrate the extent of country

still unoccupied, or not utilized to its full stock-carrying capacity, the following figures are of use. It will be, of course, understood that sheep equivalent to the cattle and other live stock has been added to the number actually depastured, allowance being made at the rate of ten sheep to every head of large stock. Thus in New South Wales there are, if other stock be not allowed for, 4.21 acres per sheep, but allowing for cattle, horses, &c., there are but 2.92 acres per sheep; similarly for Queensland, without allowing for other stock, there would appear to be 32 acres per sheep, but allowance being made, the average is only 6.75 :—

Colony.	No. of acres per sheep.
New South Wales	2.92
Victoria.....	2.01
Queensland	6.75
South Australia	42.86
Western Australia	176.70
Tasmania	5.23
New Zealand	2.21
<hr/>	
Australasia	9.42

Taking New South Wales, though not by any means stocked to its full carrying capacity, as a standard, there is scope in Australia for a further increase of over 200 million sheep, or the equivalent in other stock, over the number at present depastured.

The demands of agriculture must, of course, affect the area at the disposal of the pastoralist; this is, at present, most noticeable in connection with Victoria and New Zealand, but in resisting the temptation to overstock inferior country, and by increasing the natural carrying capacity by irrigation, water conservation, and the cultivation of artificial grasses, the colonies where agriculture has made most progress will be able to carry stock even in larger numbers than they have hitherto attempted.

The stock depastured in the colonies reached the following numbers in the year 1888.

Colony.	Sheep.		Horned Cattle.		Horses.		Swine.	
	Number.	Percentage in each Colony.	Number.	Percentage in each Colony.	Number.	Percentage in each Colony.	Number.	Percentage in each Colony.
New South Wales	46,503,469	48·15	1,622,907	17·49	411,368	27·35	248,583	21·80
Victoria	10,818,575	11·20	1,370,660	14·77	323,115	21·48	245,818	21·56
Queensland	13,444,005	13·92	4,654,932	50·17	324,326	21·56	68,994	6·05
South Australia	7,150,000	7·40	430,000	4·64	170,000	11·30	170,000	14·91
Western Australia	2,112,392	2·19	95,822	1·03	41,390	2·75	25,083	2·20
Tasmania	1,430,065	1·48	142,019	1·53	29,238	1·95	43,227	3·79
New Zealand	15,122,133	15·66	*962,200	10·37	*204,700	13·61	*338,500	29·69
Total, Australasia ...	96,580,639	100·00	9,278,540	100·00	1,504,137	100·00	1,140,205	100·00

NOTE.—The figures for all the Colonies, with the exception of New Zealand, are for the year ended 31st March, 1889. In the case of New Zealand the number of sheep is for May, 1888. * Estimated

It is estimated that the capital invested in pastoral properties throughout Australasia amounts to £373,000,000, and of this sum the value of stock alone represents £67,000,000. The annual return from pastoral pursuits, including dairy farming, is £35,387,000, the share of each colony in the production being—

Capital invested in pastoral pursuits.

New South Wales	£13,059,000
Victoria	6,280,000
Queensland	6,444,000
South Australia.....	2,500,000
Western Australia	661,500
Tasmania	657,500
New Zealand	5,785,000
	<hr/>
Australasia	£35,387,000

The return from each branch of the great pastoral industry is approximately as follows :—

Return from pastoral industry.

Sheep	£21,488,000
Cattle for meat, &c.....	6,200,000
Dairy cattle	4,144,000
Horses	2,319,000
Swine	1,236,000
	<hr/>
	£35,387,000

In connection with the above statement it will be understood that the value of agricultural produce consumed on dairy farms, and for fattening stock, has been deducted from the totals, and will be credited to agricultural production.

As might be supposed the greater part of the value of stock returns is due to wool. Thus, out of the £35,387,000 quoted above, £17,100,000 is the value of wool. The clip of the Australasian colonies during 1888 was 553,000,000 pounds weighed in the grease, the export value being £19,333,000—that is to say, £2,230,000 more than shown by the foregoing tables. The latter

Export of Wool.

Value of export. sum represents the cost of freight, handling, and brokerage between the sheep-walks and the port of shipment. The export value of the clip of each colony was as follows :—

Export Value of Wool.

Colony.	Weight of clip in the grease.	Value.
	lb.	£
New South Wales	269,739,000	9,120,868
Victoria	61,436,285	2,467,000
Queensland	72,000,000	2,400,000
South Australia	39,000,000	1,170,000
Western Australia.....	11,600,000	348,000
Tasmania	9,300,000	400,000
New Zealand	90,000,000	3,425,000
Total.....	553,075,285	19,330,868

AGRICULTURE.

THE Australasian Colonies may, as a whole, be considered as Value of agricultural products. in the first phase of agricultural settlement, indeed several Colonies have not yet emerged from the pastoral stage. Nevertheless, the value of agricultural produce, estimated at farm price, is considerable, and amounts to £26,830,000, which is three-fourths of the value of pastoral produce. The return from agriculture in each Colony during 1888 was, approximately :—

	£
New South Wales	4,150,000
Victoria	7,330,000
Queensland	1,845,000
South Australia	5,200,000
Western Australia	260,000
Tasmania	1,270,000
New Zealand	6,775,000
Australasia	£26,830,000

From this estimate it would seem that the value of crops, in proportion to the area cultivated, is much larger in Queensland and New South Wales than in the other Colonies. The reason of this will be found in the more extended cultivation of maize, sugarcane, fruit, and vines in proportion to the total extent cropped, in these than in the remaining Colonies. In point of gross value Victoria and New Zealand are much in advance of the other members of the group.

The following figures, giving the areas under the principal grain and other crops, and the total extent of land under cultivation in each of the Colonies and in Australasia at different epochs since the year 1861, will serve to illustrate the progress agriculture has made. Area under cultivation in Australasia, 1861-88.

Colony.	Years.	Area under						Total Area under Crops.	Land under Permanent Artificial Grasses.
		Wheat.	Maize.	Oats.	Barley.	Hay.	Other Crops.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales	1861	123,468	57,959	7,224	2,924	45,175	59,167	295,917	1,658
	1871	154,030	119,956	13,795	3,461	51,805	50,366	393,413	24,388
	1881	221,888	117,478	16,348	6,427	146,610	60,492	569,243	75,825
	1888	304,803	166,101	7,984	3,318	209,531	107,229	798,966	200,332
Victoria	1861	196,922	1,714	91,061	3,419	74,681	42,609	410,406	12,654
	1871	334,609	1,709	175,944	16,772	103,206	296,115	928,355	6,282
	1881	926,729	1,783	146,995	48,652	212,150	99,137	1,435,446	241,947
	1888	1,217,191	5,789	197,518	83,483	411,332	131,795	2,047,108	184,991
Queensland	1861	392	1,914	69	13	280	1,772	4,440	.....
	1871	3,554	21,140	353	588	.....	33,496	59,131	838
	1881	4,708	46,480	88	256	16,926	42,956	111,414	8,565
	1888	9,305	85,966	642	324	20,978	68,150	185,395	7,592
South Australia	1861	310,636	18	1,638	10,637	62,874	14,914	400,717	838
	1871	692,508	.....	3,586	17,225	97,812	26,599	837,730	5,213
	1881	1,768,781	.....	3,023	11,953	333,467	26,730	2,143,954	28,891
	1888	1,605,000	.....	7,264	15,697	308,429	382,894	2,319,284	23,217

II

Colony.	Years	Area under						Total Area under Crops.	Land under Permanent Artificial Grasses.
		Wheat.	Maize.	Oats.	Barley.	Hay.	Other Crops.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Western Australia.....	1861	13,584	73	507	2,412	6,676	1,453	24,705	.....
	1871	25,697	113	1,474	5,083	.....	19,357	51,724	.....
	1881	21,951	36	827	3,679	24,445	2,415	53,353	.....
	1888	30,740	61	1,787	5,009	23,914	3,919	65,430	268
Tasmania.....	1861	58,823	.....	29,022	7,279	31,803	121,137	248,064	.....
	1871	63,332	.....	29,631	4,275	31,578	94,101	222,917	90,247
	1881	51,757	.....	27,535	4,597	34,790	94,084	212,763	137,681
	1888	40,657	.....	33,834	4,670	52,521	150,447	282,129	178,801
New Zealand	1861	29,531	770	15,872	3,457	.....	18,998	68,628	157,994
	1871	108,720	.....	139,185	13,305	30,717	76,312	368,239	741,779
	1881	365,715	3,177	243,387	29,808	68,423	360,398	1,070,908	3,569,644
	1888	362,153	4,768	367,225	45,027	50,656	468,936	1,298,765	6,228,655
Australasia	1861	733,356	62,448	145,393	30,141	221,489	260,050	1,452,877	173,144
	1871	1,382,450	142,918	363,968	60,709	315,118	596,346	2,861,509	868,747
	1881	3,361,529	168,954	438,203	105,372	836,811	686,212	5,597,081	4,362,553
	1888	3,569,849	262,685	616,254	157,528	1,077,361	1,313,400	6,997,077	6,823,856

AREA UNDER CROPS.

Great increase
of area under
crop.

As will be seen from the foregoing figures the area under crop in Australasia is now more than four and a half times as large as it was in 1861. If, however, the land artificially grassed be included the total area is 13,820,933 acres, or eight and a half times the area under crop in 1861.

In order to obtain a clear idea of the progress of agriculture a comparison with the increase of population may be instituted, as follows :—

Area under crop per head of the population in the various Australasian Colonies, and in the whole group, at different epochs.

Colony.	1861.	1871.	1881.	1888.
New South Wales.....	·83	·76	·73	·73
Victoria	·76	1·24	1·63	1·87
Queensland.....	·13	·47	·49	·48
South Australia.....	3·16	4·51	7·49	7·41
Western Australia	1·57	2·04	1·78	1·55
Tasmania	2·75	2·00	1·79	1·93
New Zealand	·60	1·38	2·13	2·14
Australasia.....	1·15	1·45	1·98	1·90

Progress since
1861.

Taking the Colonies as a whole there has been considerable progress since 1861 in the acreage cropped as compared with the population. Such, of course, is what would only naturally be expected, as the gold fever having subsided to a considerable extent more settled employment than that afforded by the gold-fields was sought by a considerable proportion of the population. Since 1871 little progress is shown in some of the Colonies, though in South Australia, New Zealand, and Victoria the growth of agriculture has been much more rapid than that of population.

The proportions of cultivated land to the area of the Colonies, individually, and of Australasia as a whole, at different periods since 1861, are given in the following table :—

Proportion of cultivated land to the area of the Colonies.

Area under crop compared to the total area of each colony and of Australasia.

Colony.	1861.	1871.	1881.	1888.
	per cent.	per cent.	per cent.	per cent.
New South Wales	·15	·20	·29	·40
Victoria	·73	1·65	2·55	3·64
Queensland.....	·001	·01	·02	·04
South Australia.....	·07	·15	·37	·40
Western Australia	·004	·008	·009	·01
Tasmania	1·47	1·32	1·26	1·67
New Zealand	·10	·55	1·60	1·94
Australasia	·07	·15	·28	·36

Of the grain cereals, wheat, maize, oats, and barley form the staple crops, in the order mentioned.

WHEAT.

Only three provinces grow sufficient wheat for their own requirements—Victoria, South Australia, and New Zealand; but after the deficiencies of the rest of Australasia are supplied there is, in most seasons, a large balance for export, the grain of several of the colonies being well and favourably known in Europe.

Growth of wheat.

Progress of
wheat growing.

The subjoined table shows the progress since 1861 of this branch of agriculture :—

Area under Wheat.

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales	123,468	154,030	221,888	304,803
Victoria	196,922	334,609	926,729	1,217,191
Queensland	392	3,554	4,708	9,305
South Australia	310,636	692,508	1,768,781	1,605,000
Western Australia	13,584	25,697	21,951	30,740
Tasmania	58,923	63,332	51,757	40,657
New Zealand	29,531	108,720	365,715	362,153
Australasia	733,356	1,382,450	3,361,529	3,569,849

Production.

Colony.	1861.	1871.	1881.	1888.
	bushels.	bushels.	bushels.	bushels.
New South Wales	1,606,034	2,229,642	3,405,966	1,450,503
Victoria	3,607,727	4,500,795	8,714,377	8,647,709
Queensland	4,484	82,831	39,612	8,263
South Australia	3,410,756	3,967,079	8,087,032	6,187,000
Western Australia	160,155	345,368	153,657	322,759
Tasmania	1,380,913	847,962	977,365	819,497
New Zealand	772,531	2,448,203	8,297,890	8,770,246
Australasia	10,942,600	14,421,880	29,675,899	26,205,977

Fourfold
increase.

