

A
STATISTICAL ACCOUNT
OF THE
SEVEN COLONIES OF AUSTRALASIA,

BY

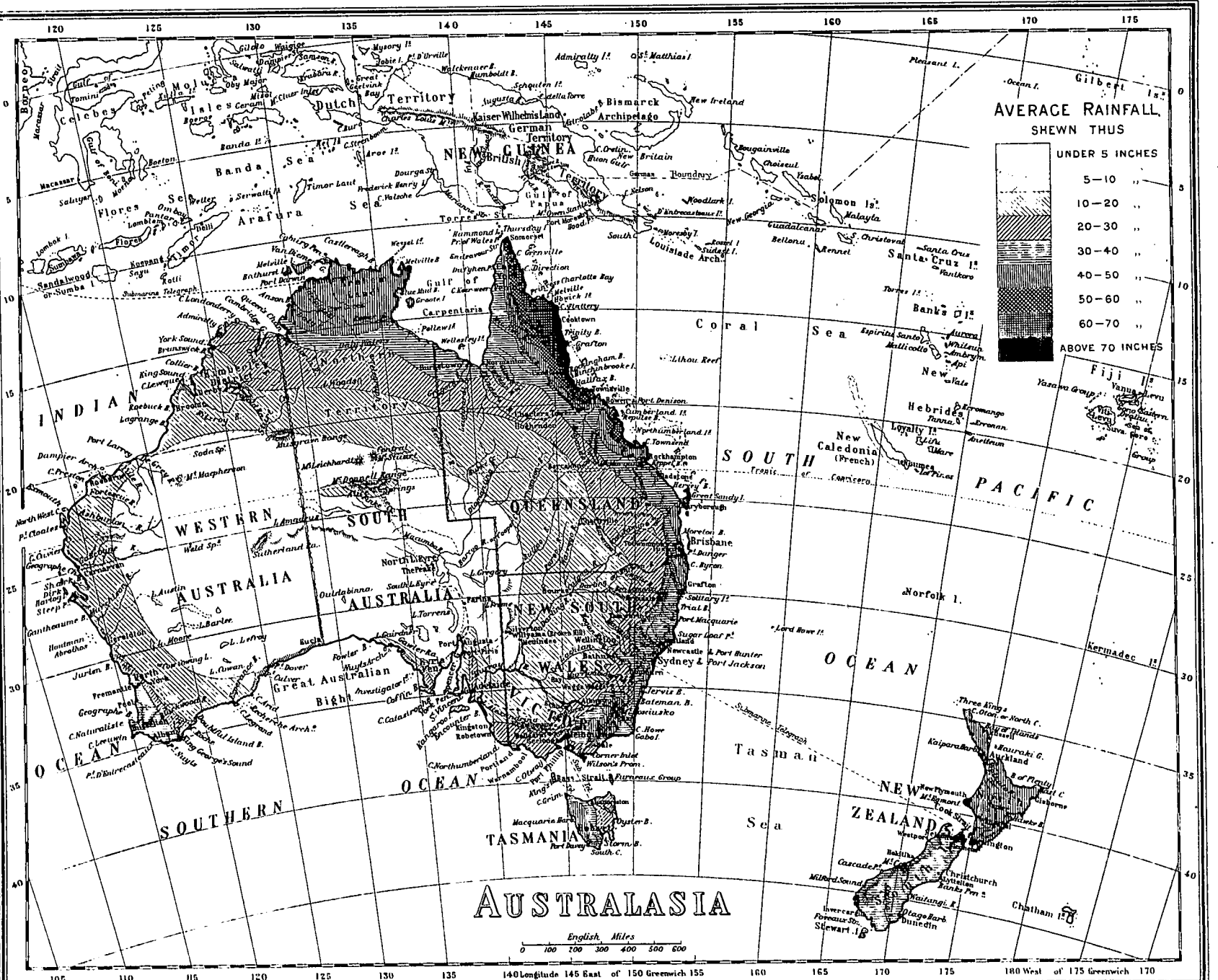
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WITH MAP AND DIAGRAMS.

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PREFACE.

THE information contained in former issues of this work has been revised and brought down to the most recent date. Additional chapters on the Australasian land systems and the accumulation of wealth in the various provinces have been added, and the text is further illustrated by a considerable number of diagrams and a map showing the mean annual rainfall.

Every care has been taken to ensure accuracy, the figures and other details being taken in most instances from the latest published official record of the Colony dealt with.

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Map of Australasia	Facing title page.

POLITICAL DIVISIONS.

THE Seven Colonies of Australasia, which now possess a population of nearly four millions, and a degree and distribution of material wealth scarcely paralleled by any other community on the globe, were unknown and undreamt of a little more than a century ago. It is the object of these pages to present a short account of the magnificent development to which these infant States have already attained, and to show in regard to the various elements of prosperity which go to build up a nation, their importance, not only as compared with one another, but also as regards the world at large.

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.

Tasmania, formerly known as Van Diemen's Land, was colonised 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; but the actual commencement of colonisation dates from February, 1804, when Lieutenant-Colonel Collins established himself at Sullivan's Cove, at the site of the present city of Hobart. 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 Lieutenant-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 colonisation 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. Fawkner, 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, but the grants were afterwards disallowed by the Imperial Government. 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 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 remained a Crown Colony under the direct control of the British Government until the end of 1890, when it was granted the privilege of responsible 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.

New Zealand became a British Colony in 1840, but a company organised 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 summarised:—The Waira massacres occurred in June, 1843; rising 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, and a general Parliament for the whole Colony was instituted, consisting of two Houses of Legislature, as in the other Australasian colonies.

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.

AREAS AND BOUNDARIES.

THE Australasian Colonies comprise the continent of Australia, the adjacent island of Tasmania, and the islands of New Zealand. The group is politically subdivided into seven Colonies, which, with the area of each, are as follow :—

	Square Miles.
New South Wales	310,700
Victoria.....	87,884
Queensland	668,497
South Australia	903,690
Western Australia	1,060,000
Australia	<u>3,030,771</u>
Tasmania	26,215
New Zealand	<u>104,471</u>
Australasia	3,161,457

The British Empire extends over an area of 8,040,000 square miles, so that nearly two-fifths of its area are embraced within the limits of the seven colonies. Australasia is more than twenty-six times as large as the United Kingdom, more than fifteen times as large as France, more than half as large again as Russia in Europe, and almost equal in extent to the continent of Europe or to the United States of America.

The mainland of Australia lies between $10^{\circ} 39'$ and $39^{\circ} 11\frac{1}{2}'$ south latitude, and the meridians of $113^{\circ} 5'$ and $153^{\circ} 16'$ east longitude. Its greatest length is 2,400 miles from east to west, and its greatest breadth, 1,971 miles from north to south. Its area may be approximately stated at 3,030,771 square miles, and its coast line 8,850 miles, equal to one mile to each 342 square miles of land, the smallest proportion of coast shown by any of the continents.

New South Wales lies principally between the 29th and 36th parallels of south latitude, and between the 141st and 153rd meridians of east longitude. The length of the Colony, from Point

Danger on the north to Cape Howe on the South, is 680 miles. From east to west, along the 29th parallel, the breadth is 760 miles; while diagonally, from the south-west corner—where the Murray passes into South Australia—to Point Danger, the length reaches 850 miles. The seaboard extends over 700 miles.

VICTORIA. Victoria is situated between the 34th and 39th parallels of south latitude, and the 141st and 150th meridians of east longitude. The extreme length from east to west is 480 miles, and the breadth 240 miles. The coast line is about 600 miles.

QUEENSLAND. Queensland lies between the 11th and 29th parallels of south latitude, and the 138th and 153rd meridians of east longitude. The greatest length from north to south is 1,300 miles, and the breadth, 800 miles. The coast line is about 2,550 miles.

SOUTH AUSTRALIA. South Australia extends from the 12th to the 38th parallels of south latitude, and from the 129th to the 141st meridians of east longitude. The greatest length from north to south is 1,850 miles, and the width, 650 miles, with a seaboard of 2,000 miles, of which about 900 miles are washed by the Indian Ocean, the Arafura Sea, and the Gulf of Carpentaria.

WESTERN AUSTRALIA. Western Australia consists of the country between the 14th and 35th parallels of south latitude, and the 113th and 129th meridian of east longitude. The greatest length north and south is 1,280 miles, and the width from east to west 800 miles. The coast line is about 3,000 miles.

TASMANIA. Tasmania is an island situated about 150 miles south of Victoria, from which it is separated by Bass' Strait. It lies between $40^{\circ} 33'$ and $43^{\circ} 39'$ south latitude, and the meridians of $144^{\circ} 39'$ and $148^{\circ} 23'$ east longitude. Its greatest length from north to south is 210 miles, and its greatest breadth from east to west is 200 miles. Including the adjacent islands its area is 26,215 square miles.

New Zealand is to the east of Australia ; its nearest point to NEW ZEALAND. the mainland being Cape Maria van Diemen, which is 1,175 miles from Sugar Loaf Point, in New South Wales. New Zealand and its dependencies lie between the 33rd and 53rd parallels of south latitude, and between 166° 30' east longitude and 173° west longitude.

The North Island, or New Ulster, has a length of about 515 North Island. miles, by a breadth of about 250 miles ; its area is estimated at 44,467 square miles, and its coast line at 2,200 miles.

The South, or as it is officially called the Middle Island, or South Island New Munster, has a length of about 525 miles by a breadth of about 180 miles. Its area is 58,525 square miles, and its coast-line measures 2,000 miles.

Stewart Island, or New Leinster, lies off the southern extremity Stewart Island. of South Island and has an area of 665 square miles ; its greatest length is 30 miles by a breadth of 25 miles.

Including the Chatham Islands, the Auckland Islands, the Area of New Zealand. Campbell Islands, the Bounty Islands, and many others which are dependent, the total area of the Colony of New Zealand is estimated at about 104,470 square miles.

CLIMATE.

Tropical
Australia.

THE tropic of Capricorn divides Australia into two parts ; of these the northern or inter-tropical portion contains 1,176,000 square miles, comprising half of Queensland, the Northern Territory of South Australia, and the north-western divisions of Western Australia. The whole of New South Wales, Victoria, New Zealand, and Tasmania, South Australia proper, half of Queensland, and more than half of Western Australia, comprising 1,985,500 square miles, are without the tropics. In a region so extensive very great varieties of climate are naturally to be expected, but it may be stated as a general law that the climate of Australasia is milder than that of corresponding lands in the northern hemisphere. During July, which is the coldest month in these latitudes, one half of Australasia has a mean temperature ranging from 40° to 64°, and the other half from 64° to 80°. The following are the areas subject to the various average temperatures during the month referred to :—

Extra-tropical
Australia.Average winter
temperature.

Temperature, Fahrenheit.	Area in square miles.
35° — 40°.....	300
40° — 45°.....	39,700
45° — 50°.....	88,000
50° — 55°.....	635,300
55° — 60°.....	701,300
60° — 65°.....	858,200
65° — 70°.....	529,700
70° — 75°.....	284,500
75° — 80°.....	16,969

Average summer
temperature.

The temperature during December ranges from 50° to above 95° Fah. ; half Australia having a mean temperature below 83°.

Dividing the land into zones of average summer temperature, the following are the areas which would fall to each:—

Temperature, Fahrenheit.	Area in square miles.
50° — 55°.....	300
55° — 60°.....	66,300
60° — 65°.....	111,300
65° — 70°.....	74,300
70° — 75°.....	373,600
75° — 80°.....	453,000
80° — 85°.....	756,500
85° — 90°.....	588,400
90° — 95°.....	602,400
95° and over.	135,400

Judging from the figures just given it must be conceded that a considerable area of the continent is not adapted for colonisation by European races. The region with a mean summer temperature in excess of 95° Fahr. is the interior of the Northern Territory of South Australia north of 20th parallel; and the whole of the country, excepting the seaboard, lying between the meridians of 120° and 140° and north of the 25th parallel has a mean temperature in excess of 90° Fahr.

Extreme heat of
Northern
Australia.

Climatically as well as geographically New South Wales is divided into three marked divisions. The coastal region, which is between the parallels of 28° and 37°, south latitude, has an average summer temperature ranging from 76° in the north to 67° in the south, with a winter temperature of from 51° to 56°. Taking the district generally the difference between the mean summer and mean winter temperature may be set down as averaging not more than 24°, a range smaller than is found in most other parts of the world. The famed resorts on the Mediterranean seaboard bear no comparison with the Pacific slopes of New South Wales, either for natural salubrity or for the comparative mildness of the summer and winter.

Climate of the
coast of New
South Wales.

Sydney, situated as it is midway between the extreme points of the Colony, in latitude 33° 51' S., has a mean temperature of 63°,

Climate of
Sydney.

corresponding with that of Barcelona, the great maritime city of Spain, and of Toulon, in France; the former being in latitude $44^{\circ} 22' N.$, and the latter in $43^{\circ} 7' N.$ At Sydney the mean summer temperature is slightly under 71° , and that of winter $54^{\circ} 5'$. The range is thus 16.5° Fahr. At Naples, where the mean temperature for the year is about the same as at Sydney, the summer temperature reaches a mean of 74.5° , and the mean of winter is 47.5° , with a range of 27° . Thus the summer is warmer, and the winter much colder, than at Sydney. The highest temperature in the shade ever experienced in Sydney was 106.9° , and the lowest winter temperature was 36.8° , giving a range of 70° . At Naples the range has been as great as 81° , the winter minimum falling sometimes below the freezing point.

Climate of the
Table-land.

Passing from the coast to the table-land, a distinct climatic region is entered. Cooma may be taken as illustrative of the climate of the south table-land, and Armidale of the northern. The first-named town stands in the centre of the Monaro plains, at an elevation of 2,640 feet above sea-level, and enjoys a summer as mild as either London and Paris, while its winters are far less severe. On the New England table-land, the climate of Armidale and other towns may be considered as nearly perfect as can be found. The yearly average temperature is scarcely 57° , while the summer only reaches 69° , and the winter falls to 46° , a range of temperature approximating closely to that of the famous health resorts in the south of France.

Climate of the
Western Divi-
sion.

The climatic conditions of the western districts of the Colony are entirely different from those of the other two regions, and have often been cited as disagreeable. Compared with the equable temperature of the coastal district, or of the table-land, there may appear some justification for such a reputation, but only by comparison. The climate of the great plains, in spite of the heat of part of the summer, is very healthy. The town of Bourke may be taken as an example. Seated in the midst of the great plain of the interior, it illustrates peculiarly well the defects, as well as

excellencies, of the climate of the whole region. Bourke has exactly the same latitude as Cairo, yet its mean summer temperature is 5° less, and its mean annual temperature $6\cdot5^{\circ}$ less than is the case in the Egyptian city. New Orleans also lies on the same parallel, but the American city is 4° hotter in summer. As regards winter temperature, Bourke leaves little to be desired. The mean winter reading of the thermometer is $52\cdot3^{\circ}$, and accompanied as this is by clear skies and an absence of snow, the season is both refreshing and enjoyable.

The rainfall of New South Wales varies from an annual average of 63·2 inches at Port Macquarie, on the northern coast, to 13·7 inches at Wentworth, near the junction of the Darling and Murray Rivers. The coastal districts average about 48 inches of rain per annum; on the Tableland the mean rainfall is a little over 32 inches, but in the western interior it falls as low as 19 inches. The average rainfall of Sydney for the last thirty-one years was 49·23 inches.

Rainfall of New South Wales.

The climate of Victoria does not differ greatly from that of New South Wales; the heat, however, is generally less intense in summer and the cold greater in winter. Melbourne, which stands in latitude $37^{\circ} 50'$ S., has a mean temperature of $57\cdot3^{\circ}$, and therefore corresponds with Bathurst in New South Wales, Washington, in the United States, Bordeaux, Marseilles, Nice, Verona, and Madrid. The difference between summer and winter is, however, less at Melbourne than at any of the places mentioned. The mean temperature is 6° less than that of Sydney and 7° less than that of Adelaide,—the result of a long series of observations being:—spring, 57° ; autumn, $58\cdot7^{\circ}$; summer, $65\cdot3^{\circ}$; winter, $49\cdot2^{\circ}$. The highest recorded temperature in the shade at Melbourne was $110\cdot7^{\circ}$ and the lowest 27° .

The Victorian Climate.

Ballarat, the second city of Victoria, about 100 miles westerly from Melbourne, and situated at a height of about 1,400 feet above sea-level, has a minimum temperature of $29^{\circ} 2'$, and a maximum of $104^{\circ} 5'$. Sandhurst, which is about 100 miles north

Climate of Ballarat and Sandhurst.

of Melbourne, and 700 feet above the level of the sea, has a rather higher average temperature, ranging from 33° to a maximum of 109°. At Wilson's Promontory, the most southerly point of Australia, the minimum heat is 37°, and the maximum 91°.

Rainfall of
Victoria.

During the year 1890, the rainfall at Melbourne amounted to 24·24 inches, and for a series of years it averaged 25·26 inches, with an average of 130 days during the year in which rain fell. At Sandhurst, 24·85 inches fell, and 34·47 at Portland. Among the mountain ranges in Gippsland, the rainfall averages 36 inches.

The climate of
Queensland.

As about one half of the Colony of Queensland lies within the tropics, it is but natural to expect that the climate would be very warm. The temperature, however, has a less daily range than that of other countries under the same isothermal lines. This circumstance is due to the sea breezes which blow with great regularity, and temper what would otherwise be an excessive heat. The hot winds which prevail during the summer in some of the other colonies are unknown in Queensland. Of course in a territory of such large extent as that of Queensland there are many varieties of climate, and the heat is greater along the coast than on the elevated lands of the interior. In the northern parts of the colony the high temperature is very trying to persons of European descent.

Temperature of
Queensland.

The mean temperature at Brisbane, during December, January, and February, is about 77° 5', while during the months of June, July, and August, it averages about 60°. Brisbane, however, is situated near the extreme southern end of the colony, and its average temperature is considerably less than that of many of the towns further north. Thus the winter in Rockhampton averages nearly 65°, while the summer heat rises almost to 85°, and at Townsville and Normanton the average temperature is still higher.

Rainfall in
Queensland.

The average rainfall of Queensland is high, especially along the northern coast, where it ranges from 60 to 70 inches per annum. Near Brisbane about 50 to 60 inches of rain fall annually, and even on the plains of the interior from 20 to 30 inches usually fall every year.

South Australia, extending as it does over about 26° of latitude, naturally presents considerable variations of climate. The southern portions have a climate greatly resembling that of the coast of Italy. The coldest months are June, July, and August, during which the temperature is very agreeable, averaging 54° 4', 54° 5', and 53° 7' for those months respectively. On the plains slight frosts occasionally occur, and ice is sometimes seen on the highlands. The summer is the only really disagreeable portion of the year. The sun at that season has great power, and the temperature frequently reaches 100° in the shade, with hot winds blowing from the interior. The weather on the whole is remarkably dry. At Adelaide there are on an average 120 rainy days per annum; during the last fifty-two years the mean rainfall has been 21.20 inches per annum, while further north the quantity recorded was considerably less. The country is naturally very healthful, and in evidence of this it may be mentioned that no great epidemic has ever visited the colony.

Climate of South
Australia.

The climate of the Northern Territory of South Australia is extremely hot, except on the elevated table-lands. Altogether the temperature of this part of the colony is very similar to that of Northern Queensland, and the climate is equally unfavourable to Europeans. It is a fact worthy of notice that the malarial fevers which are so troublesome to the pioneers of the northern parts of Australia almost, and in some cases entirely, disappear after the land has been settled and consolidated by stock. The rainfall in the extreme north, especially in January and February, is exceedingly heavy.

Climate of the
Northern
Territory.

Western Australia has practically only two seasons. The winter, or wet season, commences in April and ends in October; the summer, or dry season, comprises the remainder of the year. During the wet season frequent and heavy rains fall, and thunderstorms with sharp showers occur in the summer. The extremes of drought and flood experienced in the other colonies are almost unknown in Western Australia, but the north-west coast is some-

The seasons in
Western
Australia.

times visited with hurricanes of great violence during the summer months. In the southern and old settled parts of the colony the mean temperature is about 64°, but in the more northern portions the heat is excessive, though the dryness of the atmosphere makes it superior to most tropical climates. Although the heat is very great during three months of the year, the nights and mornings are almost always cool, and through there being so little moisture in the air, no danger arises from camping out.

The climate of
Tasmania.

Tasmania, protected as it is by its geographical position, and by the tempering influence of the surrounding ocean, from extremes of heat or cold, enjoys an exceedingly genial climate. The greater part of the island in the settled regions is characterised by a mild and equable temperature, ranging between the extremes of 26° to 33° in winter to 78° to 98° in summer. Spring and autumn are the most pleasant seasons of the year, especially the latter, when the mean reading of the thermometer is about 57°. The richness of its flora is an evidence of the genial nature of the climate of Tasmania, while the purity of its atmosphere is proved by the small proportion of zymotic diseases recorded in the bills of mortality. The hot winds of the continent of Australia are felt in the northern parts of Tasmania only, and, even there, are greatly reduced in temperature by their passage across Bass' Straits. Generally speaking, all through the summer months there are alternate land and sea breezes which tend to cool the atmosphere even in the hottest days. The climate of Tasmania is fresh and invigorating, and is much recommended as a restorative for those whose constitutions have been enfeebled by residence in hotter climes. Large numbers of tourists in search of health visit the island every summer. The rainfall, except in the mountain districts, is moderate and regular. The average downfall at Hobart for a long series of years was 22·93 inches, with 143 wet days per annum.

Climate of New
Zealand.

The climate of New Zealand is in some respects similar to that of Tasmania, but the changes of weather and temperature are often very sudden. As the colony extends over more than 10

degrees of latitude it possesses a considerable amount of variety in regard to climate. The North Island, in this respect, is somewhat similar to Rome, Montpellier, and Milan, while the Middle or Southern Island more resembles Jersey, in the Channel Islands. The mean temperature of New Zealand is lower than that of similar latitudes in Europe, though higher than is experienced in America on corresponding parallels. The mean temperature of the South or Middle Island is less by about 6° than that of the North Island. Snow very seldom lies on the ground at the sea-level in the North Island, and only occasionally in the South Island. The summits of Ruapehu, the highest mountain in the North Island, and of the great mountain chain in the South Island, are covered with perpetual snow from an altitude of 7,500 feet above the level of the sea. Ice is occasionally seen in winter time in all parts of New Zealand. The whole colony is subject to strong breezes which frequently culminate in gales. The rainfall during 1890 was heavier in the North than in the South Island; at Te Aroha 64·1 inches of rain were registered, and 46·1 inches at Auckland, with 129 and 126 rainy days respectively, while at Dunedin the rainfall was only 26 inches, and 14·8 inches at Canterbury.

The following table illustrates the rainfall of Australasia :—

Australasian rainfall.

Rainfall, Australasia.

Rainfall.	Rainfall area in square miles for each division.			
	Australia.	Tasmania.	New Zealand.	Australasia.
Under 10 inches ...	1,254,400	.....	.....	1,254,400
10 to 20 „ ...	867,200	9,440	.....	876,640
20 to 30 „ ...	411,300	.....	69,650	480,950
30 to 40 „ ...	232,100	8,380	17,410	257,890
40 to 50 „ ...	144,300	8,380	17,410	170,090
50 to 60 „ ...	49,300	.....	.....	49,300
60 to 70 „ ...	57,700	.....	.....	57,700
Above 70 „ ...	14,500	.....	.....	14,500
	3,030,800	26,200	104,470	3,161,470

SHIPPING.

Growth of
Australasian
shipping.

THE earliest date for which there is reliable information in regard to Australasian shipping is 1822. The growth of the trade of Australasia since then has been marvellous, and although the rate at which population has advanced, has been greater than could reasonably be expected, the growth of shipping has been even more rapid. Taking the whole period covered by the following table the increase of population has averaged about five per cent. yearly, while that of shipping has slightly exceeded seven per cent. The summary herewith gives the tonnage per inhabitant, and annual increase per cent. per annum during each period :

Vessels Entered and Cleared at Australasian Ports.

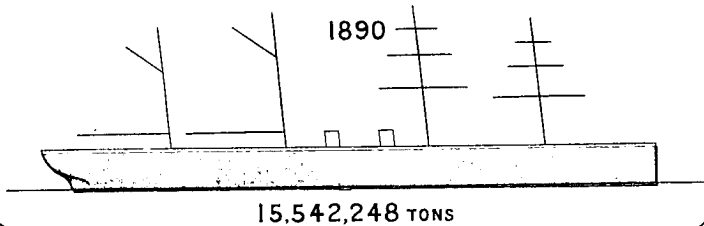
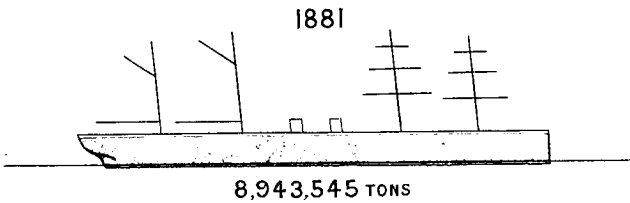
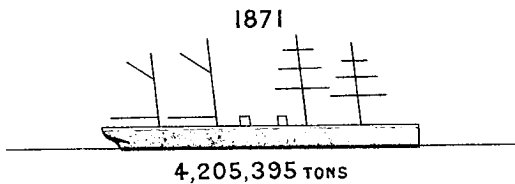
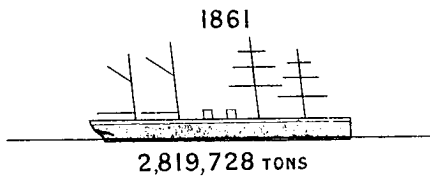
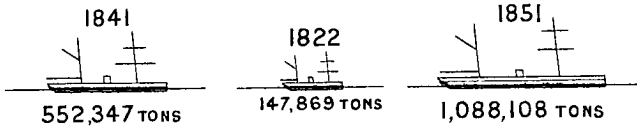
Year.	No. of Vessels.	Tonnage.	Tonnage per inhabitant.	Annual increase of tonnage per cent. for each period.
1822	268	147,869	3·9	.....
1841	2,576	552,347	2·2	7·2
1851	5,340	1,088,108	2·4	7·0
1861	10,496	2,819,728	2·3	10·3
1871	13,194	4,205,395	2·2	4·3
1881	15,935	8,943,545	3·2	7·3
1890	17,629	15,542,248	4·2	6·3

Tonnage entered
and cleared.

In the year 1822 all the Colonies on the mainland were comprised in the designation of New South Wales, and as late as 1859 Queensland formed part of the mother Colony. Thus an exact distribution of tonnage can only be made subsequent to the year last named, and this is given in the following table. The tonnage for 1890 is somewhat lower than might have been expected, as the latter part of the year was disastrously affected by a great maritime strike.

SHIPPING

INWARDS AND OUTWARDS



Total Tonnage Entered and Cleared.

B	1822.		1841.		1851.		1861.		1871.		1881.		1890.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
New South Wales . . . . .	..	.....	..	....	1,056	292,022	2,718	745,696	4,014	1,500,479	4,357	2,786,500	5,666	4,761,872
Victoria . . . . .	..	....	1,404	355,896	1,370	240,431	3,598	1,090,002	4,394	1,355,025	4,248	2,412,534	4,933	4,363,341
Queensland	131	113,717	..	....	included in N.S.W.		*215	*35,889	*427	*92,898	1,803	882,491	1,222	910,779
South Australia . . . . .	..	....	197	37,036	538	155,002	738	199,331	1,238	373,624	2,249	1,359,591	2,262	2,337,674
Western Australia . . . . .	..	....	No information.		247	49,352	455	115,256	400	126,948	368	285,046	548	904,861
Tasmania	137	34,152	975	159,415	1,569	239,152	1,580	230,218	1,233	216,160	1,383	383,762	1,509	951,247
New Zealand . . . . .	..	....	..	....	560	112,140	1,142	403,336	1,438	540,261	1,527	833,621	1,489	1,312,474
Australasia	288	147,869	2,576	552,347	5,340	1,088,108	10,496	2,819,728	13,194	4,205,395	15,935	8,943,545	17,629	15,542,248

* Corrected to allow for tonnage entered and cleared at more than one port.

TOTAL TONNAGE ENTERED AND CLEARED.

Increased capacity of vessels.

Owing in a great measure to the utilisation of steam as a motive power, the average carrying capacity of vessels has greatly increased, especially during recent years. In considering the average tonnage, the year 1822 is omitted from the comparison, as a large proportion of that year's tonnage was made up of vessels of the British Navy conveying men and stores to penal establishments, and therefore not fairly included under the term "trade" :—

Average Australasian Tonnage.

Year.	Average Tonnage.
1841	214
1851	204
1861	269
1871	320
1881	561
1890	882

The increase in the carrying capacity of vessels trading with Australasia is truly remarkable, especially since 1871. The change, however, is due, not so much to Australasian enterprise, as to the general tendency everywhere exhibited to substitute large and speedy steamships for the sailing vessels of former days.

Average daily movements of tonnage.

The following figures represent the average daily movements of tonnage (entered and cleared) in Australasian ports at various periods :—

Australasian Shipping Movements.

In 1822.....	58 tons per diem.
1841.....	1,486 "
1851.....	2,981 "
1861.....	7,928 "
1871.....	12,041 "
1881.....	24,503 "
1890.....	42,582 "

that is to say, five vessels of 406 tons in the aggregate, entered or cleared every week during the year 1822, whilst in 1890 the average weekly shipping movement was 339 vessels, aggregating 298,889 tons. The daily movement of tonnage in Australasia is larger than that of any European country, except Great Britain, Spain, France, and Germany, and probably of any other country of the world, the United States alone excepted.

The position which each colony occupied in 1881 is much the same as that held by it to-day, but as might naturally be expected the ratio of increase has been very different for the various colonies. Those least developed in 1881 show the greatest proportionate increase during the period, as the figures herewith demonstrate :—

Relative position of the Colonies.

External and Intercolonial Tonnage—Inwards.

Colony.	1881.		1890.		Increase per cent., 1881-90.
	No.	Tonnage.	No.	Tonnage.	
New South Wales	2,254	1,456,239	2,889	2,413,247	65·7
Victoria	2,125	1,219,231	2,474	2,178,551	78·7
Queensland	936	455,985	616	468,607	2·8
South Australia	1,120	684,203	1,105	1,141,693	66·9
Western Australia	185	145,048	281	484,534	234·1
Tasmania	694	192,024	746	475,618	147·7
New Zealand.....	765	420,134	744	662,769	57·8
Australasia	8,079	4,572,864	8,855	7,825,019	71·1

The meaning of the increase shown above, so far at least as some of the colonies are concerned, is apt to be misunderstood ; thus, the abnormal development of Western Australia should not be set down as due to the increased trade of that colony, but to the circumstance that one of its ports lies in the track of the large steam vessels trading between Europe and the Eastern Colonies ; and this remark, to a minor extent, is applicable also to some of the other less populous colonies.

Increase of tonnage.

Total tonnage of each colony.

In the next table the total tonnage and the proportion claimed by each colony are given. It will be seen that New South Wales at both periods held the largest share of tonnage, but the proportion in 1890 was less than in 1881 :—

External and Intercolonial Tonnage—Inwards and Outwards.

Colony.	1881.		1890.		Percentage of tonnage to each Colony.	
	No.	Tonnage.	No.	Tonnage.	1881.	1890.
New South Wales...	4,357	2,786,500	5,666	4,761,872	31·1	30·6
Victoria	4,248	2,412,534	4,933	4,363,341	27·0	28·1
Queensland.....	1,803	882,491	1,222	910,779	9·9	5·9
South Australia	2,249	1,359,591	2,262	2,337,674	15·2	15·0
Western Australia...	368	285,046	548	904,861	3·2	5·8
Tasmania.....	1,383	383,762	1,509	951,247	4·3	6·1
New Zealand	1,527	833,621	1,489	1,312,474	9·3	8·5
Australasia.....	15,935	8,943,545	17,629	15,542,248	100·0	100·0

In the foregoing tables the trade carried on between the different colonies has been included.

Difficulty in distinguishing external trade.

Some little difficulty is met with in distinguishing correctly the external trade for each colony, owing to the circumstance that steam vessels from Europe call at various colonial ports, and are credited to the first port of call, quite irrespective of the fact that little or none of the cargo may be destined for the colony to which the port belongs. Thus the returns of Western Australia for 1890 show external shipping entering inwards 235,815 tons, and 219,692 tons outwards, in all, 455,507 tons, a larger total than either Queensland or Tasmania, though the present importance of these colonies is very much greater than that of Western Australia. The following table gives the total of the other than Australasian tonnage entering and clearing at the ports of each colony; the figures, however, should be taken in conjunction with the import and export statistics given in the next chapter :—

TONNAGE IN BALLAST.

External tonnage—Inwards and Outwards.

Colony.	1881.		1890.		Percentage of tonnage to each Colony.	
	No.	Tonnage.	No.	Tonnage.	1881.	1890.
New South Wales.....	1,120	1,080,446	1,209	1,757,683	34·3	31·6
Victoria	626	737,272	756	1,253,206	23·4	22·5
Queensland.....	461	282,439	324	261,642	8·9	4·7
South Australia.....	541	479,231	724	1,091,706	15·2	19·6
Western Australia...	171	139,200	249	455,507	4·4	8·2
Tasmania	68	27,679	78	113,290	0·9	2·0
New Zealand	648	406,820	606	636,290	12·9	11·4
Australasia.....	3,635	3,153,087	3,946	5,569,324	100·0	100·0

A peculiar feature of Australasian trade is the small and decreasing proportion of tonnage arriving or departing in ballast for places outside Australasia. Thus, in 1881 this description of tonnage amounted to 4·3 per cent. of the whole; in 1890 the proportion was only 3·5 per cent., while in European and American countries of which there are available returns, the proportion varies from 11 to 36 per cent. The details of arrivals and departures in ballast for the years 1881 and 1890 are :—

External Tonnage Inwards and Outwards with Ballast only.

Colony.	1881.	1890.	Percentage of Tonnage in Ballast to Total External Tonnage of each Colony.	
	Tonnage.	Tonnage.	1881.	1890.
New South Wales.....	22,376	52,911	2·1	3·0
Victoria	12,841	46,051	1·7	3·7
Queensland.....	25,378	10,290	9·0	3·9
South Australia.....	23,590	25,276	6·0	2·3
Western Australia	10,399	9,480	7·5	2·1
Tasmania	4,553	10,145	16·4	8·9
New Zealand	30,622	40,972	7·5	6·4
Australasia.....	134,759	195,125	4·3	3·5

Varied resources
of Australasia.

The reason why so small a proportion of Australasian shipping leaves in ballast is no doubt to be found in the large and varied resources of the country, for when the staple produce—wool—is not available, cargoes of wheat and coal may be obtained. The percentage of tonnage in ballast during 1889 for some of the principal countries of the world is given herewith :—

European and American Tonnage in Ballast.

Country.	Percentage of Tonnage in Ballast to total Tonnage.
United Kingdom	14·4
France	18·8
Germany	20·1
Spain	22·6
Italy	24·9
Russia	34·9
Belgium	24·3
Netherlands	22·9
Norway and Sweden	36·1
United States	11·2
Australasia (1890)	3·5

Intercolonial
shipping.

The development of the intercolonial shipping has advanced step by step with the external trade of the colonies. New Zealand forms an exception to the rule, a circumstance due to the development of its resources having now reached such a point that the colony is in a position to trade directly with Great Britain, instead of, as formerly, indirectly by way of the ports of New South Wales and Victoria.

The following is a statement of the inward trade of each Colony Inward inter-colonial trade from other members of the group :—

Intercolonial Tonnage Inwards (Cargo and Ballast).

Colony.	1881.		1890.	
	No.	Tonnage.	No.	Tonnage.
New South Wales.....	1,730	939,158	2,374	1,631,726
Victoria	1,733	780,633	1,965	1,365,207
Queensland.....	663	268,593	446	330,094
South Australia.....	837	412,493	745	577,923
Western Australia	95	74,020	149	248,719
Tasmania	654	175,439	682	368,483
New Zealand	457	227,284	481	398,661
Australasia.....	6,169	2,877,620	6,842	4,920,513

New South Wales, it will be seen, heads the list with about Position of New South Wales. one-third of the total intercolonial inward shipping—a position, doubtless in a large measure, due to the fact that many vessels which have discharged cargo in other Colonies come to New South Wales for cargoes for foreign ports. Victoria stands second to New South Wales for vessels inwards from other Colonies, but in regard to outward trade she stands first, as will be seen by the figures annexed :—

Intercolonial Tonnage Outwards (Cargo and Ballast).

Colony.	1881.		1890.	
	No.	Tonnage.	No.	Tonnage.
New South Wales.....	1,507	766,896	2,083	1,372,463
Victoria	1,889	894,629	2,212	1,744,928
Queensland.....	679	331,459	452	319,043
South Australia.....	871	467,867	793	668,045
Western Australia	102	71,826	150	200,635
Tasmania	661	180,644	749	469,474
New Zealand	422	199,517	402	277,523
Australasia.....	6,131	2,912,838	6,841	5,052,111

Position of
Victoria.

The position occupied by Victoria as compared with New South Wales in the table just given is peculiar, and arises from the necessity of many vessels arriving with cargoes being compelled to leave in ballast and seek outward freights in New South Wales, particularly at the port of Newcastle. A large proportion of the tonnage from Victoria to New South Wales is of ships in ballast requiring coal, not for Victoria only, but for places outside Australasia; these ships leaving Victorian ports are reckoned as inter-colonial, but when entering outward at Newcastle they are of course cleared as engaged in foreign trade. The combined tonnage inward and outward will be found in the following table, with the percentage due to each Colony :—

Intercolonial Tonnage, Inwards and Outwards (Cargo and Ballast.)

Colony.	1881.	1890.	Percentage of Tonnage to each Colony.	
	Tonnage.	Tonnage.	1881.	1890.
New South Wales	1,706,054	3,004,189	29·5	30·1
Victoria	1,675,262	3,110,135	28·9	31·2
Queensland	600,052	649,137	10·4	6·5
South Australia	880,360	1,245,968	15·2	12·5
Western Australia	145,846	449,354	2·5	4·5
Tasmania	356,083	837,957	6·2	8·4
New Zealand	426,801	676,184	7·4	6·8
Australasia	5,790,458	9,972,924	100·0	100·0

Steam and
sailing tonnage.

The general tendency to substitute steamers for sailing vessels is very marked in the Australasian trade. Unfortunately the records of Queensland do not admit of a distinction being made between the two classes of vessels, nor do those of South Australia and New Zealand, except of later years. The following table gives such particulars as are available :—

External and Intercolonial Steam Tonnage.

Colony.	1881.	1890.	Percentage of Steam Tonnage to Steam and Sailing.	
			1881.	1890.
New South Wales.....	1,758,304	3,654,814	63·1	76·7
Victoria	1,787,861	3,575,053	74·1	81·9
South Australia.....	.....	1,684,480	.....	76·9
Western Australia	210,664	840,829	73·9	92·9
Tasmania	265,833	852,219	69·3	89·6
New Zealand .....	.....	800,533	.....	61·0

The following figures give like information for about the same period for some of the principal countries of the world :—

Countries.	Percentage of Steam Tonnage to Steam and Sailing.	
	1881.	1889.
United Kingdom	67·7	81·7
France	69·5	86·1
Germany	70·8	85·1
Italy	72·8	88·0
Belgium	81·3	92·5
Netherlands... ..	74·4	90·2
Norway and Sweden	41·0	64·5
United States	55·5	65·3

The relative importance of the various ports of Australasia may be ascertained from an inspection of the following table. Melbourne takes first place, then Sydney, Port Adelaide, and Newcastle, each having over a million tons. The tonnage for all the principal ports is given below :—

Relative importance of ports.