During the period illustrated by the foregoing table there has been a fourfold increase in the area laid down with wheat. The

year 1888 was one very unfavourable to the cereal, as the area Season of 1888-9. cropped was considerably less than the previous year and the yield almost the smallest recorded. The following are the returns for the four preceding years :—

Area under Wheat.

Colony.	1884.	1885.	1886.	1887.
	acres.	acres.	acres.	acres.
New South Wales.....	275,225	264,867	337,730	389,390
Victoria	1,096,354	1,020,082	1,052,685	1,232,943
Queensland	12,105	10,093	6,787	8,248
South Australia	1,942,453	1,942,453	1,950,000	1,950,000
Western Australia.....	29,416	29,511	24,043	27,512
Tasmania.....	34,091	30,266	35,322	40,498
New Zealand	270,043	173,891	253,025	357,359
Australasia	3,659,687	3,471,163	3,659,592	4,005,950

Production.

Colony.	1884.	1885.	1886.	1887.
	bushels.	bushels.	bushels.	bushels.
New South Wales.....	4,271,394	2,733,133	5,868,844	4,695,849
Victoria	10,433,146	9,170,538	12,100,036	13,328,765
Queensland	195,727	51,598	21,221	182,308
South Australia	14,621,755	14,621,755	19,012,500	19,012,500
Western Australia.....	382,400	339,376	288,516	269,611
Tasmania.....	654,638	524,353	632,573	675,069
New Zealand	6,866,777	4,242,285	6,297,638	9,424,059
Australasia	37,425,837	31,683,038	44,221,328	47,588,161

Fluctuations in
the yield of
wheat.

One of the most striking features of the preceding table is that, except in New Zealand and Tasmania where the yield is fairly consistent, the production of wheat is subject to great fluctuations. These are due, in a great measure, to the inequality of the seasons. The yield for the season 1888-9 was unusually low throughout Australasia, and the quantity of grain obtained was not more than half what a fair season would have produced.

The average production of wheat, calculated over a series of years, is :—

New South Wales	14·55 bushels per acre.
Victoria	11·64 "
Queensland	11·44 "
South Australia	8·04 "
Western Australia	11·79 "
Tasmania	18·06 "
New Zealand	26·16 "

The average for Australasia for the period 1873-1888 is 11·22 bushels per acre.

Yield of wheat
in Australasia
compared with
other countries.

For the purpose of comparing the average yield of wheat in Australasia with that of other countries the following table is of use :—

Denmark	31·1 bushels per acre.
United Kingdom	26·9 "
Norway	25·1 "
Belgium	21·5 "
Holland	21·5 "
Manitoba	20·3 "
Germany	18·8 "
France	16·9 "
Austria	16·4 "
British Columbia	15·0 "
Ontario	14·1 "
Hungary	13·6 "
Italy	12·1 "
United States	11·7 "
Quebec, Nova Scotia, and New Brunswick	9·9 "
Russia in Europe	4·6 "

The importance of Australasia as a place for wheat producing is, therefore, not great. Out of 2,200 million bushels raised in 1887, which was a good year, only 48 million bushels, or 2·2 per cent, were of Australasian growth. The subjoined statement, based on the returns of the United States Department of Agriculture, gives the approximate crop of the world for the year mentioned :—

Relative
importance of
Australasian
wheat.

Countries.	Yield.
	bushels.
United States	428,967,842
Canada	33,003,000
Argentine States and Chili	29,268,813
Austria	52,683,862
Hungary	135,896,905
France	282,239,159
Germany	108,307,500
Great Britain	79,178,632
Italy	109,420,870
Roumania	52,683,862
Russia	262,639,498
Spain	104,343,316
Turkey	43,903,219
Other European Countries.....	48,155,067
India	275,288,898
Other Asiatic Countries.....	86,342,997
Africa.....	39,062,581
Australasia	47,588,161
Total	2,218,979,182

The yield in New South Wales for the present season is expected to be above the average; no diminution is anticipated in Victoria and South Australia, notwithstanding the appearance of rust; and in New Zealand and Tasmania there is every prospect of excellent crops.

Season of
1889-90.

CONSUMPTION OF WHEAT.

Although the Australasian crop is small compared to that of other countries, much of the wheat is exported, as already explained, there being more than sufficient for the requirements of the population.

Consumption of wheat.

The following figures show that the average consumption for Australasia is higher than any other part of the world for which records are available, with the exception of France and Canada:—

	Consumption per Head. (Bushels.)
United Kingdom.....	5·9
France	8·1
Germany	3·0
Russia	2·1
Austria	2·9
Italy	5·4
Spain and Portugal.....	6·4
Belgium and Holland	5·0
Scandinavia	1·4
Turkey	6·1
United States	5·4
Canada	6·6
Victoria.....	6·4
New South Wales	6·5
Queensland	6·1
Tasmania	6·2
New Zealand	7·4
Australasia	6·5

Surplus for export.

Assuming that the population of Australasia during the year 1890 will be 3,890,000 souls, at the rate of 6·5 bushels per head, 25,300,000 bushels of wheat will be required for home consumption; and taking 4,200,000 acres as the approximate area under crop, the production would be 47,000,000 bushels, and allowing 5,000,000 bushels for seed, there would remain 17,000,000 bushels for export. It is probable, however, that the area and the yield will exceed the estimate given above.

OATS.

The cultivation of oats, coming next in importance to wheat as a grain crop, is rapidly increasing, as the following figures show:—

Area under crop.

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales...	7,224	13,795	16,348	7,984
Victoria	91,061	175,944	146,995	197,518
Queensland.....	69	353	88	642
South Australia.....	1,638	3,586	3,023	7,264
Western Australia..	507	1,474	827	1,787
Tasmania	29,022	29,631	27,535	33,834
New Zealand	15,872	139,185	243,387	367,225
Australasia.....	145,393	363,968	438,203	616,254

Production.

Colony.	1861.	1871.	1881.	1888.
	bushels.	bushels.	bushels.	bushels.
New South Wales...	152,426	280,887	356,568	109,931
Victoria	2,136,430	3,299,889	3,612,111	2,803,800
Queensland.....	974	7,060	1,121	3,626
South Australia	33,160	38,894	32,219	88,639
Western Australia..	8,162	28,330	8,270	41,852
Tasmania	751,475	593,477	783,129	946,354
New Zealand	512,665	3,726,810	6,924,848	10,977,065
Australasia.....	3,595,292	7,975,347	11,718,266	14,971,267

The total area cultivated in oats for grain in Australasia being:—

1861.	1871.	1881.	1888.
acres.	acres.	acres.	acres.
145,393	363,968	438,203	616,254

The yield of oats for the season 1888-89 was very small in all the continental Colonies. A better idea of the extent of cultivation and the ordinary yield of the cereal may be gathered

PRODUCTION OF OATS.

Area under oats. from an inspection of the figures of the preceding seasons given hereunder :—

Cultivation of Oats.

Area.

Colony.	1884.	1885.	1886.	1887.
	acres.	acres.	acres.	acres.
New South Wales...	19,472	14,117	23,947	19,393
Victoria	187,710	215,994	185,765	199,036
Queensland	143	208	138	550
South Australia.....	7,264	7,264	7,264	7,264
Western Australia..	1,452	1,596	1,766	1,680
Tasmania	28,956	29,247	31,607	21,169
New Zealand	354,794	329,488	387,228	336,474
Australasia	599,791	597,914	637,715	585,566

Production.

Colony.	1884.	1885.	1886.	1887.
	bushels.	bushels.	bushels.	bushels.
New South Wales...	425,920	279,107	600,892	394,762
Victoria	4,392,695	4,692,303	4,256,079	4,562,530
Queensland	2,170	1,006	1,438	13,343
South Australia.....	88,639	88,639	88,639	88,639
Western Australia..	26,140	23,142	28,512	25,424
Tasmania	82,964	784,325	560,622	385,195
New Zealand	12,360,449	8,603,702	11,973,295	10,512,119
Australasia	17,378,977	14,472,224	17,509,477	15,982,012

Yield per acre.

The figures given for South Australia are those computed for the year 1884, as no returns have since been collected. The yield per acre, calculated upon the basis supplied by the crops of a series of years, is :—

New South Wales	20·72 bushels.
Victoria.....	21·42 "
Queensland	14·12 "
South Australia	12·55 "
Western Australia	16·06 "
Tasmania	24·26 "
New Zealand	27·30 "

For Australasia as a whole the average yield of oats is about 26·78 bushels per acre, New Zealand, with its high average yield, furnishing about two-thirds of the total production. The cultivation of this cereal is comparatively neglected in New South Wales; in Victoria, however, it is next in importance to wheat, whilst in Queensland and South Australia, the yield being small and the climate ill-adapted, oats count for very little in the total grain production. Large areas are, nevertheless, sown for hay.

High yield of
New Zealand.

MAIZE.

Maize is the principal crop grown in Queensland, and is one of the most important products of New South Wales; it is not cultivated to a great extent in any of the other Colonies.

The following figures disclose the progress made in the cultivation of this cereal since 1861:—

Cultivation of Maize.

Area.

Colony.	1861.	1871.	1881.	1888.
	Acres.	Acres.	Acres.	Acres.
New South Wales...	57,959	119,956	117,478	166,101
Victoria	1,714	1,709	1,783	5,789
Queensland	1,914	21,140	46,480	85,966
New Zealand	770	.....	3,177	4,768
Other Colonies	91	113	36	61
Australasia	62,448	142,918	168,954	262,685

Production.

Colony.	1861.	1871.	1881.	1888.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	1,727,434	4,015,973	4,930,956	4,910,404
Victoria	20,788	30,833	81,007	267,155
Queensland	77,570	845,600	1,313,655	2,181,681
New Zealand	31,570	.....	127,257	207,275
Other Colonies	not estimated	2,110	648	1,769
Australasia	1,857,362	4,894,516	6,453,523	7,568,284

Yield of maize
per acre.

The average yield of maize differs greatly in the various colonies.

	Average yield.	
New South Wales	31·7	bushels per acre
Victoria	44·4	” ”
Queensland	25·5	” ”
New Zealand	41·0	” ”
Australasia	33·2	” ”

The explanation of the discrepancy between the average yields of Victoria and New Zealand, and those of New South Wales and Queensland, will be found in the fact that the area operated upon in the colonies first mentioned, is specially adapted for the growth of maize, and is so small as to make the average obtained of little use for the purposes of comparison.

BARLEY.

Barley.

Barley is not cultivated to the extent it deserves, as the sub-joined table shows :—

Area under Cultivation.

Colony.	1861.	1871.	1881.	1888.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	2,924	3,461	6,427	3,318
Victoria	3,419	16,772	48,652	83,483
Queensland.....	13	588	256	324
South Australia.....	10,637	17,225	11,953	15,697
Western Australia	2,412	5,083	3,679	5,009
Tasmania	7,279	4,275	4,597	4,670
New Zealand	3,457	13,305	29,808	45,027
Australasia.....	30,141	60,709	105,372	157,528

The average yield of barley in each Colony is :—

	Bushels per acre.
New South Wales	20·25
Victoria	20·00
Queensland	19·50
South Australia	12·59
Western Australia	14·96
Tasmania	24·26
New Zealand	27·31

The mean average yield for Australasia is, therefore, 19·83 bushels per acre.

HAY.

In addition to the cultivation of wheat, oats, and barley for Hay-grain, a considerable quantity is grown for hay, as the appended figures show; the average yield per acre is about 68 ton :—

Colony.	1884.	1885.	1886.	1887.	1888.
	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales....	226,646	219,886	223,470	170,324	209,531
Victoria	339,725	421,036	445,150	441,812	411,332
Queensland	25,307	28,881	39,280	25,734	20,978
South Australia	308,429	308,429	308,429	308,429	308,429
Western Australia...	24,054	19,677	25,718	25,807	23,914
Tasmania	44,735	41,693	47,269	44,562	52,521
New Zealand	56,670	40,304	57,938	67,425	50,656
Australasia	1,025,566	1,079,906	1,147,254	1,084,093	1,077,361

The cultivation of permanent, sown grasses, commonly called Artificial grasses. "artificial," is principally confined to districts where dairy-farming is carried on. The area grassed in this way is :—

	Acres.
New South Wales	200,332
Victoria	184,991
Queensland	7,592
South Australia	23,217
Western Australia	268
Tasmania	178,801
New Zealand	6,228,655
Australasia	6,823,856

In New Zealand the area grassed shows an increase from 3,869,644 acres in 1881, to 6,228,655 acres in 1888, whilst Victoria and New South Wales are rapidly extending this kind of cultivation.

THE VINE.

The grape vine.

The history of the vine in these colonies dates from the year 1828, when cuttings from the celebrated vineyards of France, Spain, and the Rhine Valley, were planted in the Hunter River District of New South Wales, and formed the nursery for the principal vineyards of that Colony. Years afterwards the vine was planted in the Murray River District and other parts of New South Wales, and was afterwards introduced into Victoria and South Australia, the latter Colony having a large proportion of Germans employed in the industry of wine-making. Through sustained efforts on the part of the growers the wines of Australia have obtained a large and increasing foreign sale, apart from local consumption. The climate and soil of Australia are peculiarly adapted to the successful cultivation of the vine, and a marked expansion of the wine trade may be confidently expected.

Increase of cultivation.

The increase in the area cultivated for the grape is shown by the following figures :—

Colony.	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales	1,130	4,152	4,023	7,072
Victoria	1,464	5,523	4,923	12,750
Queensland .....	.....	431	890	1,432
South Australia.....	3,918	5,455.	4,202	4,590
Western Australia .....	.....	692	527	891
Tasmania .....	.....	.....	.....	37
Australasia	6,512	16,253	14,565	26,772

The wine-growing industry has, therefore, passed from an experimental to a permanent stage. The production of wine for the years specified was—

Production of Wine, 1871-1888.

Colony.	1871.	1881.	1884.	1885.	1886.	1887.	1888.
	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.	gallons.
New South Wales	413,321	513,148	442,612	555,470	601,897	666,382	805,813
Victoria	713,589	539,191	760,752	1,003,827	986,041	1,167,874	1,206,442
Queensland	16,762	72,121	95,358	133,298	147,410	118,672	144,239
*South Australia.....	852,315	313,060	473,535	473,535	473,535	473,535	473,535
Western Australia .. .. .	.....	.....	.....	59,488	97,350	124,240	135,888
Australasia	1,995,887	1,437,520	1,772,257	2,225,618	2,306,233	2,550,703	2,765,917

*No statistics in regard to vines were collected in this Colony since 1884 ; the figures for 1884 are therefore taken as the yield of subsequent years.

Compared with the wine production of other countries, as given hereunder, that of Australia appears small, but the prospects of this industry are sufficiently promising to encourage a hope that the coming years will witness important developments:—

Country.	Production in million gallons.	Country.	Production in million gallons.
Australia	3	Roumania	18
Austria	92	Russia	92
Algeria	72	Servia	53
Cape Colony	5	Spain ..	608
France	795	Switzerland	29
Greece	46	Turkey and Cyprus	69
Hungary	185	United States	32
Italy	798		
Portugal	132	Total	3,029

Average production per acre.

The average production for New South Wales, calculated on the yields for 28 years, amounts to 197·82 gallons per acre—the maximum being 262·96, and the minimum 144·83. In Queensland the average for the last ten years has been computed at 231·25 gallons per acre. It is impossible to tabulate the averages of the various Colonies, as in many instances the acreage under cultivation for wine-making purposes cannot be separated from young unproductive vineyards, or areas cultivated for table varieties of grape only. The *phylloxera vastatrix* which at one time threatened the vineyards of Australia with destruction has been eradicated.

SUGAR CANE.

Sugar cane.

The growth of the cane and manufacture of sugar are important features in the industry of Queensland and New South Wales, but whilst the climate of the former colony renders the employment of white labour in the field almost impossible, the plantations of the latter are worked without the assistance of coloured labour. The owners of Queensland plantations usually combine the functions of cane-growers and sugar manufacturers, but in New South Wales, where the numerous holdings, are as a rule, small in area, the cane is purchased from the planters principally by the Colonial Sugar Company, whose various crushing mills and refinery are of the most effective kind. The importation of coloured labour must,

according to Queensland legislation, cease in the year 1892; leaving the planters the difficult problem to solve as to whether successful sugar-growing is compatible with the employment of white labour.

The area under cane for the years specified below was :—

	1864.	1871.	1881.	1888.	Area under sugar cane.
	acres.	acres.	acres.	acres.	
New South Wales	22	4,394	12,167	15,281	
Queensland	94	9,581	28,026	47,340	
Total	116	13,975	40,193	62,621	

The progress of this industry has been very rapid, especially in Queensland, the area of suitable land being very large in that colony. Some years ago sugar-growing was started on the Daly River, in the Northern territory of South Australia, but no statistics are available regarding acreage or production.

The area under cultivation during the five years 1884 to 1888 was :—

	1884.	1885.	1886.	1887.	1888.
	acres.	acres.	acres.	acres.	acres.
New South Wales	17,517	16,418	15,117	15,287	15,281
Queensland	57,687	59,186	54,010	51,815	47,340
Total	75,204	75,604	69,127	67,102	62,621

The area given includes all cane plant, whether cut during the year or not. It will be noticed that the maximum area under cane was reached in 1884 by New South Wales, and in 1885 by Queensland, a considerable and continuous decline in the Northern colony being observable since the latter date. This retrogression is owing to a fall in the price of sugar, joined to the difficulties surrounding the labour question. New South Wales was affected to some extent by the decline in price of the manufactured article, but the prospects of the industry are now thought to be fairly good.

Decline of sugar
industry.

The produce of the cane for the years 1884 to 1888 is given as :—

	1884.	1885.	1886.	1887.	1888.
	Tons of Sugar.				
New South Wales	5,398	12,268	8,609	14,040	5,649
Queensland	33,361	55,796	58,545	60,806	34,659
Total	38,759	68,064	67,154	74,846	40,308

The average yield in New South Wales is 26·74 tons of cane per acre, the average production of sugar in Queensland being 1·37 per acre.

TOBACCO.

Tobacco.

The cultivation of the tobacco plant has received attention in New South Wales, Victoria, and Queensland, especially in the first mentioned colony, as the following figures show :—

Year.	New South Wales.		Victoria.		Queensland.		Total Australasia.	
	acres.	cwt. of leaf.	acres.	cwt. of leaf.	acres.	cwt. of leaf.	acres.	cwt. of leaf.
1861	224	2,647	220	2,552	..	..	444	5,199
1871	567	4,475	299	2,307	44	..	910	6,782
1881	1,025	18,311	1,461	12,876	68	521	3,154	31,703
1884	1,046	9,914	1,402	7,893	73	816	2,521	18,023
1885	1,603	22,947	1,866	13,734	117	1,330	3,586	33,011
1886	1,203	13,642	2,031	12,008	90	636	3,324	26,286
1887	2,371	23,465	1,966	11,853	128	424	4,465	35,742
1888	4,833	55,478	1,685	13,355	123	1,418	6,641	70,251

the average yield of leaf being :—

New South Wales	11·20 cwt. per acre.
Victoria	7·01 ..
Queensland	8·00 ..
Australia	9·29 ..

POTATOES.

Potatoes.

The cultivation of the potato is not confined to any particular Colony, although Victoria, New Zealand, and New South Wales are the largest growers, as will be seen from the subjoined table :—

Colony.	Area.			
	1861.	1871.	1881.	1888.
	acres.	acres.	acres.	acres.
New South Wales.....	10,040	14,770	15,944	15,419
Victoria	27,174	39,064	39,129	43,074
Queensland	512	3,121	5,086	7,303
South Australia.....	2,612	3,156	6,136	5,666
Western Australia	277	494	278	481
Tasmania	9,349	8,154	9,670	13,653
New Zealand	7,265	11,933	22,540	26,331
Australasia.....	57,229	80,692	98,783	111,927

The average yield was as follows :—

New South Wales.....	2.75 tons per acre.
Victoria	3.65 "
Queensland.....	2.98 "
South Australia.....	3.52 "
Western Australia	3.00 "
Tasmania.....	3.87 "
New Zealand	5.20 "

The mean production for Australasia is therefore 3.83 tons per acre.

The comparative productiveness of the various Colonies may be gauged from the following figures, compiled from the most recent authorities available; the yield in every case is per acre :—

Comparative productiveness of the various Colonies.

Countries.	Wheat.	Oats.	Barley.	Maize.	Wine.	Tobacco.	Potatoes
	bhls.	bhls.	bhls.	bhls.	gals.	cwt.	ton.
Algeria .....	...	...	...	...	176	...	...
Argentine Republic. ....	...	...	...	...	160	...	...
Austria	16.4	20.9	17.5	16.0	196	9.2	2.3
Belgium	21.5	41.8	56.0	...	...	...	...
Brazil .....	...	...	...	...	...	7.2	3.7
Canada	17.2	...	...	...	...	...	3.0
Denmark	31.1	32.3	29.8	...	...	...	...
France.....	16.9	26.0	20.3	...	140	11.6	3.0
Germany.....	18.8	21.9	24.1	...	230	12.2	3.1
Holland	21.5	42.1	39.5	...	...	...	3.7
Hungary	13.6	20.2	14.2	...	...	...	...
Italy	12.1	19.3	9.9	20.0	125	...	2.5
Japan .....	...	...	...	...	...	5.0	...
Norway	25.1	39.7	31.0	...	...	...	...
Portugal .....	...	...	...	25.0	190	...	...
Russia	4.6	12.3	7.3	...	170	13.6	3.0
Spain .....	...	...	...	25.0	118	...	2.5
South Africa .....	...	...	...	...	220	...	...
Turkey.....	...	...	...	...	...	...	...
United Kingdom	26.9	37.7	31.1	...	...	...	3.5
United States.....	11.7	26.0	20.7	23.5	160	6.4	1.9
Australasia	14.5	19.5	19.8	33.2	...	9.3	3.8
New South Wales	14.6	20.7	20.3	31.7	198	11.2	2.8
Victoria	11.6	21.4	20.0	44.4	...	7.0	3.7
Queensland	11.4	14.1	19.5	25.5	231	8.0	3.0
South Australia	8.0	12.6	12.6	...	...	...	3.5
Western Australia.....	11.8	16.1	14.9	...	...	...	3.0
Tasmania	18.1	24.3	24.3	...	...	...	3.9
New Zealand	26.2	27.3	27.3	41.0	...	...	5.2

Condition of
Agriculture in
the Colonies.

Notwithstanding the rapid advance made in some of the colonies in the cultivation of certain crops, it must be allowed that, speaking generally, agriculture in the colonies has scarcely passed the tentative stage. The typical Australian agriculturist, relying largely on a bountiful Nature, does not exercise upon crops anything approaching the same patience, care, and labour that are bestowed by the European cultivator; nor, as a rule, does he avail himself of the benefits of scientific farming and improved implements to the extent that prevails in England and America.

Irrigation

Irrigation is absolutely necessary in order to insure successful husbandry, owing to the unreliable nature of the rainfall, especially in the interior of the continent, a fact that is only now beginning to make itself felt. Trusts have been formed in Victoria, based on legislation, in connection with this matter; and much is anticipated from the Water Conservation Department recently established in New South Wales. Theoretically feasible, the irrigation of vast areas in the vicinity of the Murray, Murrumbidgee, Lachlan, and Darling Rivers should be an accomplished fact before many years elapse. The Victorian Government was the first to offer facilities to private enterprise in this direction, one of the results being the establishment by an American firm of a large irrigation "colony" at Mildura, on the Murray. The general question is under consideration in South Australia; and there is possibly no subject which more deserves immediate and profound attention, nor one on which the future of Australia, both as regards pastoral and agricultural pursuits, so much depends, as the conservation and utilization of waters now wastefully allowed to flow to the ocean.

EMPLOYMENT.

TO obtain a fair approximation of the number of persons engaged in various walks of life in Australasia is at the present time impossible, the information which might serve as a basis for a calculation of this kind being of a very meagre and incomplete description. In 1881, when a census was taken in all the colonies of the group, the occupations of the persons enumerated were made a feature of the inquiry; but in every instance the classification was unsatisfactory, and it is only possible to make a comparison between the different provinces by a subdivision into very comprehensive classes.

Avocations of
the people.

The classes, however, are not scientific. In none of the colonies was the strong necessity recognized by the compilers of the Census of 1881, of distinguishing the maker from the dealer, the industrial workers from those employed in commercial pursuits. Hence it is quite impossible to define with exactness each class. To avoid a repetition of this error it was determined at the recent Australasian Census Conference held in Hobart, to adopt a method of classification suggested by the author in conjunction with Mr. R. M. Johnson, the talented statistician of Tasmania. Under the new system the population will be separated into two great divisions—workers and dependants. The workers are arranged in the natural classes of primary producers and distributors, and these again into their various orders and sub-orders. By this arrangement it is hoped that the forthcoming Census will afford valuable material for the elucidation of problems which now perplex the economist and the statesman, and will serve for a basis by which the future progress of Australasia may be gauged. The figures given in the following tables roughly represent the numbers engaged in the principal pursuits so far as the same can be classified, but must, however, be used with caution, owing to the defective principle on which they were originally classified.

Classification
unsatisfactory.

Occupations at Census of 1881.