TOTAL AUSTRALASIAN TRADE.

Total Tonnage of Vessels inwards and outwards at the principal
Ports of Australasia, 1881, 1890.

Colony.	Port.	1881.	1890.
New South Wales	Sydney	1,610,692	3,001,221
	Newcastle	1,127,238	1,467,578
	Eden	27,277	81,356
Victoria	Melbourne	2,144,949	4,096,982
	Geelong	93,347	131,803
	Brisbane	406,032	831,164
Queensland	Townsville	205,886	538,217
	Rockhampton	207,706	455,463
	Cooktown	217,144	411,133
South Australia	Port Adelaide	1,078,920	1,717,429
	Port Pirie	33,325	202,101
	Port Darwin	90,100	147,232
Western Australia	Albany	219,902	820,542
	Freemantle	42,618	59,966
Tasmania	Hobart	204,007	546,357
	Launceston	138,657	298,401
New Zealand	Auckland	238,886	362,104
	Wellington	119,243	284,867
	Bluff Harbour	91,592	167,601
	Lyttleton	167,151	220,014
	Dunedin	114,637	99,971

Total trade of
principal ports.

The above figures, as already explained, only partially represent the relative position of the various ports. A better idea of their actual positions will be gained from the following table, which shows the value of the total trade, and the value to every ton of shipping, for the principal ports of each Colony, except Western Australia :—

Total Trade to the principal Ports of Australasia 1890.

Colony.	Chief Port.	Total Trade.	Trade to each ton of Shipping.
		£	£
New South Wales	Sydney	29,971,039	10·0
Victoria	Melbourne	30,058,617	7·3
Queensland	Brisbane	4,307,987	5·2
South Australia	Port Adelaide	8,511,682	5·0
Tasmania	Launceston	1,614,824	5·4
New Zealand	Wellington	2,907,819	10·2

The comparative importance of the shipping movements of Australasia may be seen from viewing them in connection with the tonnage annually visiting the chief ports of the United Kingdom. In absolute tonnage, it will be observed, Melbourne is exceeded only by London, Liverpool, Cardiff, and Newcastle. Hull comes next on the list, having a slight lead over Sydney, which in its turn exceeds Glasgow, Newport, Southampton, and all the other British ports. In the following table the figures for the British Ports as well as Australasian are for 1890 :—

Tonnage of
the United
Kingdom.

Tonnage of principal Ports of United Kingdom and Australasia.

Port.	Inwards.	Outwards.	Total.
	Tons.	Tons.	Tons.
England—			
London.....	7,708,705	5,772,062	13,480,767
Liverpool.....	5,782,351	5,159,450	10,941,801
Cardiff.....	3,173,699	5,641,511	8,815,210
Newcastle.....	2,040,219	3,441,239	5,481,458
Hull.....	1,997,138	1,665,996	3,653,134
Newport.....	920,560	1,316,430	2,236,990
Southampton.....	888,352	813,133	1,701,485
Scotland—			
Glasgow.....	1,121,700	1,697,662	2,819,362
Leith.....	706,491	626,573	1,333,064
Kirkcaldy.....	387,107	716,541	1,103,648
Grangemouth.....	415,749	616,173	1,031,922
Ireland—			
Belfast.....	243,255	86,924	330,179
Dublin.....	248,732	79,033	327,765
Australasia—			
Melbourne.....	2,051,826	2,045,156	4,096,982
Sydney.....	1,644,589	1,356,632	3,001,221
Adelaide.....	883,458	833,971	1,717,429
Brisbane.....	415,814	415,350	831,164
Albany.....	431,817	388,725	820,542
Hobart.....	273,494	272,863	546,357
Auckland.....	185,444	176,660	362,104

The yearly movement of tonnage in the ports of Melbourne and Sydney far exceeds that of any other British possessions, except Hong Kong. Two other exceptions might be mentioned

Tonnage of
Melbourne and
Sydney.

NATIONALITY OF TONNAGE.

those of Gibraltar and Malta, but as these are important naval stations, and the trade is very limited compared with the tonnage, they can hardly be placed in the same category.

Nationality of Tonnage.

The shipping trade of Australasia is almost entirely in British hands, as will be seen from the subjoined table. Although in recent years direct communication with continental Europe has been established, and two splendid lines of steamers have entered on the direct trade, the proportion of the total shipping belonging to Great Britain and her dependencies has fallen only from 92·9 to 87·6 per cent. during the period covered :—

Nationality of Tonnage.—External and Intercolonial Tonnage; Inwards and Outwards.

Nationality.	1881.		1890.		Percentage of Tonnage of each Nation to Total Tonnage.	
	No.	Tonnage.	No.	Tonnage.	1881.	1890.
British	15,127	8,313,535	16,227	13,608,674	92·9	87·6
French	91	47,713	228	479,318	0·5	3·1
German	199	130,070	534	842,618	1·5	5·4
Scandinavian	133	66,566	172	121,214	0·7	0·8
United States	308	328,540	372	381,864	3·7	2·5
Other nationalities...	77	57,121	96	108,560	0·6	·7
Total.....	15,935	8,943,545	17,629	15,542,248	100·0	100·0

Under the term "British," used in the foregoing table, are included vessels owned in Australasia. The returns published by the various colonies are not in a form such as to admit of the purely local tonnage being distinguished from the other shipping of the empire. In the following table the number and tonnage

of vessels registered in each colony are given ; the statement, ^{Vessels registered in Australasia.} however, does not show the whole volume of shipping. Few of the large class of vessels employed in the intercolonial trade have been built in Australasia, and are consequently not registered in local ports, so that the registrations are confined for the most part to vessels locally built :—

Vessels registered in Ports of different Colonies at the close of 1890.

Colony.	Vessels Registered.	
	Number.	Gross Tonnage.
New South Wales	1,095	123,432
Victoria	396	86,170
Queensland	124	24,215
South Australia	304	35,314
Western Australia	118	5,470
Tasmania	224	19,803
New Zealand	521	98,907
Australasia	2,782	393,311

COMMERCE.

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; and Australasia now shows a larger ratio of trade compared with population than any other country. If an exception is to be made to this broad statement it is only in favour of Belgium, half of whose trade consists of goods in transit to or from the north of France or the Rhine provinces of Germany. The maritime strike already referred to greatly disturbed the business of the various ports of Australasia during 1890, and much of the trade rightly belonging to this year had perforce to be held over until the following year, with the result that 1891 shows an increase of several millions over the total of the year preceding.

Total trade.

Prior to 1825 no complete returns of commerce are available for Australasia. The following table, commencing with that year, gives the trade, value per inhabitant, and rate of annual increase for each successive period:—

Total Trade of Australasia.

	Value.	Value per inhabitant.	Annual increase per cent. for each period.
	£	£ s. d.	
1825	511,998	10 13 11	.....
1841	5,573,000	22 4 0	16·1
1851	8,957,610	18 10 7	4·9
1861	51,001,071	40 5 5	19·0
1871	69,093,778	35 1 5	3·1
1881	101,710,967	36 12 3	4·0
1890	132,801,164	35 10 3	3·0

Effect of gold discovery on trade.

The impetus given to trade by the opening of the gold-fields is still felt, and though the high ratio obtained during the height of the gold discoveries has not been maintained the volume per inhabitant is still almost twice that of the days prior to 1852.

Although the preceding table shows a slight increase in the trade per inhabitant during the past twenty years, there has been a decline since 1881. This fall is, to some extent, more apparent than real, for the volume of merchandise has increased though the monetary value in proportion to population has slightly 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.

The following statement shows the price level of wool for twenty years, and shows how greatly the shrinkage in price must have affected the nominal value of the trade of these colonies :—

Price level of wool.

New South Wales Wool.

Year.	Price level.	
	1871, price 1,000.	1890, price 1,000.
1871	1,000	1,636
1872	935	1,403
1873	985	1,455
1874	944	1,432
1875	970	1,406
1876	900	1,350
1877	758	1,286
1878	761	1,220
1879	773	1,301
1880	762	1,317
1881	759	1,312
1882	768	1,293
1883	819	1,314
1884	777	1,318
1885	740	1,110
1886	711	1,030
1887	698	1,059
1888	687	1,015
1889	712	1,069
1890	611	1,000

EXTERNAL TRADE.

The figures hitherto given have referred to the total trade of these colonies—the intercolonial as well as the trade with foreign

External trade.

countries. This latter, which is hereinafter called external, presents some interesting features of comparison. By far the greater part of the external trade of Australasia is with the United Kingdom; and of the remainder the larger proportion is carried on with foreign countries, principally the United States, France, Germany, and Belgium, while the trade with other British possessions has of late years considerably declined.

The subjoined table shows the distribution of the trade in the three divisions to which reference has been made :—

External Trade—Imports and Exports.

Trade with—	1861.	1871.	1881.	1890.	
	£	£	£	£	
The United Kingdom.....	Imports	13,467,370	12,006,419	25,662,185	28,163,348
	Exports	12,207,228	18,486,703	24,342,422	28,200,563
	Total...	25,674,598	30,493,122	50,004,607	56,363,911
British Possessions outside Australasia...	Imports	1,767,391	2,382,148	3,078,195	3,003,450
	Exports	3,656,065	764,652	4,257,961	2,472,954
	Total...	5,423,456	3,146,800	7,336,156	5,476,404
Foreign Countries.....	Imports	3,216,738	2,245,124	4,603,326	7,325,578
	Exports	746,490	3,843,970	2,610,589	6,057,834
	Total...	3,963,228	6,089,094	7,213,915	13,383,412
Total, External Trade	Imports	18,451,499	16,633,691	33,343,706	38,492,376
	Exports	16,609,783	23,095,325	31,210,972	36,731,351
	Total...	35,061,282	39,729,016	64,554,678	75,223,727

The relative proportions of the above trade expressed centesimally are as follows :—

	1861.	1871.	1881.	1890.
United Kingdom.....	73·2	76·8	77·4	74·9
British Possessions outside Australasia.....	15·5	7·9	11·4	7·3
Foreign Countries	11·3	15·3	11·2	17·8
	100·0	100·0	100·0	100·0

Prior to the year 1883 the trade between Australasia and the United Kingdom had been growing steadily, both absolutely and as compared with the whole volume of the trade. Since then, however, direct commercial relations have been established with the leading European continental countries, and though the trade with the United Kingdom is still large, in 1890 it showed a falling off to the extent of nearly £3,000,000 as compared with the previous year, while the share obtained by Belgium, France, and Germany had considerably increased. During the past nine years trade with the United Kingdom had increased by £6,359,304, equal to nearly 13 per cent.; the trade of Australasia with foreign countries had increased during the same period, £6,169,497 or 86 per cent. The trade with the British possessions outside Australasia has never been of much value, and is now less than formerly, having fallen from £7,336,156 in 1881 to £5,476,404 in 1890.

Trade with the
United
Kingdom.

Other British
Possessions.

Under present conditions no extension of commercial relations with the United States can be looked forward to, but trade with the east gives good promise for the future, especially with India, China, Japan, and the East Indian Archipelago, where markets for Australasian wool will possibly in time be found—little or nothing in that direction having been accomplished up to the present; but Japan has lately established a national line of steamers to foster the trade between that country and Australasia. A large amount of business is already transacted with the island of Ceylon, which bids fair to increase, particularly in regard to tea, which now strongly competes with the Chinese leaf in public estimation. The value of the direct import of Indian teas in 1890 amounted to about £290,000, being an excess of £110,000 over that of the previous year, while the imports from China of this article have correspondingly decreased.

Trade with the
East.

Trade with the South Pacific Islands is valuable, and increasing, consisting mostly of raw articles imported from them, in exchange for Australasian produce. The bulk of this trade is done with

The Island trade.

Improvement of
steamers.

Fiji and New Caledonia, and the latter deals principally with New South Wales, Sydney being the terminal port for the French mail steamers of the Messageries line. The trade with New Guinea is at present but small, though when the resources of that prolific island come to be developed a large amount of trade may be expected. Every year steamers of greater tonnage and higher speed are visiting the Colonies from Europe, and a considerable expansion of commerce must of necessity spring up, owing to the new outlets for trade being constantly opened through this increased communication, and to the striking advance in shipping facilities, which have been fully described in the preceding chapter.

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

Trade with Foreign Countries.

	Imports.				Exports.			
	1861.	1871.	1881.	1890.	1861.	1871.	1881.	1890.
	£	£	£	£	£	£	£	£
Belgium ....	....	....	26,713	281,497	....	....	100,437	1,752,785
France and Possessions	136,124	158,992	340,750	402,841	26,793	101,758	336,498	941,107
Germany	109,172	3,899	225,672	1,728,504	....	....	70,422	678,099
Holland and Possessions	114,304	194,519	466,444	572,555	3,907	39,517	52,192	75,065
Italy .....	....	....	7,874	40,515	....	....	152,914	29,963
Norway and Sweden ..	22,666	106,720	259,156	695,360	....	....	....	....
China	827,347	874,925	1,430,993	706,131	114,149	29,137	78,599	56,269
Japan .....	....	....	23,245	78,417	1,805	9,470	6,872	14,583
South Sea Islands	40,200	135,060	124,447	78,661	36,130	153,568	140,299	170,320
United States	1,080,673	616,625	1,593,088	2,656,354	76,154	367,361	1,298,905	2,073,147
Other Countries ..	886,252	154,384	104,944	84,743	487,552	3,143,159	373,451	206,496
Total....	3,216,738	2,245,124	4,603,326	7,325,578	746,490	3,843,970	2,610,589	6,057,834

Import and
Export trade.

The commerce with foreign countries from the commencement of the period under review exhibits very satisfactory progress ;

the imports have fully doubled, while the exports have increased eightfold, and if the total trade be considered the increase was 238 per cent. This expansion is chiefly due to the development of the European continental trade, consequent on the diversion of ^{Trade with the Continent of Europe.} part of the wool business from London, which was mainly brought about by the display of local resources in the Sydney and Melbourne International Exhibitions of 1879 and 1880. The increase since 1881 in the trade of these colonies with its principal customers amongst foreign countries is given below:—

Countries.	Increase per cent. in		
	Imports.	Exports.	Total Trade.
Belgium	953	1,645	1,500
France and Possessions.....	18	179	98
Germany	665	862	713
United States.....	66	59	63

Belgium exhibits the greatest progress, the increase of the ^{Trade with Belgium.} export trade being specially marked, but the port of Antwerp is simply a distributing centre for the greater part of the wool destined for the continent; large quantities landed there ultimately find their way to Germany, France, and other countries. The French, early in 1883, 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, Hamburg, and Dunkirk. Lately a Belgian Company has also established a line of steam-ships, and in addition to these foreign companies there are several English lines running their vessels direct to continental ports.

Direct wool
trade with
Europe.

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, Hamburg, 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.

Wool trade with
the Continent.

The rapid growth of the continental wool trade during the period from 1881 to 1890 is illustrated by the following table, which shows the values exported to the principal countries, and the proportion of the total amount taken by each :—

Value of direct Export Trade of Wool to principal Countries.

Country.	Value.		Proportion.	
	1881.	1890.	1881.	1890.
	£	£	per cent.	per cent.
United Kingdom	15,777,327	16,989,575	97·8	84·5
Belgium	96,557	1,725,186	0·6	8·6
Germany	53,809	590,640	0·3	2·9
France	26,965	524,640	0·2	2·6
United States	132,699	189,237	0·8	0·9
Other Countries.....	48,725	86,740	0·3	0·5
Total	16,136,082	20,106,018	100·0	100·0

Value of Austral-
asian wool.

The value of the wool shipped from Australasia has thus increased by nearly four millions sterling, or more than 24·6 per cent., in the nine years. It will be observed that while the wool exported to the United Kingdom has increased in value to the

extent of over one million, the proportionate share of such exports to the total wool exports has declined from 97·8 to 84·5 per cent. The export of wool to foreign countries has increased both absolutely and relatively.

The following shows the total and proportionate value of the wool shipped by each Colony :—

Value of direct Export Trade of Wool from each Colony :—

Colony.	Value.		Proportion.	
	1881.	1890.	1881.	1890.
	£	£		
New South Wales.....	4,485,295	6,139,198	27·8	30·5
Victoria	5,327,934	5,862,011	33·0	29·2
Queensland.....	996,047	1,821,988	6·2	9·1
South Australia.....	1,747,696	1,585,601	10·8	7·9
Western Australia	256,689	248,137	1·6	1·2
Tasmania	416,572	307,949	2·6	1·5
New Zealand	2,905,849	4,141,134	18·0	20·6
Australasia.....	16,136,082	20,106,018	100·0	100·0

It will be seen by the table just given that Victoria was credited in 1881 with exporting wool to a considerable value in excess of that of New South Wales. In 1890, however, the positions were reversed, notwithstanding the fact that large quantities of wool from New South Wales are still sent to Melbourne for export, and are shipped as Victorian wool. In 1881 the wool produced in New South Wales, but credited to Victoria, was valued at £2,750,285; in 1890 the value was £2,892,220; the wool imported into and shipped from New South Wales, the produce of other Colonies, for the two years in question was £46,051 and £277,110 respectively. South Australia also receives a large quantity of New South Wales wool for shipment, though not to nearly so great an extent as Victoria.

In connection with this subject a statement of the amount of wool of its own production, which each colony exports, whether

Wool exports from Victoria and New South Wales.

Wool export of each Colony.

TRADE WITH UNITED STATES.

direct or by way of the other colonies, may not be without interest. This is given in the following table :—

Wool Exported, the Produce of each Colony, 1890.

Colony.	Wool Exported direct.	Wool Exported by way of the other Colonies.	Total.	Proportion of Export of Australasia.
	£	£	£	per cent.
New South Wales	5,873,764	3,081,798	8,955,562	44·0
Victoria.....	2,671,802	71,562	2,743,364	13·5
Queensland	1,821,988	702,754	2,524,742	12·4
South Australia	1,075,255	220,496	1,295,751	6·4
Western Australia	248,137	13,215	261,352	1·3
Tasmania	307,949	111,224	419,173	2·0
New Zealand	4,139,924	9,465	4,149,389	20·4
Australasia ...	16,138,819	4,210,514	20,349,333	100·0

The difference between £20,349,333, the total just given, and £20,106,018, found in the previous table, arises from the circumstance that about one-third of the clip of Australasia is subject to valuation, first at the border of the colony in which it is produced, and again at the port from which it is finally shipped to Europe.

Trade with the United States.

Australasia has for many years maintained important commercial relations with the United States of America, and in 1890 America's share of the trade of Australasia with foreign countries was about one-third of the whole. The greater part of this trade was carried on with New South Wales and New Zealand. The main exports to the United States are specie, coal, and wool—chiefly the former—so that, though large in its

nominal amount, the trade is less valuable than would at first sight appear. The export of wool, compared with that to other foreign countries, is unimportant, and shows little signs of development, amounting in 1890 to £189,237, out of a total of over twenty millions.

The Australasian exports to China are but small compared with the imports, and evince a considerable falling off since 1861. The figures given by the Customs returns as the imports and exports between Australasia and China do not, however, represent the whole amount of the trade, as a considerable portion of the trade with Hongkong is in reality intended for the Chinese Empire—Hongkong, although a British possession, being to a large extent a distributing centre for the Empire. In view of this fact the following table has been compiled, which shows the trade with the Empire and with Hongkong :—

	Imports.			Exports.		
	1888.	1889.	1890.	1888.	1889.	1890.
	£	£	£	£	£	£
Chinese Empire	1,129,241	812,859	706,131	30,397	65,105	56,269
Hongkong	817,227	1,017,946	753,853	365,202	431,884	451,456
Total	1,946,468	1,830,805	1,459,984	395,599	496,989	507,725

Besides the foregoing countries, Australasia maintained a not inconsiderable trade with the South Seas, Java, and Scandinavia ; with the two countries last mentioned the trade consists mainly of imports.

The figures relating to the trade that each colony carries on with countries outside Australasia would be extremely interesting

EXTERNAL IMPORTS AND EXPORTS.

if they could be given with exactness; unfortunately this is impossible as the destination of goods exported overland cannot be traced beyond the colony to which they are in the first instance despatched; all that can be given is the export by sea, which the following series of tables show:—

Imports from Countries outside Australasia.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales.....	11,357,096	11,633,283	14 18 9	10 11 2
Victoria	10,768,791	14,428,256	12 7 6	12 18 0
Queensland	1,492,305	2,502,008	6 14 3	6 8 9
South Australia.....	3,566,917	3,500,013	12 17 7	10 19 9
Western Australia	208,743	512,608	7 1 5	10 17 3
Tasmania	445,576	743,276	3 16 3	5 3 5
New Zealand	5,504,278	5,172,932	11 3 4	8 6 7
Australasia	33,343,706	38,492,376	12 0 10	10 5 10

Exports to Countries outside Australasia.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales	9,326,349	10,761,197	12 5 4	9 15 4
Victoria	11,515,661	9,202,116	13 4 8	8 4 7
Queensland	1,301,400	2,449,658	5 17 1	6 6 2
South Australia	3,172,920	5,333,729	11 9 2	16 14 11
Western Australia	357,702	483,380	12 2 4	10 4 11
Tasmania	513,363	323,799	4 7 10	2 5 0
New Zealand	5,023,577	8,177,472	10 3 10	13 3 3
Australasia	31,210,972	36,731,351	11 5 5	9 16 6

Combining the two previous tables, the total external trade of Australasia, and the value per head of the population of each Colony, as well as the group, are as follow:—

Total Trade with Countries outside Australasia.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales.....	20,683,445	22,394,480	27 4 1	20 6 6
Victoria	22,284,452	23,630,372	25 12 2	21 2 7
Queensland.....	2,793,705	4,951,666	12 11 4	12 14 11
South Australia.....	6,739,837	8,833,742	24 6 9	27 14 8
Western Australia	566,445	995,988	19 3 9	21 2 2
Tasmania	958,939	1,067,075	8 4 1	7 8 5
New Zealand	10,527,855	13,350,404	21 7 2	21 9 10
Australasia	64,554,678	75,223,727	23 6 3	20 2 4

It will be seen by the returns treating the imports and exports separately that the expansion of trade in the various Colonies has not been uniform. The imports of New South Wales have not varied much for the two years under review, but the exports of 1890 exceed those of 1881 by nearly $1\frac{1}{2}$ millions. The Victorian imports have largely increased, while the exports are less by £2,313,545 than they were in 1881; and the Tasmanian import trade presents the same features as that of Victoria, increasing to the extent of 67 per cent., while the exports exhibit a falling off of 37 per cent. compared with that of 1881. The South Australian and New Zealand imports are slightly less than they were in 1881, but the exports have increased at a greater ratio than that of the other Colonies. No rigid deductions can possibly be drawn from the facts just given, for, as is well known, some of the provinces—notably Queensland and Tasmania—are not yet in a position to maintain a direct foreign trade, and in a forced comparison with the rest of Australasia are apt to suffer.

Expansion of trade not uniform.

If the total trade of 1890 be considered, Victoria heads the list with a commerce valued at £23,630,372, then comes New South Wales, with £22,394,480, being a close second, while New Zealand is third, with a trade of £13,350,404. Taking all the Colonies together the external imports and exports combined equal a trade of £20 2s. 4d. per head of the entire population of Australasia.

Total trade.

The value of the direct trade between Australasia and the United Kingdom, other British Possessions, and Foreign Countries is shown in the following tables :—

Trade with the United Kingdom and other British Possessions.

VALUE OF EXTERNAL IMPORTS.

Imports from Countries outside Australasia.

Country.	1881.	1890.
British Possessions—	£	£
United Kingdom	25,662,185	28,163,348
India	750,056	1,098,488
Canadian Dominion	71,455	85,746
Cape Colony	1,303	322
Fiji	63,190	237,556
Mauritius	1,364,421	663,573
Hong Kong	642,308	753,853
Singapore	59,043	87,644
Other Possessions	126,419	76,268
Total	28,740,380	31,166,798
Foreign Countries—		
France and New Caledonia	340,750	402,841
Germany	225,672	1,728,504
Italy	7,874	40,515
Belgium	26,713	281,497
Norway and Sweden	259,156	695,360
United States	1,593,088	2,656,354
Netherlands and Java	466,444	572,555
S. S. Islands	124,447	78,661
China.....	1,430,993	706,131
Japan	23,245	78,417
Other Countries	104,944	84,743
Total	4,603,326	7,325,578
Total, External Imports	33,343,706	38,492,376

Exports from Countries outside Australasia.

Country.	1881.	1890.
British Possessions—	£	£
United Kingdom	24,342,422	28,200,563
India	225,719	1,340,889
Canadian Dominion .....	.....	70
Cape Colony.....	314,460	157,765
Fiji	157,913	146,053
Mauritius	95,475	109,215
Hongkong.....	359,934	451,456
Singapore	38,767	117,403
Other Possessions	3,065,693	150,103
Total	28,600,383	30,673,517
Foreign Countries—		
France and New Caledonia	336,498	941,107
Germany	70,422	678,099
Italy	152,914	29,963
Belgium	100,437	1,752,785
Norway and Sweden .....	.....	.....
United States	1,298,905	2,073,147
Netherlands and Java	52,192	75,065
South Sea Islands	140,299	170,320
China.....	78,599	56,269
Japan	6,872	14,583
Other Countries	373,451	266,496
Total	2,610,589	6,057,834
Total External Exports...	31,210,972	36,731,351

VALUE OF TOTAL EXTERNAL TRADE.

Total Trade with Countries outside Australasia.

Country.	1881.	1890.
British Possessions—	£	£
United Kingdom	50,004,607	56,363,911
India	975,775	2,439,377
Canadian Dominion	71,455	85,816
Cape Colony	315,763	158,087
Fiji	221,103	383,609
Mauritius	1,459,896	772,788
Hongkong.....	1,002,242	1,205,309
Singapore	97,810	205,047
Other Possessions	3,192,112	226,371
Total.....	57,340,763	61,840,315
Foreign Countries—		
France and New Caledonia	677,248	1,343,948
Germany	296,094	2,406,603
Italy	160,788	70,478
Belgium	127,150	2,034,282
Norway and Sweden	259,156	695,360
United States	2,891,993	4,729,501
Netherlands and Java	518,636	647,620
South Sea Islands	264,746	248,981
China	1,509,592	762,400
Japan... ..	30,117	93,000
Other Countries	478,395	351,239
Total.....	7,213,915	13,383,412
Total External Trade.....	64,554,678	75,223,727

The importance to the United Kingdom of its trade with the Australasian Colonies has already been alluded to. The following figures illustrate the position occupied by the imports from these Colonies into Great Britain, as compared with the sum of the imports from all her possessions :—

Value of Australasian trade to United Kingdom.

Imports from British Possessions into the United Kingdom.

Year.	As Returned by British Customs.		Percentage of Imports from Australasia to total from British Possessions.
	Total Imports from British Possessions.	Imports from Australasia.	
1881	£ 91,539,660	£ 26,975,381	29·5
1890	96,161,214	29,350,844	30·5

A comparison of the total trade done by the United Kingdom with some of her principal possessions discloses some peculiar facts. Although it is very little more than a century since the commencement of Australasian settlement, the trade of these countries with the United Kingdom is only exceeded by that of India, while it is more than double that of Canada, and in a larger degree exceeds the trade of any other British Possession. The following table, which is taken from the returns of the Board of Trade, and differs slightly from the figures previously given, shows the trade for the two years, 1881 and 1890, of the principal portions of the Empire with the United Kingdom, and the proportion of the total trade which each transacts :—

Trade between the Mother Country and British Possessions.

Total Trade of the United Kingdom with some of its Possessions.

Country.	1881.	1890.	Per-centage of Trade to total of British Possessions with United Kingdom.	
			1881.	1890.
	£	£		
India.....	63,682,398	67,898,911	35·73	35·61
Canadian Dominion	20,608,159	20,717,232	11·56	10·86
Cape Colony and Natal	13,105,264	15,899,164	7·35	8·34
Straits Settlements.....	6,527,675	8,212,456	3·66	4·31
Hongkong	4,815,905	3,966,468	2·70	2·08
Australasia	50,957,785	54,821,038	28·59	28·75

Trade of United Kingdom with Europe and America.

If a comparison of the trade of the United Kingdom with Australasia during 1890 be made with that of Great Britain and other countries, it will be found it is surpassed only by that of the United States with £143,623,000, France with about £69,539,000, Germany with £56,590,000, and the British Possession India, with £67,899,000, so that Australasia, with a trade of £54,821,000, stands fifth of all countries so far as the value of its commercial relations with the United Kingdom are concerned. The figures of the Board of Trade again are used :—

Total Trade of the United Kingdom with principal Foreign Countries and Australasia.

Country.	1881.	1890.	Per-centage to Total Trade of United Kingdom. 1890.
	£	£	per cent.
France	70,069,848	69,538,951	9·28
Germany	52,927,199	56,589,612	7·56
Belgium	25,047,833	30,978,742	4·14
Spain	14,421,326	18,211,337	2·43
Italy	10,792,615	11,617,127	1·55
United States	139,990,876	143,623,361	19·18
Argentine Republic	4,000,090	12,660,229	1·69
Chili	5,417,363	6,839,172	·91
Brazil	13,254,733	12,145,748	1·62
Uruguay	1,881,522	2,424,702	·32
Australasia	50,957,785	54,821,038	7·32

INTERCOLONIAL TRADE.

Intercolonial trade.

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	37,156,289	13 8 4
1890	57,577,437	15 7 11

The amount for 1890 represents 43 per cent. of the total trade of Australasia, which in that year reached £132,801,164; 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 the trade which the Colonies transact amongst themselves.

The figures given in the following table represent the inter-colonial imports and exports together, and, although labouring under the defect just mentioned, afford interesting evidence of the way in which the prosperity of each colony is bound up with that of the others :—

Total trade
between the
Colonies.

Total Intercolonial Trade and Percentage of Trade of each Colony to Total Trade.

Colony.	1881.	1890.	1881.	1890.
	£	£	per cent.	per cent.
New South Wales.....	13,211,372	22,266,461	35·6	38·7
Victoria	10,686,172	12,589,865	28·8	21·9
Queensland.....	4,810,286	8,669,546	12·9	15·1
South Australia.....	3,089,466	8,462,023	8·3	14·7
Western Australia	341,156	550,272	0·9	0·9
Tasmania	2,027,781	2,317,429	5·5	4·0
New Zealand	2,990,056	2,721,841	8·0	4·7
Australasia.....	37,156,289	57,577,437	100·0	100·0

INTERNAL AND EXTERNAL TRADE.

Total trade of
the Colonies.

Considering now the general trade of the Colonies, irrespective of its origin or destination, some important results are arrived at, the bearing of which will hereafter be discussed. For the two periods, 1881 and 1890, the imports were :—

Value of External and Intercolonial Imports.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales	17,587,012	22,615,004	23 2 7	20 10 5
Victoria	16,718,521	22,954,015	19 4 3	20 10 5
Queensland.....	4,063,625	5,066,700	18 5 8	13 0 10
South Australia.....	5,320,549	8,333,783	19 4 3	26 3 4
Western Australia	404,831	874,447	13 14 3	18 10 8
Tasmania	1,431,144	1,897,512	12 5 0	13 4 0
New Zealand	7,457,045	6,260,525	15 2 7	10 1 7
Australasia.....	52,982,727	68,001,986	19 2 8	18 3 8

The exports were :—

Value of External and Intercolonial Exports.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales.....	16,307,805	22,045,937	21 9 0	20 0 2
Victoria	16,252,103	13,266,222	18 13 6	11 17 2
Queensland.....	3,540,366	8,554,512	15 18 6	22 0 5
South Australia.....	4,508,754	8,961,982	16 5 7	28 2 9
Western Australia	502,770	671,813	17 0 8	14 4 9
Tasmania	1,555,576	1,486,992	13 6 3	10 6 11
New Zealand	6,060,866	9,811,720	12 5 11	15 15 11
Australasia.....	48,728,240	64,799,178	17 12 0	17 6 7

The total trade, or imports and exports combined, was as follows :—

Total External and Intercolonial Trade.

Colony.	1881.	1890.	Value per Inhabitant.	
			1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales ...	33,894,817	44,660,941	44 11 7	40 10 7
Victoria.....	32,970,624	36,220,237	37 17 9	32 7 7
Queensland	7,603,991	13,621,212	34 4 2	35 1 3
South Australia	9,829,303	17,295,765	35 9 10	54 6 1
Western Australia ...	907,601	1,546,260	30 14 11	32 15 5
Tasmania	2,986,720	3,384,504	25 11 3	23 10 11
New Zealand	13,517,911	16,072,245	27 8 6	25 17 6
Australasia.....	101,710,967	132,801,164	36 14 8	35 10 3

The point most notable in the series of tables just given is the very marked impetus which the trade of South Australia has received during the years which have elapsed since 1881 ; a trade of £54 6s. per inhabitant, the value transacted by South Australia during 1890, is almost without parallel in any important country. This huge trade is, however, not drawn altogether from its own territory, for more than £3,000,000, or about £10 per inhabitant, is due to the Barrier District of New South Wales, of which South Australia is the natural outlet. Trade of South Australia.

The trade of New South Wales for 1890 stood at £44,660,941, which, though somewhat less per inhabitant than formerly, is still very large. All of the Colonies have advanced their total trade since 1881, and all, except Victoria, their exports. Trade of New South Wales.

It will be interesting to measure the volume of Australasian trade, shown by the foregoing figures with the latest returns of other countries. Such a means of comparison the following table affords, the returns being, in most instances, for the year 1890. As regards Australasia the external trade only has been taken. Australasian trade compared

TRADE OF PRINCIPAL COUNTRIES.

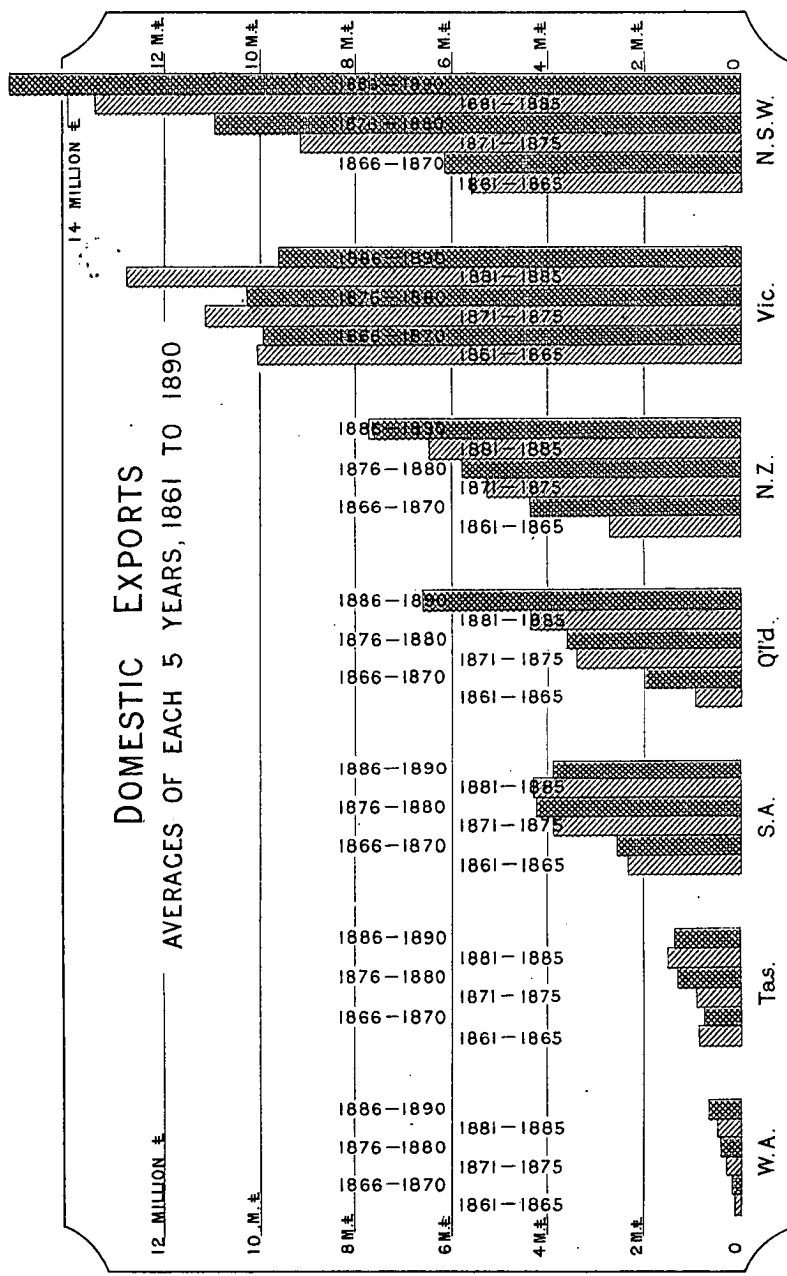
Total Trade of Principal Countries.				
Country.	Total Trade.			Per Inhabitant.
	Merchandise.	Specie and Bullion.	Total.	
	£	£	£	£ s. d.
United Kingdom	749,421,840	48,260,396	797,682,236	21 3 11
France.....	404,952,000	34,825,000	439,777,000	11 10 10
Germany	527,684,550	11,485,000	539,169,550	11 1 11
Italy	98,081,000	4,187,000	102,268,000	3 6 1
Belgium	244,795,000	9,230,000	254,025,000	41 13 8
Cape Colony	19,518,852	873,167	20,392,019	13 7 7
Canada	44,165,215	723,366	44,888,581	9 6 2
Argentine Republic ...	57,477,000	8,036,000	65,513,000	18 14 3
Chili	28,726,000	1,350,000	30,076,000	11 1 6
United States	339,042,848	16,863,398	355,906,246	5 13 8
Australasia.....	70,270,906	4,952,821	75,223,727	20 2 4

Excess of imports over exports.

From the foregoing pages 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 private capital sent to Australia for investment. Taking the Colonies as a whole these two items combined, exceed the payments made for interest on past loans, both public and private, and the sums drawn from the country by absentees. Some of the Colonies have ceased to borrow, or the amount of their borrowing falls below their yearly payments for interest; in such cases there is an excess of exports. Hereunder is shown the balance of trade of each Colony and of Australasia for the five years, 1886-1890, 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.

DOMESTIC EXPORTS

AVERAGES OF EACH 5 YEARS, 1861 TO 1890



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 No. of Lithographs 13,212 1/2

Balance of Trade and Loan Expenditure, 1886-90.

Colony.	Excess of Imports.	Expenditure from Loans.
	£	£
New South Wales	6,691,094	13,435,000
Victoria	45,880,450	17,308,703
Queensland	*4,114,260	8,704,394
South Australia	*1,912,772	5,699,470
Western Australia	720,452	534,349
Tasmania	1,410,970	3,271,631
New Zealand	*8,944,053	4,895,264
Australasia	39,731,881	53,848,811

* Excess of exports.