Occupations.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	New Zealand.	Tasmania.
Engaged in—							
Government service	5,787	4,494	1,426	2,129	483	2,963	661
Learned professions	10,184	13,950	2,899	3,895	482	7,263	1,659
Mercantile pursuits	22,901	17,616	3,836	5,569	472	9,677	1,555
Agricultural „	89,682	108,919	22,004	30,330	3,336	42,722	17,748
Pastoral „	23,110	15,283	11,263	4,490	1,427	11,725	1,660
Mining „	17,709	36,066	11,439	2,196	102	14,273	3,090
Maritime „	5,501	3,363	1,911	2,530	431	4,518	969
Artificers and labourers	113,568	124,337	27,211	43,488	3,616	67,705	15,878
Women, children, and domestic servants ..	427,247	504,321	122,438	175,036	17,790	316,550	68,962
Persons of independent means	5,294	1,979	116	729	96	399	559
Supported by the community	7,825	9,901	2,151	1,923	779	3,470	621
Otherwise engaged and unspecified.....	22,660	22,117	6,831	7,550	694	8,668	2,343
Total population	751,468	862,346	213,525	279,865	29,708	489,933	115,705

The mercantile element was most strongly represented in New South Wales, where about 3 persons out of every 100 were classed under this head. The proportion of population engaged in agricultural, pastoral, mining, and maritime pursuits in the various Colonies, was as follows :—

	Agriculture.	Pastoral.	Mining.	Maritime.
	per cent.	per cent.	per cent.	per cent.
New South Wales	11·93	3·07	2·35	0·73
Victoria	12·63	1·77	4·18	0·39
Queensland	10·30	5·27	5·35	0·89
South Australia	10·83	1·60	0·78	0·90
Western Australia	11·23	4·80	0·34	1·45
Tasmania	15·33	1·43	2·67	0·83
New Zealand	8·72	2·39	2·91	0·92

It is probable that the variations in the percentages are to some extent due to differences of classification, a remark which applies equally to the other divisions of occupations. Artificers and labourers include both skilled and unskilled labour, and there are, unfortunately, not sufficient data available to enable any accurate division to be made between the two classes. The great bulk of the male population comes under this head, the proportions in each colony being as follows :—

	Per cent.
New South Wales	15·11
Victoria	14·41
Queensland	12·74
South Australia	15·54
Western Australia	12·17
Tasmania	13·72
New Zealand	13·81

Concerning four Colonies only is there any later information to hand in regard to this kind of labour. The estimated number of hands employed in manufactories, works, &c., if the returns of the various colonies are placed on the same basis, is as follows :—

Colony.	Hands employed.
* New South Wales	45,564
* Victoria	54,472
South Australia	9,946
New Zealand	22,094

* 1888-89.

Value of plant.

The average value of plant in the factories in which these hands are employed is, in New South Wales, £1,849; the average power employed is 8 horse-power; and the hands per factory, 14·6. For Victoria the figures are: Average value, £1,847; power, 8·3; and hands, 18·3; while for New Zealand they are, value, £1,083; power, 7·9; and hands, 11·3. In the Australian Colonies most manufacturing industries are in their infancy, and are small in comparison with the larger establishments of other countries. The classification "Manufactories, &c." is very comprehensive, and the larger proportion of establishments included under this term, in all Colonies, more properly comes under the heading of "works" than of "manufactories."

Proportion of women and children.

Women, children, and domestic servants form 64 to 57 per cent. of the whole population of the various Colonies, the proportion under this head in each Province being as follows:—

	Per cent.
New South Wales	56·85
Victoria	58·48
Queensland	57·34
South Australia	62·54
Western Australia ..	59·88
Tasmania	59·60
New Zealand	64·60

In this class are included not only wives, daughters with no specified occupation, and those engaged in domestic duties, but all children, both attending school, and too young for instruction.

Distribution of employment.

It will be seen that persons of independent means are apparently far more numerous in New South Wales than in any other colony, but it is most probable that the great difference observable is chiefly due to the want of uniformity of classification already alluded to, and to the different meanings put upon the vague term by the compilers of the Census. Under the head of "Supported by the Community" are included all prisoners in gaols, the insane and destitute who are in State Asylums, and all those persons who are supported by charity or are a burthen to the

State. In no colony do these persons represent any considerable proportion of the population, and the figures afford striking evidence of the general well-being of the people of Australasia. In 1881, at the time when the last census was taken, the total population of the combined colonies amounted to 2,742,550, and the numbers in each walk in life may be thus briefly summarized :—

	No.	Per cent.
Engaged in Government Service.....	17,943	0·65
„ Learned professions.....	40,332	1·47
„ Mercantile pursuits.....	61,626	2·25
„ Agricultural „	314,741	11·48
„ Pastoral „	68,958	2·51
„ Mining „	84,875	3·10
„ Maritime „	19,223	0·70
Artificers and laborers	395,803	14·43
Women, children, and domestic servants	1,632,344	59·52
Persons of independent means	9,172	0·34
Supported by the community.....	26,670	0·97
Otherwise engaged, or unspecified.....	70,863	2·58

It is estimated that the total value of production in all the colonies amounts to £95,000,000, derived from the following industries :—

Agricultural.....	£26,830,000
Pastoral.....	35,387,000
Mining	10,790,000
Manufacturing.....	18,870,000
Forest and Fisheries	3,165,000
	<hr/>
	£95,042,000

The value produced by each colony being :—

New South Wales	£27,564,000
Victoria.....	23,350,000
Queensland	12,684,000
South Australia	9,640,000
Western Australia	1,421,000
Tasmania	3,323,000
New Zealand ..	17,060,000
	<hr/>
	£95,042,000

Indigent population.

Total production of these colonies.

Production of
each Colony.

Taking each colony separately the value of its production under the classes already given was :—

	Agriculture.	Pastoral.	Mining.	Manufactures and Works.	Forests, Fisheries, &c.
	£	£	£	£	£
N. S. Wales	4,150,000	13,059,000	3,800,000	5,770,000	785,000
Victoria	7,330,000	6,280,000	2,660,000	6,450,000	630,000
Queensland	1,845,000	6,444,000	2,070,000	1,875,000	450,000
S. Australia	5,200,000	2,500,000	390,000	1,250,000	300,000
W. Australia.....	260,000	661,500	200,000	150,000	150,000
Tasmania	1,270,000	657,500	520,000	625,000	250,000
New Zealand.....	6,775,000	5,785,000	1,150,000	2,750,000	600,000
Australasia...£	26,830,000	35,387,000	10,790,000	18,870,000	3,165,000

EDUCATION.

IT would have been indeed strange if communities so prosperous Progress of Education. as the Australasian Colonies had neglected the important matter of Education, and in every province of the group it will be found that the State has taken the subject in hand—to an extent, in some instances, far beyond what has been done in many of the countries of the old world. In each colony provision is made for primary education, and in all of them there are grammar and high schools, by means of which those who have the ability may raise themselves to the status by which they will be qualified to pass on to the Universities. And so bountiful has been the provision made by the State that in most cases the cost of education is merely nominal, and the poverty of the parents ceases to be an excuse for the ignorance of the children. No doubt in the very early days of colonization there was but little attention paid to education; but as soon as the sharp struggle for bare existence was over, attempts were made to provide in some degree the means of instruction for the rising generation, and the foundations were laid of an educational system that is in the highest degree creditable to these young communities. The denominations were naturally the first to build schools and provide teachers, but there was always a large proportion of persons who objected to denominationalism, especially those who belonged to denominations not subsidized by the State; and hence there arose a National or non-sectarian system, which has in the course of time very nearly driven the denominational element out of the educational field. This has been well exemplified in the case of the parent colony of the group.

In New South Wales there was for many years a dual New South Wales. system in existence. The four State-aided denominations—the

State aid to
Denominational
Schools.

Church of England, Roman Catholic, Presbyterian, and Wesleyan bodies—had schools supported by annual votes from Parliament, administered under the control of the head of each denomination for the time being. There were also National schools, equally supported by the State, but under the control of a Board appointed by the Government. This plan was found to be costly and wasteful in the extreme, for in many of the country towns there were four or five small and inefficient competing schools, where the total number of children was not more than sufficient for one well-conducted establishment. So strongly was this evil felt that changes in the law relating to education were made from time to time, until at length the denominational system was abolished altogether, and one general and comprehensive plan of Public Instruction adopted in its place. This was not brought about without much agitation, lasting over a considerable period. A League was formed, having for its object the establishment of education, secular, compulsory, and free. The League so far succeeded that the system of education now in force in New South Wales is non-sectarian, though facilities are afforded to clergymen to give religious instruction to those children whose parents desire it. It is compulsory, and free to all who cannot afford to pay, while a merely nominal fee is charged to those who are in a position to contribute towards the cost of the teaching of their children. In New South Wales in 1888 there were 2,271 public schools, with an average attendance of 112,220 children out of 186,692 enrolled. For secondary education there are high schools and grammar schools receiving support from the State, and intended to act as feeders to the University. Bursaries are now being established, with this object in view. Educational affairs are in this colony under the direction of the Minister for Public Instruction.

Victoria.

In Victoria a system of free, compulsory, and secular primary education is in force, under a Minister for Education, who is responsible to Parliament. The compulsory clause is said

to be very strictly enforced, especially in the large towns, and education is entirely free as regards the ordinary subjects of primary instruction, while the teachers are allowed to impart additional subjects, for which a small fee has to be paid. At the end of 1888 Victoria had 1,933 State schools, with an average attendance of 128,958 scholars, out of 197,115 enrolled. Secondary education is principally in the hands of private or denominational establishments. The higher education is supplied by the University with its affiliated colleges.

The office of Minister for Education in the Government of Queensland, is associated with some other office, usually that of the Postmaster-General. The Act now in force is of a tolerably liberal character, primary education being secular and free. The compulsory clause has not been adopted, as it would be a very difficult thing to enforce its provisions in the scattered and sparsely populated districts of the interior. The primary schools at the end of last year were 544 in number, with an enrolment of 58,738 pupils, out of whom 38,926 were in average daily attendance. Secondary education is provided for by means of grammar schools, which are liberally assisted by the State. Queensland as yet has no University of her own, but sends a fair proportion of students to the Universities of Sydney and Melbourne.

The South Australian system of primary education differs somewhat from those already described. It is presided over by a responsible Minister, with an Inspector-General and other officials. Provision is made in the Act that in every locality where there is a sufficient number of children whose parents are willing to pay a small fee, the State provides a schoolhouse and pays the salary of a teacher, besides providing books and apparatus. There were about 530 primary schools at the end of 1888, with 45,741 children on the rolls, and an average daily attendance of 28,180. Compulsion is in force to the extent that children of school age are not exempt from attendance unless they have attained a certain

standard of instruction. Parents who are unable to pay are entitled to have their children instructed free. Religious instruction is not allowed to be given except out of the ordinary school hours. State aid is given to establishments where secondary education is imparted, and the University at Adelaide, is efficient, though small.

Tasmania.

In Tasmania there is no separate Minister for Education, but the department is under the control of the Treasurer, who has especial charge over matters relating to primary instruction. There are public schools in every country town throughout the colony, and several in Hobart and Launceston. They now number 220 in all, the average attendance being 8,730, out of an enrolment of 12,002 children. The principle of compulsion is nominally in force. Secondary education is encouraged by means of superior schools and a system of scholarships; and annual examinations are held at which successful candidates may gain the degree of A. A., or Associate of Arts. There is no University in Tasmania.

Western
Australia.

Quite a different system of education prevails in Western Australia, which does not yet possess Responsible Government. The public primary education is imparted in what are called elementary schools, which are entirely supported by the State, and provisional schools, which are subsidised to a less extent. Private schools are also assisted from the public purse, on condition of submitting to Government inspection on secular subjects. There is a high school at Perth and a grammar school at Freemantle, and further encouragement is given to secondary instruction by the institution of scholarships which are open for competition. At the end of 1888 there were ninety-three elementary and provisional schools in the colony, with 4,699 scholars on the roll, and an average attendance of 3,659. The local boards have power to enforce compulsory attendance.

New Zealand.

New Zealand has an educational system which is entirely secular and free. There is no separate department of education,

but matters of this kind are looked after by one of the members of the Cabinet. The whole colony has been divided into school districts, each presided over by a local board, and a capitation grant of £3 15s. per head is paid by the State for every child in average attendance, with other grants for school buildings, training of teachers, support of scholarships, &c. At the close of 1888 there were 1,459 public schools thus supported by the State, with an average attendance of 90,840 scholars out of a total enrolment of 112,685. High schools, colleges, and grammar schools provides the means for acquiring secondary education, and there is an University, which, like those of New South Wales, Victoria, and South Australia, is empowered to confer the same degrees as the Universities of Oxford and Cambridge.

In addition to the schools supported wholly or in part by the State in each of the colonies are to be found private schools of more or less merit. The Roman Catholics have schools and convents of their own in all the colonies, where a superior class of education is given.