The values of the exports of Australasia, and of its various provinces, have been given in the previous pages without respect to the locality where the articles were produced. It will be instructive to see to what extent the exports have been the produce of the Colony whence they were shipped. The following table shows the value as returned by the Customs of the exports of domestic produce from each Colony for the years 1881 and 1890, and the value thereof per inhabitant:—

Exports of Domestic Produce.

Colony.	Total Value.		Value per Inhabitant.	
	1881.	1890.	1881.	1890.
	£	£	£ s. d.	£ s. d.
New South Wales	11,955,277	17,232,725	15 14 6	15 12 9
Victoria	12,480,567	10,291,821	14 6 10	9 4 0
Queensland	3,478,376	8,412,244	15 12 11	£1 13 1
South Australia	3,755,781	4,550,139	13 11 3	14 5 9
Western Australia	498,634	659,661	10 17 10	13 19 7
Tasmania	1,548,116	1,430,806	13 5 0	9 19 1
New Zealand	5,762,250	9,428,761	11 13 9	15 3 7
Australasia	39,479,001	52,006,157	14 5 2	13 18 2

The foregoing figures show the total external and intercolonial exports of domestic produce for the seven Colonies, but must be

Australasian
trade in
domestic
produce.

regarded as merely an approximation, since it is difficult to ascertain exactly the home produce of some of the Colonies. This is especially the case with Victoria, and in a lesser degree with New South Wales and South Australia. In the first mentioned Colony large quantities of wool, the produce of the other Colonies—chiefly New South Wales—are exported as domestic produce, amounting in 1890 to £2,378,488. There is some export of New South Wales as locally grown wool from South Australia, but the value thereof is by no means large. Tin and copper ore, which are imported for the purpose of being refined, and wool, chiefly from Queensland, are exported as domestic produce by New South Wales; the amount thus unduly credited in 1890 was £275,823. Cattle from Queensland are also imported, and after being fattened are re-exported as local produce, but in this instance a material change is wrought in the imports, which is not the case with wool. An attempt has been made to remove these elements of error, and the amounts shown in the following table may be accepted as the true value of the domestic produce exported from each Colony:—

Colony.	Value.	Percentage to Total Trade of Australasia.
	£	
New South Wales	16,956,902	34·4
Victoria	7,913,333	16·1
Queensland	8,412,244	17·1
South Australia	4,487,175	9·1
Western Australia	659,661	1·3
Tasmania	1,430,806	2·9
New Zealand	9,428,761	19·1
Australasia	49,288,882	100·0

Placing the values of the external exports of domestic production of Australasia side by side with those of some of the more important countries of the world, a useful comparison is afforded, and from whatever standpoint the matter be viewed, these colonies

must appear in a very favourable light. The figures refer to either 1890 or 1889 :—

Exports of Domestic Produce of some of the Principal Countries.

Country.	Exports of Domestic Produce.	Per Inhabitant.
	£	£ s. d.
United Kingdom.....	263,530,585	7 0 0
France	148,160,000	4 17 9
Germany	166,327,100	3 7 2
Austria-Hungary	63,848,000	1 11 1
Italy	38,026,000	1 4 7
Belgium	58,341,000	9 11 6
Cape Colony	10,101,739	6 12 7
Canada	17,506,691	3 12 7
Argentine Republic	24,563,000	7 0 4
Chili	14,999,000	5 10 5
United States	180,919,100	2 17 9
Australasia	49,288,882	13 3 8

The extent to which the geographical position of a Colony enables it to benefit by the production of its neighbours, is illustrated by the proportion which the non-domestic bear to the total exports. The following table indicates this proportion for each Colony; and it would appear that South Australia, Victoria, and New South Wales, in the order named, benefit largely by their position. The re-export trade of the other colonies is insignificant.

Re-export trade of each Colony.

Percentage of Non-domestic Produce Exported to Total Exports.

Colony.	1881.	1890.
New South Wales	26·7	21·9
Victoria.....	23·2	22·4
Queensland	1·8	1·7
South Australia	17·0	49·2
Western Australia	0·8	1·8
Tasmania	0·5	3·8
New Zealand	4·9	3·9
Australasia	19·0	19·7

DOMESTIC EXPORT TRADE.

Re-exports of
other countries.

The proportion of exports of non-domestic produce to the total exports of some of the principal countries of the world, according to the latest returns, was :—

Non-domestic Produce Exported.

Country.	Percentage of Non-domestic Produce Exported to Total Exports.
United Kingdom.....	18·3
France	23·3
Germany	32·3
Italy	5·2
Belgium	53·0
Cape Colony.....	1·8
Canada	11·7
Chili	3·7
United States	3·2
Australasia	19·7

The Pastoral
Industry.

The importance of the pastoral industry to Australasia will be made clear in another part of this volume. Its value to each Colony varies, as the statement hereunder shows. In no Colony does the proportion of exports of this class fall below 35 per cent. of the total value of domestic produce exported, and in the case of New South Wales, it comes to little short of 70 per cent.

Domestic Pastoral Produce Exported, 1890.

Colony.	Wool.	Other Pastoral Produce.	Total.	Percentage of Exports of Pastoral Produce to Total Export of Domestic Products.
New South Wales...	8,955,562	3,017,488	11,973,050	69·5
Victoria	2,743,364	882,291	3,625,655	35·2
Queensland.....	2,524,742	2,347,068	4,871,810	57·9
South Australia.....	1,295,751	306,448	1,602,199	35·2
Western Australia..	261,352	31,188	292,540	44·4
Tasmania	419,173	149,069	568,242	39·7
New Zealand.....	4,149,389	1,779,128	5,928,517	62·9
Australasia.....	20,349,333	8,512,680	28,862,013	55·5

MOVEMENTS OF GOLD.

Since the discovery of gold in the year 1851 large quantities of that metal—in the form of coin as well as bullion—have been exported from the Australasian Colonies every year. The returns for Western Australia were not officially kept prior to 1885, and therefore are not available, but the amount of gold imported and exported from each of the other Colonies, calculated for five-year periods from the year 1851 to the end of 1890, is given herewith. The tables also show the amount by which the exports have exceeded the imports in the various Colonies, or *vice versa*, as the case may be, and the average amount of such excess per annum.

The largest exporters of gold, it will be found, are the largest producers, as Victoria, New Zealand, and Queensland. The other Colonies now produce very little more than suffices to meet their local requirements. The returns of the gold imports and exports for New South Wales, it must be remembered, are swollen by large quantities of Queensland gold, which is simply sent to Sydney to be minted, and then exported in the shape of coin.

Excess of Exports over Imports of Gold (Bullion and Specie).

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Tasmania.	New Zealand.
	£	£	£	£	£	£
1851-55	3,713,016	33,378,823	.....	2,000,482	818,228	39,139
1856-60	4,624,051	52,963,311	.....	*99,527	24,801	9,842
1861-65	8,533,232	34,817,803	98,383	*331,204	*9,680	8,256,520
1866-70	5,123,418	27,791,239	1,670,192	*64,429	*30,890	12,038,302
1871-75	4,457,264	22,330,671	4,425,195	*505,355	*1,381	8,600,358
1876-80	791,730	14,891,961	5,004,942	*594,954	160,077	5,614,785
1881-85	1,126,554	14,719,540	3,629,355	*543,306	554,633	4,178,000
1886-90	*849,045	8,386,831	7,910,890	*130,242	318,121	3,459,381
Total, excess of exports	27,520,220	209,280,179	22,738,957	*268,535	1,833,909	42,196,327

* Excess of imports.

Neither in the foregoing nor in the following table, except for the last period, are the figures for Western Australia included ;

the movement of gold in that colony is by no means large ; the excess of exports in the five years which closed with 1890 was only £34,643, or at the rate of £6,928 per annum. For the whole of Australasia the excess of exports of gold since 1851 was £303,335,700, distributed in quinquennial periods as shown below :—

Excess of
Exports of Gold.

Excess of Exports of Gold.

Year.	Amount.	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
1886-90	19,130,579	3,826,116
1851-90	303,335,700	7,583,392

THE TARIFFS.

The tariffs.

The tariffs in force during 1890 were higher in all the other colonies than in New South Wales. They comprised specific duties on some articles, and ad valorem duties, ranging from 5 to 25 per cent.—and in Victoria reaching as high as 35 per cent.—on other goods. In New South Wales specific duties were charged on only a few articles, comparatively speaking, and there were no ad valorem duties. Just before the close of the year 1891, however, the Parliament of New South Wales agreed to a resolution for the imposition of ad valorem duties, as well as an increase in some cases of the specific duties. The new imposts were enforced from the time they were announced, as is usual in such cases, but it is too early yet to give any indication of what the effect has been.

The following table shows the total imports of each colony, the value of the imports for home consumption, and the amount of import duty received :—

Total Imports, 1890.

Colony.	Gross Imports.	Imports for Home Consumption.	Duty.
	£	£	£
New South Wales.	22,615,004	17,801,792	1,879,086
Victoria	22,954,015	17,979,614	2,704,380
Queensland	5,066,700	4,924,432	1,242,342
South Australia	8,262,673	3,845,357	675,086
Western Australia	874,447	862,295	178,231
Tasmania	1,897,512	1,841,326	330,991
New Zealand	6,260,525	5,877,566	1,497,709
Australasia	67,930,876	55,132,382	8,507,825

The Australasian imports for home consumption thus amounted to £55,132,382, included in which there were coin and bullion to the amount of £1,656,053 ; intoxicants and narcotics, £3,394,768, of which wine, beer, and spirits came to £2,587,881, tobacco, £673,957, and opium, £132,930 ; other dutiable goods, £22,543,911 ; and imports admitted free, £27,537,650. The value of intoxicants and narcotics imported into each colony for home consumption during 1890 was :—

Intoxicants and narcotics.

Imports of Intoxicants and Narcotics for home consumption.

Colony.	Wines, Spirits, Beer, &c.	Tobacco, &c.	Opium.	Total.
	£	£	£	£
New South Wales	893,622	166,425	35,443	1,095,490
Victoria	804,596	236,661	33,527	1,074,784
Queensland	415,211	96,984	54,796	566,991
South Australia	122,907	32,446	1,048	156,401
Western Australia	54,066	14,772	715	69,553
Tasmania	59,453	23,806	613	83,872
New Zealand	238,026	102,863	6,788	347,677
Australasia	2,587,881	673,957	132,930	3,394,768

IMPORTS FOR HOME CONSUMPTION.

The duties collected on these articles during 1890 were :—

Import Duties collected on Intoxicants and Narcotics.

Colony.	Wines, Spirits, Beer, &c.	Tobacco, &c.	Opium.	Total.
	£	£	£	£
New South Wales	948,405	245,145	16,990	1,210,540
Victoria	768,803	316,223	16,591	1,101,617
Queensland	392,546	168,371	27,373	588,290
South Australia	131,009	63,764	526	195,299
Western Australia	57,687	25,275	715	83,677
Tasmania	82,876	46,117	411	129,404
New Zealand	388,374	242,089	7,554	638,017
Australasia	2,769,700	1,106,984	70,160	3,946,844

If from the value of the total imports be deducted the value of intoxicants and narcotics—on which high specific duties are charged in all the colonies—also the value of coin and bullion, and if the duty on intoxicants and narcotics be subtracted from the total import duties, figures will be obtained on the basis of which an average *ad valorem* duty may be calculated. This has been done in the following table, which shows the value of imported free goods, exclusive of coin and bullion, the value of dutiable goods other than intoxicants and narcotics, and the duty paid on all these. Another column shows the rates of *ad valorem* duty which would produce the same amounts :—

Imports for Home Consumption, exclusive of coin, intoxicants, &c

Colony.	Free Goods, exclusive of Coin and Bullion.	Dutiable Goods exclusive of Intoxicants and Narcotics.	Total.	Duty collected thereon.	Equivalent <i>ad valorem</i> Duty.
	£	£	£	£	per cent.
New South Wales	13,072,681	3,140,104	16,212,785	668,546	4·1
Victoria	9,410,822	8,839,887	18,250,709	1,602,763	8·8
Queensland	1,093,057	2,965,082	4,058,139	654,052	16·1
South Australia...	1,105,440	2,592,794	3,698,234	479,787	13·0
Western Australia	104,448	634,654	739,102	94,554	12·8
Tasmania	540,596	1,141,303	1,681,899	201,587	12·0
New Zealand.....	2,210,606	3,230,087	5,440,693	859,692	15·8
Australasia...	27,537,650	22,543,911	50,081,561	4,560,981	9·1

Equivalent *ad valorem* duties.

The next table shows the value of the goods of Australasian origin imported by each Colony, as compared with the value of goods imported from elsewhere. It will be seen that Australasia is so little self-contained that it has to import from other parts of the world nearly three-fourths of the articles it requires for its own consumption :—

Imports for Home Consumption of Australasian and Foreign Produce.

Colony.	Goods the produce or manufacture of Australasian Colonies.	Goods of other than Australasian produce or manufacture.	Total.
	£	£	£
New South Wales.....	5,569,842	12,231,950	17,801,792
Victoria	6,608,447	12,371,167	19,979,614
Queensland	770,480	4,153,952	4,924,432
South Australia	819,831	3,025,526	3,845,357
Western Australia	168,576	693,719	862,295
Tasmania	387,159	1,454,167	1,841,326
New Zealand.....	348,910	5,528,656	5,877,566
Australasia.....	14,673,245	40,459,137	55,132,382

The distribution of the duties collected is shown in the following table :—

Import Duties collected on Australasian and other Products.

Colony.	On Australasian Produce.	On other Produce.	Total.
	£	£	£
New South Wales	156,361	1,722,725	1,879,086
Victoria	226,372	2,478,008	2,704,380
Queensland	65,997	1,176,345	1,242,342
South Australia	46,483	628,603	675,086
Western Australia.....	14,968	163,263	178,231
Tasmania	20,321	310,670	330,991
New Zealand	28,155	1,469,554	1,497,709
Australasia	558,657	7,949,168	8,507,825

Out of the £14,673,245 which represents the value of imports of Australasian produce, coin and bullion amount to £1,186,658 ;

Imports of Australasian goods.

Distribution of duties.

Duties on Australasian goods.

HOME CONSUMPTION OF AUSTRALASIAN PRODUCE.

intoxicants, to £46,605 ; free goods, £9,374,717 ; and dutiable goods, £4,065,265. Of the £558,657 collected as duties on Australasian produce, only £38,032 was collected on intoxicants. The amount raised by each Colony on the produce which it imports from the other Colonies is shown above ; the amount paid on the produce of each Colony when imported into the other Colonies, is shown in the following table :—

New South Wales produce	£168,300
Victorian "	68,759
Queensland "	161,735
South Australian "	41,598
Western Australian "	6,094
Tasmanian "	26,552
New Zealand "	85,619
Total	£558,657

There is, therefore, an excess of collections on Australasian produce in Victoria of £157,613 ; South Australia, £4,885 ; and Western Australia, £8,874 ; while there is an excess of payments on the produce of New South Wales, £11,939 ; Queensland, £95,738 ; Tasmania, £6,231 ; and New Zealand, £57,464.

Duty on produce
for home con-
sumption.

If the amounts of coin and bullion, and of intoxicants, and the duties collected on the latter be again deducted from the total imports of Australasian produce, and the total duty collected thereon respectively, the following results are arrived at :—

Imports of Australasian Produce for Home Consumption.

Colony.	Free Goods exclusive of Coin and Bullion.	Dutiable Goods exclusive of Intoxicants,	Total.	Duty collected thereon.	Equivalent <i>ad</i> <i>valorem</i> Duty.
	£	£	£	£	½ cent.
New South Wales..	4,454,931	607,813	5,062,744	140,315	2·8
Victoria	3,622,023	2,467,712	6,089,735	221,274	3·6
Queensland	554,542	220,032	764,574	61,357	8·0
South Australia	385,420	443,287	828,707	46,275	5·6
Western Australia..	15,146	100,248	115,394	14,417	12·5
Tasmania	165,773	144,564	310,337	19,269	6·2
New Zealand.....	186,882	81,609	268,491	17,718	6·6
Australasia.....	9,374,717	4,065,265	13,439,982	520,625	3·9

It has already been shown that the imports of goods of other than Australasian origin amounted to £40,459,137, and that the duty collected thereon was £7,949,168. The value was made up as follows:—Imports of coin and bullion, £469,395; wine, spirits, beer, &c., £2,541,276; tobacco, cigars, &c., £673,957; opium, £132,930; and other goods, £36,641,579; of which articles to the value of £18,162,933, were admitted free of duty, while goods to the value of £18,478,646 were subject to duty. The distribution of the amount of duties collected was as follows:—Wines, spirits, beer, &c., £2,731,668; narcotics, £1,177,144; making together a duty of £3,908,812 while on other articles £4,040,356 was paid.

Imports of other than Australasian Produce.

The imports of intoxicants and narcotics of other than Australasian origin were distributed amongst the various Colonies as follows:—

Import of intoxicants, &c.

Imports for Home Consumption of Intoxicants and Narcotics of other than Australasian origin.

Colony.	Wines, Spirits, Beer, &c.	Tobacco, &c.	Opium.	Total.
	£	£	£	£
New South Wales.....	871,828	166,425	35,443	1,073,696
Victoria	800,939	236,661	33,527	1,071,127
Queensland	409,305	96,984	54,796	561,085
South Australia.....	122,641	32,446	1,048	156,135
Western Australia.....	52,884	14,772	715	68,371
Tasmania	57,487	23,806	613	81,906
New Zealand	226,192	102,863	6,788	335,843
Australasia	2,541,276	673,957	132,930	3,348,163

HOME CONSUMPTION OF FOREIGN PRODUCE.

The Duties collected thereon were :—

Colony.	Wines, Spirits, Beer, &c.	Tobacco, &c.	Opium.	Total.
	£	£	£	£
New South Wales.....	932,359	245,145	16,990	1,194,494
Victoria	763,705	316,223	16,591	1,096,519
Queensland	387,906	168,371	27,373	583,650
South Australia.....	130,801	63,764	526	195,091
Western Australia.....	57,136	25,275	715	83,126
Tasmania	81,824	46,117	411	128,352
New Zealand	377,937	242,089	7,554	627,580
Australasia.....	2,731,668	1,106,984	70,160	3,908,812

Foreign produce
for home con-
sumption.

The value of free imports, exclusive of coin and bullion, and dutiable imports, exclusive of intoxicants and narcotics of other than Australasian origin, together with the duties collected thereon, are shown in the following table :—

Imports for Home Consumption of produce not of Australasian origin.

Colony.	Free Goods exclusive of Coin and Bullion.	Dutiable Goods exclu- sive of Intoxi- cants, &c.	Total.	Duty collected thereon.	Equivalent Ad Valorem Duty.
	£	£	£	£	per cent.
New South Wales..	8,617,750	2,532,291	11,150,041	528,231	4·7
Victoria	5,788,799	6,372,175	12,160,974	1,381,489	11·4
Queensland	548,515	2,745,050	3,293,565	592,695	18·0
South Australia ...	720,020	2,149,507	2,869,527	433,512	15·1
Western Australia.	89,302	534,406	623,708	80,137	12·9
Tasmania	374,823	996,739	1,371,562	182,318	13·3
New Zealand	2,023,724	3,148,478	5,172,202	841,974	15·7
Australasia...	18,162,933	18,478,646	36,641,579	4,040,356	11·0

Northern
Territory
omitted.

As the Northern Territory has a different Customs Tariff from that in force in South Australia proper, and the returns of the other Colonies do not distinguish exports to Port Darwin from those to South Australia, while the returns of the latter Colony treat Port Darwin as a separate Colony, the Northern Territory trade has been omitted from all the preceding calculations so that all figures given for South Australia relate to the province only

AGRICULTURE.

AUSTRALASIA may, as a whole, be considered as 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 prices, is considerable, and amounts to £23,613,700, which is about two-thirds the value of the pastoral produce. The return from agriculture in each Colony during 1890 was, approximately :—

	Total value of crops.	Average value of produce per acre under crop.	Percentage of value to total value of Australasia.
	£	£ s. d.	
New South Wales	4,131,422	4 16 11	17·5
Victoria	7,520,298	3 14 0	31·8
Queensland	2,233,151	9 18 6	9·5
South Australia	3,569,686	1 14 1	15·1
Western Australia	366,936	5 5 4	1·6
Tasmania	962,751	6 2 4	4·1
New Zealand	4,829,456	2 19 0	20·4
Australasia	23,613,700	3 6 10	100·0

From this estimate it would seem that the value of crops, in proportion to the area cultivated, is much larger in Queensland and Tasmania than in the other Colonies, which, in the case of Queensland, is due to the proportionately large area under sugarcane and maize, while in Tasmania the area devoted to fruit and hops accounts for the high average per acre which the province shows. In point of gross value Victoria occupies a position much in advance of the other members of the group, the produce of

VALUE OF PRINCIPAL CROPS.

Value of
principal crops.

that province having a value little short of one-third of that of all Australasia. The value of the principal crops, and the percentage of each to the total production, are given in the following statement :—

Name of Crop.	Value.	Percentage to Total.
	£	
Wheat	5,884,673	24·9
Maize	1,379,940	5·8
Barley	487,618	2·1
Oats	1,708,687	7·2
Other grain	67,437	0·3
Hay	4,317,359	18·3
Potatoes	1,827,869	7·7
Other root-crops	1,094,039	4·6
Sugar-cane	1,416,419	6·0
Tobacco	24,957	0·1
Grapes for wine, table, and other purposes	919,269	3·9
Green forage	772,215	3·3
Hops	85,593	0·4
Orchards and market-gardens	3,046,082	12·9
Other crops	581,543	2·5
Total	23,613,700	100·0

Compared with the principal countries of the world Australasia does not take a high position in regard to the gross value of the produce of its tillage, but in value per inhabitant it compares fairly well. The following figures, designed to illustrate this, are taken

from various places in Mulhall's latest issue of the *Dictionary of Statistics* :—

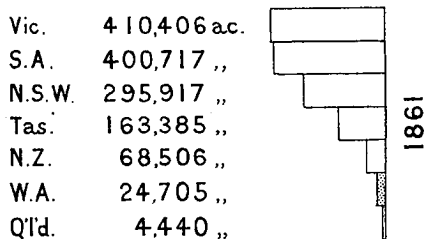
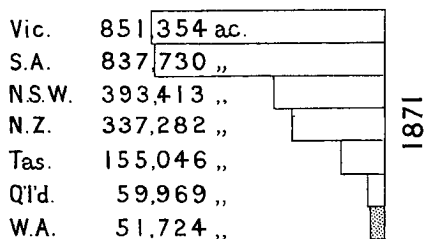
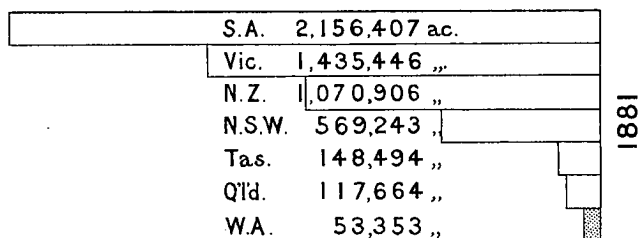
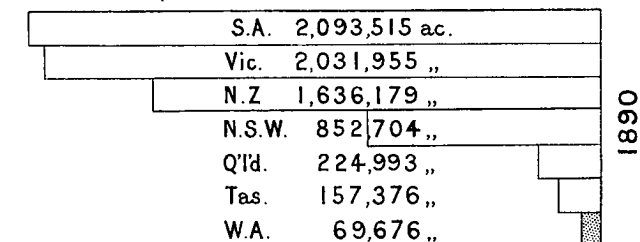
Value of Agricultural Production for principal countries in 1887 :—

Countries.	Value.	Per head.
	Million	
	£	£
United Kingdom	141	3·3
France	322	8·3
Germany	262	5·4
Russia	373	4·0
Austria	225	5·6
Italy	153	5·0
Spain	126	7·1
Portugal	23	4·9
Sweden	31	6·5
Norway	9	4·5
Denmark	20	9·5
Holland	20	4·3
Belgium	41	6·7
Switzerland	9	3·0
United States	467	7·5
Canada	35	7·0
Cape Colony	2	1·3
Argentina	18	5·8
Uruguay	2	3·3
Australasia (1890)	24	6·3

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 at different epochs since the year 1861, will serve to illustrate the progress agriculture has made. In this table, as well as throughout the whole of the chapter, the years 1861, '71, '81, and '90 embrace the periods from 1st April in those years to the 31st March subsequently.

Colony.	Year.	Area under								Total Area under Crops.	Land under Permanent Artificial Grasses.
		For Grain.				Potatoes.	Vines.	Hay.	Other Crops.		
		Wheat.	Oats.	Maize.	Barley.						
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
New South Wales ...	1861	123,468	7,224	57,059	2,924	10,040	1,692	45,175	47,435	295,917	1,658
	1871	154,030	13,795	119,956	3,461	14,770	6,618	51,805	28,978	393,413	24,388
	1881	221,888	16,348	117,478	6,427	15,943	6,624	146,610	37,925	569,243	75,825
	1890	333,233	14,102	191,152	4,937	19,406	8,044	175,242	106,588	852,704	388,715
Victoria.....	1861	196,922	91,061	1,714	3,419	27,174	1,464	74,681	13,971	410,406	12,654
	1871	334,609	175,944	1,709	16,772	39,064	5,523	103,206	174,527	851,354	6,282
	1881	926,729	146,995	1,783	48,652	39,129	4,923	212,150	55,085	1,435,446	241,947
	1890	1,145,163	221,048	10,357	87,751	53,818	20,686	413,052	80,080	2,031,955	235,241
Queensland ..	1861	392	69	1,914	13	512	40	280	1,220	4,440	.....
	1871	3,024	131	20,329	971	3,121	568	3,828	27,997	59,969	838
	1881	10,958	88	46,480	256	5,086	1,212	16,926	36,658	117,664	8,565
	1890	10,390	411	99,400	584	8,994	1,981	31,106	72,127	224,993	22,252
South Australia..	1861	310,636	1,638	18	10,637	2,612	3,918	62,874	8,384	400,717	838
	1871	692,508	3,586	.....	17,225	3,156	5,455	97,812	17,988	837,730	5,213
	1881	1,768,781	3,023	.....	11,953	6,136	4,202	333,467	28,845	2,156,407	16,438
	1890	1,673,573	12,475	.....	14,472	6,626	9,535	345,150	31,684	2,093,515	21,431

AREA UNDER CROP



Lithographed and Printed at the Department of Lands, Sydney, N.S.W. 1892.
No. of Lithograph 2,324

Colony.	Year.	Area under.								Total Area under Crops.	Land under Permanent Artificial Grasses.
		For Grain.				Potatoes.	Vines.	Hay.	Other Crops.		
		Wheat.	Oats.	Maize.	Barley.						
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
Western Australia	1861	13,584	507	73	2,412	277	457	6,676	719	24,705	.....
	1871	25,697	1,474	113	5,083	494	692	.....	18,171	51,724	.....
	1881	21,951	827	36	3,679	278	527	24,445	1,610	53,353	.....
	1890	33,820	1,934	81	5,322	510	1,023	23,183	3,803	69,676	.....
Tasmania	1861	58,823	29,022	.....	7,279	9,349	.....	31,803	27,109	163,385	.....
	1871	63,332	29,631	.....	4,275	8,154	.....	31,578	18,076	155,046	90,247
	1881	51,757	27,535	.....	4,597	9,670	.....	34,790	20,145	148,494	136,321
	1890	39,452	20,740	.....	4,376	20,133	.....	45,381	27,294	157,376	201,060
New Zealand	1861	29,531	15,872	770	3,457	7,292	.....	.....	11,584	68,506	157,994
	1871	108,720	139,185	.....	13,305	11,933	.....	30,717	33,422	337,282	792,529
	1881	365,715	243,387	3,177	29,808	22,540	.....	68,423	337,856	1,070,906	3,369,646
	1890	301,460	346,224	5,759	32,740	32,691	.....	44,045	873,260	1,636,179	6,922,173
Australasia ..	1861	733,356	145,393	62,448	30,141	57,256	7,571	221,489	110,422	1,368,076	173,144
	1871	1,381,920	363,746	142,107	61,092	80,692	18,856	318,946	319,159	2,686,518	929,497
	1881	3,367,779	438,203	168,954	105,372	98,782	17,488	836,811	518,124	5,551,513	4,348,742
	1890	3,537,091	616,934	306,749	150,182	142,178	41,269	1,077,159	1,194,836	7,066,398	7,790,872

AREA UNDER CROPS.

As will be seen from the foregoing figures, the area under crop in Australasia is now more than five times as large as it was in 1861. If, however, the land artificially grassed be included the total is 14,857,270 acres, or nine and a half times the area under cultivation in 1861. A comparison with the increase of population may perhaps best serve to give an idea of the progress of agriculture. This is shown in the following table:—

Average acreage under crop per inhabitant in each Colony.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	0·8	0·8	0·7	0·8
Victoria	0·8	1·1	1·7	1·8
Queensland.....	0·1	0·5	0·5	0·6
South Australia.....	3·2	4·5	7·5	6·6
Western Australia	1·6	2·0	1·8	1·5
Tasmania	1·8	1·5	1·2	1·1
New Zealand	0·7	1·3	2·1	2·6
Australasia.....	1·1	1·4	2·0	1·9

Great increase
of area under
crop.

Progress since
1861.

Taking the Colonies as a whole, the ratio of the increase of the area under crop has been greater than that of the population. The decade from 1871 to 1881 exhibits the greatest amount of progress. This is what naturally might be expected, as the gold fever had then altogether subsided, and a large portion of the population was seeking employment of a more settled nature than that afforded by the gold-fields. Three provinces, however, monopolized the increase—South Australia, Victoria, and New Zealand. The first-named of these added to the area under cultivation 3 acres per inhabitant—an increase which cannot but be regarded as remarkable. During the period from 1881 to 1890 the ratio showed a slight decline as regards the Colonies as a

group. All the more important provinces, South Australia excepted, exhibit an increase, and it is to the falling off in the area per inhabitant cultivated in this province, that the slight decline in the total is due. The increase of agriculture, as compared with that of population, will be clearly seen in the following table, which shows the growth for each period, all the provinces being grouped as one :—

Increase per cent. of average under crop compared to that of population.

	1861-1871.	1871-1881.	1881-1890.	Whole period 1861-1890.
	Per cent.	Per cent.	Per cent.	Per cent.
Increase of acreage under crop	96·4	106·6	27·3	416·5
Increase of population.....	55·6	43·2	34·2	199·2

During the period covered by the table the population of Australasia was trebled, while the breadth of land devoted to agriculture increased more than five-fold, so that the ratio of increase of agriculture was one and three-quarters that of the population. This improvement took place entirely during the period from 1861 to 1881, and chiefly during the latter portion of that time; while in the years from 1881 to 1890 the rate of increase in the acreage under crops fell far short of the increase of the population. This comparative decrease is owing to various causes, such as the general tendency elsewhere alluded to, of the population to congregate in the several metropolitan centres, the difficulty of taking up good land within easy access to markets; and also to the fact that there have been large accessions to the numbers of those engaged in other callings, without a corresponding increase in the agricultural classes. Under any circumstances the area of land devoted to agriculture cannot be increased illimitably, and although enormous tracts of land adapted for tillage still remain untouched by the plough, it is not likely their cultivation will be attempted until a more certain market is assured for the produce.

Area under crop compared with population.

Area under crop. In the following table will be found the proportion of land under crop to the total area of each Colony, and to Australasia as a whole. In instituting comparisons between the several Colonies, however, it must be borne in mind that other circumstances than the mere area under cultivation require to be taken into consideration. It would not be fair, for instance, to compare Tasmania, with 5·5 persons per square mile, to Western Australia, which has only 0·05 inhabitant to the square mile. The table has a value chiefly because it shows how each Colony has progressed in regard to cultivation during the periods named :—

Proportion of area under crop to total area of each Colony.

Proportion of land under various crops.

Colony.	1861.	1871.	1881.	1890.
	Per cent.	Per cent.	Per cent.	Per cent.
New South Wales	·15	·20	·29	·43
Victoria	·73	1·51	2·55	3·61
Queensland.....	·001	·01	·03	·05
South Australia.....	·07	·15	·37	·36
Western Australia	·004	·008	·009	·01
Tasmania	·97	·92	0·88	·94
New Zealand	·10	·50	1·60	2·45
Australasia	·07	·13	·27	·35

The subjoined table shows the proportion of cultivated area devoted to the principal crops in each province, as well as in the whole taken together. It will be seen that all except two devote the greater proportion of their tillage to wheat and hay. This is especially the case in regard to South Australia, where little else is grown, but in Victoria also the proportion of wheat amounts to 56 per cent. of the total area cultivated, and under hay crops there is more than 20 per cent.

Percentage of tillage devoted to each of the principal crops.

Crops.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Wheat	39·1	56·4	4·6	79·9	48·5	25·1	18·4	50·1
Oats	1·6	10·9	0·2	0·6	2·8	13·2	21·2	8·7
Maize	22·4	0·5	44·2	.....	0·1	.....	0·3	4·4
Barley	0·6	4·3	0·3	0·7	7·6	2·8	2·0	2·1
Potatoes	2·3	2·7	4·0	0·3	0·7	12·8	2·0	2·0
Vines	0·9	1·0	0·9	0·5	1·5	.....	.....	0·6
Hay	20·6	20·3	18·8	16·5	33·3	28·8	2·7	15·2
Sugar-cane	2·4	.....	22·6	.....	.....	.....	.....	1·0
Other crops	10·1	3·9	9·4	1·5	5·5	17·3	53·4	15·9
Total.	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

PROPORTION OF EACH CROP.

The relative position of each of the principal agricultural products, in proportion to the total area under crop in Australasia since the year 1861, may be ascertained from the following set of figures, which should, however, be used with the former table, giving the actual areas, since a decline in the proportion of land devoted to any form of cultivation does not necessarily mean a falling off in the area devoted to it; on the contrary, in few instances has there been any actual retrogression. It will be satisfactory to observe that the proportion of cultivation devoted to the valuable crops has greatly increased. Thus, in 1890, the percentage devoted to vines, sugar-cane, and "other crops," under which are included gardens and orchards, was 17·5, as against 9·6 in 1881 and 8·6 in 1861.

Proportion of land under principal crops.

Product.	1861.	1871.	1881.	1890.
	Per cent.	Per cent.	Per cent.	Per cent.
Wheat	53·6	51·4	60·7	50·1
Oats.....	10·6	13·5	7·9	8·7
Maize	4·6	5·3	3·0	4·4
Barley	2·2	2·3	1·9	2·1
Potatoes.....	4·2	3·0	1·8	2·0
Vines	0·5	0·7	0·3	0·6
Hay.....	16·2	11·9	15·1	15·2
Sugar-cane.....	.....	0·5	0·7	1·0
Other crops	8·1	11·4	8·6	15·9
Total	100·0	100·0	100·0	100·0

WHEAT.

Wheat-producing Colonies.

Only three of the seven Colonies of Australasia—Victoria, South Australia, and New Zealand—produce sufficient wheat for their own requirements; but after the deficiencies of the rest of Australasia are supplied by these Colonies, there is, in most seasons, a large balance for external export, which finds a ready market in Great Britain, where Australian wheat is well and favourably known.

The amount of wheat exported, the produce of each of these Colonies, to countries outside Australasia, during 1890, was 13,541,115 bushels, valued at £2,318,038, of which 11,153,550 bushels, or over 82 per cent., were despatched to Great Britain.

The subjoined table shows the progress of wheat-growing for 30 years :—

Area under Wheat.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales	123,468	154,030	221,888	333,233
Victoria	196,922	334,609	926,729	1,145,163
Queensland	392	3,024	10,958	10,390
South Australia	310,636	692,508	1,768,781	1,673,573
Western Australia	13,584	25,697	21,951	33,820
Tasmania	58,923	63,332	51,757	39,452
New Zealand	29,531	108,720	365,715	301,460
Australasia	733,356	1,381,920	3,367,779	3,537,091

Production.

Colony.	1861.	1871.	1881.	1890.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	1,606,034	2,229,642	3,405,966	3,649,216
Victoria	3,607,727	4,500,795	8,714,377	12,751,295
Queensland	5,880	36,288	39,612	207,990
South Australia	3,410,756	3,967,079	8,087,032	9,399,389
Western Australia	160,155	345,368	153,657	465,025
Tasmania	1,380,913	847,962	977,365	642,980
New Zealand	772,531	2,448,203	8,297,890	5,723,610
Australasia	10,943,996	14,375,337	29,675,899	32,839,505

AVERAGE PRODUCTION OF WHEAT.

The production of wheat per acre varies from 6 bushels in South Australia to 24·5 bushels in New Zealand, the average for the whole of Australasia being little short of 10 bushels. In the following statement is given the average yield for each province during the 10 years which closed with 1890 :—

Average Production of Wheat per Acre.

Colony.	Average for the ten years, 1881-90.
	Bushels.
New South Wales	13·3
Victoria	10·1
Queensland	10·5
South Australia	6·0
Western Australia	11·8
Tasmania	18·3
New Zealand	24·5
Australasia	9·7

Yield per acre.

A yield of 10 bushels per acre is certainly small compared with the average obtained in European countries, but a bare statement of averages may mislead. Thus, in South Australia it is found that owing to favourable conditions of culture a yield of 7 bushels is a very satisfactory crop, paying better than 15 bushels in New South Wales, or 20 in New Zealand. Taking into consideration that an expansion of the area devoted to wheat may be expected to occur in New South Wales, which now produces far less than is required for the consumption of its population, and that it is possible New Zealand and Tasmania will revert to wheat-growing, it may reasonably be concluded that the

average for Australasia will advance considerably during the next few years, seeing that all the provinces named have a yield considerably in excess of that of Australasia. Assuming that New South Wales obtains sufficient for its requirements, and that the area formerly devoted to wheat is again brought under this crop in New Zealand and Tasmania, the average for Australasia will be not less than 13·5 bushels.

The proportion of wheat produced by each province, compared with the total Australasian production in 1881 and 1890, is exemplified in the following figures :—

Percentage of Production of Wheat in each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	11·5	11·1
Victoria	29·4	38·8
Queensland	0·1	0·7
South Australia	27·2	28·6
Western Australia	0·5	1·4
Tasmania	3·3	2·0
New Zealand.....	28·0	17·4
Australasia	100·0	100·0

Victoria takes the lead among the seven Colonies with regard to the production of wheat, having to its credit more than one-third of the total yield. South Australia comes next with 28·6 per cent. of the total production, and New Zealand, which in the former period held a leading position, has now declined to 17·4, while New South Wales is about stationary for the two periods.

Tasmania, in 1881, produced wheat to the extent of 3·3 of the total Australasian production, and was able to export a trifling quantity, but in 1890 that Colony only produced 2 per cent., and had to import wheat to the amount of 234,826 bushels.

Yield of wheat
in other
countries.

Compared with most European countries the yield of wheat in Australasia must appear inconsiderable, both in regard to the total quantity obtained, and the produce per acre. Thus, in the United Kingdom the average yield for the last five years was 28·5; for the United States the average was 11·9 bushels; the average for Manitoba during the same time was 18·4 bushels, and for Ontario 16·5 bushels, as against the Australasian yield of 9·7 bushels. With regard to other European countries the averages for the last available five-year periods are—Holland, 27·6 bushels; Germany, 18 bushels; France, 17·1 bushels; Hungary, 15·3 bushels; and Russia (excluding Poland) 7·4 bushels.

The following table shows the net imports or exports of wheat and flour of each of the colonies during 1890, flour being stated in terms of wheat, on the assumption of one ton of flour being equal to 48 bushels:—

Net Import or Export of Wheat and Flour for each Colony, 1890.

Colony.	Net Imports.	Net Exports.
	Bushels.	Bushels.
New South Wales	1,798,042	.....
Victoria .....	.....	2,297,872
Queensland	2,295,459	.....
South Australia .....	.....	10,959,102
Western Australia	136,725	.....
Tasmania	234,826	.....
New Zealand .....	.....	4,943,652
Net exports .....	.....	13,735,574

The season of 1890 was an exceptionally good one, so that there was a larger surplus for export than is usually the case.

The following table shows the annual yield and consumption of each Colony for the ten years ending with 1890, with the surplus or deficiency in each case :—

Yield and consumption of wheat in each Colony.

Wheat Yield and Consumption in Australasia.—Ten Years' Average, 1881-90.

Colony.	Average Annual.			
	Yield, less required for Seed.	Consumption.	Surplus available for Export.	Deficiency to be Imported.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales.....	3,604,000	6,104,000	.....	2,500,000
Victoria	9,455,000	5,894,000	3,561,000	.....
Queensland.....	88,000	1,917,000	.....	1,829,000
South Australia	8,298,000	1,983,000	6,315,000	.....
Western Australia ...	292,000	440,000	.....	148,000
Tasmania	676,000	868,000	.....	192,000
New Zealand.....	7,339,000	4,241,000	3,098,000	.....
Australasia.....	29,752,000	21,447,000	8,305,000	.....

If the acreage under wheat in 1890 in the various colonies be compared with that of 1881, it will be found that the extension of this cultivation has not been uniform, for, while Victoria and New South Wales have increased their acreage, there has been a tendency in the other provinces to lessen the area devoted to this cereal. This has been notably the case in New Zealand and Tasmania. Taking Australasia as a whole, the area under wheat was only 169,312 acres in excess of that of 1881, notwithstanding that in Victoria and New South Wales, 330,778 acres were added to the breadth of land previously under crop. As already pointed out the greater portion of the area devoted to agriculture is laid under wheat, and in an ordinary season the produce of over 1,000,000 acres is available for export to Europe. Whether the extension of wheat-growing for export, after supplying local demands, will be profitable is for the present a matter determined by the prices obtained in the London markets. But as far as

YIELD OF WHEAT PER ACRE.

present indications can be followed, it is hardly possible that any large expansion of this industry can be expected, unless perhaps in New South Wales, the only Colony of importance which, though adapted for wheat-growing, produces less than the requirements of its population.

Value of yield
per acre.

In the subjoined table is given the value of the yield per acre for three of the Colonies estimated on the market rates ruling in February and March of each year. It will be seen that a considerable decline has taken place since 1882, due for the most part to the fall in prices rather than to any decrease of production. In regard to the value per acre the fall has been most marked in New South Wales :—

Value of Yield per acre of Wheat.

Year. ending March.	Average.					
	Yield in Bushels per Acre.			Value of Yield per acre.		
	New South Wales.	Victoria.	South Australia.	New South Wales.	Victoria.	South Australia.
	Bushels.	Bushels.	Bushels.	£ s. d.	£ s. d.	£ s. d.
1882	15·4	9·4	4·6	4 4 0	2 7 0	1 2 5
1883	16·3	9·0	4·2	4 4 3	2 2 9	1 1 6
1884	15·0	14·1	7·8	3 3 9	2 11 8	1 11 3
1885	15·5	9·5	7·5	2 18 2	1 11 8	1 5 4
1886	10·4	9·0	*	2 5 1	1 14 6	*
1887	17·4	11·5	*	3 8 2	2 3 2	*
1888	12·1	10·8	*	2 2 10	1 16 0	*
1889	4·8	7·1	*	1 2 10	1 12 6	*
1890	15·6	9·7	7·8	2 14 7	1 15 7	1 8 0
1891.	10·9	11·1	5·6	2 0 10	1 19 9	19 7

* No returns.

The United Kingdom is the largest importer of wheat, and the British demand largely influences the price throughout the world. The average rate per bushel in 1891 in London was 4s. 7d., which was higher than any year since 1883. This increased price was due to the failure of the European wheat crop.

Average Value of Wheat per bushel on London Market,
1882-91.

Year.	Price.	Year.	Price.
	s. d.		s. d.
1882	5 7½	1887	4 1
1883	5 2½	1888	4 0
1884	4 5½	1889	3 9
1885	4 1	1890	4 0
1886	3 10½	1891	4 7

The importance of Australasia as a producer of wheat is but small when compared with the great wheat-producing centres of the world. Out of 2,195,450,000 bushels produced in 1890, only 32,840,000 bushels, or 1·5 per cent., were of Australasian growth. The subjoined statement, based on the returns of the United States Department of Agriculture, except as regards Australasia, gives the approximate crop of the world for the year mentioned :—

Relative importance of Australasian wheat.

Wheat crop of the world.

Wheat Crop of the World in 1890.

Countries.	Bushels.	Countries.	Bushels.
Europe—		Asia—	
Austria	51,440,667	India	235,345,600
Hungary	165,345,000	Asia Minor.....	37,134,720
Belgium	19,573,075	Persia	22,693,440
Denmark	5,776,512	Syria	12,378,240
France	338,902,124	Africa—	
Germany	94,899,840	Algeria	22,693,440
Great Britain	75,576,383	Egypt	8,252,160
Ireland	2,639,399	Cape Colony	3,713,472
Greece	12,378,240	Tunis	4,256,250
Italy	126,640,746	North America—	
Netherlands.....	6,189,120	United States.....	399,262,000
Portugal	8,252,160	Canada	40,527,562
Roumania.....	63,954,240	South America—	
Russia	220,082,325	Argentina	41,703,683
Servia	10,315,200	Chili	18,567,360
Spain	70,143,360	Australasia	32,839,505
Sweden	3,956,043		
Norway.....	412,608	Total	2,195,454,842
Switzerland	2,475,648		
Turkey	37,134,720		

CULTIVATION OF OATS.

Consumption of
wheat.

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

	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	5·0
Canada	6·5
Australasia	6·6

That of the Australasian Colonies will be found below:—

New South Wales	6·5
Victoria	6·0
Queensland	6·1
South Australia	6·5
Western Australia	9·3
Tasmania	6·7
New Zealand	7·5

The figures for Western Australia may appear abnormal, but are the result of a careful computation from the official returns for the last seven years.

OATS.

Cultivation of
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 Oats.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales...	7,224	13,795	16,348	14,102
Victoria	91,061	175,944	146,995	221,048
Queensland.....	69	131	88	411
South Australia.....	1,638	3,586	3,023	12,475
Western Australia..	507	1,474	827	1,934
Tasmania	29,022	29,631	27,535	20,740
New Zealand	15,872	139,185	243,387	346,224
Australasia.....	145,393	363,746	438,203	616,934

Production.

Colony.	1861.	1871.	1881.	1890.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	152,426	280,887	356,566	256,659
Victoria	2,136,430	3,299,889	3,612,111	4,919,325
Queensland.....	.....	.....	1,121	8,967
South Australia	33,160	38,894	32,219	116,229
Western Australia..	8,162	28,330	8,270	37,713
Tasmania	751,475	593,477	783,129	519,395
New Zealand.....	512,665	3,726,810	6,924,848	9,947,036
Australasia:.....	3,594,318	7,968,287	11,718,264	15,805,324

The average yield per acre in each province for the ten years which closed with 1890, was:— Average production of oats.

Average Production of Oats per Acre.

Colony.	Bushels.
New South Wales	21·9
Victoria	22·6
Queensland	14·6
South Australia	11·6
Western Australia	17·5
Tasmania	26·8
New Zealand	31·0
Australasia.....	27·5

The average yield of oats for the group was therefore 27·5 bushels per acre, New Zealand, with its high average yield, furnishing nearly 63 per cent. 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. High yield of New Zealand.

The average yield of oats in the United Kingdom for the last available quinquennial period was 26·2 bushels; the average for Average yield of oats.

IMPORT AND EXPORT OF OATS.

the United States was 25 bushels; for Holland, 43·2 bushels; France, 25·9 bushels; Hungary, 20·3 bushels; Austria, 16·5 bushels; Russia in Europe, 14·5 bushels; while the Australasian average was 27·5 bushels.

Proportion of
oats grown by
each Colony.

The proportion grown by each individual Colony of the total production of oats in Australasia in 1889-90, was:—

Percentage of Production of Oats in each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	3·0	1·6
Victoria	30·8	31·1
Queensland .....	.....	.....
South Australia	0·3	0·8
Western Australia	0·1	0·3
Tasmania	6·7	3·3
New Zealand	59·1	62·9
Australasia	100·0	100·0

Import and
export of oats

The net import or export of oats for each of the Colonies is given below. New Zealand was the only province which exported to any considerable extent, the major part of her export being to the neighbouring Colonies; but, nevertheless, 738,838 bushels were forwarded to the United Kingdom:—

Imports and Export of Oats.

Colony.	Oats.	
	Net imports.	Net exports.
	Bushels.	Bushels.
New South Wales	1,459,173	.....
Victoria.....	502,457	.....
Queensland	170,529	.....
South Australia	113,903	.....
Western Australia	100,136	.....
Tasmania .....	.....	146,860
New Zealand .....	.....	3,019,151
Net Exports.....	.....	819,813

MAIZE.

Maize is the principal crop grown in Queensland, and is one of the most important products of New South Wales; in the other Colonies the climate is little adapted to its growth, and the cultivation of this cereal does not extend to more than 16,000 acres.

The following figures show that fair progress has been made in the cultivation of maize since 1861 :—

Area under Maize.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales...	57,959	119,956	117,478	191,152
Victoria	1,714	1,709	1,783	10,357
Queensland	1,914	20,329	46,480	99,400
New Zealand	770	.....	3,177	5,759
Other Colonies	91	113	36	81
Australasia	62,448	142,107	168,954	306,749

Production.

Colony.	1861.	1871.	1881.	1890.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales...	1,727,434	4,015,973	4,330,956	5,713,205
Victoria	20,788	30,833	81,007	574,083
Queensland	42,100	508,000	1,313,655	2,373,803
New Zealand	31,570	.....	127,257	238,864
Other Colonies	367	2,000	648	2,146
Australasia	1,822,259	4,556,806	5,853,523	8,902,101

MAIZE PRODUCED BY EACH COLONY.

Rate of production of Maize.

The following is the average rate of production of each Colony, and of the whole group for the ten years ending with 1890 :—

Average Production of Maize per Acre :—

Colony.	Bushels.
New South Wales	31·2
Victoria.....	47·8
Queensland	23·4
New Zealand	41·7
Australasia	29·3

The figures for Victoria and New Zealand are worth little, as the land under maize is small in area, and very favourably situated. The average yield of maize in the United States for the last five years was 23·3 bushels, while for Austria and Hungary the average was a little over 19 bushels, and Italy produced at the rate of about 16 bushels. Little good, however, is to be gained by placing these figures with the Australasian averages, as the acreage devoted to maize in Australasia is too small to make any such comparison useful.

Proportion of Maize grown by each Colony.

The proportion of the total Australasian yield of maize grown by each Colony in 1881 and 1890, was :—

Percentage of Maize Production of each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	74·0	64·2
Victoria	1·4	6·4
Queensland	22·4	26·7
New Zealand	2·2	2·7
Australasia.....	100·0	100·0

The net import or export of maize for each Colony during 1890 was :— Imports and Exports of Maize.

Imports and Exports of Maize.

Colony.	Net Imports.	Net Exports.
	Bushels.	Bushels.
New South Wales	532,910	.....
Victoria	8,634	.....
Queensland .....	..	163,615
South Australia	2,734	.....
Western Australia.....	4,160	.....
Tasmania	560	.....
New Zealand .....	.....	287,749
Net imports.....	97,634	.....

New South Wales is the only Colony importing maize to any extent from abroad, chiefly from United States and New Caledonia.

BARLEY.

Barley is the least cultivated of the cereal productions of Australasia. The area and production for each period under review were as follows :— Cultivation of Barley.

Area under Barley.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	2,924	3,461	6,427	4,937
Victoria	3,419	16,772	48,652	87,751
Queensland.....	13	971	256	584
South Australia.....	10,637	17,225	11,953	14,472
Western Australia	2,412	5,083	3,679	5,322
Tasmania	7,279	4,275	4,597	4,376
New Zealand	3,457	13,305	29,808	32,740
Australasia.....	30,141	61,092	105,372	150,182

AVERAGE PRODUCTION OF BARLEY.

Production.				
Colony.	1861.	1871.	1881.	1890.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales.....	41,054	55,284	135,218	81,383
Victoria	68,118	335,506	927,566	1,571,599
Queensland.....	158	11,836	3,207	12,673
South Australia.....	168,137	164,161	137,165	175,583
Western Australia	2,412	5,083	36,790	87,813
Tasmania	169,381	76,812	102,475	99,842
New Zealand	96,658	287,646	664,093	758,833
Australasia.....	545,918	936,328	2,006,514	2,787,726

Production of
Barley.

The average production of barley per acre for each Colony is given in the following table for the ten years ended December 31, 1890:—

Average Production of Barley per Acre.

Colony.	
New South Wales	Bushels. 19·4
Victoria	18·6
Queensland	22·4
South Australia	12·4
Western Australia.....	14·8
Tasmania.....	24·1
New Zealand	27·8
Australasia	20·4

New Zealand has the largest yield of barley per acre of all the Colonies, and, as will be seen by the next table, she produces fully 27 per cent. of the total Australasian crop, while Victoria produces 56 per cent., with an average yield of 17·9 per acre. The figures appended show the proportion produced by each Colony in 1881 and in 1890:—

Percentage of Production of Barley in each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	6·8	2·9
Victoria	46·2	56·4
Queensland	0·2	0·5
South Australia	6·8	6·3
Western Australia	1·8	3·1
Tasmania	5·1	3·6
New Zealand.....	33·1	27·2
Australasia	100·0	100·0

The trade in barley and malt for each Colony in 1890 was :— Barley and Malt.

Barley and Malt.

Colony.	Barley.		Malt.	
	Net Imports.	Net Exports.	Net Imports.	Net Exports.
	Bushels.	Bushels.	Bushels.	Bushels.
New South Wales	45,862	.....	349,244	.....
Victoria .....	.....	5,992	5,182	.....
Queensland	5,560	.....	103,810	.....
South Australia	26,912	.....	62,514	.....
Western Australia	3,327	.....	5,740	.....
Tasmania	23,345	.....	489	.....
New Zealand .....	.....	240,933	.....	81,627
	.....	141,919	445,352	.....

Barley is not cultivated to the extent it deserves. In fruitful seasons, such as that of 1889, Australasia produces sufficient barley, exclusive of that required for malt, for home requirements, and a small surplus for export; but if the combined trade in barley and malt be considered, all the Colonies, with the exception of Victoria and New Zealand, are dependent upon external sources. The high import duties in Victoria on both these articles practically prohibit importations. Limited Cultivation of Barley.

POTATOES.

Potatoes.

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

Area under Potatoes.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	10,040	14,770	15,943	19,406
Victoria	27,174	39,064	39,129	53,818
Queensland	512	3,121	5,086	8,994
South Australia.....	2,612	3,156	6,136	6,626
Western Australia	277	494	278	510
Tasmania	9,349	8,154	9,670	20,133
New Zealand	7,292	11,933	22,540	32,691
Australasia.....	57,256	80,692	98,782	142,178

Production.

Colony.	1861.	1871.	1881.	1890.
	Tons.	Tons.	Tons.	Tons.
New South Wales.....	30,942	44,758	44,323	52,791
Victoria	59,364	125,841	134,290	204,155
Queensland.....	1,080	6,585	11,984	28,810
South Australia.....	7,726	10,989	18,154	23,963
Western Australia	817	1,457	556	1,655
Tasmania	47,428	22,608	33,565	73,158
New Zealand.....	37,554	42,130	121,890	178,121
Australasia	184,911	254,368	364,762	562,653

Production of potatoes.

The average production of potatoes per acre, expressed in tons, for Australasia and for each of the separate Colonies is next given,

for the ten years which ended with 1890. New Zealand, it will be seen, shows a considerably larger return per acre than any of the Colonies :—

Average Production of Potatoes for each Colony.

Colony.	Per acre.
	Tons.
New South Wales	2·7
Victoria.....	3·7
Queensland	3·1
South Australia	3·5
Western Australia	2·9
Tasmania	4·0
New Zealand	5·2
Australasia	3·9

The percentage of the total Australian production of potatoes due to each Colony is shown by the following figures. It will be seen that Tasmania and Queensland have relatively increased while Victoria holds about the same position as in 1881 :—

Percentage of Production of Potatoes in each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	12·1	9·4
Victoria	36·8	36·3
Queensland	3·3	5·1
South Australia	5·0	4·3
Western Australia	0·2	0·3
Tasmania	9·2	13·0
New Zealand	33·4	31·6
Australasia	100·0	100·0

Only three of the Colonies are in a position to export potatoes, Imports and exports of potatoes. Tasmania, New Zealand, and Victoria, in the order named ; but the surplus available for export in the last-mentioned province, though at one time considerable, has now almost vanished.

AREA UNDER HAY.

Imports and Exports of Potatoes.		
Colony.	Net Imports.	Net Exports.
	Tons.	Tons.
New South Wales	39,523	.....
Victoria .....	.....	1,635
Queensland	15,011	.....
South Australia	2,783	.....
Western Australia	936	.....
Tasmania .....	.....	33,374
New Zealand .....	.....	28,872
	.....	5,628

HAY.

Hay.

Considerable quantities of wheat, oats, and barley are grown for the purpose of being converted into hay. This crop in point of value is second in importance of the agricultural production. The area under crop for hay has since 1881 steadily and largely increased, as will be seen from the table herewith. The returns of this crop for New Zealand are, unfortunately, imperfect, as the area sown under oaten hay, and the production reaped, are not given; the combined area cropped as oaten hay and green food was 203,694 acres in 1890, but as the portion devoted to hay is probably not large, this figure has not been included in the area shown, and the production is exclusive of the oaten hay crop.

Area under Hay.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales.....	45,175	51,805	146,610	175,242
Victoria	74,681	103,206	212,150	413,052
Queensland	280	3,828	16,926	31,106
South Australia	62,874	97,812	333,467	345,150
Western Australia	6,676	*14,342	24,445	23,183
Tasmania.....	31,803	31,578	34,790	45,381
New Zealand	†27,160	30,717	68,423	44,045
Australasia.....	248,649	333,288	836,811	1,077,159

* In 1869.

† In 1867.

AVERAGE PRODUCTION OF HAY.

Production.

Colony.	1861.	1871.	1881.	1890.
	Tons.	Tons.	Tons.	Tons.
New South Wales.....	57,363	77,460	198,532	213,034
Victoria	92,497	144,637	238,793	567,779
Queensland.....	459	6,278	19,640	50,116
South Australia.....	78,886	98,266	240,827	310,125
Western Australia	6,609	14,288	24,445	26,495
Tasmania	59,851	30,891	44,957	52,021
New Zealand	36,666	35,674	89,081	62,901
Australasia.....	332,331	407,494	856,275	1,282,471

The average production of hay per acre for each Colony will be found in the next table, the period embraced by the average being the ten years which closed with 1890 :—

Average Production of Hay per Acre.

Colony.	Production of hay.
	Tons.
New South Wales	1·3
Victoria.....	1·2
Queensland	1·7
South Australia	1·0
Western Australia	1·0
Tasmania	1·2
New Zealand.	1·4
Australasia	1·2

Victoria and South Australia are the largest growers of hay, as will be seen by the following figures, which show the proportion of the total yield of Australasia which each of the Colonies produces :—

IMPORTS AND EXPORTS OF HAY.

Percentage of Production of Hay by each Colony.

Colony.	1881.	1890.
	Per cent.	Per cent.
New South Wales	23·2	16·6
Victoria.....	27·9	44·3
Queensland.....	2·3	3·9
South Australia.....	28·1	24·2
Western Australia.....	2·9	2·1
Tasmania.....	5·2	4·0
New Zealand.....	10·4	4·9
Australasia.....	100·0	100·0

The greater portion of the hay is made from wheat, though large quantities of oaten hay are produced in Victoria and New South Wales. Hay is, for the most part, grown in each province in quantities sufficient for its own requirements, New South Wales being the only one which imports largely, and Victoria being the chief exporter.

Imports and
exports of hay.

The net import or export of hay and chaff for each Colony for the year 1890 was :—

Imports and Exports of Hay and Chaff.

Colony.	Net Imports.	Net Exports.
	Tons.	Tons.
New South Wales	34,669	.....
Victoria.....	.....	17,677
Queensland.....	2,969	.....
South Australia.....	.....	5,893
Western Australia.....	429	.....
Tasmania.....	.....	8,402
New Zealand.....	.....	1,288
Net imports.....	4,807	.....

GREEN FORAGE AND SOWN GRASSES.

The cultivation of maize, sorghum, barley, oats, and other ^{Green Fodder.} cereals for the purpose of green food, and the laying down of lands under lucerne and grass, engage attention in the districts where dairy-farming is carried on. The agricultural returns of some of the Colonies do not admit of a distribution being made between these forms of cultivation prior to 1887. The following table shows the area under such green food for 1887 and 1890, and it will be seen that there have been large developments in most of the Colonies, chiefly in New Zealand. After a consideration of the figures relating to the last-mentioned province, little difficulty will be experienced in accounting for its superiority in the dairy-farming industry:—

Grasses and Green Food.

	Green Food.		Sown Grasses.	
	1887.	1890.	1887.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales	20,403	37,473	192,678	388,715
Victoria.....	6,036	10,091	154,612	235,241
Queensland	9,582	9,546	13,619	22,252
South Australia	10,079	7,340	23,217	21,431
Tasmania	1,246	1,497	184,653	201,060
New Zealand	421,719	607,695	5,869,247	6,922,173
Australasia	469,065	673,651	6,438,026	7,790,872

THE VINE.

The history of the vine in these Colonies dates from the year ^{The grape-vine.} 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, and is now cultivated in all the Colonies on the Australian continent. In South Australia a large proportion of Germans are employed in the industry of wine-making.

Climate and soil adapted to the vine.

The climate and soil of Australia are peculiarly adapted to the successful cultivation of the vine, and with a demand which the present production hardly satisfies, and also the opening up of a market in England, where Australian wines have obtained due appreciation, the future expansion of wine-growing appears fairly assured. The depreciation which French and other foreign wines have suffered, both in quantity and quality, owing to the devastation of the vineyards by phylloxera is an additional reason for the vine-growers of this continent looking forward to largely increased operations for their industry.

Progress of vine cultivation.

The progress of vine cultivation since the year 1861 is illustrated by the table subjoined. The areas given include the vines grown for table use, as well as for wine-making; also the young vines not yet in bearing :—

Areas under Cultivation with Vines.

Colony.	1861.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales	1,692	6,618	6,624	8,044
Victoria	1,464	5,523	4,923	20,686
Queensland	40	568	1,212	1,981
South Australia.....	3,918	5,455	4,202	9,535
Western Australia	457	692	527	1,023
Australasia	7,571	18,856	17,488	41,269

Until the year 1881 New South Wales contained the principal wine-growing districts, but at present the area devoted to vines is much larger in Victoria and South Australia. Of recent years great attention has been paid to the industry in Victoria, and that province now produces more than half the wine made in Australasia. The following table shows the progress made during thirty years :—

Production of Wine and Table Grapes.

Colony.	1861.		1871.		1881.		1890.	
	Wine.	Table Grapes.	Wine.	Table Grapes.	Wine.	Table Grapes.	Wine.	Table Grapes.
	Gallons.	Tons.	Gallons.	Tons.	Gallons.	Tons.	Gallons.	Tons.
New South Wales	85,328	224	413,321	508	513,058	1,103	842,181	3,355
Victoria.....	47,568	840	713,589	1,545	530,191	740	2,008,493	3,177
Queensland .....	....	....	....	....	72,121	255	189,274	1,074
South Australia ..	312,021	1,161	852,315	1,692	313,060	1,498	762,776	5,631
Western Australia	....	....	....	....	99,600	....	194,465	....
Australasia	444,917	2,234	1,979,225	3,745	1,537,600	3,596	3,907,189	13,237

It is impossible to tabulate the averages of all the 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. Making, however, due allowance for this fact, it would appear that the average production for the season 1890-91 was about 190 gallons in Western Australia, 161 gallons in South Australia, 156 gallons in Victoria, 216 gallons in New South Wales, and 274 gallons in Queensland. Taking an average year, the production for Australasia may be set down at 170 gallons. The average production in gallons per acre for other countries is shown by the following figures:—

Country.	Gallons per acre.	Country.	Gallons per acre.
Algeria	300	France	133
Cape Colony.....	220	Spain	130
Switzerland	210	Russia	130
Germany	185	Hungary	117
Portugal	175	Chili	100
Austria	152	Argentine Republic...	100
Servia	150	Italy	89
Roumania	150		
United States	140	Australia	170

AUSTRALIAN EXPORT OF WINE.

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:—

Wine Production of the World.

Country.	Production in million gallons.	Country.	Production in million gallons.
Italy	715	Roumania	30
France	624	Turkey and Cyprus...	20
Spain	550	Chili	20
Hungary	100	United States	18
Austria	90	Switzerland	15
Portugal	90	Argentine Republic...	6
Germany	55	Cape Colony.....	6
Servia	45	Australia	4
Russia	40		
Algeria	40	Total	2,502
Greece	34		

Wine trade with Europe.

The following table illustrates the progress of the Australian wine trade with Europe since 1881. The total value of this trade in 1890, it will be noticed, had grown to nearly ten times what it was in 1881, while the number of gallons exported to Europe had increased over fourteen fold:—

Australian Wine Trade with Europe.

Colony.	1881.		1890.	
	Quantity.	Value.	Quantity.	Value.
	Galls.	£	Galls.	£
New South Wales	13,271	3,520	21,275	5,228
Victoria	5,588	2,341	128,289	26,122
Queensland	124	60	110	26
South Australia	2,859	580	166,849	31,942
Australasia.....	21,842	6,501	316,523	63,318

Including the trade of one province with another, as well as the foreign trade, the exports of each during the same years is shown as under :—

Colony.	1881.		1890.	
	Gallons.	£	Gallons.	£
New South Wales.....	22,377	7,233	48,480	14,009
Victoria	12,544	5,388	146,663	31,990
Queensland.....	124	60	110	26
South Australia.....	57,812	12,879	220,519	50,272
Australasia.....	92,857	25,560	415,772	96,297

SUGAR CANE.

The growth of the cane and manufacture of sugar are important Sugar Cane. 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 Refining Company, whose various crushing mills and refinery are fitted with machinery of the most modern character. 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. Attempts are now being made to introduce Italian farm-labourers under contract to work in the sugar plantations for a number of years, and the first shipment of these immigrants arrived towards the close of 1891. Whether the experiment will be a success or not is a question looked upon with very great interest throughout Australasia.

AREA PLANTED WITH CANE.

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

	1864.	1871.	1881.	1890.
	Acres.	Acres.	Acres.	Acres.
New South Wales	22	4,394	12,167	20,446
Queensland	94	9,581	28,026	50,922
Total	116	13,975	40,193	71,368

Progress of
sugar-growing.

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 progress made in sugar-growing during the six years which closed with 1890 is illustrated by the following figures :—

	1885.	1886.	1887.	1888.	1889.	1890.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales ...	16,418	15,117	15,287	15,281	18,730	20,446
Queensland	59,186	54,010	51,815	47,340	49,741	50,922
Total.....	75,604	69,127	67,102	62,621	68,471	71,368

The industry, judged by the area devoted to cane, declined steadily from 1885 to 1888, owing to the low price of sugar. Since the year last named prices have been more satisfactory, and there has been a tendency to increase the area planted, but the figures of 1890 were still below those of 1885, as far as Queensland is concerned, while New South Wales showed a small increase.

Acreage of cane
actually cut.

The area given includes all the cane planted, whether cut during the year or not. The following table shows the acreage actually cut during the last six years :—

	1885.	1886.	1887.	1888.	1889.	1890.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
New South Wales ...	9,583	5,915	8,380	4,997	7,348	8,344
Queensland	38,557	34,657	36,806	32,375	29,438	40,208
Total.....	48,140	40,572	45,186	37,372	36,786	48,552

The returns of the sugar industry, both for Queensland and New South Wales, are incomplete. In those of the former Colony the yield of cane per acre is not stated; and in the latter the production of sugar per ton of cane crushed is not given. As regards the latter it varies, of course, with the density of the juice, but in ordinary seasons it may be set down at something over 9 per cent.

The production of sugar from cane crushed for the last six years was as follows:— Quantity of
sugar produced

	1885.	1886.	1887.	1888.	1889.	1890.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
New South Wales ...	18,464	13,750	22,500	11,279	19,016	26,533
Queensland	59,225	56,859	57,960	34,022	44,411	69,983
Total	77,689	70,609	80,460	45,301	63,427	96,516

The figures in the foregoing are from the returns made by the mill-owners, and, possibly, as regards Queensland, somewhat understate the truth.

The net imports of sugar by each Colony for 1890 are shown in the following table. Queensland was the only Colony that was able to supply sugar enough for its own requirements, and spare some for export. The surplus amounted to 40,521 tons valued at £695,892, which was mostly exported to the other Colonies, only 869 tons having been for foreign export:— Australasian
imports of
sugar.

Net imports of Sugar, 1890.

	Intercolonial and Foreign Imports.	
	Quantity.	Value.
	Tons.	£
New South Wales	34,266	691,321
Victoria	59,188	1,066,873
South Australia	13,796	279,283
Western Australia	2,403	60,065
Tasmania	6,149	127,954
New Zealand	24,612	347,663
Australasia	140,414	2,573,159

CULTIVATION OF TOBACCO.

The foregoing figures include the Queensland export of 40,521 tons mentioned above; the import from abroad was, therefore, 99,893 tons, of which only 97,746 can be traced to the original country of shipment, viz. :—

Australasian Import of Sugar from abroad, 1890.

Country.	Quantity.
	Tons.
Mauritius	31,753
Fiji	14,767
Java	35,571
Hong Kong	4,594
Other countries	11,061
Total	97,746

TOBACCO.

Tobacco.

The cultivation of the tobacco plant has received attention in the three eastern Colonies, especially in New South Wales, as the following table shows :—

Area and Production of Tobacco.

Year.	New South Wales.		Victoria.		Queensland.		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	31,708
1890	1,148	14,021	618	*326	540	2,392	2,306	16,739

* Crop failed.

Decline of the industry.

Owing to over production, and the want of a foreign market, the area devoted to tobacco culture has greatly declined since 1888, when 6,341 acres were occupied in this industry, and 70,251 cwt. of leaf was grown. The Australasian tobacco leaf has not yet been prepared in such a way as to find acceptance abroad, and until such is accomplished it will be useless to expect the cultivation of the plant to become a settled industry. The

soil and climate of Australia appear to be suitable for the growth of the plant, but sufficient care and skill have not been expended upon the preparation of the leaf. The quantity just mentioned as having been produced in 1888 was so greatly in excess of local requirements that very low prices only could be obtained, and a large portion of the crop was left upon the growers' hands. The result was that many farmers abandoned the cultivation of tobacco, so that the area under this crop during 1889 was only 3,239 acres in New South Wales, and 955 acres in Victoria, producing respectively 27,724 cwt. and 4,123 cwt. of leaf—less than half the crop of the previous year. In 1890 the acreage showed a further decline to 1,148 acres in New South Wales, and 618 acres in Victoria, with a yield of 14,021 cwt. and 326 cwt. respectively. Of the 618 acres still planted with tobacco in Victoria 505 acres failed to yield any crop. In Queensland, on the other hand, the acreage increased from 123 acres in 1888 to 266 acres in 1889, and 540 acres in 1890, but the production of the last-mentioned year was disappointing, as the total yield was less than that of the previous season, notwithstanding that the acreage had been more than doubled.

The average production of tobacco per acre for the year which closed with 1890, was :— Average production.

Average Production per Acre.

Colony.	Cwt.
New South Wales	10·8
Victoria	6·5
Queensland	7·3
New Zealand	5·4
Australasia	9·0

This average is somewhat larger than that of countries where the plant is grown under like circumstances, but the cultivation in Australia is altogether too restricted to make any comparison with other countries valuable.

IMPORTS OF TOBACCO.

Production per acre in Foreign Countries.

Country.	Cwt. per acre.	Country.	Cwt. per acre.
Russia	13·6	Turkey	7·8
Germany	12·3	Manilla, &c.....	7·4
France	11·4	United States	7·0
Austria	9·3	Brazil	7·0
West Indies	8·8	India	5·9
Java	8·4		
Japan	8·0	Australia	9·0

The Agricultural Department of Queensland is endeavouring to assist the tobacco-growers by the importation of American seed of first quality, suitable to the Queensland climate. New Zealand also has commenced the cultivation of tobacco. In 1889 that Colony had 25 acres cropped with the plant, and produced 102 cwt. of leaf, but in 1890 the area had decreased to 16 acres, with a yield of 51 cwt. of leaf.

Imports of
tobacco, &c.

The following table shows the imports for home consumption of tobacco, cigars, and cigarettes into Australasia during 1890 :—

Colony.	Quantity.
	lb.
New South Wales	1,687,462
Victoria	2,324,003
Queensland	1,172,861
South Australia	620,617
Western Australia	167,636
Tasmania	283,600
New Zealand	1,278,959
Australasia	7,535,138

GARDENS AND ORCHARDS.

Cultivation of
fruit.

The cultivation of fruit does not attract anything like the attention it deserves, although the soil and climate of large areas in all the provinces are well adapted to fruit-growing. Nevertheless,

some progress has been made, especially of recent years. In 1890 the proportion of the total cultivation allotted to fruit was 1·8 per cent., while in 1881 the proportion was 1·5; the area per 1,000 persons in the first-named year was 35 acres; in 1881 it was 29·4 acres. Grapes, oranges, apples, pears, and peaches are the principal fruits grown, but with an unlimited area suitable for this class of cultivation, and the climatic conditions so varied, varying from extreme cold in New Zealand and the high lands of New South Wales and Victoria, to tropical heat in Queensland, a large variety of fruits could be cultivated, and the industry only languishes for want of sustained demand for fruit products. The area under orchards and gardens in 1881 and 1890 was:—

Colony.	1881.		1890.	
	Area.	Percentage to total area under crops.	Area.	Percentage to total area under crops.
	acres.		acres.	
New South Wales.....	24,565	4·3	38,741	4·5
Victoria	20,630	1·4	26,955	1·3
Queensland	3,262	2·8	8,270	3·7
South Australia.....	9,864	0·4	15,362	0·7
Western Australia ...	.....	.....	3,140	0·5
Tasmania	6,717	4·5	10,345	6·6
New Zealand.....	16,360	1·5	26,857	1·6
Australasia.....	81,398	1·5	129,670	1·8

With the extension of artificial irrigation, and the increased facilities of export by the adoption of the cool chambers for the preservation of fruit for long voyages the fruit growers of Australasia are now enabled to compete with foreign rivals in the fruit supply for the English market, which in 1890 was valued at over £8,000,000. The Tasmanian fruit trade with England has passed the experimental stage, and every season large steamers visit Hobart to receive fruit for the home market. Exportation of fruit.

The following table shows the import and export trade of each Colony in green fruit and pulp for 1890, from which it will be

MINOR CROPS.

seen that with the exception of Tasmania and South Australia all the other Colonies import very largely :—

Colony.	Imports.	Exports of Domestic Produce.
	£	£
New South Wales	241,474	133,981
Victoria	222,574	14,319
Queensland	64,657	37,047
South Australia	9,702	27,262
Western Australia	1,163	.....
Tasmania	13,305	122,322
New Zealand	52,611	702
Australasia.....	605,486	340,633

MINOR CROPS.

Minor Crops.

Besides the crops already specifically noticed there are small areas on which are grown a variety of products, chiefly rye, bere, onions, beans, peas, turnips, mangel wurzel, pumpkins, melons, and hops, but none of these crops are sufficiently important to warrant a special notice. The area under such crops for each province in 1890 was :—

Area under Minor Crops.

Colony.	Acres.
New South Wales	8,780
Victoria.....	42,416
Queensland	2,849
South Australia	8,973
Tasmania	15,452
New Zealand	28,183
Australasia	106,653

Condition of Agriculture in the Colonies.

Although considerable progress has of late years been made in some directions, it must be admitted generally, that agriculture in the Australasian 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 America and Europe. It may be expected that improvements will take place in this respect and that the efforts made by the Governments of New South Wales, Victoria, and South Australia for the promotion of scientific farming, will bear good fruit. Agricultural colleges and model farms have been established in the three Colonies, and travelling lecturers are sent to agricultural centres. It is confidently anticipated that the expenditure of the States in the direction indicated will meet with abundant reward.

IRRIGATION.

Originally cultivation in Australia was confined to the banks ^{Necessity for irrigation.} of the coastal rivers, and the country near the sea, and within the influence of regular rainfall. Now, however, that cultivation has spread beyond the coastal districts and the adjacent tablelands, into the interior of the continent, where the irregular character of the rainfall makes harvesting uncertain, irrigation has become necessary to insure successful husbandry. For some years past small areas have been irrigated by private enterprise; 23,106 acres were returned as irrigated in New South Wales during 1891, and in 1889 there were 24,574 acres irrigated in Victoria.

A few years ago a special Act was passed by the Victorian ^{Mildura.} Legislature, enabling the Government to hand over to the firm of Chaffey Brothers an area of 250,000 acres of mallee scrub, situated at Mildura, in the Swan Hill district, about 340 miles north-west of Melbourne. The land was then uninhabited and practically valueless. Now it has grown into a flourishing Colony, with about 3,000 inhabitants. The Act obliged the promoters to spend £35,000 on the land within the first five years, but they actually expended £275,000 within less than four years, and have thus become entitled to the freehold of 40,000 acres, holding the balance of the 250,000 acres on lease. In addition to the sum mentioned it is estimated that the settlers have spent at least £100,000 in improving the land.

Production of raisins.

The raisin industry is so far the leading one at Mildura, but all kinds of fruit grow to perfection, and out of 6,500 acres cultivated no less than 6,000 acres are orchards and gardens.

Irrigation in Victoria.

A number of irrigation trusts have been formed in Victoria, and extensive works constructed in various districts, chiefly on the Goulburn, Loddon, Wimmera, and Avoca Rivers.

Irrigation in New South Wales.

In New South Wales matters are in a more backward state. The water conservation branch attached to the Department of Mines is at present engaged in obtaining sufficient hydrographical data to form the basis of a scheme of irrigation for vast areas in the vicinity of the Murray, Murrumbidgee, Lachlan, Macquarie, and Darling Rivers.

Mulgoa.