Technical instruction is given in the capital cities of each of the Australian Colonies, and there is every probability that instruction in such matters will before long be very much extended. Other educational establishments exist in most of the colonies for the instruction of the deaf and dumb and the blind, besides which there are industrial schools and reformatories of a semi-penal character. During the year 1888 the Governments of the Australasian Colonies expended altogether the sum of £2,000,852 on primary education. There were in all 7,050 public or State schools, with 617,672 children on the rolls, and an average daily attendance of 411,513 pupils.

Striking evidence of the rapid progress made by these colonies in regard to education is afforded by a comparison of the educational status of the people as disclosed by the census of

Educational progress since 1861. 1861 and of 1881. In these years the numbers who could read and write, read only, and who were unable to read, were as follow :—

Australasia.—Education of the People.

	1861.				1881.			
	Read and Write.	Read only.	Cannot Read.	Total.	Read and Write.	Read only.	Cannot Read.	Total.
New South Wales	188,543	46,024	116,293	350,860	507,067	49,372	195,020	751,468
Victoria	327,800	56,945	155,577	540,322	651,567	49,535	161,214	862,316
Queensland....	17,181	3,714	9,164	30,059	136,718	13,631	63,176	213,525
South Australia..	72,207	18,629	35,994	126,830	200,057	15,267	64,541	279,865
Western Australia	8,446	1,559	5,585	15,590	19,697	2,429	7,582	29,708
Tasmania.....	48,281	13,137	23,559	89,977	74,967	9,605	31,133	115,705
New Zealand	67,998	8,922	22,101	99,021	346,228	27,323	116,332	489,933
Total.....	730,456	148,930	373,273	1,252,659	1,936,301	167,162	630,087	2,742,550

The proportions of educated and illiterate were, therefore :—

Australasia.—Percentage of total Population.

	1861.	1881.
Read and write	58·31	70·60
Read only	11·89	6·10
Cannot read	29·80	23·30

Proportions of educated and illiterate.

The figures in the two preceding tables refer to the whole population; and although 1881 presents a more favourable record than 1861, yet it must be considered that the proportion of the people who are under five years of age naturally swells the number of those who are unable to read. The following tables, containing

similar information, but dividing the population according to ages, will give a truer picture of the advance of education :—

Educational
Census of 1861
and 1881.

Australasia, 1861.

	Under 5 years.	5 years and under 10.	Over 10 years.	Total.
Read and write.. ...	117	37,322	693,017	730,456
Read only	5,022	51,337	92,571	148,930
Cannot read	204,344	51,503	117,426	373,273
	209,463	140,162	903,014	1,252,659

Australasia, 1881.

	Under 5 years.	5 years and under 10.	Over 10 years.	Total.
Read and write.....	190	175,921	1,760,190	1,936,301
Read only	5,867	75,583	85,712	167,162
Cannot read	395,504	104,507	139,076	639,087
	401,561	356,011	1,984,978	2,742,550

Omitting, therefore, all children under the age of 5 years, the proportions of educated and illiterate, in 1861 and 1881, were :—

Australasia.

Percentage of persons over 5 years of age.

	1861.	1881.
Read and write	70·00	82·70
Read only	13·80	6·89
Cannot read	16·20	10·41

Looking at the matter still more closely with reference to age, it will be seen that the improvement in education is most marked in the case of the rising generation, and as a natural result the

Education of the
young.

proportion of uneducated of more advanced age is not only smaller than it was years ago, but promises in the future to be smaller still.

	1861.		1881.	
	5 years and under 10.	Over 10 years.	5 years and under 10.	Over 10 years.
Read and write.....	26·63	76·75	49·41	88·67
Read only	36·63	10·25	21·23	4·32
Cannot read	36·74	13·00	29·36	7·01

Marriage Registers.

The Marriage Register affords further proof of the advance of education :—

Marriages, Australasia.

	1861.		1871.			1881.			1888.			
	Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.	
		M.	F.		M.	F.		M.	F.		M.	F.
New South Wales	3,222	596	389	3,953	573	768	6,284	347	525	7,844	307	280
Victoria	4,434	*	*	4,693	342	650	5,896	171	245	8,946	154	162
Queensland	320	*	*	970	o	*	1,703	84	169	3,254	98	162
South Australia...	1,158	*	*	1,250	*	*	2,308	100	159	2,084	50	51
Western Australia	149	*	*	159	*	*	197	*	*	304	*	*
Tasmania	717	*	*	598	*	*	856	*	o	951	*	*
New Zealand	878	*	*	1,864	*	o	3,279	105	190	3,617	60	91
	10,878			13,487			20,523	807	1288	27,000	669	746

* Information not available.

Signing by Marks.

Information is not to hand for the numbers who signed by mark in Western Australia and Tasmania in 1881 and 1888, but for the other Colonies the percentages were :—

Proportion of persons signing by mark.

	Males.	Females.	Total.
1881	4·14	6·61	5·38
1888	2·60	2·90	2·75

Contrast this with the records of 1861 and 1871 for the only Colonies for which the information is available and the wonderful improvement is abundantly manifest.

Percentage of persons married who signed by mark :—

	Males.	Females.	Total.
1861.....	18.50	30.69	24.60
1871.....	10.58	16.40	13.49

The number of children attending school has increased at a far greater rate than the population, showing that the advantages of education have been of late years more within the reach of the masses than formerly :—

Number of Children attending Public and Private Schools.

	Males.	Females.	Total.
1861	68,987	61,073	130,060
1871	165,082	147,048	312,130
1881	344,310	326,466	670,776
1888	397,827	379,318	777,145

Population from 1861 to 1888 nearly trebled itself, but the number of school children in 1888 was about six times as great as in 1861.

The Post Office returns point indirectly to the spread of education :—

Letters and Newspapers (in thousands).

	1861.		1871.		1881.		1888.	
	Letters.	Newspapers.	Letters.	Newspapers.	Letters.	Newspapers.	Letters.	Newspapers.
New South Wales ..	4,370	3,384	7,510	3,992	26,356	16,528	48,086	31,722
Victoria	6,110	4,277	11,716	5,173	26,308	11,441	47,701	21,703
Queensland	515	428	1,793	1,135	5,179	4,530	12,897	10,347
South Australia	1,540	1,090	3,163	2,212	10,759	5,927	17,013	7,885
Western Australia ..	*		*	*	995	715	2,105	1,233
Tasmania	836	890	998	891	2,994	2,050	4,716	4,319
New Zealand	1,237	1,428	6,082	4,180	26,430	12,248	42,052	16,203
	14,603	11,503	31,262	17,583	99,021	53,429	175,470	93,412

* Information not to hand.

Increase of
Letters and
Newspapers.

The above table shows a wonderful advance in postal business. In 1851 the numbers of letters and newspapers that passed through the post were only about two millions of each :—

Australasia.

	Letters.	Newspapers.
1851	2,165,000	2,150,000
1861	14,608,000	11,503,000
1871	31,262,000	17,583,000
1881	99,021,000	53,439,000
1888	175,470,000	93,412,000

Letters per
inhabitant.

The following are the numbers of letters and newspapers per head of population in each of the years above mentioned :—

	Letters per Inhabitant.	Newspapers per Inhabitant.
1851	4·74	4·70
1861	11·81	9·30
1871	16·46	9·26
1881	36·10	19·48
1888	48·61	25·88

UNIVERSITIES AND COLLEGES.

Establishment
of Universities.

The advance of education is hardly more clearly indicated by the institution and success of Colleges and Universities, than is the progress of wealth or the attainment of leisure. In Australia the earliest attempts to provide for what may be termed the luxuries of education, were made in New South Wales in 1852, and in Victoria in 1855, when the Universities of Sydney and Melbourne respectively were established. No other Colony of Australasia was at that time sufficiently advanced in wealth and population to follow the example thus set, but New Zealand in 1870, and South Australia in 1874, each founded an University; the first that of New Zealand, and the second that of Adelaide. In all cases the Universities are in part supported by grants from the public funds, and in part by private endowments and the fees paid by students.

Attached to the University there are in Sydney three Colleges, while a fourth is in course of establishment for female students. In Melbourne there are also three Affiliated Colleges, and in both capitals these are connected with different religious bodies. In New Zealand there are four Affiliated Colleges—at Dunedin, Christchurch, Wellington, and Auckland, but, except in Christchurch, these are wholly undenominational in character. In Adelaide there are no Affiliated Colleges attached to the University; and in New Zealand the University itself is an examining and not a teaching body, founded mainly on the principles of the London University.

The number of students at each of these Universities and Colleges was at first small, but the increase on the whole has been steady and satisfactory. The University of Melbourne has now upwards of 500 students attending lectures, all of whom are matriculated and studying for degrees. Sydney only numbers about 250 regular students, although nearly 700 attend lectures. In New Zealand there were last year more than 900 matriculated students attending lectures at the Affiliated Colleges. The number at the University of Adelaide is much smaller as yet, but considering the smaller population the attendance of students is not less satisfactory than in Sydney.

Since its institution the University of Sydney has conferred degrees upon about 800 students as the result of examinations, that of Melbourne upon upwards of 1,200, and that of New Zealand upon nearly 300. The average number who annually qualify themselves for degrees in the Australasian Universities already exceeds 300, and the number is increasing year by year.

RELIGION.

THE DENOMINATIONS.

THE progress of all matters relating to Denominational Religion since the early years of Australasian settlement has been steady and remarkable. For the first fifteen years after the foundation of the Colony of New South Wales only a single denomination was recognized by Government, or possessed either minister or organization—the Established Church of England. In those days the whole of Australasia was ecclesiastically within the Diocese of the Bishop of Calcutta, of which it formed an Archdeaconry; this continued until 1836, when the Bishopric of Australia was constituted, and the Rev. William Grant Broughton, D.D. (formerly Archdeacon), was consecrated the first Bishop. There are now nineteen Bishoprics throughout the Colonies (six being in New South Wales), and to this day one of the titles of the Bishop of Sydney is “Primate of Australia and Tasmania.” The Synodical system of Church Government, by means of a legislative body consisting of the clergy and representatives of the laity, prevails throughout Australasia.

Church of
England.

Church of Rome. In 1803 a grudging recognition was extended to Roman Catholics, one of whose chaplains was then placed on the Government establishment; but it was not until 1820 that any regular provision was made for an adequate staff of clergy. Until 1834 the Roman Catholics of Australia and Tasmania were under the jurisdiction of the Bishop of Mauritius, but in that year Sydney was constituted a see, and the Rev. John Bede Polding, D.D., was consecrated Bishop, with jurisdiction over the whole of the Continent, and Tasmania. Some eight years later this Episcopate was raised to the rank of an Archiepiscopal See. There are now in Australasia six Archbishops and sixteen Bishops of the Church of Rome.

Amongst the earliest free colonists who settled in the Hawkesbury district was a small party of Presbyterians, and one of the first Presbyterian places of worship erected in the Colony was put up in 1810 by their voluntary exertions. Services were conducted there for years before any ordained minister of the denomination reached New South Wales ; indeed it was not until 1823 that the Rev. Dr. Lang, the first Presbyterian minister in Australia, arrived in Sydney. The first Wesleyan minister came to New South Wales in 1815, but it was not until 1821 that a Wesleyan place of worship was erected in Sydney, and it was even later before the denomination was allowed to share in the Government provision for religion.

No other denominations beyond these four were ever officially recognized, nor was any State contribution ever made towards the support of any other. This was no doubt owing to the fact that the greater portion of the inhabitants belonged to these persuasions. Nor has the enormous increase of population since then in any considerable degree altered this condition of things. In different Colonies, indeed, different bodies of Christians have represented a larger proportion of the people than in others. Thus, in New South Wales, Queensland, and Victoria the proportion of Roman Catholics has been, and still is, larger than in the other Colonies, while in New Zealand it has been much smaller. Presbyterians bear a greater proportion to the population in New Zealand than in any other Colony ; while Wesleyans and Lutherans are more numerous in South Australia than elsewhere. The adherents of the Church of England predominate numerically in all the Colonies.

To obtain anything like a comprehensive view of the numerical relations of religious denominations in all the Colonies of Australasia reference must be made to the census. A comparison of the numbers shown by the Census of 1881 gives the following result.

Australasia—Religions, 1881.