A company of capitalists has also commenced operations under what appears to be great promise of success, and has secured an area of about 20,000 acres in the Mulgoa district, within a distance of 30 miles of the metropolitan market. The soil consists chiefly of a rich friable loam, but the district suffers from an unequal rainfall. An Act, passed by the New South Wales Legislature in 1890, gives the right to tap the Nepean, and if necessary the Warragamba River, for the purpose of irrigating this area. The promoters intend to spend, if necessary, £20,000 on the scheme, and when the works are completed the area dealt with is expected to support a population of 5,000, instead of 50 as at present. It is proposed to devote the land chiefly to the cultivation of vines and fruit-trees.

Renmark.

In October, 1888, the firm of Chaffey Brothers commenced operations in South Australia, at a place called Renmark, situated on the River Murray, close to the boundary of New South Wales, and about 70 miles below Mildura, where an area of 250,000 has been set apart for irrigation purposes, and although Renmark has not progressed so rapidly as Mildura, it promises in time to become an important settlement.

PASTORAL RESOURCES AND DAIRY INDUSTRY.

NOTWITHSTANDING the fact that the soil, climate, and indigenous herbage of Australasia are admirably adapted to the sustenance of animal life, no attempt was made to test the capabilities of the land as a feeding ground for flocks and herds on a large scale, until the example of Captain Macarthur had demonstrated, beyond doubt, that Nature favoured the production in Australasia 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.

The beginnings of pastoral enterprise in the Colony were very humble. The whole stock of the community which accompanied Captain Phillip comprised only 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats; and although the whole of the present flocks and herds of Australasia have not sprung from these animals alone, it will be seen on how small a scale the business of stock-raising was first attempted. No systematic record of the arrival of stock seems to have been kept in the early days of settlement, but it appears that in the period between Governor Phillip's landing and the year 1800 there were some slight importations, chiefly of sheep from India.

In the last-mentioned year the stock in Australasia of the various kinds was—6,124 sheep, 1,044 cattle, 203 horses, and a small number of swine, the precise figures not being obtainable; in 1890 the numbers had increased to 116,041,700 sheep, 10,949,520 cattle, 1,732,630 horses, and 1,205,780 swine.

Commencement
of the pastoral
industry.

Humble
beginnings of
stock breeding

Increase of live
stock.

LIVE STOCK OF AUSTRALASIA.

The following figures give the number of stock in the Colonies at various epochs ending with 1851 :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1800	6,124	1,044	203	.....
1810	25,888	12,442	1,134	9,544
1821	209,158	102,939	4,564	33,906
1842	6,312,004	1,014,833	70,615	66,086
1851	17,326,021	1,921,963	166,421	121,035

The progress since 1861 is illustrated in the following table :—

Year.	Sheep.	Cattle.	Horses.	Swine.
1861	23,741,706	4,039,839	459,970	362,417
1871	49,773,584	4,713,820	782,558	737,477
1881	78,063,426	8,709,628	1,249,765	903,271
1890	116,041,707	10,949,524	1,732,628	1,205,782

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

Year.	Sheep.	Cattle.	Horses.	Swine.
1861	18·8	3·2	0·4	0·3
1871	25·3	2·4	0·4	0·4
1881	27·7	3·1	0·4	0·3
1890	30·6	2·9	0·5	0·3

Numbers of
stock per head.

It will be seen that during 1861 there were 18·8 sheep for every person in the Colonies, increasing in 1890 to 30·6. On the other hand cattle had decreased from 3·2 per inhabitant at the former period to 2·9 in the latter. The breeding of horses and swine had about kept pace with the population.

SHEEP.

Country suitable
for sheep.

The suitability of the land discovered in the early days of New South Wales for pastoral pursuits was undoubtedly the means of leading the infant Colony to take its first step on the path of commercial progress; and it is not a little surprising at this

distance of time how steadily some of the settlers, in the face of the almost insurmountable difficulty of transport which existed a century ago, availed themselves of the opportunities at their disposal. The importation of valuable specimens of sheep from England or the Cape of Good Hope, prior to the introduction of steam, was at all times attended with great risk, and it frequently happened that many of these costly animals died during the tedious voyage. These enterprises were, however, on the whole successful, and thus the flocks and herds of the colonists surely, if at first slowly, increased and multiplied.

By the year 1795, Captain Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of 1,000, which were held in great estimation, and gradually increased in value, until, as recorded by an entry in his journal ten years later, the market price of a fat wether had risen to £5. Not satisfied with the natural increase of his flocks, Macarthur sought to improve the quality of his fleeces, by which means he could see opening before him the promise of great wealth, and the prospect of establishing important commercial relations with Great Britain. With these ends in view, he procured from the Cape of Good Hope, at great cost and trouble, a number of superior rams and ewes. A happy circumstance occurred which favoured his enterprise; for he had the good fortune to secure possession of three rams and five ewes of very fine Spanish breed, which had been presented by the King of Spain to the Dutch Government. These animals, out of a total of twenty-nine purchased at the Cape, arrived in Sydney in 1797, and were disposed of to various breeders. With the exception of Macarthur, however, those who had secured sheep of the superior breed made no attempt to follow up the advantage, being probably amply satisfied with the larger gains from the sale of an increased number of animals. Macarthur, on the other hand, thought little of present profits, and still less of breeding entirely for human consumption. He attentively watched the results of crossing his imported rams with the old stock, and by systematically selecting the finer ewes which

Captain
Macarthur
promotes
wool-growing.

Improvement
of the flocks.

were the offspring, for further mingling with the sires, he gradually improved the strain, and in a few years obtained fleeces of very fine texture which met with the ready appreciation of English manufacturers.

Spain formerly
chief wool-
grower.

Prior to the present century the production of the finest wool had been confined chiefly to Spain, and woollen manufactures were necessarily carried on in England upon a somewhat limited scale, which was not likely to improve in face of certain restrictions the operatives endeavoured to place upon their employers. These men, in support of their contention that the woollen trade could not be expanded, on account of the limited supply of the raw material, argued that fine wool was obtainable only in Spain; and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, conclusively proving the capabilities of Australia as

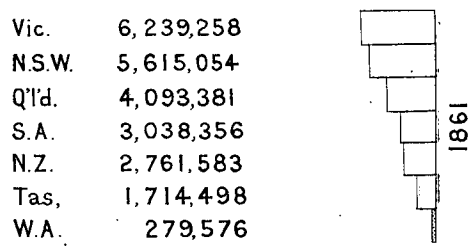
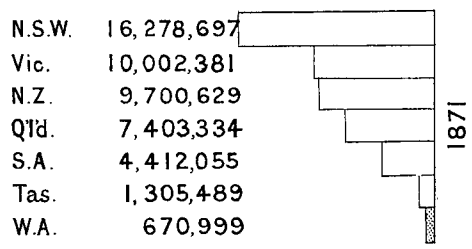
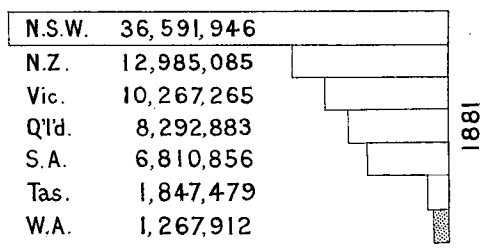
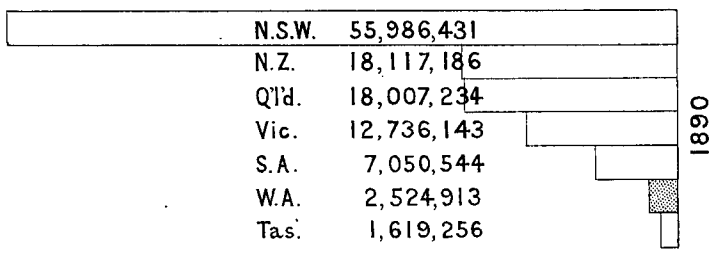
Trade opened up
with Great
Britain.

a wool-producing country. In this way he opened up a small trade with English manufacturers, which, as Australasian wool rose in public estimation, gradually increased until it reached its present enormous dimensions. During his visit to England, Macarthur purchased an additional stock of ten rams and ewes of the noted Spanish breed, nearly equal in quality to those which in 1797 he had procured from the Cape of Good Hope. That these animals were the finest obtainable in Europe may be gathered from the fact they also had formed portion of a present from the King of Spain to George III. Thus did Macarthur, after his return to New South Wales, patiently continue for many years the process of selection, with such success, that in 1858, when his flock was finally dispersed, it was estimated that his superior ewes numbered fully 1,000. Victoria secured a considerable portion of Macarthur's flock, and the process of breeding proceeded simultaneously in that and other adjacent Colonies.

Importation
of sheep.

Although the increase in the numbers of the finer sheep was satisfactory, the importation of superior stock was not discontinued, and the stock of the Colonies was augmented in 1823 and 1825 by the further introduction of Spanish sheep. Sheep-breeding

LIVE-STOCK — SHEEP



Lithographed and Printed at the Department of Lands, Sydney, N. S. W. 1892.
No. of Lithographs 7, 97, 3

was about this period commenced in the Mudgee district, and the climate of that region has produced a still more favourable result upon the quality of the fleeces than any other part of the Colony, and it was thence that the finest merinos were for a long time procured. As might have been anticipated, the climate has in some respects changed the character of the Spanish fleece. The wool has become softer and more elastic, and while having diminished in density it has increased in length, so that the weight of the fleece has only slightly altered. The quality of the wool has thus on the whole improved under the beneficial influence of the climate, and if no further enhancement in its value can be reasonably hoped for, there is at least every reason to believe that Australasian wool will maintain its present high standard of excellence.

The following table shows the number of sheep at the close of 1861 and 1890 for each Colony; also, the annual increase per cent. in comparison to that of the population :—

Colony.	1861.	1890.	Annual Increase from 1861 to 1890.	
			Sheep per cent.	Population per cent.
New South Wales.....	5,615,054	55,986,431	8·3	4·0
Victoria	6,239,258	12,736,143	2·5	2·6
Queensland	4,093,381	18,007,234	5·2	8·8
South Australia.....	3,038,356	7,050,544	3·0	3·3
Western Australia	279,576	2,524,913	7·8	4·0
Tasmania	1,714,498	1,619,256	*0·2	1·7
New Zealand	2,761,583	18,117,186	6·7	6·6
Australasia.....	23,741,706	116,041,707	5·6	3·9

* Decrease.

Tasmania is the only Colony of the group in which the business of sheep-breeding has not advanced since 1861. In all the others there has been a material increase, though, except in the case of New South Wales and Western Australia, the increase per cent. has been less than that of the population. In Queensland and New Zealand there has been a very substantial increase in the

SHEEP OWNED BY EACH COLONY.

number of sheep depastured during the period covered by the table, but the population also increased at a rate even more rapid. In South Australia the area adapted to sheep is limited, and no great expansion in sheep-farming can be looked for. As regards Victoria, the important strides made by this Colony in agriculture and kindred pursuits, afford sufficient explanation of the slow rate at which her flocks are increasing. The reasons for the large falling-off in the sheep-farming of Tasmania are various. Mr. Johnston, the Statistician of Tasmania, in the "Official Record," expresses his opinion thus:—"Rabbits, fluke, and the increasing tendency to fatten stock for market, are the reasons generally assigned for the decrease in sheep. No doubt, however, the greater extent of land taken up in respect of cattle and pigs must be considered." The following statement shows the proportion of sheep in each Colony to the total flocks of Australasia. In 1861 out of every 100 sheep New South Wales depastured 23·7, while, in 1890, the proportion had increased to 48·2, or little short of one-half the total flocks. New Zealand came second, with 15·6 per cent. With the exception of the two Colonies named, and of Western Australia, whose flocks are small, the proportion of sheep depastured in each Colony to the total number of sheep in Australasia was less in 1890 than it had been in 1861:—

Proportion of
sheep in each
Colony:

Proportion of Sheep in each Colony to total number of Sheep in
Australasia.

Colony.	1861.	1890.
	Per cent.	Per cent.
New South Wales	23·7	48·2
Victoria	26·3	11·0
Queensland	17·2	15·5
South Australia	12·8	6·1
Western Australia	1·2	2·2
Tasmania	7·2	1·4
New Zealand	11·6	15·6
Australasia	100·0	100·0

The value of the sheep depastured in Australasia at the close of 1890 may be set down at £42,954,000, thus distributed among the various provinces :—

	£
New South Wales.....	18,885,000
Victoria.....	5 094,000
Queensland.....	6,077,000
South Australia.....	2,556,000
Western Australia.....	915,000
Tasmania.....	810,000
New Zealand.....	8,606,000
Australasia.....	£42,954,000

CATTLE.

Except in Queensland cattle breeding is secondary to that of sheep. In New South Wales the industry does not occupy so important a position as it formerly did, the decline being 16·0 per cent. since 1861, or at the rate of 0·6 per cent. per annum. The lowest point was reached in 1885, when the herds only numbered 1,317,315, the result partly of continuous bad seasons, but principally of the more profitable character of sheep-farming, which induced graziers on many runs to substitute sheep for cattle. Since that period the improvement has been gradual, and, though small, would seem to indicate a disposition on the part of pastoralists in some parts of the Colony to devote more attention to cattle-breeding. The progress of Victoria in this direction has been small but steady, the relative position occupied by the Colony now being much the same as in 1861 in regard to the number of cattle depastured. Queensland has largely increased her herds, and now possesses 50·8 per cent. of the total cattle of the whole group. New Zealand and Western Australia—especially the former—show decided improvement, and the breeding of this class of stock seems to be greatly in favour in those Colonies.

The following table shows the number of cattle in 1861 and 1890, with the yearly increase or decrease per cent. for the whole period, as well as the growth of the population :—

CATTLE IN EACH COLONY.

Numbers and increase of Cattle.

Colony.	1861.	1890.	Increase or Decrease per cent. per annum, 1861-1889.	
			Cattle.	Population.
New South Wales.....	2,271,923	1,909,009	*0.6	4.0
Victoria	628,092	1,782,978	3.7	2.6
Queensland.....	560,196	5,558,264	9.1	8.8
South Australia.....	265,434	574,032	2.5	3.3
Western Australia	33,795	130,970	4.8	4.0
Tasmania	87,114	162,440	2.2	1.7
New Zealand	193,285	831,831	5.2	6.6
Australasia.....	4,039,839	10,949,524	3.5	3.9

* Decrease.

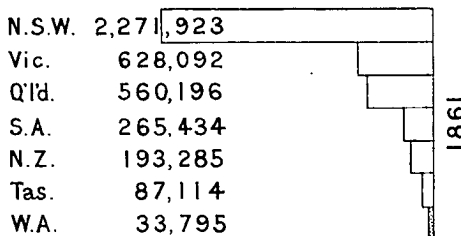
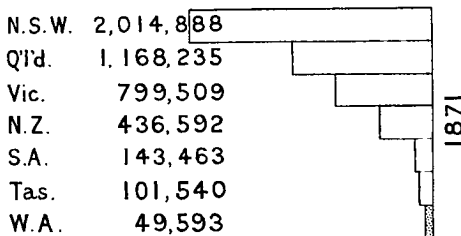
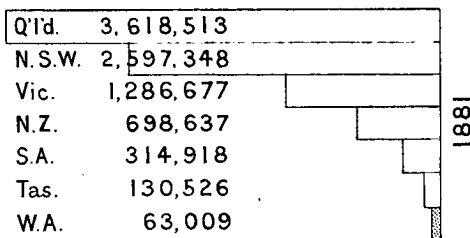
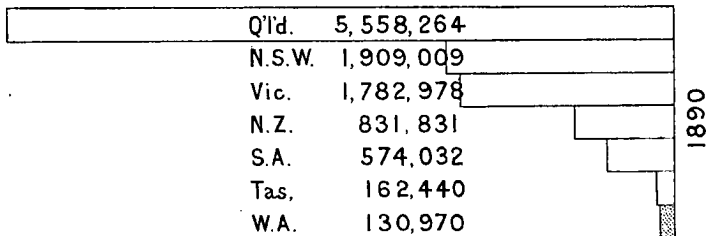
Proportion of
cattle in each
Colony.

The proportion of cattle belonging to each Colony in 1861 and 1890 is shown in the next table. It will be noticed that Queensland has increased its position from 13.9 to 50.8 per cent. The increase in some of the other Colonies has been slight, as in Victoria from 15.5 to 16.3 per cent., in Western Australia from 0.8 to 1.2 per cent., and in New Zealand from 4.8 to 7.6 per cent. South Australia and Tasmania show a slight decrease, the former Colony from 6.6 to 5.2 per cent., and the latter from 2.2 to 1.5 per cent.; but New South Wales shows the very large decrease from 56.2 to 17.4 per cent. :—

Proportion of Cattle in each Colony.

Colony.	1861.	1889.
	Per cent.	Per cent.
New South Wales	56.2	17.4
Victoria	15.5	16.3
Queensland	13.9	50.8
South Australia	6.6	5.2
Western Australia.....	0.8	1.2
Tasmania	2.2	1.5
New Zealand	4.8	7.6
Australasia.....	100.0	100.0

LIVE-STOCK — HORNEDED CATTLE



The value of the cattle in Australasia at the close of 1890 may be set down at £56,822,000, thus divided amongst the various provinces :—

	£
New South Wales	10,690,000
Victoria	11,768,000
Queensland	23,623,000
South Australia	3,444,000
Western Australia	753,000
Tasmania	1,137,000
New Zealand.....	5,407,000
<hr/>	
Australasia	£56,822,000

HORSES.

Australasia is eminently fitted for the breeding of most descriptions of horses, and attention has long been directed to this industry. At an early period the stock of colonial bred horses was enriched by the importation of some excellent thoroughbred Arabians from India; and the high name which was acquired by the horses of Australasia was largely due to this cause. The abundance of good pasture everywhere obtainable also contributed to this result. The native kangaroo-grass, especially when in seed, is full of saccharine matter, and young stock thrive excellently upon it. This abundance of natural provender allowed a large increase in the stock of the settlers, which would have been a great advantage, had it not been that the general cheapness of horses led to a neglect of the canons of breeding. In consequence of the discovery of gold, horses became very high priced. Under ordinary conditions this circumstance would have been favourable to the breed of horses, and such was the case in Victoria. In New South Wales it was far otherwise. The best of the stock of that Colony, including a large proportion of the most valuable breeding mares, was taken by Victoria, with the result that for twenty years after the gold rush the horses of New South Wales greatly deteriorated. One class

Horse-breeding.

Excellence of native grasses.

Partial deterioration of stock.

of stock only escaped. The thoroughbred racer was probably improved both by the importation of fresh stock from England, and by the judicious selection of mares.

Saddle and harness horses.

The Colonies are specially adapted for the breeding of saddle and light-harness horses, and it is doubtful whether these particular breeds of Australasian horses are anywhere surpassed. The bush horse is hardy and swift, and capable of making very long and rapid journeys, when fed only on the ordinary herbage of the country ; and in times of drought, when the grass and water have become scanty, these animals often perform astonishing feats of endurance. Generally speaking, the breed of horses is improving, owing to the introduction of superior stud horses and the breeding from good mares. Where there has been a deterioration in the stock, this has been due to breeding from weedy mares for racing purposes and from the effect of droughts.

Endurance of colonial horses.

Demand for horses for India.

Although the demand for horses in India is considerable and Australia is a natural market from which supplies may be derived there is no one employed habitually by the Indian Government to make himself acquainted with the resources of the Colonies, or to furnish information to intending shippers. The speculation of sending horses to India is one open to many risks, as, apart from the dangers of the voyage, there is always an uncertainty as to the stock being accepted. Owing, therefore, to the limited demand, it has not been found advantageous to breed horses for any but local requirements.

Foreign demand for horses limited.

Number of horses in Australasia.

The following table shows the number of horses in each Colony for 1861 and 1890, also the proportion in each case to the total at each period. In 1861, New South Wales possessed 50·7 per cent. of all the horses in Australasia, Victoria being second, with 18·3 per cent. In 1890, New South Wales still held the leading position as regards numbers, but her proportion to the whole had fallen to 25·6 per cent. Queensland and New Zealand exhibit the most relative progress, having increased their respective proportions of the total from 6·3 and 6·2 per cent. in 1861 to

21·1, and 12·2 per cent. in 1890. The numbers and proportion for each Colony were :—

Horses.

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1890.	1861.	1890.
New South Wales...	233,220	444,163	50·7	25·6
Victoria	84,057	436,459	18·3	25·2
Queensland.....	28,983	365,812	6·3	21·2
South Australia.....	52,597	199,605	11·4	11·5
Western Australia...	10,720	44,384	2·3	2·6
Tasmania	22,118	31,165	4·8	1·8
New Zealand	28,275	211,040	6·2	12·2
Australasia	459,970	1,732,628	100·0	100·0

The following table gives the flocks and herds of each of the great divisions of the globe, the returns are the latest available, and are based on figures given in the report of the Statistician to the American Department of Agriculture :—

Flocks and herds
of the world.

	Cattle.	Horses.	Sheep.	Swine.
Europe	104,166,000	34,865,000	214,499,000	46,152,000
Asia	70,850,000	4,443,000	71,669,000	417,000
Africa	8,203,000	721,000	60,820,000	840,000
America	117,249,000	21,920,000	143,581,000	53,974,000
Australasia.....	10,950,000	1,733,000	116,042,000	1,206,000
Total.....	311,418,000	63,682,000	606,611,000	102,589,000

STOCK CARRYING CAPACITY OF AUSTRALASIA.

None of the Colonies are stocked to their full capacity, while in the large territory of Western Australia, and the Northern territory of South Australia, the process has only begun. A clear idea of the comparative extent to which each Colony is stocked cannot be given unless the different classes of stock are reduced to a common value. Assuming, therefore, that one head of large stock is equivalent to ten sheep, and stating cattle and horses in terms

Capacity of the
Colonies to carry
stock.

of sheep, it will be found that the number of acres per sheep for each Colony is as follows :—

Stock carried by each Colony.

Colony.	No. of acres per sheep.
New South Wales	2·5
Victoria.....	1·6
Queensland	5·5
South Australia	39·1
Western Australia	158·6
Tasmania	4·7
New Zealand	2·3
Australasia	8·3

Limit of produc-
tion not yet
reached.

The most closely stocked Colony is Victoria, with 1·6 acres per sheep, but this is by no means the limit of the carrying capacity of that Colony. On the contrary, there is still a considerable tract yet to be brought under the sway of the pastoralist. Neither New Zealand, with 2·3 acres per sheep, nor New South Wales, with 2·5 acres, can be said to have reached their full carrying capacity. If the present average of New South Wales be taken as the possible limit to which Australasia may be stocked, then there is room in these Colonies for 570 million of sheep, or 57 million cattle more than now depastured. That Australasia can carry 1 sheep to 2·5 acres is an improbable supposition. In almost every Colony the best land is under occupation, and the demands of the farmer must diminish the area at present at the disposal of the grazier. This will more especially prove true in regard to Victoria, New Zealand, and Tasmania. On the other hand, by resisting the temptation to overstock inferior country, and by increasing the natural carrying capacity by water conservation and irrigation, and the artificial cultivation of grasses, the Colonies where agriculturé has made most progress will be able to carry stock in even larger numbers than they have hitherto attempted. Taking all circumstances into consideration it may be fairly estimated that under the present system the Colonies are capable of maintaining, in ordinary seasons, stock equivalent to 390,000,000 sheep; that is, about 150,000,000 sheep, or their equivalent in cattle, more than are now depastured.

Stock-carrying
capacity of the
Colonies.

The number of stock in Australasia, expressed in terms of sheep, the number of acres per sheep, and number of sheep per head of population for the various dates herein mentioned, were :—

Stock in terms of Sheep.

Year.	Sheep.	Cattle. In terms of Sheep.	Horses. In terms of Sheep.	Total.	Acres per Sheep.	Sheep per head of Population.
1861	23,741,706	40,398,390	4,599,700	68,739,796	29·4	54·3
1871	49,773,584	47,138,200	7,825,580	104,737,364	19·3	53·2
1881	78,063,426	87,096,280	12,497,650	177,657,356	11·4	62·9
1890	116,041,707	109,495,240	17,326,280	242,863,227	8·3	64·1

The total value of pastoral property, that is, improvements, plant, and stock, was estimated at the beginning of 1891 at £242,653,000, and of this large sum £78,756,000, or nearly one-third, belonged to New South Wales. In the amount quoted the value of stock alone (excluding swine), comes to about £116,776,000. No account is here taken of the value of land devoted to pastoral purposes, for, though much purchased land is used for depasturing stock, the larger area comprises lands leased from the State, so that a statement which omitted to take into account the value of the State lands would be misleading. The annual return from pastoral pursuits was £35,920,600, the share of each Colony in the total production being :—

Value of Australasian Pastoral Products.

1890-91.

New South Wales	£13,359,800
Victoria	6,041,300
Queensland	5,984,200
South Australia.....	2,176,300
Western Australia	500,200
Tasmania	748,300
New Zealand	7,110,500
Australasia	£35,920,600

Dairy cattle not included.

The products of dairy cattle and swine are not included in the foregoing statement, the figures being given in another place. It should be understood that the values quoted are those at the place of production. The value of the return from each class of stock may be approximately reckoned as follows:—

Return from each class of Australasian Stock.

Sheep.....	£25,943,100
Cattle	6,917,300
Horses	3,060,200
	<hr/>
	£35,920,600

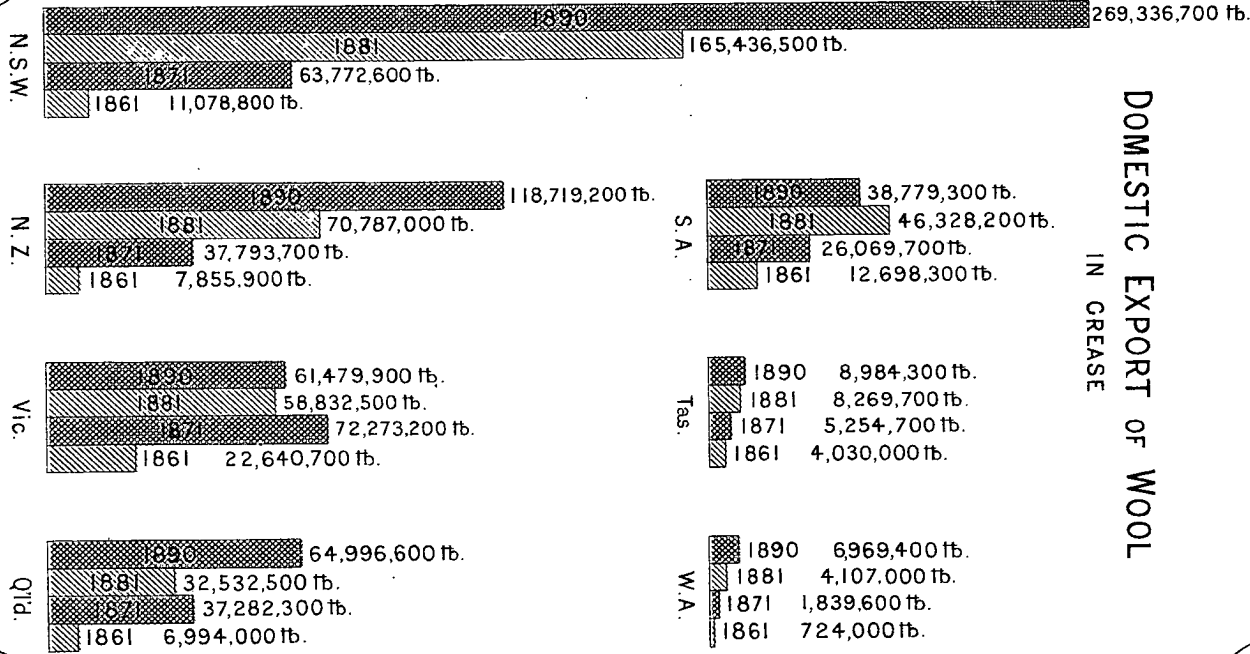
Export of Wool.

As might be supposed the greater part of the value of stock returns is due to wool. Thus, out of the £35,920,600 quoted above, £19,555,400 is the value of wool, viz:—£19,209,100 for wool exported, and £346,300 for wool used locally. The wool export of the Australasian Colonies during 1890 was 569,265,400 pounds weighed in the grease, the export value being £20,349,300—that is to say, £1,140,200 more than the value of that portion of the clip which was exported, as shown above. The latter sum represents the cost of freight, handling, and brokerage between the sheep-walks and the port of shipment.

Export of wool in the grease.

The quantity and export value of the wool clip in the grease is given for each Colony in the subjoined table for 1881 and 1890. The values of the clip for the latter year for South Australia and Tasmania do not compare favourably with those of 1881; indeed there has been in South Australia a serious fall, not only in value, but in the quantity exported. All the other Colonies show an increase both in quantity and value of the clip, but this increase was relatively greatest in Queensland, New Zealand, and New South Wales, in the order named. New South Wales maintains its high position as a wool producer, nor can it be denied that in New Zealand sheep-breeding is a flourishing concern, for though the number of sheep in 1890 was only slightly in excess of that in 1885, this is mainly due to the heavy demand upon the resources of the Colony for the supply of stock to meet the requirements of the London market in regard to frozen meat.

DOMESTIC EXPORT OF WOOL IN GREASE



Lithographed and Bound at the Department of Lands, Sydney, N. S. W. 1892.
 No. of Sheets 72 & II

AVERAGE PRICE OF WOOL.

Net Export of Wool for each Colony, 1881 and 1890.

Colony.	Weight of clip in grease.		Values.	
	1881.	1890.	1881.	1890.
	lb	lb	£	£
New South Wales.....	165,436,500	269,336,700	7,175,200	8,955,600
Victoria	58,832,500	61,479,900	2,562,800	2,743,400
Queensland.....	32,532,500	64,996,600	1,331,900	2,524,700
South Australia.....	46,328,200	38,779,300	1,573,300	1,295,700
Western Australia	4,107,000	6,969,400	256,700	261,300
Tasmania	8,269,700	8,984,300	498,400	419,200
New Zealand	70,787,000	118,719,200	2,910,600	4,149,400
Australasia.....	386,293,400	569,265,400	16,308,900	20,349,300

The average price per lb. obtained for wool in grease, at the London Wool Sales, for the five series during each year from 1885, for the principal producing Colonies was:—

Year.	New South Wales. (Merino).	Victoria. (Merino).	New Zealand. (Merino.)
1885	d. 8½	d. 10¾	d. 8¾
1886	8½	10½	9½
1887	9¾	10¾	9¾
1888	8¾	10½	9½
1889	10	11½	10
1890	10	11¾	10½
1891	8¾	11¾	10½

It will be noticed that Victorian wool averages about 2d. per lb. higher than New South Wales wool. The figures must be taken with qualification. Much of the New South Wales wool, the product of the Riverina districts, is exported *via* Melbourne, and sold as Port Phillip wool, and brings a price considerably in excess of the average given in the table for the Colony of which it is the produce.

The domestic export trade of frozen and preserved meat is now largely confined to New Zealand, where the industry is in a flourishing condition. In 1881 the value of the trade done by

Price of wool in grease.

New South Wales wool exported *via* Melbourne.

Frozen and preserved meats.

that Colony was only £22,391, or 6 per cent. of that of Australasia; in 1890 it had increased to £1,237,752, or 81 per cent. of the total. New South Wales and Queensland are the principal exporters in this trade after New Zealand, the value of export being £150,091 for New South Wales, and £121,176 for Queensland. In 1881 New South Wales and Victoria exported meat to the total value of £304,909; in 1890 their joint export had decreased to £172,436, two-thirds of the decrease being due to Victoria. A revival of this industry may, however, be looked for in the near future.

Quantity and value of meats exported.

The following table shows the quantity of fresh and preserved meats exported, the produce of each Colony, in 1881 and 1890:—

Domestic Export of Fresh and Preserved Meats.

Colony.	Quantity.			
	1881.		1890.	
	Fresh and Frozen.	Salt and Preserved.	Fresh and Frozen.	Salt and Preserved.
	Cwt.	Cwt.	Cwt.	Cwt.
New South Wales...	17,740	62,094	73,257	44,165
Victoria	8,136	35,947	1,078	8,896
Queensland.....	.....	22,051	54,053	25,643
South Australia.....	22	746	250	1,291
Western Australia..	.....	.....	.....	.....
Tasmania .....	.....	.....	.....	.....
New Zealand .....	.....	9,595	896,914	72,766
Australasia.....	25,898	130,433	1,025,552	152,761

In view of the large increase of stock which the three favourable seasons have brought to the flock-masters of Australasia, the question of the disposal of the surplus cast has become a matter of very serious consequence. Omitting from consideration New Zealand, which has solved the difficulty, it may be assumed

that there is a surplus of from 60,000 to 100,000 head of cattle, and 4,500,000 sheep, which in any ordinary year could be exported without trenching upon the local requirements. Efforts have been made during the past few years to deal with this question of surplus stock, and it is hoped a satisfactory solution of the difficulty will be found in a large export trade to Europe of frozen mutton and preserved meats, which there seems every prospect of being established. In the table on the preceding page is given the quantity of beef and mutton exported during 1890. Excluding New Zealand, the weight stated represents the produce of 838,800 sheep, and 7,000 cattle; that is in the one case 19 per cent., and in the other 9 per cent. of the exportable surplus.

DAIRY-FARMING.

Dairy-farming has of late years made fair progress in Australasia, especially in New South Wales, Victoria, and New Zealand. The introduction of the factory system at convenient centres, and the use of the cream separator, have done much to cause the extension of this industry. The number of dairy cows and the milk produced by them in each Colony were as follows in 1890 :—

Progress of dairy-farming.

Dairy Cows and Milk Produced.

Colony.	Dairy Cows.		Quantity of milk produced (estimated).
	No.	Gallons.	
New South Wales.	333,023	119,888,000	
Victoria.	395,091	142,233,000	
Queensland.	120,000*	36,000,000	
South Australia.	81,022	29,168,000	
Western Australia.	10,000*	3,600,000	
Tasmania.	33,189	13,275,000	
New Zealand.	206,906	82,762,000	
Australasia,	1,179,231	426,926,000	

* Estimated.

PRODUCTION OF DAIRY PRODUCE.

The value of the milk and its products, butter and cheese, and of the return obtained from swine, together with the total value of dairy produce for each Colony in 1890 were :—

Value of Dairy Produce, 1890.

Colony.	Value of Milk, Butter, and Cheese.	Value of Return from Swine.	Total Value of Dairy and Swine Produce.
	£	£	£
New South Wales	2,556,800	330,800	2,887,600
Victoria	3,210,400	396,200	3,606,600
Queensland	853,300	135,800	989,100
South Australia	604,800	165,600	770,400
Western Australia.....	100,400	33,800	134,200
Tasmania.....	265,700	114,600	380,300
New Zealand	1,499,200	331,000	1,830,200
Australasia	9,090,600	1,507,800	10,598,400

Butter and
cheese.

The production of butter and cheese for 1890 in each Colony is estimated to have been as follows :—

Production of Butter and Cheese, 1890.

Colony.	Butter.	Cheese.
	lb.	lb
New South Wales	18,534,000	4,797,000
Victoria	19,249,000	4,893,000
Queensland	6,007,000	596,000
South Australia	5,610,000	1,348,000
Western Australia.....	405,000	68,000
Tasmania	2,317,000	628,000
New Zealand	16,310,000	6,976,000
Australasia	68,432,000	19,306,000

The Colonies having a surplus of butter and cheese available for exportation are shown in the following table :—

Export of butter and cheese.

Net Export of Dairy Produce, 1890.

Colony.	Quantity.	
	Butter.	Cheese.
	lb.	lb.
New South Wales	279,200	66,800
Victoria	944,400	.....
South Australia	329,000	.....
New Zealand	3,899,400	4,529,300
Total.....	5,452,000	4,596,100

The Colonies which, on the other hand, are obliged to import butter and cheese are shown below :—

Import of butter and cheese.

Net Import of Dairy Produce, 1890.

Colony.	Quantity.	
	Butter.	Cheese.
	lb.	lb.
Victoria .....	.....	18,000
Queensland	363,000	1,113,700
South Australia .....	.....	68,800
Western Australia	368,900	139,600
Tasmania	30,200	1,700
Total.....	762,100	1,341,800

From the foregoing figures it will be seen that those Colonies which produce a surplus of butter and cheese have, after providing for the deficiency of the other Colonies, a balance available for external exportation. The quantity in 1890 amounted to 4,689,900 lb. butter, and 3,254,300 lb. cheese, valued at £160,000 and £60,000 respectively. An export trade in butter and cheese has long been maintained from New Zealand, but during 1890 and 1891 Victorian and New South Wales butter was sent to the London market, and its very favourable reception there gave a fresh stimulus to the dairying industry in those Colonies.

Butter and cheese for export.

From latest advices it would appear that the price obtained for Australian butter in London, was fully 50 per cent. higher than the rates ruling in the local market, and as there can hardly be a limit placed to the capacity of Australasia to produce butter and cheese, it is probable that these high prices will have the effect of greatly stimulating the dairy industry throughout all these Colonies. In connection with this subject it may be mentioned that the value of the butter, cheese, and eggs imported into the United Kingdom during 1890 was £10,598,848, £4,975,134, and £3,428,806 respectively. The supply is chiefly drawn from the Continent of Europe, and from America.

Breeding of swine.

The breeding of swine is usually carried on in conjunction with dairy-farming. Below will be found a return of the number of swine in each Colony in 1861, and in 1890, together with the proportion owned by each Colony in comparison with the total stock. It will be observed that the actual number owned by the various Colonies has in all cases increased, though the relative proportions have altered considerably. New South Wales, for instance, held over 40 per cent. of the stock of swine in 1861, but in 1890 the proportion had receded to 23·5 per cent. In the same interval New Zealand had increased from nearly 12 per cent. to something over 26 per cent. of the whole:—

Swine.

Colony.	Number.		Percentage of each Colony to total of Australasia.	
	1861.	1890.	1861.	1890.
	No.	No.	Per cent.	Per cent.
New South Wales.....	146,091	283,061	40·3	23·5
Victoria.....	43,480	282,457	12·0	23·4
Queensland.....	7,465	96,836	2·1	8·0
South Australia.....	69,286	118,083	19·1	9·8
Western Australia.....	11,984	28,985	3·3	2·4
Tasmania.....	40,841	81,716	11·3	6·8
New Zealand.....	43,270	314,644	11·9	26·1
Australasia.....	362,417	1,205,782	100·0	100·0

The products of the swine—bacon, ham, lard, and salt pork—
 are still imported by all the Colonies with the exception of South
 Australia and New Zealand, as is shown in the following table,
 which relates to the year 1890 :—

Products of the
 swine.

Colony.	Bacon and ham.	Salt pork.	Lard.	Net value imported.
	£	£	£	£
New South Wales...	53,407	*3,897	*234	49,276
Victoria	11,263	*1,584	*93	9,586
Queensland	21,408	8,336	77	29,821
South Australia	1,439	*78	.....	1,361
Western Australia...	4,615	.....	372	4,987
Tasmania	463	1,339	.....	1,802
New Zealand	*32,090	*5,026	*724	*37,840
Australasia	60,505	*910	602	58,993

The figures marked (*) show an excess of exports, all the others represent an excess of imports. There seems to be considerable scope for an extension of this particular branch of farming in most of the Colonies. The minor products of dairying, such as poultry, eggs, and honey, are produced to the value of over £1,000,000 by the Colonies taken as a whole. The most remarkable feature is the trade in eggs between South Australia as supplier and Victoria and New South Wales as buyers. The figures for 1890 show that during that year South Australia exported eggs to the value of £44,204, viz., £30,344 to Victoria, £13,709 to New South Wales, and £151 to Western Australia.

Poultry, eggs,
 and honey.

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 what is now Queensland, took place in 1858; and gold was also discovered in New Zealand in the same year, though it was not until 1861 that a large population was, by the prospect of rapidly obtained wealth, attracted to the last-mentioned colony.

In Western Australia gold was first found in 1868, although it was not until 1887 that any diggings of importance were discovered. The richest field is at the Yilgarn Hills, 200 miles east of Perth, which has yielded to July, 1891, 10,401 oz. valued at £39,000. Until quite recently this Colony was considered to be destitute of mineral deposits of any value, but now it is known that a rich belt of mineral country extends from north to south.

The following table gives the value of gold raised from the commencement of mining in the various Colonies to the end of the year 1890, and the proportion due to each:—

Production of Gold, 1851-90.

Colony.	Value.	Proportion of value raised by each Colony.
	£	per cent.
New South Wales	38,075,172	11·1
Victoria	227,482,296	66·5
Queensland	26,034,663	7·6
South Australia	1,169,768	0·3
Western Australia	605,535	0·2
Tasmania	2,238,683	0·7
New Zealand	46,425,626	13·6
Australasia	342,031,743	100·0

It will be readily understood from the foregoing figures how Victoria, although in area the smallest of the group, with the exception of Tasmania, 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. Although the discovery of 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, and this, notwithstanding that only a small portion of the auriferous area of the continent has been explored, and a still smaller portion fully developed.

Progress of
gold-mining.

The production of gold, which had been declining steadily for many years, reached the lowest point in 1886. Since then there has been a marked revival, owing chiefly to the increased production of Queensland. It will be seen from the following figures, showing the quantity and value of gold obtained in 1890, that the annual production of Queensland is now almost equal in value to that of Victoria:—

Australasian production of gold in 1890:—

Colony.	Weight.			Value.	Proportion of value raised by each Colony.
	Alluvial.	Quartz.	Total.		
	oz.	oz.	oz.	£	per cent.
New South Wales.	58,830	68,931	127,761	460,285	7.7
Victoria	206,159	382,401	588,560	2,354,244	39.2
Queensland	19,069	591,518	610,587	2,137,054	35.6
South Australia ...	.....	.....	26,086	101,577	1.7
Western Australia	.....	.....	22,256	86,664	1.4
Tasmania	5,895	17,556	23,451	87,114	1.5
New Zealand ...	.....	.....	193,193	773,438	12.9
Australasia ...	.....	.....	1,591,894	6,000,376	100.0

Quantity of gold
per miner.

The average value of gold to each miner is given below, but, as the conditions under which mining is carried on are by no means the same in every Colony, the figures, which vary considerably,

may be not a little misleading. In those colonies where a revival of mining has lately been experienced, it is natural to expect a fall in the average yield per miner, for mining, as now carried out, is not an industry from which immediate returns can be expected. It is probable that the number of gold miners in New South Wales is largely overstated, otherwise the industry must be carried on at a great loss. Most likely many of the men employ themselves in mining for only a portion of their time, and devote the rest to more remunerative pursuits. But when full allowance is made on this score it will be evident that in some Colonies, at least, the search for gold is not a profitable occupation. The following shows the number of miners at work in 1890, with the quantity and value of gold won per man, for those Colonies for which returns are available :—

Colony.	No. of miners.	Amount won per miner.	Value per miner.
New South Wales	12,589	oz. 10·15	£ s. d. 36 11 3
Victoria	23,833	24·69	98 15 7
Queensland	8,509	71·76	251 3 1
Tasmania	1,009	23·24	86 6 9
New Zealand	1,971	98·02	392 8 2

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 for the last four years ending 1890 were as follows. The high average yield for Queensland is due to the Mount Morgan mines, which, for the last two years, produced one-third the total gold production of the Colony :—

VALUE OF GOLD-MINING MACHINERY.

Average yield per ton for quartz :—

	New South Wales.	Victoria.	Queensland.	Tasmania.
	oz. dwt. grs.	oz. dwt. grs.	oz. dwt. grs.	oz. dwt. grs.
1887	0 9 5	0 9 10	1 15 10	1 5 21
1888	1 0 18	0 9 18	1 14 11	1 5 2
1889	1 0 2	0 9 19	1 17 20	0 17 16
1890	0 15 8	0 9 4	1 7 15	0 16 12

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.

Deep mines in
Victoria.

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, and several others might be mentioned with almost equal depths.

The value of machinery on the gold-fields of those Colonies from which returns were obtainable, was during 1890 :—

Colony.	Value.
	£
New South Wales	459,246
Victoria	1,849,112
Queensland	1,103,427
Tasmania	154,145
New Zealand	395,985

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. Victoria's record is the best, and includes the following 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
And others of the following weights	98	1	17
	93	1	11
	84	3	15
	69	6	0
	52	1	0
	30	11	8
	30	11	2

Victorian nuggets.

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 £2,750,000 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.

Nuggets found in New South Wales.

The Mount Morgan mine.

Platinum and Iridosmine.

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. 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.

New South Wales silver mines.

The leading Silver mines are in New South Wales, the returns from the other Colonies being comparatively insignificant. Up to the year 1882 the quantity of Silver raised in New South Wales was very small, but in that and the following years extensive discoveries of this metal, associated principally with lead and copper ore, were made in various parts of the Colony, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, also at Silverton, and Broken Hill at the Barrier Ranges in the Western District. The Sunny Corner Silver mines in 1886 paid handsome dividends, and produced £160,000 worth of silver, but since that period the yield has largely fallen off. For the half-year ending 31st October, 1891, the company treated 20,842 tons of ore, the production from which was valued at £50,185.

The Silverton silver mines.

The field of Silverton has proved to be of immense value. Discoveries have been made along the Barrier Range at Broken Hill, Uumberumberka, The Pinnacle, and many other points. The yield of minerals in the Broken Hill and Silverton districts during 1890 showed a total value of £2,785,398, while the machinery employed is valued at £406,885.

The argentiferous lead ores of the Barrier Ranges and Broken Hill districts of New South Wales have, more than any other, attracted attention. 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. 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.

Barrier Ranges
and Broken Hill
silver-lead
mines.

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 end of November, 1891, the Company treated 803,500 tons of silver and silver lead ores, producing 30,757,500 oz. of silver and 125,102 tons of lead, valued in the London market at £7,059,175. They have paid dividends to the amount of £3,304,000, and bonuses amounting to £592,000, besides the nominal value of shares from the several "Blocks," sold to other Companies, amounting to about £1,744,000, or a total return from the mine of £5,640,000. The sum spent in the erection and construction of plant, from the opening of the property, was £428,147. During the year 2,545 men were employed, of whom 1,412 were engaged under ground. The net profit for the half-year ending November 30th, 1891, was £633,738. The nominal value of this mine at the time these dividends were declared was £6,530,000

Broken Hill
Proprietary
Company.

Silver and
silver lead ore
exported

The quantity and value of silver and silver lead ore exported to the end of 1890 from New South Wales is shown in the following table :—

Year.	Silver.		Silver Lead Ore.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
Up to	oz.	£	Tons cwt.	Tons cwt.	£	£
1881	726,770	178,405	191 13	.....	5,025	183,430
1882	38,618	9,024	11 10	.....	360	9,384
1883	77,065	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 10	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	66,668	11,789 7	18,102 5	1,075,737	1,142,405
1889	416,895	72,001	46,965 9	34,579 17	1,899,197	1,971,198
1890	496,553	95,410	89,715 15	41,310 18	2,667,144	2,762,554
Total.....	4,211,549	846,965	177,358 19	94,192 8	6,835,541	7,682,506

Increase in
production of
silver.

It will be seen that the production of silver in New South Wales has, during the past few years, considerably increased, until that of last year exceeded the largest annual production of gold, even in the palmiest days of the diggings. Since the important discoveries of silver deposits were made sufficient time has hardly elapsed to enable all the principal mines to be properly developed ; and it may be confidently expected that, as new deposits are opened, and the mines first discovered are brought into full working order, the production of this metal will rapidly increase. The number of miners engaged in silver and lead mines in 1890 was 6,044, and the average value of mineral won, per miner engaged, amounted to £457 1s. 5d.

Silver in other
Colonies.

Although indications of silver abound in all the other Colonies, no fields of great importance have yet been discovered. The value of the yield of Australasia to the end of 1890, exclusive of that of New South Wales, was only £841,726, of which amount Queensland contributed more than one-half. The leading silver mines of

Queensland are south-west of Cairns, in the Herberton district, and it is from these fields that the largest proportion of the total production was raised. The number of miners engaged in this industry during 1890 throughout Queensland was 326, of whom 150 were employed in the above-named districts.

Number of
silver-miners.

In New Zealand silver is found in various localities throughout the Colony, principally in the Te Aroha, Thames, and Coromandel fields, but it is generally worked for in conjunction with gold-mining.

Silver in New
Zealand.

The silver-mining industry in Tasmania is steadily developing, principally in the Mount Zeehan and Dundas districts, from which almost the whole quantity produced in the Colony is obtained. In the first-named district, argentiferous lead ore has been found over 30 square miles of country, and the Mount Dundas field, almost adjoining, extends north as far as the Pieman River. The extent of ground taken up in the Zeehan and Dundas districts for silver-mining in 1890 was 87,000 acres. The total area leased for silver-mining in Tasmania during the same year was 119,000 acres.

Silver in
Tasmania.

There are no silver mines in Victoria or Western Australia, the small silver production of the former Colony being found associated with gold. Sixteen persons were returned as fossicking for this mineral in the Beechworth and Gippsland districts during 1890.

Silver in Victoria
and Western
Australia.

The production of silver in South Australia is very limited, and it is remarkable that the argentiferous lead-ore fields of Broken Hill and Silverton, which are almost on the border of the two Colonies, are exclusively confined within the boundaries of the mother Colony.

Silver in South
Australia.

Up to the end of 1890 New South Wales had produced 90 per cent. of the total value of silver raised in Australasia, Queensland followed, with 5.6 per cent., the remaining small proportion being distributed among the other Colonies, New Zealand claiming

Percentage of
silver production
to each
Colony.

LEAD IN WESTERN AUSTRALIA.

the largest share. The total production of silver in Australasia, during 1890, and up to the end of that year, was :—

Australasian Production of Silver.

Colony.	During 1890.		Total production to 31st December, 1890.	
	Value.	Proportion due to each Colony.	Value.	Proportion due to each Colony.
	£	Per cent.	£	Per cent.
New South Wales.....	2,762,554	96·3	7,682,506	90·1
Victoria.....	4,869	0·2	88,922	1·0
Queensland.....	56,639	2·0	476,711	5·6
South Australia.....	12,819	0·4	101,727	1·2
Tasmania.....	26,487	0·9	39,369	0·5
New Zealand.....	6,162	0·2	134,997	1·6
Australasia.....	2,869,530	100·0	8,524,232	100·0

It will be seen that the silver production of the group during 1890 was fully one-third of the total production of Australasia to the end of that year.

METALLIC MINERALS.

Lead.

Lead is found in all the Colonies, but is worked only when associated with silver. In the Colony of Western Australia the lead occurs in the form of sulphides and carbonates of great richness, but the quantity of silver mixed with it is very small. The lodés are most frequently of great size, containing huge masses of galena, and 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 34,000 tons of lead ore, valued at about £169,000. The chief mining centres for this mineral are in the Northampton district, between Geraldton and Murchison.

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 South Australian copper mines. mine, opened up in 1842, is the oldest copper-mine in South Australia. Unfortunately information regarding the total quantity of ore raised is not available, but the average yearly output has been estimated at 2,000 tons. Three years later than Kapunda the celebrated Burra Burra mine was discovered. This mine proved to be very rich, and paid about £800,000 in dividends to the original owners. For a number of years the mine has been suffered to remain unworked, partly in consequence of the low price of copper, but principally because the deposits originally worked were found to be depleted. For many years the average yield was from 10,000 to 13,000 tons of ore, yielding from 22 to 23 per cent. of copper. During the twenty-nine and a half years that the mine was worked, the output of ore amounted to 234,648 tons, equal to 51,622 tons of copper, valued at £4,749,224. The Wallaroo and Moonta mines were discovered in 1860 and 1861. Up to the year 1886 these two mines had put out 927,196 tons of ore, valued at £6,609,240. The yield of copper ranged from 10 to 20 per cent. The Moonta mine at one time employed upwards of 1,600 hands, and up till 1891 employed fully 1,100 men, but shortly after that date the industrial operations were disturbed, owing to labour and other difficulties, which were only terminated during the opening month of 1892.

The principal mines in New South Wales are those of Cobar Principal copper-mines of New South Wales. and Nymagee, situated in the Central Division, and within

80 miles of each other. The former employed over 500 men and boys, but is now idle; the deepest shaft is 566 feet, and the width of the lode from 2 to 50 feet. From the date of the commencement of operations in 1876, that company treated 205,005 tons of ore, giving a return equal to 22,943 tons of refined metal, an average production of 11·2 per cent. of copper per ton of ore, and the sum of £154,000 has been paid in dividends to the shareholders. Nymagee employs a complement of 250 persons, and its ores [contain an average proportion of copper equal to 11·42 per cent. Since its formation, in 1883, this mine has paid large dividends. The yield for 1890 of this mine was 7,865 tons of sulphide ore, which when melted yielded 794 tons of copper, valued at £43,868. The refined Nymagee copper is superior to that of Cobar, and commands a higher price in the market. A depth of 734 feet has been reached in sinking through the lode. The New Mount Hope and the Great Central Copper-mines are also said to be rich in payable ores. The first mentioned employed 56 men and 6 boys in 1889, and raised 1,143 tons of ore, equal to 318 tons of copper, valued at £15,900. The total yield of the Cobar district during 1890 is estimated at 1,162 tons of copper, valued at £62,268. The Burrage Mine yielded during 1889, 476 tons of copper, valued at £36,625; and during 1890, 420 tons, worth 24,150. The deepest shaft is 300 feet, and the lode is said to be 15 feet wide.

Copper in
Queensland.

Cupriferous 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 the Herberton district. The returns of the copper-fields in this Colony are at present small, owing to the lack of suitable fuel for smelting purposes, which renders the

economic treatment of the ore difficult; and the development is greatly retarded for the want of easy and cheaper communication with the coast, but it is expected that these disabilities will be overcome at no distant date, and a revival of the industry is hoped for, as some of the abandoned fields contain very extensive deposits of copper-ore. The copper mines of Chillagoe, situated in the Herberton district produced in 1890 two thirds of the value of the present very limited production of copper in Queensland.

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 Northampton, Murchison, and Champion Bay districts, and also in the country to the south of these districts on the Irwin River. The copper industry, however, is almost at a standstill, at present, through the low ruling price of copper, and the heavy expense of cartage, but it is anticipated that the cost of carriage will be reduced, and then several of these mines may be worked at a profit. The total export of copper since 1845 was 8,500 tons, valued at £140,000.

Copper in Western Australia.

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 production during 1890 was valued at only £100.

Victorian copper.

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

New Zealand and Tasmanian copper.

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,

Virgin copper.

magnificent blocks of which have been shown from time to time at exhibitions, not only in the colonies, but also in Europe and America.

Stannine.

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*.

Number of copper miners.

The number of men employed in copper-mining in New South Wales, during 1890, was 702, in Queensland and Tasmania, 28 and 6 respectively.

The total value of copper produced in Australasia during and up to the end of 1890, and the proportion furnished by each Colony are given below :—

Colony.	During 1890.		Total Production to 31st December, 1890.	
	Value.	Percentage of each Colony.	Value.	Percentage of each Colony.
	£	per cent.	£	per cent.
New South Wales ...	84,107	26·4	3,362,728	13·2
Victoria	100	.....	191,207	0·8
Queensland	3,000	0·9	1,957,247	7·7
South Australia ...	231,592	72·7	19,751,450	77·7
Western Australia...	136	.....	140,000	0·5
Tasmania	17	.....	617	.....
New Zealand .....	.....	.....	17,862	0·1
Australasia.....£	318,952	100·0	25,421,111	100·0

In 1872, copper realised as much as £172 per ton, whilst in December, 1886, the lowest price on record was touched, and only £38 7s. 6d. could be obtained for Chili bars. At the end of 1887 the price had risen to £74 per ton, and in August, 1888, to £81 5s. In January, 1892, the quotation had fallen to £47 per ton.

Tin.

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 late Rev. Tenison-Woods, appears to be very great.

In New South Wales this mineral occurs principally in the granite and basaltic country in the extreme north of the Colony, near Tenterfield and Vegetable Creek, now called Emmaville, and in other districts of New England. Tin has also been discovered in the Barrier Ranges, at Poolamacca; near Bombala, in the Monaro district, and in the Valley of the Lachlan, but none of these deposits have as yet been utilised to any extent. The deposits occur in the shape of stream and lode tin, and are worked by European and Chinese miners. Although this mineral was discovered by the Rev. W. B. Clarke as far back as the year 1853 the opening of the tin-fields of New South Wales only took place in the year 1872, and since that date the output from the mines has been considerable. The chief tin-mining centres are at Emmaville and Tingha in the northern portion of the Colony. The production of these fields has been until lately from alluvial deposits which are now said to be practically exhausted. In the former district several lodes have been opened up, the principal of which is at the Ottery Mines, the yield from which was 67 tons during 1890. At Tingha little or nothing has yet been done to develop the numerous lodes abounding in the neighbourhood.

In Tasmania, as in New South Wales, nearly all the tin hitherto produced has been from alluvial deposits, the lodes in the vicinity of Heemskirk, Mount Bischoff, and Ben Lomond have remained almost untouched. Considerable areas of alluvial tin ground in the eastern and north-eastern divisions are now worked out, and the miners will perforce be obliged to turn their attention to the development of the other branch of tin-mining, when it is expected, that, with a systematic testing of the ground valuable lodes will

bé discovered. The Mount Bischoff Mine and the Ringarooma Mines in the north-eastern and north-western divisions respectively yield more than three-fourths of the total annual production of Tasmania.

The Queensland tin-mines.

The most important tin-mines in Queensland are in the Herberton district, south-west of Cairns, at Cooktown on the Annan and Bloomfield Rivers, and at Stanthorpe on the borders of New South Wales. The Herberton is the chief tin-mining centre of Queensland, and the output for 1890 was valued at £104,050; the tin in this district is chiefly obtained from lodes, for out of the 2,031 tons for that year only 341 was alluvial. The fields at Herberton and Stanthorpe have produced more than three-fourths the total production of Queensland to the end of 1890.

Tin in Victoria.

The yield of tin in Victoria is very small, and until lately no fields of importance had been discovered, but towards the latter end of 1890 extensive deposits were reported to exist in the Gippsland district at Omeo and Tarwin; 220 men are now engaged mining on these fields; small deposits have likewise been found in the Beechworth district at Indigo and Mitta Mitta. The total yield for these fields during 1890 was 909½ tons of tin-ore, valued at £3,836.

In South Australia and Western Australia tin-mining is unimportant, the yields up to date being slight, while in New Zealand no production is officially recorded. During 1890 some small fields were reported to have been found in Stewart Island.

Fluctuations in the price of tin.

The tin-mining industry 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, £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 operations of French syndicates. In January, 1892, Australian tin was quoted in the London market at £90 10s. per ton.

The value of the production of tin during 1890, and up to the end of that year, was as follows :—

Colony.	During 1890.		Total Production to 31st December, 1890.	
	Value.	Percentage of each Colony.	Value.	Percentage of each Colony.
	£	per cent.	£	per cent.
New South Wales...	179,057	31·5	5,541,700	37·6
Victoria	3,836	0·6	674,019	4·6
Queensland.....	154,963	27·2	3,808,923	25·8
South Australia.....	6,140	1·1	18,320	0·1
Western Australia..	5,400	1·0	5,700	.....
Tasmania	219,868	38·6	4,711,424	31·9
Australasia	569,264	100·0	14,760,086	100·0

The number of persons engaged in tin-mining in 1890, was as follows :—In New South Wales, 2,345, of whom 1,251 were Chinese; Tasmania, 1,592; Queensland, 1,020; and Victoria, 238. Number of tin-miners.

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

Wolfram (tungstate of iron and manganese) occurs in some 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. None of these minerals—titanium, tungsten, and molybdenum—have been systematically mined for. Wolfram.

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

Iron is distributed throughout Australasia, but for want of capital in developing the fields this industry has not progressed. In New South Wales there are important deposits of rich iron-ores, together with coal and limestone in unlimited supply, suitable for smelting purposes, and for the manufacture of steel of certain descriptions abundance of manganese, chrome, and tungsten ores

are available. The most extensive fields are in the Mittagong, Wallerawang, and Rylstone districts, which are roughly estimated to contain in the aggregate 12,944,000 tons of ore, containing 5,853,000 tons of metallic iron. During 1890 a mining expert from England was sent out in the interest of English capitalists to inspect the iron, coal, and limestone deposits of New South Wales, and to report upon the probable cost of manufacturing iron in the Colony.

Iron manufac-
tories in N.S.
Wales.

The only works for the manufacture of iron from the ore are situated at Eskbank, near Lithgow, where the metal treated is red siliceous ore, averaging 22 per cent., and brown hematite, yielding 50 per cent. metallic iron. Abundance of coal and limestone are found in the neighbourhood. This establishment, however, has for some time abandoned the manufacture of pig iron, for which it was originally built. The principal work now carried on is the re-rolling of old rails, the manufacture of iron bars, rods, and nails, and of ordinary castings.

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.

Iron smelting in
New Zealand.

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.

Extent of
deposits of iron
ore.

Goethite, *limonite*, and *hematite* are found in New South Wales, at the junction of the Hawkesbury sandstone formation and the Wianamatta 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. *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.

Sulphuretted iron ores (pyrites) are of little intrinsic value, ^{Pyrites.} 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, so abundant in the island of New Caledonia, has, up to ^{Nickel.} the present, been found in none of the Australasian Colonies except Queensland ; but no attempt has been made to prospect systematically for this valuable mineral.

Cobalt occurs in New South Wales and Victoria, and efforts ^{Cobalt.} 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 probably exists in all the Colonies, deposits having ^{Manganese.} 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. The production of manganese in New Zealand during 1890 was valued at £1,004, and the total yield up to the end of that year £51,291. New South Wales is the only other Colony producing even a small quantity of this mineral.

- Chrome iron.** *Chrome Iron* or chrome ore has been found in New Zealand and Tasmania, but the only attempt to work this mineral in this part of the world is that made at New Caledonia.
- Sulphur.** *Sulphur* exists in large quantities in the volcanic regions of New 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.** *Arsenic*, in its well known and beautiful forms, orpiment and realgar, is found in New South Wales and Victoria. It usually occurs in association with other minerals, in veins.
- Antimony.** *Antimony* is widely diffused throughout Australasia, and is sometimes found associated with gold. Extensive fields have been discovered in the northern tablelands of New South Wales, especially at Hillgrove, in the vicinity of Uralla. In Victoria the production for the last few years was small compared to former periods; there are now, however, signs of a revival of the industry, as 238 men were engaged mining for this metal during 1890. The principal mine is at Castlemaine, but several fields are being explored in the Sandhurst and Beechworth districts. In Queensland and New Zealand the fields are all showing development, as the output of 1890 proves, there being a considerable increase compared with that of late years.

Value of Antimony produced in Australasia.

Colony.	Value.	Percentage produced.
	£	
New South Wales	93,741	28·1
Victoria	172,572	51·8
Queensland	30,787	9·2
New Zealand	36,190	10·9
Australasia	333,290	100·0

The antimony produced by New South Wales in 1890 was valued at £20,240; that produced by New Zealand was worth £11,121; Queensland, £4,816; and Victoria, £3,120.

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 this mineral is generally associated with molybdenum and gold. This mine, however, is at present closed. The value of bismuth produced up to the end of 1890, in New South Wales and Queensland, was £36,142, and £10,261 respectively.

Of all the mineral forms of carbon the diamond is the purest, The Diamond. 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, or plumbago, which stands second to the diamond in Graphite. 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 found in any of the other colonies except New South Wales, where in 1889 a lode 6 feet wide was discovered near Undercliff, in the New England district.

The Australasian Colonies have been bountifully supplied by Mineral fuel. Nature with mineral fuel. 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 Lignite. Zealand and Victoria. Attempts have frequently been made to

use this mineral for ordinary fuel purposes, but its inferior quality has prevented its use extending beyond the mere locality where it is produced. In Victoria, during 1890, 9,857 tons were raised in the Ballarat district, valued at £2,500. The fields of lignite in New Zealand are roughly estimated to contain about 500 million tons.

Ordinary coal.

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 million tons of coal in New Zealand, and 78,198 million tons in New South Wales. 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 million tons. Coal has been discovered in Victoria, and raised in small quantities for some years past; but the industry is still in its

Tasmanian coal.

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. 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. Coal has recently been discovered at Wyndham, and should it possess good steaming properties, the find will prove of great value, as it occurs close to one of the best harbours of the Colony. Mr. Jack, the Government Geologist

of Queensland, considers the extent of the coal-fields of that Colony 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 Queensland for some years, and is progressing satisfactorily.

Coal was first discovered in New South Wales in the year 1797, Discovery of coal. 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. From the 40,732 tons extracted in 1847 under the monopoly of this Company, the quantity raised had in 1890 expanded to the large figure of 3,060,876 tons, valued at £1,279,089.

The coal-fields of New South Wales are situated in three Coal-fields of New South Wales. distinct regions—the Northern, Southern, and Western districts. The first of these comprises chiefly the mines of the Hunter River districts; the second includes the Illawarra district and, generally, the coastal regions to the south of Sydney together with Berrima, on the tableland; the third consists of the mountainous regions on the Great Western Railway, and extends as far as Dubbo. The total area of the carboniferous strata of

Thickness of coal seam at Greta.

New South Wales is estimated at 23,950 square miles. The seams vary in thickness. One of the richest has been found at Greta, in the Hunter River district; it contains an average thickness of 41 feet of clean coal, and the quantity of coal underlying each acre of ground has been computed to be 63,700 tons.

Coal-mines registered in New South Wales.

The number of coal-mines registered in New South Wales during 1890 was 94, as compared with 99 in the previous year. These gave employment to 10,469 persons, of whom 8,311 were employed under ground, and 2,158 above ground. The average quantity of coal extracted per miner was 368 tons, as against an average of 438 tons for the previous year. In 1882 the weight per miner stood at 578 tons; but the yield has since gradually declined, and the average for 1890 was less than that of any of the preceding ten years, owing to the collieries standing idle for several months during the year on account of the general strike. The average quantity of coal extracted per miner, calculated upon the basis of the output for the last ten years, is 467 tons, which, at the mean price of coal at the pit's mouth, is equivalent to £210 3s. This production is certainly very large, and compares favourably with the results exhibited by the principal coal-raising countries of the world, as will be evident from the following figures given by Mulhall :—

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.....	467	0 9 0	210 3 0
Great Britain.....	330	0 6 0	111 0 0
United States.....	347	0 8 4	139 0 0
Germany.....	336	0 5 3	78 0 0
France.....	196	0 9 0	88 0 0
Belgium.....	168	0 7 6	63 0 0
Austria.....	270	0 5 0	57 0 0

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	467	0 3 7	83 13 5
Great Britain	330	0 2 5	39 17 6
United States.....	347	0 3 4	57 16 8
Germany	336	0 2 1	35 0 0
France	196	0 3 7	35 2 4
Belgium	168	0 3 0	25 4 0
Austria.....	270	0 2 0	27 0 0

The Colony was its own chief customer during 1890, when out of a total production above stated, of 3,060,876 tons, the consumption amounted to 1,239,002 tons, or over 40 per cent. Victoria came next, with 778,803 tons, or 43 per cent. of a total export of 1,821,874 tons. The quantity of coal required for local consumption denotes a satisfactory increase during most years.

The annual consumption per head increased from 15 cwt. in 1876 to 24½ cwt. in 1888, and stood at 22½ cwt. in 1890. The larger use of steam for railway locomotives, for manufacturing, and other purposes, as well as the multiplication of gas-works, accounts for a great portion of the increase, but it must also be borne in mind that there is a large and increasing demand for bunker coal for

ocean-going steamers, which appears not as an export, but as required for home consumption. The amount of coal taken by the steamers during 1890 was little short of 200,000 tons.

Export of coal
from New South
Wales.

The progress of the export trade, from 1881 to 1890, is shown in the following table, also the direction of the trade at those periods:—

Export of Coal from New South Wales, 1881 and 1890.

Country.	Quantity.		Value.	
	1881.	1890.	1881.	1890.
	tons.	tons.	£	£
Australasian Colonies	657,135	1,149,544	255,572	608,108
India, Ceylon, and China	136,511	92,273	59,944	50,529
Eastern Seas	44,530	120,454	17,112	69,159
Mauritius	6,249	7,238	2,414	4,028
Pacific Islands	19,526	56,335	8,011	32,883
United States	150,002	182,692	68,172	102,205
South America	8,017	198,178	3,243	109,487
Other Countries.....	7,874	15,160	3,062	10,774
Total	1,029,844	1,821,874	417,530	987,173

Export of coal
from New
Zealand.

New Zealand is the only other Australasian Colony capable of exporting coal to any large extent. The export trade of that Colony for 1881 and 1890 was:—

Export of Coal from New Zealand, 1881 and 1890.

Country.	Quantity.		Value.	
	1881.	1890.	1881.	1890.
	tons.	tons.	£	£
Australasian Colonies	6,049	14,775	5,022	10,098
United Kingdom .....	.....	42,984	.....	47,824
Fiji and Norfolk Island	21	6,442	25	4,745
Pacific Islands, &c.	551	5,413	563	4,336
Total	6,621	69,614	5,610	67,003

The exports to the United Kingdom, both from New South Wales, and from New Zealand, in all probability consisted of bunker coal, for the steamers.

Most of the coal-beds of New Zealand are on the West Coast of the South Island. The chief mines are at Westport, Greymouth, and Otago. The total quantity of coal produced in 1890 was 637,397 tons, for the whole colony, of which Westport contributed 170,406 tons, Greymouth 118,847 tons, and Otago 176,428 tons. The only important coal measures of the North Island are those of the Waikato, which produced 64,729 tons. Coal produced in New Zealand.

The total production of coal in Queensland for 1890, was, 338,344 tons, most of which came from the mines at Ipswich and at Burrum, in the Maryborough district. Queensland exported in 1881, 2,742 tons, valued at £1,783; and in 1890, 39,450 tons, valued at £26,155. The miners' strike in New South Wales in 1890 gave an impetus to the coal-mining industry in the Northern Colony. Coal in Queensland.

The quantity of coal extracted annually in these Colonies has now reached fully 4,100,000 tons, valued at £1,824,200. The proportion due to each Colony for the year 1890 was as follows:—

Colony.	Quantity.	Value.	Proportion of value raised by each Colony.
	Tons.	£	
New South Wales	3,060,876	1,279,089	70·1
Victoria	14,601	13,899	·8
Queensland	338,344	157,077	8·6
Tasmania	53,812	24,215	1·3
New Zealand.....	635,481	349,936	19·2
Australasia	4,103,114	1,824,216	100·0

Value of coal production.

The total value of coal produced in the Australasian Colonies up to the end of 1890 is shown in the following table :—

Colony.	Quantity.	Total value.	Percentage of each Colony to total.
	Tons,	£	Per cent.
New South Wales	49,526,709	23,891,629	83·1
Victoria	57,962	53,655	·2
Queensland	2,632,314	1,213,360	4·2
Tasmania .....	.....	229,607	·8
New Zealand.....	6,296,615	3,348,122	11·7
Australasia.....	.....	28,736,373	100·0

Number of miners employed.

During the year 1890 this industry gave direct employment, in and about the mines, to the following number of persons in the several Colonies in which the returns were available :—

	Miners.
New South Wales	10,469
Victoria	205
Queensland	932
Tasmania	191
New Zealand	1,655

Average prices.

The average price of coal per ton varies in the Colonies very considerably. In New South Wales, from 1846 to 1890, the average price obtained was 9s. 7·77d., but the mean of the last ten years is a little below these figures. In 1890 the average price per ton of coal delivered at the mines in the Australasian Colonies was as follows :—

	£	s.	d.
New South Wales	0	8	4
Victoria	0	19	0
Queensland	0	9	3
Tasmania	0	9	0
New Zealand	0	11	0
Australasia	0	8	11

Anthracite.

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

The following table shows the coal annual production by the principal countries of the world to the latest date obtainable :—

Coal production of the principal countries of the world in 1889 or 1890.

Country.	Quantity.
	Tons.
Great Britain.....	181,614,288
United States	125,563,704
Germany.....	67,342,200
France.....	24,303,509
Belgium	19,869,980
Canada	2,719,478
Australasia	4,103,114

Kerosene Shale (torbanite) is found in several parts of the Colony 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 per centage 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 of the kerosene shale raised amounts to 556,682 tons, worth £1,234,453. The average price realised during that interval was £2 4s. 5d. per ton. The prices ruling in 1890, when 56,010 tons were extracted, averaged £1 17s. 2d. per ton, representing a total value of £104,103, for the

SHALE AND KEROSENE.

production of that year. The export of shale from New South Wales for 1890 was :—

Export of Shale.

Country.	Quantity.	Value.
	tons.	£
Victoria	9,525	21,439
United Kingdom	8,636	25,158
Netherlands.....	6,595	18,661
Italy	6,136	18,169
United States	2,563	7,379
Spain	2,397	6,232
Other Countries.....	2,611	6,570
Total	38,463	103,608

Oil Shale in New Zealand.

Extensive formations of oil shale have been found in Otago, and at Orepuki, in Southland. Attempts have been made to develop the oil resources of Waipaoa, but, so far, unsuccessfully. The oil produced does not possess the properties required in illuminating oils, but it is valuable for lubricating purposes.

The net import of kerosene into each of the Colonies in 1890 was :—

Colony.	Quantity.	Value.
	gallons.	£
New South Wales	1,560,352	74,318
Victoria	2,089,399	103,814
Queensland	1,146,757	42,526
South Australia	951,051	29,590
Tasmania	169,968	7,846
New Zealand	1,136,766	49,321
*Australasia	7,054,293	307,415

* Western Australia not distinguished from other oils.

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

Elaterite, mineral caoutchouc, or elastic bitumen, is said to have Elaterite. 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, is known to exist in Victoria, and it is reported to Bitumen. have been found near the township of Coonabarabran, in New South Wales.

Kauri Gum, a resinous substance somewhat resembling amber in Kauri Gum. 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 1890, was £5,394,687. In the year 1890 the quantity obtained represented a value of £378,563.

SALTS.

Common Rock Salt has been found in New South Wales in rock Rock Salt. 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 is said to occur in the neighbourhood of the Namoi Natron. 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.

Alum Stone.

Large deposits of alum occur, close to the village of Bulladelah, 30 miles from Port Stephens. About 1,000 tons of stone has been treated, yielding 220 tons of alum. 500 tons of stone have also been sent to England for treatment.

Fluor spar has been found in New South Wales.

EARTHY MINERALS.

Marble.

Marble is found in many parts of New South Wales, South Australia, New 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 and Omaru Stone.

Lithographic stone has been found in New Zealand, where 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.

Limestone is being worked on the Myall Lakes, near Bungwall, and small quantities have been forwarded from this district to Sydney.

Gypsum.

Gypsum is found crystallised in clay-beds in New South Wales, 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.

Apatite, another mineral of considerable commercial importance, 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 is of common occurrence in all parts of Australasia. Quartz. 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.

Common *Opals* are frequently found in the basaltic formations Opals. of Australasia. The precious, or noble opal, which might be included under the head of precious stones, has been found 60 miles north-west from Wilcannia, at a few feet from the surface, in layers between hard silicious sandstone. As much as £5 per oz. has been offered for good specimens. During 1890 the quantity of noble opal won from these mines was 195 lb., valued at £15,600. This gem has also been found in basalt, near the Abercrombie River, and in sandstone, near Lismore. In Queensland opals are found in the Windorah district, where the labour of twenty men in 1890, produced opals valued at £3,000. Opal-bearing stone is known to exist in the ranges between Adavale and Cooper's Creek, in the Charleville district, Queensland and the northern portions of New South Wales.

Chalcedony, carnelian, onyx, and cat's eye, are found in New Chalcedony, carnelian, &c. South Wales; probably also in the other Colonies, particularly Queensland.

Tripoli, or rotten stone, an infusorial earth, consisting of Tripoli. hydrous silica, which has some value for commercial purposes, has been found in New South Wales, Victoria, and New Zealand.

Meerschaum is reported to have been discovered near Tamworth Meerschaum. and in the Richmond River district, in New South Wales.

Mica is also found in granitic country, chiefly in the New Mica. 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 application to commercial purposes, has not as yet been utilised to any extent.

GEMS AND GEMSTONES.

Diamonds.

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 in the Bingara and Inverell districts, on the New England tableland, and Cudgong, in the Wellington 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.

Yield and quality of diamonds.

The number of diamonds found in the Colony is estimated to be 75,000, the largest one being of $5\frac{5}{8}$ 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 Bingara, 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. In

1889 finds are reported to the extent of 2,196 carats, valued at £878, and in 1890 the diamonds won in this district amounted to about 200 carats, worth from 14s. to 20s. per carat; 530 carats of diamonds, valued at 6s. per carat, were also obtained in the Inverell district. With efficient methods of working this industry bids fair to become a profitable one.

Under the generic name of *Corundum* are included the most Corundum. 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, principally in the neighbourhood of Beechworth, Victoria.

Oriental emeralds are found in New South Wales, and in Gippsland in Victoria. An emerald mine, in which the gem occurs in granitic lode, was opened near Emmaville, in the Glen Innes district, during 1890; 225 carats of emeralds were won from the mine during that year and forwarded to London. Some of the gems were sold at £4 per carat.

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.

According to an authority on the subject of gem-stones, rubies, Miscellaneous gems. 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 Garnets. found, which caused some excitement at the time, as the gems

MINERAL WEALTH OF AUSTRALASIA.

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 resources of Australasia.

Australasia possesses invaluable mineral resources, and though 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, and copper ore and coal are known to exist, but their exploitation has not reached a sufficiently advanced stage to enable an exact opinion to be expressed regarding their commercial value, though it is confidently held by mining experts that this must be enormous.

Value of minerals raised in 1890.

In the year 1890 the total value of minerals raised, and the proportion due to each Colony, also the value per inhabitant, were as follows:—

Colony.	Total production.	Percentage each Colony.	Per Inhabitant.
New South Wales	5,003,903	40·8	£ s. d. 4 10 10
Victoria	2,384,130	19·5	2 2 8
Queensland	2,518,030	20·5	6 9 8
South Australia	380,999	3·1	1 3 11
West Australia	94,335	0·8	2 0 0
Tasmania	357,701	2·9	2 9 9
New Zealand	1,523,836	12·4	2 9 1
Australasia	12,262,934	100·0	3 5 7

Value of minerals raised in 1890.

The total value of minerals raised in 1890 exceeds by about £1,294,000 the average annual amount since 1852. 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.

Diversion of the Mining Industry.