Colony.	Church of England.	Roman Catholic.	Presbyterian.	Wesleyan and Primitive Methodist.	Congregational.	Baptist.	Lutheran	Unitarian.	Hebrews.	Pagans.	Others and unspecified.	Total.
New South Wales..	342,359	207,606	72,545	64,352	14,328	7,307	4,836	828	3,266	9,345	24,696	751,468
Victoria	311,291	203,583	132,591	108,393	19,878	20,373	11,149	942	4,330	11,270	38,546	862,346
Queensland	73,920	54,376	22,609	14,351	4,764	5,583	16,889	...	457	16,871	3,705	213,525
South Australia	75,812	42,628	17,917	52,788	9,908	13,979	19,617	747	762	4,151	41,556	279,865
Western Australia..	16,263	8,413	1,004	2,084	1,262	.....	.....	...	.....	145	537	29,708
Tasmania*	47,208	29,644	14,486	12,230	2,442	1,932	1,122	127	544	844	5,126	115,705
New Zealand.....	203,333	68,984	113,108	46,657	6,699	11,476	5,773	489	1,536	4,936	26,942	489,933
Total	1,070,186	615,234	374,260	300,855	59,281	60,650	59,386	3,133	10,895	47,562	141,108	2,742,550
Per cent.	39·02	22·43	13·65	10·97	2·16	2·21	2·17	·11	·40	1·73	5·15	100·00

* Estimated ; the religions are not enumerated in the Tasmanian census.

Thus, in 1881 it appears that 86 per cent. of the population of all the Colonies was attached to the Church of England, Roman Catholic, Presbyterian, and Wesleyan denominations. Next to these, although at a great distance, came Baptists, Congregationalists, and Lutherans, the numbers of each being about the same. With the exception of Pagans (under which term the Chinese have for the most part been erroneously classed), no other persuasion held adherents amounting to 1 per cent. of the population.

Between April, 1881, and June, 1889, the total addition to the population in the Colonies of Australasia has amounted to 982,344 persons, representing an increase of more than one-third in the eight years. The following table, compiled from the latest data available, presents a view, which is substantially accurate, of the comparative progress of the various denominations during this period; and from this it will be seen that the Salvation Army is a new element which does not appear in the Census of 1881; any adherents of this denomination that then existed being grouped with "Other Persuasions." Considerable progress has been made by the Army of late years in various parts of the world, and it is probable that the ranks are largely recruited from the different Protestant denominations. It will be observed that the proportion of the four leading denominations to the whole population remains as before at 86 per cent., while their relative proportions exhibit scarcely any perceptible change. During the eight years the Church of England has increased its numbers in New South Wales by 160,744, and in Queensland by 65,000, while in each of the other colonies the increase has been comparatively small. The Roman Catholics have added 97,904 to their numbers in New South Wales, and 57,139 in Victoria. The Presbyterian body have gained 34,268 in New South Wales, 37,138 in Victoria, while in Queensland they have made an advance of 23,843, and 25,149 in New Zealand. The Wesleyan increase in New South Wales was 30,519, and 30,416 in Victoria.

Predominant
denominations.

Salvation Army.

Numerical
increase.

Australasia—Religions, 30th June, 1889.

Colony.	Church of England.	Roman Catholic.	Presbyterian.	Wesleyan and Primitive Methodist.	Congregational.	Baptist.	Lutheran.	Unitarian.	Hebrews.	Salvation Army.	Pagans.	Others and Unspecified.	Total.
New South Wales ..	503,103	305,510	106,813	94,871	21,119	10,836	7,187	1,327	4,865	4,100*	16,500	29,180	1,105,720
Victoria	398,648	260,722	169,729	138,809	25,509	26,061	14,245	1,215	5,522	5,067	14,356	44,405	1,104,288
Queensland	138,920	94,770	46,452	30,532	8,695	10,521	26,362	....	873	1,534	26,336	12,032	397,027
South Australia	85,410	48,049	20,178	59,462	11,161	15,732	22,101	851	852	1,698	7,000	42,787	315,281
Western Australia ..	23,415	12,114	1,446	2,998	1,818	....	....	....	....	....	400	584	42,775
Tasmania	60,291	37,859	18,501	15,619	3,118	2,468	1,433	162	695	446	1,000	6,179	147,771
New Zealand	245,850	85,379	138,257	58,450	8,263	15,178	6,243	490	1,653	3,398	4,773	44,158	612,032
Total	1,455,637	844,403	501,376	400,741	79,683	80,796	77,571	4,045	14,460	16,252	70,605	179,325	3,724,894
Per cent.	39·08	22·67	13·46	10·76	2·14	2·17	2·08	0·11	0·39	0·44	1·89	4·81	100·00

* Soldiers only.

PARLIAMENTS.

FROM the nature and composition of the population of Australia at and for some time after its first settlement, the government and direction of affairs naturally rested in the hands of the Governor alone, and it was not until the year 1824, during the time of Sir Thomas Brisbane, that any attempt was made to provide the Governor with recognized advisers. In that year the first Legislative Council was appointed, consisting of six gentlemen, of whom five held the principal official positions in the Colony, the sixth being Mr. John Macarthur, the founder of the Australian wool industry. The first Act of Parliament ever passed in Australia was a measure dealing with the currency, in 1824. Four more members were added to the Council in the following year, by Governor Darling, and further additions were made from time to time. On 6 June, 1838, the public were first admitted to hear the debates, for up to that time even the reporters of the Press had been excluded. Henceforth, however the proceedings were more or less fully reported. Until the year 1843 the members of the Legislative Council were all nominated by the Governor, but in that year the principle of election was introduced, in conjunction with that of nomination. The nominated members were twelve in number, six being official and six non-official. The elected members comprised a number of men whose names have become historic, such as W. C. Wentworth, William Bland, William Lawson, Charles Cowper, Terence Aubrey Murray, W. H. Suttor, Francis Lord, Richard Windeyer, Alexander Macleay, Roger Therry, Charles Nicholson, and John Dunmore Lang, the two last mentioned being among the representatives of the Port Phillip district, since known as Victoria.

First Legislative Council.

Introduction of the elective principle.

First Speaker.

Mr. Alexander Macleay was the first Speaker of this body, succeeded by Sir Charles Nicholson in 1846. Mere representation in the Legislature did not altogether satisfy the colonists, for as far back as the year 1845 the question of Responsible Government was publicly discussed. The agitation once started was never allowed to slumber, but aided by a vigorous and outspoken Press, as well as by the talented oratory of some of the patriotic members of the Legislature, it continually acquired new strength, until, in the year 1855, the Imperial Parliament passed a measure to sanction the new Constitution that the colonists sought. On 22 May, 1856, the first Australian Parliament under Responsible Government was opened by Sir William Denison, in Sydney. It consisted of a nominated Upper House, called the Legislative Council, and a Legislative Assembly, consisting of fifty-four elected members, of whom Sir Daniel Cooper was chosen the first Speaker. The first Ministry consisted of Sir Stuart Alexander Donaldson as Colonial Secretary and Premier; Mr. Thomas Holt, Colonial Treasurer; Sir William Manning, Attorney-General; Mr. J. B. Darvall, Solicitor-General; Mr. G. R. Nichols, Auditor-General; and Mr. W. C. Mayne as Representative of the Government in the Legislative Council. From that time the principles upon which the Government of New South Wales is based have never altered, though there have been some changes in the details. Various amendments of the Electoral Act have taken place from time to time, by which the number of representatives to the Legislative Assembly has been largely increased, and improvements have taken place, all in the direction of the removal of restrictions, and the extension of the liberties of the people. The Legislative Council now numbers seventy-one members, and the Assembly 137.

First Parliament under responsible Government.

Victoria.

The example and influence of New South Wales has not been without effect on the other Australasian Colonies. Victoria, after its separation from New South Wales, was legislated for by a Council of partly nominated and partly elected members, but on

21 November, 1856, the first Parliament under the new Constitution of Victoria was opened. This Constitution differed from that of the parent Colony in that the Legislative Council, as well as the Assembly, was elective; it consisted of thirty members, while there were fifty-eight in the Lower House. Mr. W. C. Haines was the first Premier. There are now forty-two members in the Council, and eighty-six in the Assembly.

Tasmania, on its separation from New South Wales, at the end of 1825, was provided with a nominated Legislative Council, under which it was governed for some thirty years. Following the lead of their neighbours, the colonists of this island also agitated for a Constitution, which was eventually granted to them, and came into force on 2 December, 1856. Tasmania possesses a Legislative Council and a Legislative Assembly, both of which are elective. Tasmania.

South Australia, like the other Australian Colonies, was at first subject to the nominee system of appointment to the Legislative Council, but in 1848 it obtained the boon of adding elected members to those nominated. Constitutional Government was granted to this Colony in 1856, and the first Parliament under the new order of things assembled on 22 April in the following year. The South Australian Legislature consists of a Legislative Council of eighteen members and a House of Assembly of forty-four. Both Houses are elected by the people. South Australia.

Queensland, which separated from New South Wales at the end of the year 1859, was never as a separate colony under the nominee system, but commenced with Responsible Government, under which her first Parliament opened on 29 May, 1860. Her Legislative Council consists of thirty-one members, who are nominated by the Governor. The Legislative Assembly, of which there are fifty-four members, is elected by the people. Queensland.

In New Zealand, as in the other Colonies, the form of government in the early days was of a mixed description, but in the year New Zealand.

1862 an Act was passed by the Imperial Parliament conferring upon this Colony a Constitution. New Zealand was divided into six provinces, subsequently increased to nine, each governed by a Superintendent and Provincial Council, elected according to a franchise which was practically equivalent to household suffrage. The provincial system, however, did not give satisfaction, and was abolished in 1876, when a system of Parliamentary Government for the whole of the Colony, very similar to that of the large Australian Colonies, came into existence. The Legislature now consists of two branches—a Legislative Council of nominees appointed by the Governor for life, and a House of Representatives, chosen on an elective basis similar to that which obtained for the elections to the old Provincial Councils. There are now eighty-eight members of the House of Representatives, among whom are four Maoris, chosen to represent them by their countrymen.

Western
Australia.

Western Australia, which was proclaimed a British Colony on 1 June, 1829, is the only one of the group which does not possess the privilege of Responsible Government. At an early stage of its existence the Colony possessed a Legislative Council, consisting exclusively of officials nominated by the Governor, Subsequently, elected members were added, representing the principal districts of the Colony, and this state of things has lasted until the present time. Strenuous efforts have lately been made by the inhabitants to procure the blessings of a free Constitution, and they have received hearty support from all the other Australian Colonies. There is now every reason to hope that before long Western Australia will enjoy the same privileges as her neighbours.

RAILWAYS.

AS an indication of progressive wealth, as well as a means for its greater production, the history of railway construction in these Colonies is highly instructive. The earliest railways were begun almost at the same time in New South Wales and Victoria. The works were, indeed, actually first commenced in New South Wales, but the first railway line opened for traffic was the Melbourne and Hobson's Bay line in 1854. It was originally intended in both Colonies that the lines should be constructed by private enterprise ; but as soon as the vast utility of the system became evident it was also apparent that only the Government could hope to keep pace with the needs of the country in this direction. The private works already begun in New South Wales were, therefore, bought up by the Government in 1854, and all private lines fell into Government hands in Victoria one year later, except the Hobson's Bay railway, which has since been purchased.

Hobson's Bay
Railway

From 1855 the Governments of the two Colonies undertook and carried on the work of railway extension. At first progress was slow, partly owing to the small population, and partly to the fear that the income would not justify the expense of widely-extended lines. The first Government railway-works were undertaken in South Australia in 1857 ; they were begun in New Zealand in 1863 ; in Queensland in 1864 ; in Tasmania in 1868 ; and in Western Australia in 1874.

History of
Railway
construction.

In 1873 the progress made showed a total extent of railroads in working order in the whole of Australasia amounting to 1,465 miles. The chief of these were Victoria with 458 miles, and New South Wales with 397 miles open for traffic. Of the other Colonies, Queensland had 218 miles ; South Australia, 202 miles ; New Zealand, 145 ; and Tasmania, only 45.

Extent of rail-
ways in 1873.

Progress of
railway con-
struction.

Since 1873 the progress of railway construction has been extraordinarily rapid in most of the Colonies. By the year 1881 the total mileage of railways had increased to 5,543, of which New Zealand represented 1,333 miles; Victoria, 1,247; New South Wales, 1,041; South Australia, 832; Queensland, 800; Tasmania, 168; and Western Australia, 122 miles. A further period of seven years brought up the total length of lines open for traffic to 10,137 miles.

The following table shows the progress of railway construction from 1861 to 1888 in each of the Colonies of the Australasian group, divided as nearly as possible into periods of ten years:—

Miles of Railway open for Traffic.

	1861.	1871.	1881.	1888.
New South Wales.....	73	358	1,041	2,206
Victoria	214	329	1,247	2,018
Queensland.....		218	800	1,931
South Australia.....	56	134	832	1,518
Western Australia.....			122	272
Tasmania		45	168	327
New Zealand		145	1,333	1,865
Totals	343	1,229	5,543	10,137

Expenditure on
railways.

The table next given shows that the Colonies of Australasia have already expended much greater sums in the construction of railways, in proportion to their population, than any other country in the world, with the single exception of Canada. The receipts so far have been less satisfactory than in older countries, a result which is clearly traceable to the comparative smallness of our population, and its exceedingly scattered character. Victoria, which is the most densely peopled of the Colonies of Australasia, shows the best result, and New South Wales the next best, while Western Australia shows an actual loss on working expenses. This is the more remarkable in view of the fact that the railroads of Victoria and New South Wales have cost nearly twice as much per mile as those of the other colonies, and three times as much as those of Western Australia.

Balance-sheet of Railways—1888.

Name of Colony.	Length of lines open.*	Gauge.	Government lines open for traffic.				
			Total cost of construction.	Average cost per mile.	Receipts during 1888.	Working expenses, 1888.	Net earnings, 1888.
	Miles.	ft. in.	£	£	£	£	£
New South Wales.....	2,206	4 8½	26,630,664	12,532	2,509,527	1,578,590	930,937
Victoria	2,018	5 3	27,468,258	13,612	2,756,049	1,753,019	1,003,030
Queensland.....	1,931	3 6	13,064,598	6,766	776,794	507,961	268,833
South Australia.....	1,518	{ 5 3 } { 3 6 }	9,666,223	6,444	948,382	453,385	494,997
Western Australia	272	3 6	892,243	4,374	38,371	44,080	5,709
Tasmania	327	3 6	2,353,585	8,436	135,984	129,265	6,719
New Zealand.....	1,865	3 6	13,472,837	7,582	997,615	647,045	350,570
Total	10,137	.....	93,548,408	9,513	8,162,722	5,113,345	3,049,377

* Private lines are included in this column. The following are the lengths in the different Colonies:—New South Wales, 81 miles; South Australia, 18; Western Australia, 68; Tasmania, 48; and New Zealand, 88. The length of Government lines therefore amounted to 9,834 miles—the total to which the financial figures refer.

TELEGRAPHS.

IN no country in the world has the development of telegraphic communication been so rapid as in Australasia, and in none has it been taken advantage of by the public to anything like the same extent. There are only four countries in the world that possess a greater extent of telegraph lines than these Colonies, and only six in which a greater number of messages are actually sent than in Australasia. In no other country, however, does the number of messages bear anything like the same ratio to population.

First Telegraph Lines.

The electric telegraph was introduced into these Colonies almost at the time of the earliest railway construction. The first telegraph messages were sent in New South Wales in 1851. In Victoria the telegraph line from Melbourne to Williamstown was opened in 1854. The first line in South Australia, from Adelaide to Port Adelaide, was opened in 1856; and the first Tasmanian line was completed in 1857. In New Zealand the first telegraph office was opened in 1862; and the line from Brisbane to Rockhampton, the first in Queensland, was opened in 1864. Telegraphic communication was established between Sydney, Melbourne, and Adelaide in 1858. The electric cable between Tasmania and Victoria was laid in 1869. Australia was connected, by cable and the overland line of telegraph, with England in July, 1872; and New Zealand was joined by cable to the continent of Australia in February, 1876. (The line between London and Adelaide consists of 9,146 miles of cable and 3,424 miles of overland wire, and the New Zealand cable is 1,191 miles long.) The first telegraph in Western Australia was opened in 1869, and communication between that Colony and all the others of the

Cable to England.

group was completed in 1877. The following tables show the development of telegraphs throughout Australasia to the close of 1888 :—

Development of
Telegraphs.

Miles of Telegraph (Poles).

	1861.	1871.	1881.	1888.
New South Wales.....	1,616	.....	8,515	10,690
Victoria .....	.....	.....	3,350	4,194
Queensland	169	2,525	6,280	9,167
South Australia.....	597	1,183	4,946	5,509
Western Australia .....	.....	.....	1,585	2,961
Tasmania .....	.....	.....	928	1,894
New Zealand .....	.....	2,015	3,824	4,992

Miles of Telegraph (Wires).

	1861.	1871.	1881.	1888.
New South Wales.....	1,981	5,579	14,278	22,219
Victoria .....	.....	3,472	6,626	10,360
Queensland.....	169	2,614	8,585	16,648
South Australia.....	915	1,718	7,228	9,775
Western Australia .....	.....	.....	1,593	3,234
Tasmania .....	.....	241	1,157	2,505
New Zealand.....	.....	3,287	9,653	11,617

Business done by Telegraphs during the year 1888.

	Number of Telegrams.	Revenue Received.
New South Wales	3,410,407	£185,965
Victoria	2,743,938	125,342
Queensland	1,436,931	103,790
South Australia	994,930	105,421
Western Australia	180,735	8,353
Tasmania	271,769	25,262
New Zealand	1,765,860	106,311
Total Australasia	10,804,570	£660,444

From the above table it appears that the population of Australasia (somewhat over three and a half millions at the middle of 1888) sent three messages through the telegraph in the

Proportion of
messages to
population.

year for each inhabitant. In Great Britain the number was about one and a third to each inhabitant ; in the United States of America, about two messages for every three inhabitants ; in France and Germany, one message for every two persons ; in Austria, Hungary, and Italy, one message for every four persons ; and in Russia, one for every nine of the inhabitants.

Telegraphs
utilized in
Australasia.

In the other British Colonies the use made of the telegraph is considerably greater than in most European countries, but in no case is it nearly so great as in Australasia. In Canada about four-fifths of a message is sent for every inhabitant in each year, and in Cape Colony about the same, but neither there nor elsewhere in the world is the telegraph made use of to anything like the extent to which it is utilized in Australasia ; nor are the returns at all comparable to those obtained upon the capital expended in these Colonies.

SOCIAL CONDITION.

SAVINGS OF THE PEOPLE.

THE Colonies of Australasia have from very early days Working man's Paradise. been regarded in the light of a working-man's paradise. The high rates of wages which have generally prevailed, and the cheapness with which food could be purchased, have tended to make the position of the wages-earning class superior to that occupied by the same class in any other portion of the globe. These advantages have induced a greater degree of comfort, if not luxury, amongst a class in Australasia which in other parts of the world has little of comfort and knows nothing of luxury. A high standard of living is not conducive to thrift, nevertheless the progress of saving has gone on with great rapidity.

Some idea both of the celerity and extent of this accumulation Banks. may be gathered from the increase of deposits in the Banks carrying on business in the Colonies. It is true that these deposits cannot be taken as representing altogether local savings, as money not belonging to colonists finds its way into the Banks, and remains for greater or less periods on deposit there. In spite of this element of uncertainty, however, the following table showing the total deposits in Banks of all kinds in the Colonies of Australasia gives a valuable indication of the increasing wealth of the community.

DEPOSITS IN BANKS.

Deposits in Banks (including Savings Banks).				
	1861.	1871.	1881.	1888.
	£	£	£	£
New South Wales.....	5,645,101	7,989,801	23,006,720	35,954,986
Victoria	7,575,406	12,476,677	23,721,348	42,452,036
Queensland.....	334,503	1,647,830	5,633,098	12,813,065
South Australia.....	875,327	2,038,719	6,231,004	7,916,495
Western Australia	Information not to hand.			890,534
Tasmania	729,085	875,512	2,969,390	3,788,383
New Zealand	not to hand	3,789,639	10,618,893	13,729,306
	15,159,422	28,818,178	72,180,453	117,544,805
Per head of population.....	£13	£15	£26	£32

Increase of
Deposits.

From this it may be gathered that the increase of deposits of all classes in Banks between 1861 and 1881 was exactly 100 per cent., allowing for the increase of population; while between 1871 and 1888, a period of only seventeen years, the deposits per head of population increased by about 115 per cent. When compared with Great Britain, it will be found that the amount of deposits per head of population in Australasia far exceeds that in the mother-country. In 1860, indeed, the sum per head in Britain exceeded

that in Australasia, amounting to £15, against £13 in the Colonies. In 1874 the total in Britain amounted to £25 per head, which ten years later, in 1884, sunk to £23. In the Colonies there has been no falling off at any period, and in 1888 the total deposits per head far exceeded the highest level ever reached in Great Britain.

Turning to the case of the wage-earning classes in the Colonies, Savings Banks. it will be found that the Savings Banks, which may be taken to be practically the Bank of these classes, show enormous development since 1861. From the return here given it is evident that the tendency for many years has been to an increase in the number of small depositors. The figures for 1881 and 1888 show this in a marked degree. In these seven years it appears that the number of depositors in Savings Banks increased from 307,905 to 610,322, or within a very few of double. In 1881, however, each depositor had an average of £30 in the Bank, but in 1888 he had only £25. The amount per depositor in decennial periods from 1861 may appear to point to a serious retrogression, varying as it does from £47 to £25, but it is not so, for the large increase in the number of depositors must be taken into consideration. There is evidence that the different classes of the community are more largely represented, and the smaller amount of average deposit seems to show that the habits of thrift have in a greater degree extended Extension of habits of thrift. to the poorer classes. It is the total number of depositors and the total amount of deposits, therefore, which indicate the general prosperity of the people. A greater number of depositors than the comparatively small total for 1861 might probably be selected from the number in any of the other years noted in the table whose average deposits would far exceed £47. Queensland depositors have the largest amounts at their credit, while those of Western Australia have the smallest in proportion to their numbers. The following table shows the progress of accumulation in each of the Colonies, with the exception of Western Australia, for which the 1888 figures only are available.

Savings Banks.

	1861.		1871.		1881.		1888.	
	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.
		£		£		£		£
New South Wales	12,203	615,409	24,379	945,915	72,384	2,698,703	128,297	4,037,675
Victoria	12,001	582,796	45,819	1,117,761	101,829	2,569,438	247,425	4,881,198
Queensland	242	12,193	6,769	407,134	20,168	944,251	43,003	1,611,876
South Australia	3,248	131,590	14,270	517,000	37,742	1,288,450	62,365	1,759,592
Western Australia	*	*	*	*	*	*	3,096	30,808
Tasmania	*	*	8,500	217,413	14,728	369,278	23,090	469,928
New Zealand	1,144	22,921	14,275	454,966	61,054	1,549,515	103,046	2,691,693
	28,838	1,364,909	114,012	3,660,189	307,905	9,419,635	610,322	15,482,770
Amount per Depositor	£47		£32		£30		£25	

* Information not available.

INSOLVENCY.

The view presented in the last section, of the accumulation of wealth in the hands of the people, would be incomplete without some notice of insolvencies. The Bankruptcy laws of the different Colonies are even more dissimilar than the laws on most other questions of importance ; they have also been fluctuating, and the subject of many experiments and amendments. This renders any work of comparison difficult and unsatisfactory. The information here given is imperfect in relation to Western Australia, from which no reliable particulars have been obtainable, and also in reference to New Zealand, the returns from which are incomplete. In other respects the figures give a comparative view of insolvencies at decennial periods, and also in 1888.

It must be pointed out that great caution should be exercised in dealing with figures representing the liabilities and assets of insolvents, because in the present state of the law there is no means of compelling those who seek the relief of the Courts to give an accurate statement of their affairs. The natural tendency is to understate the liabilities, and to overestimate the assets, so as to make the estate look as favorable as possible. It is very seldom indeed, when a bankrupt estate is finally wound-up, that the creditors find themselves in so satisfactory a position as the schedule as originally filed by the insolvent would lead them to believe. The real deficiency would therefore be considerably larger than the calculated amount, as given in the table :—

Australasia, Insolvent Estates.

	Assets per cent. of Liabilities.		Average Deficiency per Insolvent. £
1861	54·83		444
1871	46·49		525
1881	71·61		155
1888	67·05		281

Insolvencies.

Colony.	1861.			1871.			1881.			1888.		
	No.	Liabilities.	Assets.	No.	Liabilities.	Assets.	No.	Liabilities.	Assets.	No.	Liabilities.	Assets.
		£	£		£	£		£	£		£	£
New South Wales...	463	589,727	335,340	544	325,941	124,288	724	379,290	218,212	851	659,307	459,677
Victoria	1,287	1,088,298	604,120	631	444,117	217,841	620	303,892	161,386	479	347,658	185,871
Queensland	24	46,866	35,341	73	411,835	197,934	153	73,602	39,430	249	258,884	122,464
South Australia.....	108	101,140	37,379	247	246,713	117,794	*696	123,629	83,729	†219	80,092	58,011
Tasmania	155	173,933	84,410	25	62,560	35,360	33	§13,770	§9,588	90	§44,887	§13,641
New Zealand	**	**	**	737	**	∞	1,406	823,018	717,381	881	866,611	673,872
	2,037	1,999,964	1,096,590	2,257	1,491,166	693,217	3,632	1,717,201	1,229,726	2,769	2,257,439	1,513,536

* Including 481 private arrangements under Insolvency Act, the liabilities and assets in which cases are not included in the total. † Including 121 private arrangements under Insolvency Act, the liabilities and assets in which cases are not included in the total. § Returns not complete. ** No return.