Comparing the value of mineral production with the population the largest share is obtained by Queensland, with £6 9s. 8d. per inhabitant, and New South Wales ranks second with £4 10s. 10d. The high average of Queensland is due to the gold mines, while in New South Wales more than half the year's wealth was contributed by the silver fields. The average per inhabitant for Australasia was £3 5s. 7d.

Mineral production per head.

The next two tables show the value of minerals raised in each of the Colonies during 1890, also the total production up to the end of that year, distinguishing the principal minerals. With regard to some of the Colonies the data are defective in respect to "other minerals," but not to so great an extent as to seriously affect the gross total. Coal was the only mineral raised in New South Wales prior to 1852, and its production up to that date was valued at £279,923. Deducting that amount from the total value of Australasian minerals raised up to the end of 1890, the remainder, £427,496,112, represents the value of mineral production from 1852, equal to an average of £10,961,500 per annum for the thirty-nine years.

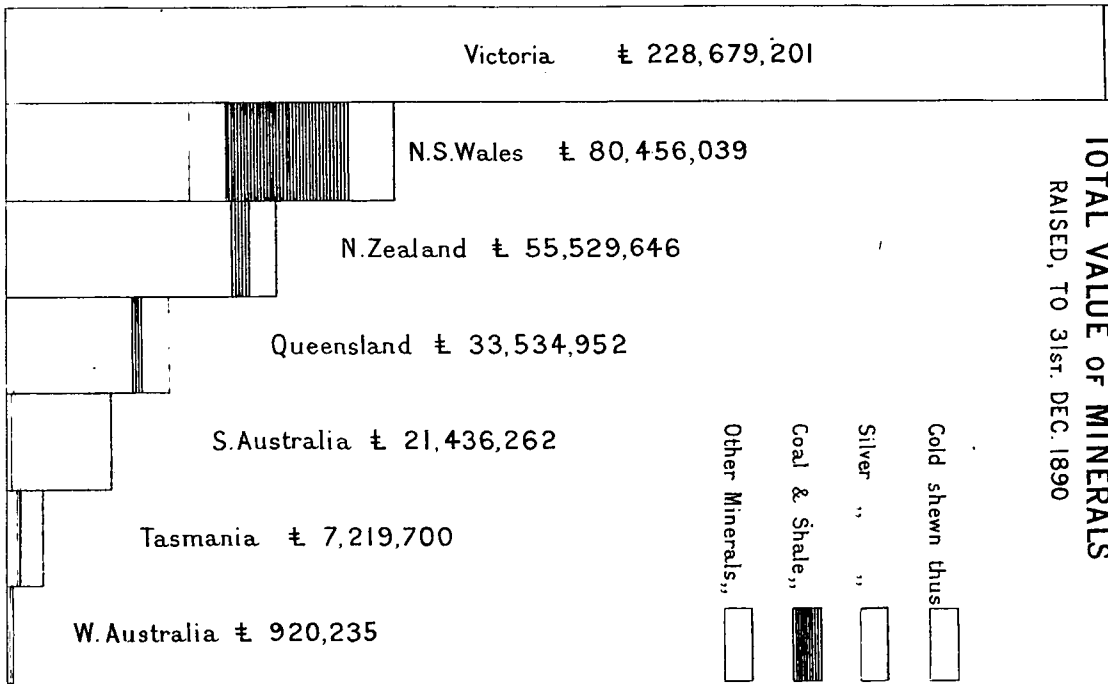
Minerals produced by each Colony.

Total value of Minerals raised during 1890, and to the end of that year.

Colony.	Gold.	Silver and Silver Lead.	Copper.	Tin.	Coal.	Kerosene Shale.	Other Minerals.	Total.
New South Wales—	£	£	£	£	£	£	£	£
During 1890	460,285	2,762,554	84,107	179,087	1,279,089	104,103	134,708	5,003,903
To end of 1890	38,075,172	7,682,506	3,362,728	5,541,700	23,891,629	1,338,552	563,752	80,456,039
Victoria—								
During 1890	2,354,241	4,869	160	3,836	13,899	.....	7,182	2,384,130
To end of 1890	277,482,296	88,922	191,207	674,019	53,655	.....	189,102	228,679,201
Queensland—								
During 1890	21,137,054	56,639	3,000	154,963	157,077	.....	9,297	2,518,030
To end of 1890	26,034,663	476,711	1,957,247	3,808,923	1,213,360	.....	44,048	33,534,952
South Australia—								
During 1890	101,577	12,819	231,592	6,140	.....	.....	28,871	380,999
To end of 1890	1,169,768	101,727	19,751,450	18,320	.....	.....	394,997	21,436,262
Western Australia—								
During 1890	86,664	.....	136	5,400	.....	.....	2,135	94,335
To end of 1890	605,535	.....	140,000	5,700	.....	.....	169,000	920,235
Tasmania—								
During 1890	87,114	26,487	17	219,868	24,215	.....	.....	357,701
To end of 1890	2,238,683	39,369	617	4,711,424	229,607	.....	.....	7,219,700
New Zealand—								
During 1890	773,438	6,162	.....	.....	349,936	.....	*394,300	1,523,836
To end of 1890	46,425,626	134,997	17,862	.....	3,348,122	.....	*5,603,039	55,529,646
Australasia—								
During 1890 ...	6,000,376	2,869,530	318,952	569,264	1,824,216	104,103	576,493	12,262,934
To end of 1890	342,031,743	8,524,232	25,421,111	14,760,086	28,736,373	1,338,552	6,963,938	427,776,035

* Includes Kauri gum, £373,563, during 1890, and £5,394,657 to the end of that year.

**TOTAL VALUE OF MINERALS
RAISED, TO 31st. DEC. 1890**



RAILWAYS.

IN a country such as Australasia, ill supplied with navigable rivers, the furtherance of railway construction is absolutely necessary to its proper development. The question of establishing railway communication with the interior from Sydney was agitated as far back as 1846, but it was not until the enormous accession to the population of these lands, which was brought about by the discoveries of gold, that the matter was carried to a successful issue. 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. In the first instance in both Colonies the construction of the lines was undertaken by private enterprise; but the companies that pioneered the way in regard to railway construction soon found that the magnitude of the undertaking was beyond the scope of their funds, and it was 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 was not acquired till 1878.

Introduction of
Railways.

From 1855 the Governments of the two Colonies undertook and carried on the work of railway extension. The first Govern-

History of
Railway
construction.

ment railway-works in South Australia were undertaken in 1857; they were begun in New Zealand in 1863; in Queensland in 1864; in Tasmania in 1868; and in Western Australia in 1874.

Main Inter-colonial lines.

In 1883 a junction was effected between the New South Wales and Victorian lines at the river Murray; three years later direct communication was established between Victoria and South Australia, and in 1888 the last mile of line connecting Sydney with the northern colony was completed, thus placing the four Capitals, Brisbane, Sydney, Melbourne, and Adelaide in direct communication with each other. Unfortunately no prior agreement was arrived at between the Colonies as to the adoption of an uniform gauge. The Government of New South Wales constructed all their lines upon the English standard gauge of 4 ft. 8½ in., while the Victorian Government adopted the 5 ft. 3 in. gauge. Until the lines of the two Colonies met on the boundary no discomfort was of course experienced; but since then the break of gauge, and the consequent transshipment, has been a source of irritation and inconvenience. The South Australian Government adopted at the outset the 5 ft. 3 in. gauge of Victoria; but finding that the construction of lines of this gauge involved a heavier expense than they were prepared to face, the more recent lines were built on a gauge of 3 ft. 6 in. The line joining Adelaide with the Victorian border was, however, constructed on the wider gauge, so that the line from Melbourne to Adelaide is uniform. The private line, which prolongs the South Australian system into New South Wales as far as Broken Hill, is on the 3 ft. 6 in. gauge. All the Queensland lines are built on the gauge of 3 ft. 6 in., so that transshipment is necessary on the boundary between that Colony and New South Wales. The difficulty caused by this diversity of gauge is already found to be troublesome. It is admitted on all hands that the trouble can be got over only by establishing uniformity of gauge, and every year in which action is delayed will make the establishment of that uniformity more costly. Tasmania, Western Australia, and New Zealand have adopted the 3 ft. 6 in.

Evils of diversity of gauge.

gauge. The first line laid down in Tasmania was on the 5 ft. 3 in. gauge, but it was soon altered to 3 ft. 6 in. By the purchase of the Main Line Company's property the Tasmanian Government now controls a system of 351 miles of railway open for traffic, together with a further 71 miles in course of construction.

The population and area of territory per mile of line open varies considerably. As regards population per mile of line open, Western Australia, South Australia, and Queensland—the most extensive Colonies—show most favourably; but, in comparison to the area of the territory, Victoria, New Zealand, and Tasmania take the lead. The annexed table shows the relation of the railway mileage to population and to the area of each Colony for the year 1890-91 :—

Proportion of miles of line to population and area.

Colony.	Per mile of line open.	
	Population.	Square miles of territory
New South Wales	514	137
Victoria	410	32
Queensland	179	305
South Australia	175	494
Western Australia	83	1,812
Tasmania	364	66
New Zealand	320	53
Australasia	316	264

In the following table are shown the population and area of territory per mile of line open in other countries. Of course a comparison can only be made fairly between Australasia and other young countries in process of development :—

Proportion in other countries.

Length of Railway in various Countries, with Population and
Area per Mile of Line.

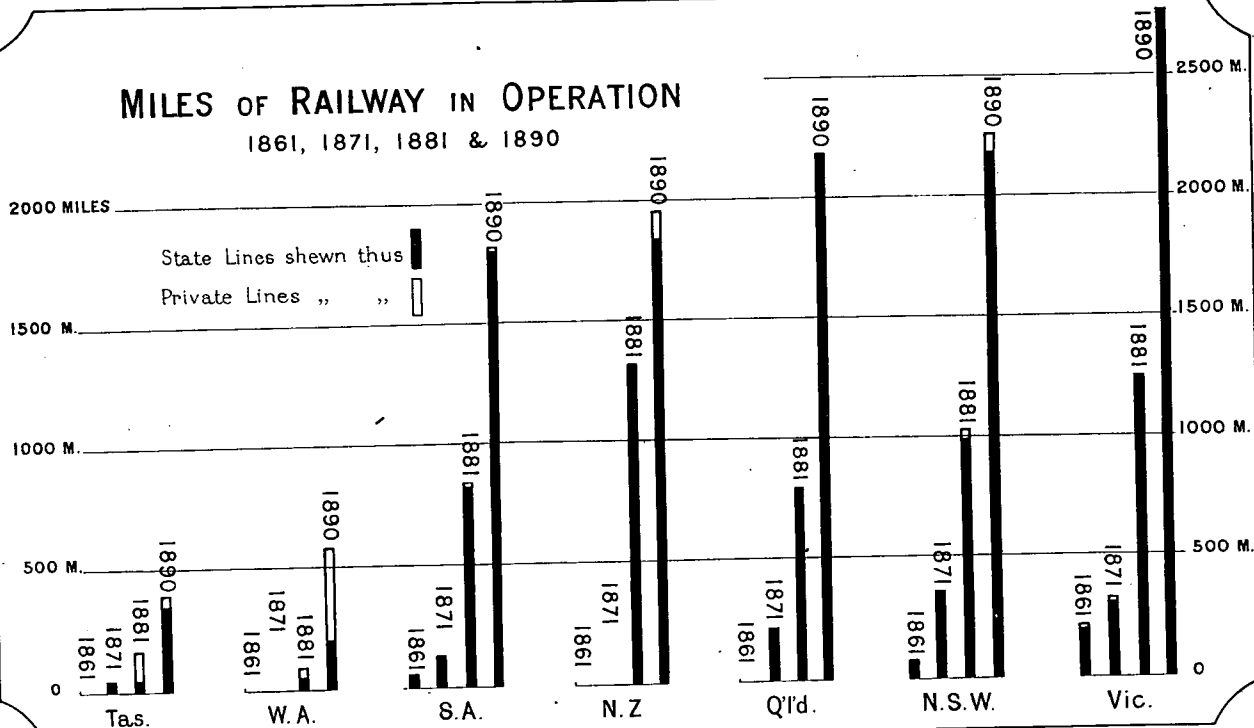
Countries.	Length of Railway.	Population per Miles of Line.	Area per Mile of Line.
Argentine Republic	3,035	825	319
Austria-Hungary	15,267	2,481	16
Belgium	2,762	1,999	4
Brazil	4,625	3,027	696
Canada, Dominion of.....	12,628	402	270
Chili	1,649	1,533	176
Denmark	1,217	1,617	12
France	21,899	1,745	9
Germany	24,270	1,931	9
Great Britain and Ireland	19,943	1,896	6
Greece	371	4,634	67
India (British)	16,095	13,037	54
Italy	7,830	3,635	14
Japan	534	74,171	276
Mexico	3,388	3,391	219
Netherlands	1,616	2,483	8
Portugal	1,188	3,625	29
Roumania	1,460	3,543	34
Russia (in Europe).....	17,363	5,291	120
Spain	5,929	2,959	33
Sweden and Norway	5,644	1,194	52
Switzerland.....	1,869	1,569	8
Turkey (in Europe)	865	5,538	74
United States of America.....	154,276	398	19
Australasia	11,990	316	264

Progress of
railway con-
struction.

The progress of railway construction, except, perhaps, in the case of Victoria, was anything but rapid during the earlier years. This was in a great measure owing to the sparseness of the population, and the natural fear that the income would not justify the expense of widely extended lines. It was also due in some degree to the low estimation in which Australasian securities were held in London, and the consequent high rate of interest at which money for railway construction had to be borrowed. The initial difficulties attendant on railway construction may be said to have ended about 1871, for since that year progress has been made by all the colonies, as the following figures show :—

MILES OF RAILWAY IN OPERATION

1861, 1871, 1881 & 1890



Miles of Railway—Government and Private—open for Traffic.

Colony.	1861.	1871.	1881.	1890-01.
New South Wales.....	73	358	1,041	2,263
Victoria	214	329	1,247	2,763
Queensland.....	.....	218	800	2,195
South Australia.....	56	132	849	1,829
Western Australia.....	.....	.....	92	585
Tasmania .....	.....	45	167	399
New Zealand .....	.....	.....	1,333	1,956
Australasia.....	343	1,082	5,529	11,990

NOTE.—In 1872 there were 145 miles of Railway open in New Zealand.

Notwithstanding the energetic expansion of the railway systems throughout Australasia since 1881, there is room for considerable extension. In South Australia railway construction is entirely confined to the south-eastern corner and to the extension of the Northern Line, which has its present terminus at Oodnadatta, 686 miles from Adelaide. It is proposed to eventually extend this line as far north as Pine Creek, the southern terminus of the Port Darwin line. When this railway is completed direct overland communication will be established between the northern and southern portions of the continent. The length of the gap between the terminus at Oodnadatta and that at Pine Creek is 1,140 miles on the telegraph route. An English syndicate has lately offered to complete this railway on the land grant system, but it is doubtful if the South Australian Government will entertain the idea. In New South Wales the railway extensions will be chiefly confined to perfecting the various systems now constructed. In Queensland, with its vast expanse of partly settled territory and extensive seaboard, the railways are being constructed in separate systems. The lines commence from each of the principal ports and run inland, but there is no doubt that not many years will elapse before these systems will become branches of a main trunk line which in all likelihood will be the Brisbane-Charleville line extended.

South Australian
Railways.

Queensland
Railways.

In Victoria, Tasmania, and New Zealand, the railways are well developed compared with size of territory, and any future extensions in these colonies will hardly be on as large a scale as those of the other colonies. It is the established policy of each colony to keep the railways under State control, and only in extreme circumstances is that policy departed from. In two of the colonies—Victoria and Queensland—the lines are entirely in the hands of the Government, although such was not the case always in the former colony, and in none of the colonies except Western Australia is the extent of private lines considerable when compared with that administered by the State.

Private lines in
New South
Wales.

The private lines in New South Wales are the Deniliquin to Moama, 45 miles in length, and Broken Hill to Cockburn, 36 miles long. A proviso has been inserted in the charters of the companies owning these lines that after a certain date the Government can, if disposed, acquire the lines at a valuation. The following table shows the mileage of Government and private lines, and the capital cost of the former at the middle of the year 1891 :—

Colony.	Length of lines open.			Gauge.	Government lines open for traffic for 1890-91.	
	Government.	Private.	Total.		Total cost of construction and equipment.	Average cost per mile.
	miles.	miles.	miles.	ft. in.	£	£
New South Wales ...	2,182	81	2,263	4 8½	31,768,617	14,559
Victoria ...	2,763	...	2,763	5 3	36,341,626	13,153
Queensland	2,195	...	2,195	3 6	15,101,617	6,487
South Australia	1,812	17	1,829	{ 5 3 } 3 6	12,544,733	6,923
Western Australia...	198	387	585	3 6	832,497	4,204
Tasmania	351	48	399	3 6	2,900,362	8,269
New Zealand	1,842	114	1,956	3 6	14,278,586	7,752
Australasia	11,343	647	11,990	.....	113,768,038	10,030

It will be seen that the capital cost per mile in New South Wales and Victoria is about double that of any other Colony.

In most of the other Colonies a large proportion of the extensions is made into sparsely populated districts, and the lines are what may be termed pioneer railways.

It would hardly be fair to institute comparisons between the cost of construction per mile in Australasia and in the densely populated countries of Europe, for while in Europe the resumption of valuable ground is, perhaps, the heaviest expense in connection with the building of railways, in the colonies this item of expenditure is not of leading importance. The cost per mile is given thus :—

India.....	£13,010
Canada.....	12,182
Cape Colony	8,604
United States.....	11,157

while for Australasia it is £10,030.

Every Colony except Western Australia shows a surplus of revenue over working expenditure, notwithstanding that the avowed object of railway construction in the colonies has been to promote settlement, apart from considerations of profitably working the lines. At the same time the principle has been kept in view that in the main the Railways should be self-supporting.

The particulars of traffic receipts for 1890-91 were :—

Colony.	Gross Revenue.	Working Expenses.	Net Revenue.
	£	£	£
New South Wales	2,974,421	1,831,371	1,143,050
Victoria	3,298,567	2,310,645	987,922
Queensland	908,704	645,597	263,107
South Australia	1,239,309	631,089	608,220
Western Australia.....	45,814	60,244	- 14,430
Tasmania	106,232	86,220	20,012
New Zealand	1,121,701	700,703	420,998
Australasia	9,694,748	6,265,869	3,428,879

— Denotes excess of working expenses over receipts.

The returns for the first four Colonies are for the year ending 30th June, 1891; New Zealand for 31st March, 1891; and Western Australia and Tasmania for 31st December, 1890.

RETURNS YIELDED BY RAILWAYS.

Proportion of
expenses to
revenue.

The following table shows the proportion of working expenses to gross revenue for each Colony in 1891. In South Australia, New South Wales, and New Zealand the proportion of the working expenses to gross revenue was below the average for Australasia, while all the other Colonies are largely in excess of that figure. In South Australia the lines are now worked at a cost of a little more than one half the receipts, while in Western Australia for every £100 earned the working expenses amount to £131 :—

Colony.	Working expenses— Proportion to gross revenue. 1890-91.
New South Wales	61·6
Victoria	70·0
Queensland	71·0
South Australia	50·9
Western Australia	131·5
Tasmania	81·2
New Zealand	62·5
Australasia	64·6

Returns yielded
by railways.

The average interest payable on all Australasian loans is 4·02 per cent., and the returns yielded by the railways is 3·01 per cent., showing a loss in working of 1·01 per cent., equivalent to £1,149,150. The figures are :—

Colony.	Interest returned on Capital.	Average interest payable on Loan Expenditure.	Average loss.
	per cent.	per cent.	per cent.
New South Wales	3·60	3·81	0·21
Victoria	2·72	4·00	1·28
Queensland	1·74	4·05	2·31
South Australia†	4·85	4·08	0·77†
Western Australia	1·74*	4·21	5·95
Tasmania	0·69	4·11	3·42
New Zealand	2·95	4·22	1·27
Australasia	3·01	4·03	1·01

* Represents loss. † Represents profit. ‡ Includes Northern Territory.

South Australia is the only colony showing a net profit after paying for interest on construction, while the loss in the other colonies ranges from 0·21 per cent. in New South Wales to 5·95 in Western Australia. The Victorian railways in 1886 yielded 4·18 per cent., but through the extension of unprofitable lines the rate for the year ending June, 1891, had declined to 2·72 per cent. It is expected by the Victorian Commissioners that, with a rest in construction for three years, the equilibrium between net revenue and the interest payable would be accomplished.

With the exception of Western Australia and Tasmania, the State railways in each colony are under the management of three Commissioners, appointed by the Government, who wield large executive powers, amounting almost to independent control, the object aimed at being to secure economic management free from political interference. So far this system has been productive of good results. Victoria was the first colony to place her railway administration under Commissioners, which took place in 1883, and it was not till four or five years later that the other colonies mentioned above adopted a similar management. The following table shows interest on capital since 1886 for those colonies where the management is under the administration of Commissioners:—

Colony.	1885-6.	1886-7.	1887-8.	1888-9.	1889-90.	1890-91.
New South Wales	2·90	2·96	2·85	3·14	3·18	3·60
Victoria	4·18	3·92	3·56	3·73	2·91	2·72
Queensland	2·13	2·15	2·75	0·84	1·70	1·74
South Australia	2·37	2·52	4·80	4·05	5·03	5·32
New Zealand	2·86	2·30	2·30	2·60	2·97	2·95

The following table shows the gross earnings, expenditure, and net profit per average mile open. In 1881 the New South Wales and Victorian railways yielded a higher rate of interest on the capital cost than was ever reached before or since, 5·31 and 4·04 per cent. respectively. The decline in the net profits is largely

AVERAGE PROFITS PER MILE.

Returns per
mile open.

due to the extension of the lines in sparsely populated districts. There is no doubt that with more limited extensions of this class, before long the Colonies will equalise the difference between net revenue and the interest on capital cost :—

Per Average Mile open.

Colony.	Gross Earnings.		Expenditure.		Net Profit per Average Mile open.	
	1886.	1891.	1886.	1891.	1886.	1891.
	£	£	£	£	£	£
New South Wales	1,207	1,363	834	839	373	524
Victoria	1,377	1,245	775	872	602	373
Queensland	447	424	308	301	139	123
South Australia	505	747	341	377	164	370
Western Australia	238	229	295	315	- 57	- 86
Tasmania	433	425	358	345	75	80
New Zealand	649	609	428	380	221	229
Australasia	859	888	517	574	342	314

NOTE. — denotes loss.

Returns per
train mile.

The following is a co-relative table showing the returns per train mile :—

Per Train Mile.

Colony.	Gross Earnings.		Expenditure.		Net Profit per Train Mile.	
	1886.	1891.	1886.	1891.	1886.	1891.
	d.	d.	d.	d.	d.	d.
New South Wales	80·01	84·88	55·30	52·26	24·71	32·62
Victoria	77·03	64·63	33·69	45·27	43·34	19·36
Queensland	62·50	57·75	43·00	41·00	19·50	16·75
South Australia	67·52	77·94	45·57	39·30	21·95	38·64
Western Australia	30·52	22·24	37·90	30·45	7·38	- 8·21
Tasmania	49·10	46·13	40·60	37·44	8·50	8·69
New Zealand	83·22	70·86	54·85	44·26	28·37	26·60
Australasia	75·26	72·25	45·33	46·75	29·93	25·50

NOTE. — denotes loss.

The interest on capital cost, the proportion of working expenses to the gross revenue, and the returns per train mile for some of

PASSENGER TRAFFIC.

the principal countries, is given below. The figures refer either to the years 1889 or 1890 :—

Country.	Capital Cost.			Working Expenses Proportion to Gross Revenue.	Per Train Mile.		
	Total.	Per Mile Open.	Return Per Cent.		Gross Revenue.	Working Expenses.	Net Revenue.
	£	£	P. Cent.	Per Cent.	s. d.	s. d.	s. d.
United Kingdom.	897,472,020	44,710	4.1	54.0	5 1	2 9	2 4
France	562,105,081	27,295	4.0	51.0	6 3½	3 3	3 0½
Germany	503,771,000	20,282	5.4	54.2	6 5½	3 5½	3 0½
Austro-Hungary.	305,042,000	19,156	3.4	53.1	6 2½	3 3½	2 11½
Belgium	55,058,765	28,081	4.4	54.9	4 6½	2 6	2 0½
United States ..	1,765,519,810	11,157	3.7	67.9	5 8½	3 10½	1 10
Canada	101,488,257	12,182	1.8	70.0	4 7	3 3	1 4
Cape Colony	16,201,846	8,604	5.2	55.2	6 9	3 9	3 0
Australasia	113,768,038	10,030	3.0	64.6	6 0½	3 10½	2 1½

The number of passengers carried on the Victorian lines is largely in excess of that of New South Wales, due in a large measure to the complete suburban system prevailing in the former Colony, which places the principal suburbs in direct communication with the metropolis. In the year ending June, 1891, the number of passengers carried on the suburban lines was 35,546,000, while for the corresponding service in New South Wales for the same period it was only 9,384,000.

The following table shows the number of passengers carried on the Government lines of each of the colonies in 1881 and 1890-91 :—

Colony.	Passengers carried.	
	1881.	1890-01.
	Number.	Number.
New South Wales	6,907,312	19,037,760
Victoria	18,973,070	71,970,885
Queensland	247,284	2,730,860
South Australia	3,032,714	5,300,506
Western Australia	67,144	253,694
Tasmania	102,495	464,064
New Zealand	3,362,266*	3,433,629
Australasia	32,692,285	103,191,398

* 1885-6. The Queensland and New Zealand returns do not include passengers with season tickets.

RECEIPTS FROM PASSENGERS.

Proportion of
goods traffic.

The amount of goods tonnage is shown in the subjoined table. In the period from 1881 to 1890 there was an increase of about 170 per cent., varying from 82 per cent. in South Australia to 453 per cent. in Queensland :—

Colony.	1881.	1890.
	Tons.	Tons.
New South Wales	2,033,850	3,802,849
Victoria	1,249,049	4,425,609
Queensland	161,009	890,973
South Australia	646,625	1,176,540
Western Australia		60,690
Tasmania	44,396	141,327
New Zealand	523,099	2,134,023
Australasia	*4,658,028	12,632,011

* Exclusive of Western Australia.

Receipts from
passenger
traffic.

The percentage of receipts from coaching traffic to the total receipts is about the same in the Australasian Colonies as in Europe. The proportion in the United Kingdom for 1890 was 42·9 per cent. for coaching traffic to 52·8 per cent. for goods traffic, besides which there was 4·3 per cent. for miscellaneous receipts, which could not properly be classed under either of the above heads; so that the proportion of coaching traffic to goods traffic was 44·8 per cent. against 55·2 per cent. The figures for the various colonies are given below :—

Colony.	Coaching Traffic.	Goods Traffic.
	Per cent.	Per cent.
New South Wales	39·6	60·4
Victoria	51·7	48·3
Queensland	27·6	72·4
South Australia	27·9	72·1
Western Australia	50·3	49·7
Tasmania	49·6	50·4
New Zealand	35·0	65·0
Australasia	40·7	59·3

The following table gives the different classes of rolling stock in the possession of the Australasian Governments; and, considerable as are the numbers of each class, they could with advantage be largely increased :—

Rolling Stock, 1890-91.

Colony.	Locomotives.	Passenger Carriages.	Goods Waggon.
New South Wales	439	1,023	9,940
Victoria	455	1,085	8,472
Queensland	239	307	3,688
South Australia	222	332	5,517
Western Australia.....	24	37	264
Tasmania	42	135	864
New Zealand	270	501	8,181
Australasia	1,691	3,420	36,926

RAILWAY ACCIDENTS.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, servants of the railways, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the person injured, and those due to misconduct or want of caution. Adopting this classification the accidents in those Colonies for which returns are available are given below :—

Persons Killed or Injured.

Colony.	Passengers.		Railway Employees.		Trespassers, &c.		Total.	
	Killed.	Injured.	Kil.ed.	Injured.	Killed.	Injured.	Killed.	Injured.
New South Wales	7	42	32	114	21	14	60	170
Victoria	3	101	21	193	48	51	72	345
South Australia ...	1	4	1	15	7	4	9	23
New Zealand	3	7	3	94	5	46	11	147

Freedom from accidents.

The railways of the Colonies have been as free from accidents of a serious character as the lines of most other countries. In order to obtain a common basis of comparison it is usual to find the proportion which the number of persons killed or injured bears to the total passengers carried. There is, however, no necessary connection between the two, for it is obvious that accidents may occur on lines chiefly devoted to goods traffic, and a more reasonable basis would be the accidents to passengers only compared with the number of passengers carried. The number killed and injured per million passengers carried during the last available quinquennial period for some of the principal countries is as follows :—

Passengers Killed or Injured.

Years over which figures extend.	Countries.	Average per Million Passengers carried.	
		Killed.	Injured.
1886-90	United Kingdom	0·16	1·91
1885-88	France	0·15	0·69
1885-89	Germany	0·09	3·62
1884-88	Austro-Hungary	0·11	0·86
1885-89	Belgium	0·11	1·21
1890	Canada	0·86	.....
1887-91	New South Wales	0·32	3·70
1887-91	Victoria	0·07	2·44
1888-91	South Australia	0·20	0·59
1890-91	New Zealand	0·87	2·04

POST AND TELEGRAPHS.

POSTAL SERVICE.

THE first Australasian post-office was established by Governor First post-office. Macquarie in the year 1810, Mr. Isaac Nichols being appointed Postmaster. The office was in High-street (now known as George-street), Sydney, at the residence of Mr. Nichols, who was, "in consideration of the trouble and expense attendant upon this duty," allowed to charge on delivery to parties addressed, 8d. for every English or foreign letter of whatever weight, and for every parcel weighing not more than 20 lb., 1s. 6d. ; but exceeding that weight, 3s. The charge on Colonial letters was 4d., irrespective of weight; and soldiers' letters, or those addressed to their wives, were charged 1d. Very little improvement in regard to postal matters took place for some years. In 1825 an Act was passed by Sir Thomas First Postal Act. Brisbane, with the advice of the Council, "to regulate the postage of letters in New South Wales," giving power for the establishment of post-offices, and to fix the rates of postage.

It was, however, not until 1828 that the provisions of the Act Early postage rates. were put into full force. The rates of postage appear to have depended upon the distance and the difficulty of transmission. The lowest single inland rate was 3d., and the highest 12d., the postage on a letter increasing according to its weight, which was fixed for a single letter at $\frac{1}{4}$ -ounce. Letters between New South Wales and Van Diemen's Land were charged 3d. each (ship rate), and newspapers 1d. Other ship letters were charged 4d. single rate, and 6d. for any weight in excess. The privilege of franking Franking. was allowed to the Governor and a number of the chief public officials, and letters to and from convicts passed free under certain regulations.

In 1831 a two-penny post was established in Sydney, and in Sir Richard Bourke's Postal Act. 1835, under Sir Richard Bourke, the Act of 1825 was repealed.

and another Act was passed, which fixed the charge on a single letter at 4d. for 15 miles, 5d. for 20 miles, 6d. for 30 miles, and so on up to 1s. for 300 miles. In 1837 a post-office was established in Melbourne, which was then of course a part of New South Wales. Stamps were introduced in the same year in the shape of stamped covers or envelopes, which are believed to have been the first postage-stamps ever issued.

Stamped covers.

First mail steamer.

Regular steam mail communication with England was first established in 1852; prior to that time the Colony had to depend upon the irregular arrival and despatch of sailing vessels, but in that year the steamships "Australia," "Chusan," and "Great Britain" were despatched from England, making the voyage in 60 days, causing a strong desire in the minds of the Colonists for a more frequent and steady system of communication with the Old World. The outbreak of the Crimean War in 1854 hindered for a while the accomplishment of this object, but in 1856 a line of steamers was again laid on, and the service was carried on by the Peninsular and Oriental Company, and the Royal Mail Company for some years, without giving so much satisfaction to the public as might have been expected.

The Panama line.

As far back as 1854 a proposal was made for the establishment of a line of mail packets *via* Panama, and negotiations on the subject were carried on for several years between the Government of the United Kingdom and those of New South Wales and New Zealand. The result was that in 1866 the line was started, and continued in operation until the end of 1868, when it was terminated through the failure of the company by which it had been carried out. In the following year New South Wales, in conjunction with New Zealand, inaugurated a mail service *via* San Francisco, which, with a few interruptions and under various conditions, has been continued up to the present time. The contract expired in November, 1890, but the service is continued by the New Zealand Government, and the steamers still make Sydney their terminus.

San Francisco route.

The establishment of a mail route *via* America had the effect of stimulating the steamship-owners who were engaged in the service *via* Suez, and from that time there was a marked improvement in the steamers employed, as well as in the punctuality and speed with which the mails were delivered. The Peninsular and Oriental Company have carried mails for the colonies almost from the inception of the ocean steam service, with very few interruptions. Towards the end of 1878 the Orient Company commenced carrying mails between Australia and the United Kingdom, and has continued to do so ever since. In the year 1883 the fine steamers of the Messageries Maritimes of France entered the service, to be followed in 1887, by the North German Lloyd's, so that there are now one or two mails received and despatched every week, and a voyage to Europe, which was formerly a formidable undertaking, involving great loss of time and much discomfort, is regarded as a mere pleasure trip to fill up a holiday.

Mail service *via*
Suez.

French and Ger-
man steamers.

The following statement gives the number of letters and newspapers passing, in 1861, through the post-offices of the various Colonies. It will be seen on comparing these figures with those in the next table that the postal business for all Australasia in 1861 was less than is now transacted by any individual Colony, Tasmania and Western Australia excepted:—

Letters and
papers carried.

Colony.	No. of Post Offices.	Letters.	Newspapers.
New South Wales	340	4,369,463	3,384,245
Victoria	369	6,109,929	4,277,179
Queensland	24	515,211	427,489
South Australia	160	1,540,472	1,089,424
Western Australia .....	...	193,317	137,476
Tasmania	100	835,873	895,656
New Zealand .....	...	1,236,768	1,428,351
Australasia .....	...	14,801,033	11,639,820

The following shows the postal business of each of the colonies during 1890, the number of letters, &c., being obtained by adding

Postal business.

AMOUNT OF POSTAL BUSINESS.

inland letters passing through the office, and thus counted once, to Intercolonial and Foreign letters, &c., received and despatched :—

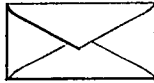
Colony.	Post Offices.	Letters and Post Cards.	Books, Parcels, and Packages.	Newspapers.	Revenue.
					£
New South Wales	1,338	58,385,300	8,939,600	40,597,200	427,330
Victoria	1,671	62,526,448	7,684,915	22,729,005	*330,000
Queensland	892	14,709,504	2,047,446	11,463,720	131,000
South Australia	609	16,794,679	1,251,416	9,460,075	111,491
Western Australia	82	2,629,698	329,871	2,135,906	15,459
Tasmania	315	5,172,824	963,167	4,941,571	41,759
New Zealand	1,058	22,877,320	4,403,181	11,137,846	199,735
Australasia	5,965	183,095,773	25,619,596	102,465,329	1,256,774

* Approximate.

Of the totals given for Australasia, 155,806,775 letters and post-cards ; 18,280,459 books, parcels, and packages ; and 76,304,556 newspapers were "inland," that is, they were posted and delivered within the same Colony, while 27,288,998 letters, 7,339,137 parcels, and 26,160,773 newspapers were received from or despatched to places beyond the Colony. Every article is thus counted once by each Colony through whose post-office it passes, and while the figures given above are correct in showing the postal business of each individual Colony, the totals for Australasia are too large, as intercolonial letters are counted both in the receiving and despatching Colony. To amend this error, a deduction of $12\frac{1}{2}$ million letters, &c., must be made from the figures given, and on the following page, where the number of letters per inhabitant is given, this has been done, and the number of letters and post-cards taken as 172,595,961.

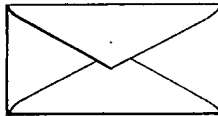
LETTERS CARRIED
POST-CARDS INCLUDED

1861



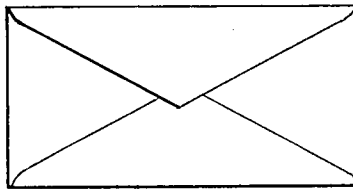
Nº 14,801,033

1871



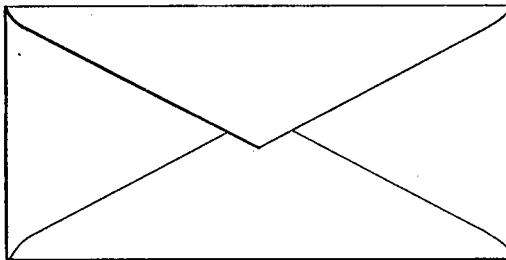
Nº 32,121,642

1881



Nº 85,493,851

1890



Nº 183,095,773

During 1889 the number of letters passing through the post-offices of New South Wales greatly exceeded that of Victoria, but in 1890 the reverse was the case, as the foregoing table shows. The increase in Victoria in 1890 over the preceding year amounted to nearly fourteen and a half millions, a circumstance almost entirely due to the reduction of fee from 2d. to 1d. on all letters posted in the Colony for delivery within its boundaries. In New South Wales, Queensland, and Tasmania newspapers were carried free during 1890, which largely extended their circulation through the post. In all the other colonies a small fee was charged, and Queensland has since then also imposed a newspaper postage. The following table shows the number of letters and post-cards, books, &c., and newspapers per head during 1890. Victoria and Western Australia take the lead in respect to letters, but Western Australia and New South Wales stand foremost as regards newspapers :—

Effect of reduced postage.

Letters, &c., Books, &c., and Newspapers per head.

Colony.	Number per Inhabitant.		
	Letters, &c.	Books, Parcels, &c.	Newspapers.
New South Wales.....	53	8	37
Victoria	56	7	20
Queensland.....	38	5	30
South Australia.....	53	4	30
Western Australia.....	56	7	45
Tasmania.....	36	7	34
New Zealand	37	7	18

The following table shows the number of letters and post-cards per head in some of the principal countries of the world. With the exception of the United Kingdom the extent of the corres-

Postal business in other countries.

POSTAL FACILITIES.

pendence in Australasia largely exceeds that of any of the countries named :—

Country.	Number of Letters and Post-cards per head of Population.
United Kingdom.....	51
France	19
Belgium	22
Netherlands	21
Germany	27
Denmark	22
Sweden	24
Norway.....	13
Russia	2
Austro-Hungary	17
Switzerland	35
Italy	7
Spain.....	6
Portugal	6
Canada	22
Cape Colony.....	9
Australasia	46

Postal facilities in Australasia.