From the table on the preceding page it would appear that the number of insolvencies was greater in Victoria in 1861 than in any other year under notice; while in 1881 the extraordinary number of 1,406 was reached in New Zealand, a total greater than any single Colony has produced in any year given in the table; notwithstanding this large number, however, the deficiency between the estimated assets and liabilities was very small, amounting to an average of only £75 per insolvent. It is an important and gratifying feature that, in spite of the great increase of population, and the consequent extension of trade and commerce, the number of insolvencies has increased but little, while the amount of the indebtedness of the bankrupts per head is less than at some former periods, and the proportion of assets to liabilities is greater. The proportion of insolvents to population in Australasia has largely decreased since 1861. So markedly is this the case that, notwithstanding the exceptional depression which has enormously increased bankruptcies in New Zealand, both in 1881 and 1888, the proportion of insolvencies to population in the latter year was scarcely more than one-half of what it had been in 1861.

Decrease of
Insolvencies
generally.

NEWSPAPERS AND LETTERS.

There is hardly anything more indicative of the social superiority of a civilized people than the prevalence of correspondence and a large distribution of newspapers. In these respects all the Colonies of Australasia have for many years been remarkable. In proportion to population, it is doubtful whether any country in the world can boast of a larger number or a better class of newspapers than these Colonies. Great advances have been made in this respect since 1871, and the rate of progress, both in number and excellence, has advanced even more rapidly between 1881 and the present time. There is no means of correctly estimating the number of newspapers actually printed and distributed in the Colonies, because the Post Office returns indicate but a small

Australasian
Newspapers.

proportion of the actual production. Some idea, however, may be gathered for purposes of comparison with other countries, by noting the distribution of newspapers through the agency of the Post Office. The return for 1888, which comprises all the Colonies, shows that no less than 93,411,855 newspapers passed through the Post Offices, being an average of 26 to every inhabitant.

Amount of
correspondence

In the same year there were 175,469,316 letters delivered through the post, being more than $48\frac{1}{2}$ letters for every man, woman, and child in Australasia. An examination of the statistics of other countries shows that the people of these Colonies stand absolutely at the head of the world's populations in this respect. The inhabitants of Great Britain have nearly but not quite so large a correspondence per head, but the people of no other nation can even approach it.

PUBLIC MORALITY.

Decrease of
Crime.

A gratifying feature in the social life of the Colonies of Australasia has been the decrease of serious crime in proportion to population. It is a peculiar circumstance that, though the people of Australasia are of one blood, and the laws against crime are practically the same in each Colony, some of the Colonies show a far greater ratio of conviction for serious crime than do the others. A crude theory has been put forward that this pre-eminence in crime is due to a convict taint in the Colonies possessing a comparatively high record. The incorrectness of this presumption will be manifest, since Tasmania—the province in the most favourable position in regard to serious crime—is also the one which suffered most from the transportation system. Whatever be the explanation, the fact, however, remains that New South Wales, South Australia, and Queensland—especially the first-named—have a higher rate of crime than the other Colonies. The official returns of the various Colonies, with the exception of Western Australia, for three decennial periods and in 1888 are given herewith.

Australasia—Crime.

Colony.	1861.			1871.			1881.			1888.		
	Apprehensions.	Committed for Trial.	Convictions in Superior Courts.	Apprehensions.	Committed for Trial.	Convictions in Superior Courts.	Apprehensions.	Committed for Trial.	Convictions in Superior Courts.	Apprehensions.	Committed for Trial.	Convictions in Superior Courts.
New South Wales	16,737	820	437	18,025	1,117	628	41,402	1,591	1,066	42,579	1,423	915
Victoria	25,766	1,283	846	22,800	781	511	25,346	591	332	37,309	873	557
Queensland	2,045	99	24	3,265	191	91	10,063	264	92	18,431	538	275
South Australia	3,581	247	122	5,475	154	91	14,297	342	213	6,603	190	91
Tasmania	599	151	127	3,631	137	74	6,229	99	51	6,164	107	66
New Zealand.....	4,839	145	100	15,606	237	162	19,796	474	270	19,167	499	308
	53,567	2,745	1,656	68,802	2,617	1,557	117,133	3,361	2,024	130,253	3,630	2,212

CRIME IN AUSTRALASIA.

Diminution of
crime.

Here we have evidence that crime is steadily diminishing from period to period. The record of apprehensions cannot be regarded as a trustworthy guide, because it includes many classes of offences which are not to be fairly reckoned as criminal, and the number of these has a tendency to increase with the increase of local enactments of various kinds. On the other hand, the record of committals for trial forms a fair index of the serious offences coming before the Courts, and taken in conjunction with the convictions for crime in the Superior Courts may be regarded as conclusive on the question of the progress or the reverse of society in this respect. It will be seen that both committals and convictions have steadily decreased from time to time, beginning in 1861 with a percentage larger than that of England in 1840, but diminishing between that time and 1888 to considerably less than one-half. The following table gives a general view of this decrease of crime within a period of twenty-seven years :—

Decrease in
Committals and
Convictions.

Australasia.

	Apprehensions per 1,000 of population.	Committals for Trial per 1,000 of population.	Convictions in Superior and Circuit Courts per 1,000 of population.
1861	43·30	2·22	1·34
1871	36·23	1·38	0·82
1881	43·18	1·24	0·75
1888	36·51	1·02	0·62

In noting these facts and comparing results with that obtained in Great Britain during the same period, it must not be forgotten that most of the Colonies of Australasia have been compelled gradually to reform a portion of their original population, and that in the case of Colonies such as Victoria and Queensland, not originally peopled in any degree by convicts, the attractions of the gold-fields have drawn within their borders a population by no means free from criminal instincts and antecedents. Viewed in

this light the steady progress made cannot but be regarded as exceedingly satisfactory, and a confident expectation may be reasonably entertained that the same improvement will be continued until the ratio of crime to population will compare favourably with that of any part of the world. Progress of
morality

Suicides would unfortunately appear to be increasing, if not rapidly at least steadily. The following table, although imperfect as regards Western Australia, indicates a portion of the past history and present position of the Colonies in this respect :—

Suicides.			
	1871.	1881.	1888.
New South Wales	28	83	132
Victoria	90	102	139
Queensland	8	21	62
South Australia	11	34	31
Western Australia	*	*	6
Tasmania	4	6	7
New Zealand.....	*	42	39
	141	288	416
Per 100,000 of population.....	8.58	10.62	11.52

*Information not available.

Taken over a series of years (1876 to 1888 inclusive), the mean annual rates were as follows :—

Deaths by Suicide in Australasia.

Colony.	Per 100,000 of mean population.
Tasmania	5.1
South Australia	8.7
New South Wales	8.8
New Zealand	9.5
Victoria.....	11.3
Queensland	13.5

In the above table the Colonies are entered in order as to rates, Tasmania standing far less unfavourably than any of the

ILLEGITIMATE BIRTHS.

others, and being the only one in which the rate is less than in the United Kingdom, where deaths by suicide average only 7 per 100,000 of population. Information for Western Australia is only to hand for 1888, during which year the suicides numbered 6, or at the rate of 14·2.

Births of Illegitimate Children and Total Births.

	1871.		1881.		1888.	
	Illegiti- mates.	Total Births.	Illegiti- mates.	Total Births.	Illegiti- mates.	Total Births.
New South Wales	782	20,143	1,263	28,993	1,958	38,525
Victoria.....	747	27,382	1,382	27,145	1,658	34,503
Queensland	156	5,205	345	8,220	588	14,247
South Australia ...	*	7,082	*	10,708	281	10,510
Western Australia	*	760	*	1,005	62	1,518
Tasmania	*	3,053	*	3,918	173	4,777
New Zealand	*	10,592	534	18,732	577	18,902
	1,685	74,217	3,524	98,721	5,297	122,982
Per cent. of Births	3·19	.....	4·24	.....	4·31	.....

* Information not available.

Illegitimacy.

Illegitimacy also is increasing upon the whole in Australasia, as the table just given shows. The ratio, indeed, compared with the total births is still rather better than in England; but while the

percentage of illegitimate births has steadily declined during the last fifty years in England, it has advanced in Australasia during the period included in the table. The following are the average annual percentages of illegitimate births to total births, calculated over a series of years for each of the Colonies and the United Kingdom :—

	Illegitimate Births per cent.
New South Wales.....	4·40
Victoria	4·50
Queensland.....	3·96
South Australia.....	2·24
Western Australia	4·18
Tasmania	4·15
New Zealand	2·71
England	4·83
Ireland	2·50
Scotland	8·35

The question of divorce, which has assumed considerable importance owing to recent legislation on the subject, is one of much interest, the more so because for some years past all the Colonies of Australasia have offered large facilities for divorce in all cases coming within the law. The prevailing opinion has been that such facilities were calculated to increase divorce to an extent that would prove hurtful to public morals. So far as the experience of these Colonies goes, at present the fear would seem to be groundless, but sufficient time has not yet elapsed to enable any definite opinion to be hazarded. The following table, extending over a period of five years, is calculated to throw some light on this vexed question :—

Divorces granted in each Colony, 1884—88.

	1884.	1885.	1886.	1887.	1888.
New South Wales	27	23	32	25	28
Victoria	10	21	16	18	28
Queensland	0	1	1	0	6
South Australia	36	31	18	14	16
Western Australia .....	...	...	...	...	2
Tasmania	0	2	6	0	4
New Zealand.....	...	...	24	16	32

INSANITY.

Ratio of
insanity.

The number of insane persons under official cognizance throughout Australasia on the 31st December, 1887, was 10,130. This represents 2·86 per 1,000 of the population. The rates in the United Kingdom for the same year were—England, 2·88; Scotland, 2·91; and Ireland, 3·16. The amount of insanity in Australasia and in England, compared with their respective populations, is, therefore, about the same, though there appears to be a tendency in the latter country for the rate to increase. The ratios, both in Scotland and Ireland, are higher than in the rest of Great Britain or in Australasia. The following table shows the proportion of lunacy in each of the Colonies at the end of 1887, from which it will appear that the greatest proportion is to be found in Victoria, and the smallest in South Australia, Tasmania, and Queensland:—

	Insane persons per 1,000 of population.
New South Wales.....	2·70
Victoria	3·29
Queensland.....	2·44
South Australia.....	2·40
Western Australia.....	2·85
Tasmania	2·43
New Zealand	2·81

CONCLUDING REMARKS.

The preceding pages contain but a brief sketch, or imperfect outline, of the present condition of the Australasian Colonies; showing, in fact, only the most prominent features, but leaving unnoticed an immense number of details, which, if there were space to introduce them, would add considerably to the impressiveness of the picture. Even the material resources of these vast provinces have not been fully indicated, for nothing has been said of the magnificent timber, unlimited in quantity and

unsurpassed for quality, which abounds in every part of Australasia. Nothing has been said, either, of the boundless supplies of fish which are to be obtained in every part of the enormous coastline of these provinces, and which will one day form the source of a large and profitable trade. The political institutions of the Seven Colonies have been described, but no notice has been taken of the system of local self-government which, in one form or another, pervades the whole of Australasia to a greater or less extent; nor has there been room to dilate upon the literary, scientific, and charitable institutions which are to be found in all the principal centres of Australasian population, diffusing the blessings of art, science, and literature on the one hand, and soothing the pains of sickness, and mitigating the sorrows of distress, on the other. Had space permitted, much might have been said upon the wonderful variety of climate in Australasia, ranging from a temperature like that of the Scottish Highlands, in the south of New Zealand, to the tropical heat of the Northern Territory of Australia, with every intermediate grade, adapted for races of European origin, as well as for the growth of almost any species of the animal and vegetable life. Enough has been said, however, to show how these great Colonies, from the humblest beginnings, have grown and expanded into important provinces, peopled with a race of hardy, enterprising, and industrious colonists, with free institutions such as are enjoyed by few nations in the old world, and without those social and caste impediments which are in older countries so great a hindrance to the march of civilization.

It is impossible for a reflective mind to survey the progress made by Australasia in one century without asking the question, "What will the future be?" It scarcely requires the gift of prophecy to find an answer. Here is an enormous territory, with illimitable resources implanted by Nature, without taking into account the possibilities of development by culture and acclimatization. Here is a people who one hundred years ago found

Australasia a desert, but who have already begun to make it blossom like the rose. It is not to be supposed that they will rest content with what they have done, but rather that the progress they have already made will stimulate them to a further advance. They will not heedlessly trample under foot the vast mineral riches they know to underlie the soil ; they will not abstain from gathering those plenteous fruits of Nature which are to be had for little more than the labour of stretching out the hand. On the contrary, they will increase in numbers, in wealth, in intelligence, and in power, and the Seven Colonies of Australasia, whether federated into one State, or as separate communities united only by the common bond of kinship, are destined in the near future to play an important part in the world's progress, as much on account of the enterprise of their people as by reason of the magnitude of their territories and the extent of their resources.

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