The following table illustrates the extent of the postal facilities in regard to the number of inhabitants, and the square miles of territory to each post-office. It will be seen that Western Australia has one office to every 261 persons, while New South Wales, with the largest postal business of the colonies, has the least number of offices compared with population; Western Australia, the least when compared with territory :—

Colony.	Number of Inhabitants to each Post Office.	Number of Square Miles of Territory to each Office.
	Number.	Square Miles..
New South Wales	838	232
Victoria	678	53
Queensland	441	749
South Australia	526	1,484
Western Australia.....	261	5,699
Tasmania	461	83
New Zealand	529	88
Australasia	611	510

All the colonies, with the exception of New Zealand, have, in conjunction with the Imperial Government, entered into an agreement with the Peninsular and Oriental, and the Orient Steam Navigation Companies. Under this contract the two Companies have undertaken a weekly mail service for a yearly subsidy of £170,000. This subsidy is made up by a contribution of £95,000 from the Imperial Government, and of £75,000 from the six contracting colonies, distributed on the basis of population as follows:—

Colony.	Amount of Subsidy, 1890.
New South Wales	£ 26,639
Victoria	26,543
Queensland	9,635
South Australia	7,580
Tasmania	3,567
Western Australia	1,036
Total	75,000

The estimated net cost to be made good from revenue in New South Wales was only £564, while the cost of this service to Queensland amounted to £11,329. Victoria, after paying her share of the subsidy, had a surplus available of £3,891. Returns for the other colonies are unfortunately not available.

The mail service has been performed with great regularity and expedition. The average time of both services in 1890 was:—

	Days.
London to Sydney	34 $\frac{1}{2}$
Sydney to London	35 $\frac{1}{2}$

In addition to the federal ocean mail service *via* Suez, New South Wales and New Zealand, until November, 1890, subsidised the Union Steamship Company for a four-weekly service, *via* San Francisco, to the amount of £37,000, of which New South Wales paid £25,750, and New Zealand £11,250. On the termination of the contract New South Wales withdrew from the agreement, while New Zealand concluded a new contract with the company. The cost of this service during 1890 was £7,610 to

New South Wales, £4,552 to Victoria, and £1,612 to Queensland, while New Zealand has a surplus available of £7,466. The New Zealand Shipping Company is also under contract to carry mails from New Zealand to the United Kingdom, and the cost of this service during 1890 was £2,975. The average time during the same year by the San Francisco route was :—

	Days.
London to Sydney	40 $\frac{1}{3}$
Sydney to London	40

Time by the American service.

Torres Straits Route.

The British India Steam Navigation Company, sailing from Brisbane, *via* Torres Straits, carry mails under contract with the Queensland Government. This route is from four to ten days longer than those previously mentioned, letters occupying 46 days in transit. Queensland, under the former contract, paid the company an annual subsidy of £55,000. This contract ceased in January, 1890, and under a new contract the Colony agreed to pay the company an annual subsidy of £19,800 for a four-weekly, or £32,500 for a fortnightly service. The latter service was commenced on 1st July, 1890, the monthly service having lasted nearly six months, and the cost to Queensland of the Torres Straits service is stated to have been £32,430.

French and German mail steamers.

Besides those mentioned the other steamship companies trading with the Australasian Colonies carry mails, notably the Messageries Maritimes Company and the North German Lloyd, sailing from Sydney, and the Shaw, Saville, and Albion Company, sailing from Lyttelton, *via* Magellan Straits. The companies are paid by the Colonies in proportion to the weight of mail matter carried, but the Messageries Maritimes Company and the North German Lloyd are in receipt of large subsidies from the French and German Governments respectively. The postage to the United Kingdom was reduced in January, 1891, from 6d. per $\frac{1}{2}$ oz. *via* Italy, and 4d. *via* the long sea route, to the uniform rate of 2 $\frac{1}{2}$ d.

Universal Postal Union.

In 1891 the Colonies were represented at the Congress of the Universal Postal Union held in Vienna, and on July 4th, a convention was signed on their behalf, by which they joined the

Union from October 1st, 1891. From that date the rate of postage to all British Colonies and possessions and foreign countries included in the Union was reduced to 2½d. As was to be expected, the immediate result of the alteration was a reduction in revenue, but it is confidently anticipated that so far as these Colonies are concerned, the time is not far distant when the revenue from this branch of postal service will reach its original volume.

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. Taking Australasia as a whole, there are only four countries in the world that possess a greater extent of telegraph lines, and only five in which a larger number of messages are actually sent. In no other country, however, does the number of messages bear anything approaching the same ratio to the population. The following table illustrates these remarks:—

Country.	Length of telegraph lines (poles).	Messages. †	Messages per head of population.
	Miles.	No.	No.
United Kingdom	31,440	66,409,000	1·7
France*	59,915	28,094,000	0·7
Belgium*	4,013	5,173,000	0·8
Netherlands	3,186	4,118,000	0·9
Germany	58,048	25,783,000	0·5
Denmark	2,748	1,495,000	0·7
Sweden	5,388	1,709,000	0·3
Norway	4,661	1,373,000	0·7
Russia	74,276	9,949,000	0·1
Austria-Hungary	37,085	12,914,000	0·3
Switzerland	4,418	3,380,000	1·1
Italy	21,020	8,140,000	0·3
Spain	14,710	4,085,000	0·3
Portugal	3,191	1,730,000	0·4
United States.....	178,754	54,108,000	0·9
Canada.....	30,014	4,232,000	0·8
Cape Colony	4,924	1,376,000	0·9
Australasia	43,598	11,753,000	3·1

* Government lines only.

The totals of the telegrams of the Australasian Colonies amount to 13,113,000 ; from this number has been deducted 1,360,000, to avoid the counting of Intercolonial telegrams, both in the despatching and the receiving Colonies.

Number of mes-
sages per head.

The return for the United States includes only the lines of the Western Union Company, who own the principal part of the United States telegraph system. From the above table it appears that the population of Australasia sent more than three messages through the telegraph in the year for each inhabitant. In the United Kingdom the number was about one and three-quarters to each inhabitant ; in the United States of America about one message for every inhabitant ; in France and Belgium one message and a-half for every two persons ; in Germany one message for every two persons ; in Austria-Hungary, Italy, and Spain, rather more than one message for every four persons. In Canada and the Cape Colony less than one message is sent for every inhabitant in each year.

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 first telegraph in Western Australia was opened in 1869, and communication between that Colony and all the others of the group was completed in 1877.

Cables.

Australasia is connected with Europe and the rest of the world by means of cables connecting with the various Asiatic continental lines. There are two cables—the older one opened in July, 1872—

joining Port Darwin to Banjowangie in Java, whence communication is provided with Europe by way of Batavia, Singapore, Madras, and Bombay. The cable from Port Darwin to Banjowangie is unfortunately liable to damage through volcanic eruptions, and the question is, therefore, being considered whether a point more to the east should not be substituted for Banjowangie. The length of line between Adelaide and London is 12,570 miles—9,146 cable, and 3,424 miles overland wire. Of the land portion 1,971 miles are between Adelaide and Port Darwin. A second cable was laid in 1888 from Frome, on Roebuck Bay, in Western Australia, to Banjowangie. The eastern colonies are connected with Frome by a line running from Adelaide, *via* Port Augusta, Eucla, and Albany, to Perth. The cable joining Tasmania to the continent of Australia was laid in 1869, the length being about 170 miles. It starts from the township of Flinders, near Cape Schanck, in Victoria, and terminates at Low Head, at the mouth of the Tamar, in Tasmania. New Zealand was joined to the continent by a cable laid in 1876, the length being about 1,191 miles. It has its Australian terminus within sight of the spot where Captain Cook landed on the shores of Botany Bay, and within a stone's throw of the monument of La Perouse. The New Zealand terminus of the cable is at Nelson, on the middle or south island, whence another cable is laid to Wanganui, in the North island, with an alternate line from Picton to Wellington.

All the Colonies show very rapid progress in the period from 1871 to 1881. In the case of Queensland this increase is largely due to the construction of the line to the Gulf of Carpentaria; and in the case of South Australia, to the construction of the lines to Port Darwin and to Eucla, on the boundary of Western Australia.

The following table shows the increase in the number of tele-
 graphic lines for each colony at intervals of ten years, as far as
 the returns are available :—

Length of
Telegraph poles.

LENGTH OF TELEGRAPHS.

Miles of Telegraph (Poles).				
Colony.	1861.	1871.	1881.	1890.
New South Wales.....	1,616	*4,674	8,515	11,231
Victoria .....	.....	*2,295	3,350	6,958
Queensland.....	169	2,525	6,280	9,830
South Australia.....	597	1,183	4,946	5,623
Western Australia .....	.....	*750	1,585	2,892
Tasmania .....	.....	*291	928	2,004
New Zealand .....	.....	2,015	3,824	5,060
Australasia.....	.....	13,733	29,428	43,598

* In 1873.

Length of
Telegraph wires

The next table gives similar particulars, only the amounts are expressed as miles of wire instead of length in poles :—

Miles of Telegraph (Wires).

Colony.	1861.	1871.	1881.	1890.
New South Wales.....	1,981	5,579	14,278	23,598
Victoria .....	.....	3,472	6,626	13,499
Queensland.....	169	2,614	8,585	17,437
South Australia.....	915	1,718	7,228	12,178
Western Australia .....	.....	*750	1,593	3,469
Tasmania .....	.....	241	1,157	3,060
New Zealand .....	.....	3,287	9,653	12,771
Australasia.....	.....	17,661	49,120	86,012

* In 1873.

The number of telegrams passing along the wires of each Colony, and the revenue received by the respective telegraph departments for the year 1890, were as follow :—

Business done by Telegraphs during the year 1890.

Colony.	Number of Telegrams.	Revenue Received.
New South Wales	4,101,449	£ 193,707
Victoria	3,486,541	138,969
Queensland	1,329,925	91,779
South Australia	1,659,983	100,752
Western Australia	196,536	10,890
Tasmania	353,548	15,896
New Zealand	1,984,848	85,954
Australasia	13,112,830	637,947

In connection with the Telegraph Departments of the various Colonies, Telephone Exchanges have, during recent years, been established in the capitals and other important centres of population. The returns relating to Telephones are, however, difficult to separate from those relating to Telegraphs. The number of miles of Telephone wires, as distinct from Telegraph wires, is returned as follows :—Victoria, 7,898 miles ; South Australia, 1,970 miles ; Western Australia, 517 miles ; Tasmania, 382 miles ; New Zealand, 2,036 miles. The same Colonies return the number of subscribers to the Telephone Exchanges—Victoria, 2,307 ; South Australia, 874 ; Western Australia, 106 ; Tasmania, 646 ; New Zealand, 2,587.

GENERAL PRODUCTION.

Avocations of
the people.

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.

Classification
unsatisfactory.

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 under which the population will be separated into two great divisions—workers and dependents. 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 Census taken in April, 1891, the results of which are now being tabulated, will afford valuable material for the elucidation of problems which perplex the economist and the statesman, and will serve for a basis by which the future progress of Australasia may be gauged.

Agricultural
pursuits.

With the exception of New South Wales, none of the Colonies publish statistics in regard to employment in agriculture ; in the Colony named the number of persons so employed during the season which ended with March, 1891, was 82,213, and of those regularly employed in pastoral pursuits, 45,847.

In regard to mining there is more information. The following Mining. were the numbers, so far as can be ascertained, for the year 1890 :—

New South Wales	32,338 hands.
Victoria	24,309 „
Queensland	10,969 „
Tasmania	2,920 „
New Zealand*	4,121 „

Concerning five Colonies only is there information in regard to Works and employment in pursuits which are classed under the vague category of manufactures of works and manufactories.

The particulars for these Colonies are as follows :—

New South Wales..	46,135 hands.
Victoria	58,175 „
South Australia.....	13,183 „
Tasmania.....	2,204 „
New Zealand	25,759 „

In the table just given the returns from each Colony are put on the same basis.

The horse-power and value of plant is known only in the case of three colonies, viz. :—New South Wales, 24,662 ; Victoria, 30,078, and South Australia, 7,281. The value of the plant employed during 1890 is returned only for New South Wales and Victoria, and is given as £4,526,821 for the first-mentioned, and £6,604,322 for the last-named Colony. With regard to Tasmania, the value of land, buildings, and plant is stated to be £568,008, while a similar return for New Zealand places the figure at £5,275,320. Assuming 40 per cent. of these amounts to represent the plant alone, the values would be £234,400 in Tasmania, and £2,110,100 in New Zealand. The value of plant in Queensland has been estimated at £1,388,100 ; in South Australia, £1,210,000, and Western Australia, £124,500. Power and value of plant.

Taking Australasia as a whole, it may be said that manufacturing, properly so called, is in its infancy ; most of the hands are employed in works depending on the natural production of the country, or in what may be termed domestic industries, that is, furnishing the supply of goods which must of necessity be produced on the spot. The Colony of Victoria is perhaps of all Manufactures yet undeveloped.

VALUE OF PRIMARY INDUSTRIES.

the colonies the possessor of the most varied classes of industries, but the signs are not wanting that other colonies will soon seek in manufacturing industries outlets for capital which they have hitherto found in other channels.

Value of articles produced.

No reliable figures are available of the value of articles produced in the manufactories of the various colonies during 1890. Regarding other forms of industry full particulars are given in previous pages. The value of the labor of primary producers, that is to say, of those mainly engaged in the cultivation or acquisition of food products, and in obtaining other raw materials from natural sources, was, for the year 1890, £86,411,500.

The share of each Colony and the value per head was :—

Colony.	Total Primary Production.	Total Production per Head of Population.
		£ s. d.
New South Wales	26,725,700	24 5 1
Victoria	20,072,100	17 18 11
Queensland	12,370,100	31 16 10
South Australia	7,172,900	22 10 5
Western Australia	1,391,400	29 9 10
Tasmania	2,778,700	19 6 8
New Zealand	15,900,500	25 12 0
Australasia	86,411,400	23 2 2

Primary industries.

The distribution of the production of the Colonies from the primary industries, under the various branches, is as follows :—

Primary Industries of Australasia.

Colony.	Agriculture.	Pastoral Industries.	Dairy Farming.	Mineral Production.	Forestry and Fisheries.
	£	£	£	£	£
New South Wales....	4,131,400	13,359,800	2,887,600	5,003,900	1,343,000
Victoria.....	7,520,300	6,041,300	3,606,600	2,384,200	519,700
Queensland.....	2,233,200	5,934,200	989,100	2,518,000	645,600
South Australia	3,569,700	2,176,300	770,400	381,000	275,500
Western Australia ..	366,900	500,200	134,200	94,300	295,800
Tasmania	962,700	748,300	330,300	357,700	329,700
New Zealand	4,829,500	7,110,500	1,830,200	1,523,800	606,500
Australasia.....	23,613,700	35,920,600	10,598,400	12,262,900	4,015,800

Compared with the older countries of the world, the amounts stated above are by no means insignificant, and as regards production per head, Australia exceeds any other country of which the records are available. Although the data are incomplete on which an exact statement can be founded, there is sufficient information to warrant the assertion that from primary industries alone, Australasia produces more per inhabitant than the combined industries of any other country, and a consideration of this fact will perhaps explain the general prosperity which these Colonies have enjoyed, and the ease with which they bear their apparently great indebtedness. The following figures are taken from Mulhall's Dictionary:—

Primary Industries of the World.

Country.	Total.	Per head of Population.		
		£	s.	d.
United Kingdom.....	311,000,000	8	2	10
France	470,000,000	12	2	3
Germany	449,000,000	9	4	9
Russia	578,000,000	6	5	8
Austria.....	337,000,000	8	8	1
Italy.....	206,000,000	6	16	0
Spain.....	177,000,000	10	1	1
Portugal	32,000,000	6	16	2
Sweden.....	50,000,000	10	8	4
Norway	18,000,000	9	0	0
Denmark	35,000,000	16	13	4
Holland	39,000,000	8	9	7
Belgium	62,000,000	10	3	3
Switzerland	19,000,000	6	6	8
United States	883,000,000	14	2	7
Canada	59,000,000	11	7	7
Argentina	42,000,000	13	11	0
Australasia (1890)	86,411,500	23	2	2

Judged by the aggregate production, New South Wales stands far above the other Colonies, a position which it owes to the largeness of its interests in pastoral pursuits. The value of the return from this industry was £13,359,800, a sum greater than the total production of every Colony except Victoria and New Zealand from all primary industries. As regards the average production

Aggregate production of New South Wales.

Production per
inhabitant.

per inhabitant, Queensland stands first and Western Australia second, while Victoria is lowest, only about three-fifths of the production per head of the first-named colony. Such a condition of things is only what might be anticipated from the circumstances of the Colonies. But a comparison of the production of the Colonies from primary industries per head of population is liable to give a fallacious importance to the Colonies with large territories and scanty population, for it is but a natural expectation that where the population of a country is dense, a large proportion of it will be engaged in other than primary industries. If the production be compared with the extent of territory enjoyed by each Colony it will be found that the positions of several of the Colonies are

Production com-
pared with area.

reversed. Thus Victoria occupies first position with an average production of £228 7s. 10d. per square mile, while Western Australia has the lowest return of £1 6s. 3d. The following, as well as the preceding table, bear testimony to the great natural resources of New Zealand, which has an average production per head of £25 12s. and per square mile of £152 4s. :—

Colony.	Total production per square mile.
	£ s. d.
New South Wales	86 0 4
Victoria	228 7 10
Queensland	18 10 1
South Australia	7 18 9
Western Australia	1 6 3
Tasmania	105 18 9
New Zealand.....	152 4 0
Australasia	27 6 8

DEFENCE.

IN each of the Colonies a small permanent military force is maintained, consisting for the most part of artillery and submarine miners. There has always been manifested by the colonists of Australasia an objection to the maintenance of a standing army, and a disposition to rely mainly upon the patriotism and valour of the citizens for their own defence. But each Colony possesses a more or less complete system of fortifications, armed with expensive ordnance, which requires a more regular and constant attendance than could well be bestowed by those who only devote a portion of their time to military affairs. Hence it has been found advisable to institute the small permanent forces alluded to, whose chief duty it is to man the fortifications and keep the valuable armaments therein in a state of efficiency, so as to be ready for any emergency. At the same time it is expected that they would form a steady nucleus around which to form an effective defence force if ever hostilities should unfortunately occur. The greater portion of the Colonial forces is, however, comprised of volunteers under a system of partial-payment, which affords a cheap and effective defence force without the disadvantages and expense of a standing army. The men receive a fixed amount of pay, in order to compensate 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

Military and Defence Forces of Australasia.

Purely volunteer system unsatisfactory.

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 the purely 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 in 1890 :—

Defence Forces of Australasia.

	Total Forces.	Paid.	Partially Paid.	Unpaid.
New South Wales.....	9,285	538	4,146	4,601
Victoria	7,314	406	4,343	2,565
Queensland	4,497	134	2,787	1,576
South Australia.....	2,202	64	1,361	777
Western Australia	688	2	686	.....
Tasmania	2,038	32	521	1,485
New Zealand	7,824	204	.....	7,620
Total, Australasia..	33,848	1,380	13,844	18,624

Rifle clubs.

Among the Volunteers in New South Wales, Queensland, South Australia, and Tasmania are included the rifle clubs or companies of a strength of 4,601, 1,485, 466, and 1,497 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.

Total military strength.

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

Staff, Medical Staff, Instructors, Ambulance Corps, &c.....	738
Artillery (Garrison, field and horse).....	4,117
Engineers	753
Cavalry	995
Mounted Infantry and Mounted Rifles	4,060
Infantry	12,919
Rifle Companies	10,266

or, a total strength of 33,848 men.

In addition to the forces enumerated above, all the Colonies, Marine Forces. with the exception of Western Australia, 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 naval force of 236 men. The marine forces are as follow :—

Colony.	Strength.
New South Wales	633
Victoria	615
Queensland	428
South Australia	170
Tasmania.....	68
New Zealand	1,192
Total	3,106

Thus the combined forces of all the Australasian Colonies on Combined Australasian Defence Forces. their present footing are 36,954 strong; and of these 25,000 could be mobilised in either of the Colonies of Queensland, New South Wales, Victoria, or South Australia.

NAVAL DEFENCE.

The boundaries of the Australian Naval Station have been Australasian naval station. defined as follows :—From 95° E. long. by the parallel of 10° S. lat. to 130° E. long.; thence north to 12° N. lat., and along that parallel to 160° W. long., and on the south by the Antarctic Circle, including the numerous groups of islands situated within those limits.

The defence of the Australasian coast is mainly in the hands of Imperial navy on the Australasian station. the British ships on the Australian Station, and of the Australasian Auxiliary Squadron. Sydney, the head quarters of the fleet, ranks as a first class naval station; and extensive repairing yards and store-houses have been provided for the accommodation of the ships of war. There were stationed in the Australasian waters at the close of 1891 nine Imperial vessels whose armament, &c., are as follows :—

Imperial War Vessels on Station.

Name.	Class.	Material of hull.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armour.	Armament.		Speed.	Coal endurance.	
									Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots' speed.
Orlando	Twin-screw cruiser, 1st class, armoured.	Steel	tons. 5,600	8,500	ft. in. 24 2	ft. in. 300 0	56 0	Armoured belt at water-line, 10 in. ; armoured deck, 3 in. ; conning tower, 12 in.	20 2-in. 22-ton B.L.R. 10 6-in. 5-ton B.L.R. 16 Q.F. Hotchkiss, 7 M., 3 L. 4 6-in. 5-ton B.L.R. 8 5-in. 2-ton B.L.R.	2	knots. 13·5	tons. 900	knots. 7,000
Curaçoa	Screw cruiser, 3rd class.	Steel and iron sheathed with wood.	2,380	2,540	18 10	225 0	44 6	.....	1 Q.F. Hotchkiss 9 M., 2 L. 10 6-in. 4½-ton B.L.R. 10 M., 2 L.	2	13·0	470	3,800
Cordelia*	Screw cruiser, 3rd class.	do ..	2,380	2,420	18 8	225 0	44 6	.....	2 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	2	13·0	470	3,800
Rapid	Screw cruiser, 3rd class.	Composite.	1,420	1,400	15 9	200 0	38 0	.....	10 5-in. 38-cwt. B.L.R., 4 M., 1 L. 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	.....	13·1	425	6,600
Royalist	Screw cruiser, 3rd class.	do ..	1,420	1,510	15 9	200 0	38 0	.....	2 6-in. 4-ton B.L.R., 10 5-in. 38-cwt. B.L.R., 4 M., 1 L.	.....	13·1	425	6,600
Lizard	Screw gun-boat, 1st class.	do ..	715	1,000	13 6	165 0	29 0	.....	64-in. 25-cwt. B.L.R., 4 M.	.....	12·7	105	2,500
Goldfinch	Screw gun-boat, 1st class.	do ..	805	1,200	12 8	165 0	30 0	.....	64-in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	.....	13·0	105	..
Ringdove	Screw gun-boat, 1st class.	do ..	805	1,200	12 8	165 0	30 0	.....	64 in. 26-cwt. B.L.R., 2 Q.F. Hotchkiss, 2 M.	.....	13·0	105	..
Dart†	Screw yacht.	do ..	470	200	12 11	133 0	25 2	.....	2 L. ....	.....	8·8	64	....

* Left the Australian Station early in 1892.

† Surveying service.

M.L.R., Muzzle-loading rifled guns; Q.F., Quick-firing guns; M., Machine guns; L., Light guns under 15 cwt.; B.L.R., Breech-loading rifled guns.

An undertaking has been entered into by all the Colonies 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 amounts estimated as payable by each Colony for the year 1891 were :—

Contribution of each Colony for Naval Defence.	
	£
New South Wales	27,430
Victoria	27,280
Queensland	9,380
South Australia	7,470
Western Australia	1,210
Tasmania	3,470
New Zealand.....	14,760
Australasia	£91,000

The fleet consists of five fast cruisers, and two torpedo gunboats of 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 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 have been built by the British Government, but the Australasian Colonies 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 is commanded by the Admiral on the Australian Station, whose headquarters are in Sydney, where a residence is provided for him by the Colony. The squadron, which arrived in Port Jackson on 5th September, 1891, consists of the following vessels :—

Special
Australasian
squadron.

Agreement with
British Govern-
ment.

Australian Auxiliary Squadron.

Name.	Class.	Material of hull.	Displacement.	Indicated horse-power.	Draught of water extreme.	Length.	Beam.	Armour.	Armament.		Special.	Coal endurance.	
									Guns.	Torpedo tubes.		Coal that can be carried in bunkers.	Distance that can be steamed at 10 knots speed.
Katoomba...	Screw cruiser, 3rd class.	Steel	tons. 2,575	7,500	ft. in. 16 6	ft. in. 265 0	ft. in. 41 0	Deck armour over machinery space, 2 in. and 1 in.; conning tower, 3 in.	3 4·7 Q.F. guns, 8 3-pr. Q.F. guns, 1 7-pr. M.L.R. gun (boat and field), 4·45 in. 5 barrel Nordenfeldt.	4	knots. 16 5	tons. 300	knots. 6,000
Ringarooma..	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
Mildura	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
Wallaroo	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
Tauranga	Screw cruiser, 3rd class.	do ..	2,575	7,500	16 6	265 0	41 0	do ..	do ..	4	16·5	300	6,000
Boomerang ..	Torpedo gun-boat.	do ..	735	4,500	10 6	230 0	27 0	Conning tower, 1 in.	2 4·7 in. Q.F. guns, 4 3-pr. Q.F. guns.	5	*18 75	160	2,500
Karrakatta ..	Torpedo gun-boat.	do ..	735	4,500	10 6	230 0	27 0	do ..	do ..	5	*18·75	160	2,500

* This speed can be increased until, under favourable conditions, for a short period, a maximum of 21 knots can be obtained. Q.F.—Quick-firing guns.

New South Wales has no navy of its own, with the exception ^{The} of the corvette "Wolverene," sixteen 64-pounder M.L. rifled guns, ^{"Wolverene."} and two small torpedo steam-launches, the "Acheron" and the "Avernus."

Victoria has a navy of its own for harbour defence, consisting ^{Victorian navy.} of the following vessels :—

Name.	Class.	Displacement.	Armament.
Nelson	Wooden frigate..	Tons. 2,730	2 7-in. M.L.R., 20 64-pdrs., 2 Gatlings.
Cerberus.....	Armoured turret ship.	3,413	4 10-in. M.L.R., 4 1-in. Nordenfeldts, 4 barrels.
Victoria	Steel gunboat ...	530	1 10-in. R.B.L., 1 6-in. R.B.L., 2 13-pdr. R.B.L., 2 1-in. Nordenfeldts, 4 barrels.
Albert.....	do ...	350	1 8-in. R.B.L., 1 6-in. R.B.L., 2 1-in. Norden- feldts, 4 barrels.
Childers	First-class steel torpedo boat.	63	2 37-M.M. Hotchkiss guns, 4 13-in. Fiume, 4 14-in. Fiume torpedoes.
Nepean	Second-class steel torpedo boat.	12	5 14-in. R.L., also fitted for spar torpedoes.
Lonsdale.....	do	12	do do
Gordon	Wooden torpedo boat "Turn- about."	12	1 1-in. Nordenfeldt, 2 bar- rels, 5 14-in. Fiume.
Batman	Armed steamer..	387	1 6-in. R.B.L., 2 1-in. Nor- denfeldts, 2 barrels.
Fawkner	do ...	387	1 6-in. R.B.L., 2 Gatlings.
Gannet	do ...	347	1 6-in. R.B.L., 2 1-in. Nor- denfeldts, 2 barrels.
Lady Loch.....	Customs steamer (steel).	300	do do
Commissioner..	Wooden steam launch.	40	4 14-in. Fiume, also fitted for spar torpedoes.
Customs No. 1	do ...	30	do do

The two dredges ("Batman" and "Fawkner") and the tug ("Gannet") mentioned above 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. A new torpedo boat, of the most improved type, is being built for the Victorian Government.

Queensland
naval defence.

Queensland has 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.
Gayundah	Steel gunboat (twin screw).	Tons. 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.

There is also one torpedo boat at Brisbane, and South Australia maintains one twin-screw steel cruiser, the "Protector," 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, and Western Australia one schooner, the "Meda," of 150 tons, employed on survey service at the joint expense of the Imperial and Colonial Governments.

FORTIFICATIONS.

Expenditure of
the Australasian
colonies for
defence
purposes

Most of the Colonies have spent considerable sums in works of defence, and the principal ports are well protected by extensive fortifications, erected by the various Governments at great cost.

The total expenditure from Consolidated Revenue for defence purposes during 1890-91 was as follows:—

Colony.	Amount.	Per head of Population.
	£	s. d.
New South Wales	280,780	4 11
Victoria	149,381	2 8
Queensland	66,013	3 5
South Australia	47,797	3 0
Western Australia	4,013	1 9
Tasmania	16,836	2 4
New Zealand	75,852	2 5

Or a total expenditure for Australasia of £793,750, at the rate of 4s. 3d. 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. Victoria, however, for several years has discontinued the expenditure of loan moneys for this service. The amounts thus spent during 1890-91 were as follows:—

	£
New South Wales.....	89,391*
Queensland.....	11,487
South Australia.....	1,410
Tasmania	5,200
New Zealand.....	2,477
Total	£109,965

* Inclusive of £42,400 for naval station, Port Jackson.

The total debt incurred by each Colony for defence purposes to the end of 1890-91 was as follows:—

	Amount.	Per head of Population.
	£	s. d.
New South Wales	*1,018,679	17 10
Victoria	98,299	1 9
Queensland	151,584	7 10
South Australia	250,645	15 8
Tasmania	116,591	16 3
New Zealand	†429,719	13 10
Australasia	2,065,517	10 10

* Inclusive of £159,090 for naval station, Port Jackson. † Contingent Defence.

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.

Military Defence
Commission.

A military commission was appointed in 1890 by the Imperial and the different Colonial Governments, to take evidence and report on the fortification of King George's Sound, Hobart, Thursday Island, and Port Darwin, at the joint expense of the various Governments. The commission visited the points mentioned during 1891, and as a result of the evidence taken it may be anticipated that before long these four important strategical points will no longer be left at the mercy of any hostile cruiser that might choose to make a descent upon them. At King George's Sound and Thursday Island the construction of the works determined on is now in full progress, and both places were stated early in 1892 to be nearly ready to receive their armaments and garrisons.

EDUCATION.

IT would have been indeed strange if communities so prosperous as the Austrasian 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 most 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 desire may qualify themselves for the higher studies of the University. So bountiful has been 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 almost monopolized the educational field.

Progress of
Education.

Denominational
Schools.

In all the Australasian Colonies the State system of education is secular, and Western Australia is the only one where denominational education is at all subsidised. The Education Acts of each colony contain compulsory clauses, but the enforcement of these is not everywhere equally strict. In Victoria, for instance,

Primary Educa-
tion.

compulsory attendance at school has been insisted upon with great rigour, while in Queensland the principle of compulsion has been allowed to remain almost in abeyance, and in the other colonies it has been enforced with varying degrees of strictness. In Victoria, Queensland, and New Zealand, education was entirely free during 1890 and 1891, and South Australia instituted the same principle at the beginning of 1892. In New South Wales, Western Australia, and Tasmania, small fees are charged, but are not enforced where the parents can reasonably plead poverty.

The statutory school age of each colony is as follows :—

New South Wales	6 to 14 years.
Victoria	6 to 13 "
Queensland	6 to 12 "
South Australia ..	7 to 13 "
Western Australia ..	6 to 14 "
Tasmania	7 to 14 "
New Zealand.....	7 to 13 "

New South
Wales.

State aid to
Denominational
Schools.

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

1880, under the auspices of Sir Henry Parkes, the measure establishing the present system became law. In New South Wales education is non-sectarian, though facilities are afforded to clergymen to give religious instruction within specified school hours 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 1890 there were 2,423 public schools, with an average attendance of 116,665 children, out of a mean quarterly enrolment of 170,257, or a gross enrolment of 195,241. For secondary education there are a number of superior and high schools entirely supported by the State, besides numerous colleges, grammar schools and denominational schools, which obtain no assistance from the Government, except in the case of the Sydney Grammar School, which receives an annual subsidy, amounting in 1890 to £3,650. Scholarships and bursaries have been founded in connection with many of these schools. Educational affairs are in New South Wales under the direction of the Minister for Public Instruction.

Present system
of Public
Instruction.

Schools in New
South Wales.

In Victoria, under an Act passed in 1872, 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 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 1890, Victoria had 2,170 State schools, with an average attendance of 133,768 scholars, out of a net enrolment of 204,497, or a gross enrolment of 250,097. Religion is strictly forbidden to be taught during school hours, and not at any time must a teacher impart it. Secondary education is principally in the hands of private or denominational establishments. The higher education is supplied by the University with its affiliated colleges.

Victoria.

Queensland.

The Education Department in Queensland is administered by the Secretary for Public Instruction. The Act now in force was passed in 1875, and is of a tolerably liberal character, primary education being secular and free. The compulsory clause has not been put into operation, as it would be a very difficult thing to enforce its provisions in the scattered and sparsely-populated districts of the interior. The last departmental report, however, hints that the compulsory provision will soon have to be applied. The primary schools at the end of 1890 were 621 in number, with a gross enrolment of 72,375 pupils, a mean quarterly enrolment of 57,640, and an average daily attendance of 40,836. 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.

South Australia.

The South Australian system of primary education, which was introduced in its present form in 1878, is very similar to those already described; it is presided over by a responsible Minister, with an Inspector-General and other officials. Education is compulsory, secular, and free. To the end of 1891 a small weekly fee had to be paid by all parents able to do so, but at the beginning of 1892 education in South Australia became entirely free. At the end of 1890 there were 551 primary schools, with a gross enrolment of 49,193 children, a net enrolment of 44,804, and an average attendance of 27,552. Children who have attained a certain standard of instruction are exempt from compulsory attendance. Religious instruction is not allowed to be given except out of ordinary school-hours. Secondary education is in the hands of private and denominational establishments, and the University at Adelaide, though small, is efficient.

Western
Australia.

Quite a different system of education prevails in Western Australia. Under the Elementary Education Act of 1871, primary

education is imparted in Government schools, which are entirely supported by the State. 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 1890 there were 82 Government and 19 assisted schools in the colony, with an enrolment of 3,352 and 1,662, and an average attendance of 2,535 and 1,283 respectively. The local boards have power to enforce compulsory attendance.

In Tasmania there is no separate Minister for Education, but Tasmania. 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 240 in all, the average attendance being 8,898, out of a gross enrolment of 18,156 children and an average monthly number on the rolls of 12,640. 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 Associate of Arts. There is no University in Tasmania.

New Zealand has an educational system which is entirely New Zealand. 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, and in addition 1s. 6d. per child for the support of scholarships, with other grants for school buildings, training of teachers, &c. At the close of 1890 there were 1,200 public schools thus supported by the State, with an average attendance

NUMBER OF STATE SCHOOLS.

of 96,670 scholars out of a total enrolment of 117,912. 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, except as regards Divinity.

Maori Schools.

In addition to the ordinary primary schools the New Zealand Government maintained schools for native children in localities where there are few or no Europeans. The number of scholars altogether in 1890 was 2,659, and the teaching staff numbered 100. The net expenditure for 1890 was £17,376.

Number of State Schools.

The following table gives the number of State schools in each of the colonies during 1890, together with the number of teachers and the average attendance of scholars :—

Colony.	Number			Scholars in average attendance.		Percentage of scholars in average attendance to mean population.
	of State Schools.	of Teachers.	of Scholars in average attendance.	To each School.	To each Teacher.	
New South Wales	2,423	4,181	116,665	48	28	10·6
Victoria	2,170	*4,223	133,768	62	32	12·0
Queensland	621	1,539	40,836	66	27	10·5
South Australia	551	1,067	27,552	50	26	8·7
Western Australia	82	129	2,535	34	20	5·4
Tasmania	240	469	8,898	37	19	6·2
New Zealand.....	1,200	2,978	96,670	81	32	15·6
Australasia.....	7,287	14,586	426,924	59	29	11·4

* Exclusive of 485 Sewing Mistresses.

In proportion to population the average attendance at State ^{Attendance at State Schools.} schools is highest in New Zealand, Victoria being second, and New South Wales third. New Zealand occupies a very creditable position with regard to education, 15·9 per cent. of the whole population attending school, against 15·4 per cent. in Victoria, and 13·7 per cent. in New South Wales. Western Australia stands lowest on the list, owing, no doubt, to the sparseness of its population.

The number of children of "school age" in all the colonies for ^{Children of School age.} 1890 was 887,600. As almost the whole of the children enrolled at the different schools are over 5 or under 15 years of age, that period has been adopted as "school age" for purposes of computation in the following table :—

Number of children of school age :—

New South Wales	266,100
Victoria	244,300
Queensland	86,200
South Australia	81,900
Western Australia	10,200
Tasmania	36,000
New Zealand	162,900
	887,600
Australasia	887,600

Against the above total the gross enrolment of scholars, at ^{Enrolment of Scholars.} both State and private schools at the same period was :—

New South Wales	237,853
Victoria	290,278
Queensland	83,463
South Australia	60,059
Western Australia	5,014
Tasmania	22,576
New Zealand	133,655
	832,898
Australasia	832,898

AVERAGE DAILY ATTENDANCE.

A comparison of the two tables above shows that while in Victoria the number of scholars enrolled actually exceeds the number of children from 5 to 15 years of age by 46,000, and while in Queensland there is a deficiency of only 2,700, there is room for improvement in the other colonies. In New South Wales the number of children not enrolled at any school is 28,200, in South Australia 21,800, in Western Australia 5,200, in Tasmania 13,400, and in New Zealand 29,200. For the whole of Australasia there is thus a number of 54,700 children between 5 and 15, amounting to 6·2 per cent. of the total population of that age, which are either taught at home or receive no education at all.

Private and
Denominational
Schools.

Out of the total gross enrolment of 832,898 children, as just given, 702,837 were enrolled in schools under the control of the Governments of the various colonies, and 130,061 were on the rolls of private and denominational schools.

Average daily
Attendance.

The average daily attendance at the State schools of all the colonies was 426,924, or 60·7 per cent. of the gross enrolment. Calculated on the same percentage, the average attendance at the various private schools would amount to 79,003, and that of all schools to 505,927. Compared with the total population of each Colony, the proportion of children enrolled was as follows :—

Colony.	Enrolment per cent. of population.
New South Wales	21·6
Victoria	25·9
Queensland	21·5
South Australia	18·9
Western Australia	10·6
Tasmania	15·7
New Zealand ..	21·5
Australasia	22·3

This shows a school enrolment in Australasia of about two to every nine inhabitants—a proportion as favourable as that of any European country.

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.

1861	130,060
1871	312,130
1881	670,776
1890	832,898

Population from 1861 to 1890 nearly trebled itself, but the number of school children in 1890 was about six and a half times as great as in 1861.

In the State Schools of New South Wales the cost per child was until 1888 higher than in the other Australian Colonies ; the figures for the two last years, however, show that that Colony has now reduced its expenditure per child below that of Victoria and Queensland. The following figures do not include cost of buildings :—

	Total cost per child of the average attendance.		
	£	s.	d.
New South Wales	4	2	8
Victoria	5	8	2
Queensland	4	8	2
South Australia	3	6	5
Western Australia.....	3	19	10
Tasmania.....	3	9	2
New Zealand	3	14	3

The cost per child in average attendance at State Schools in Anstralasia therefore averaged £4 7s. 11d. for the year 1890.

PRIVATE SCHOOLS.

The following table shows the State expenditure on primary education for 1890, school fees received, and cost of buildings:—

Colony.	Administration and Maintenance of Schools.	Fees Received.	Net Expenditure, exclusive of Buildings, &c.	Expenditure on Buildings, &c.
	£	£	£	£
New South Wales...	553,819	71,827	481,992	150,441
Victoria	*723,284	.....	723,284	112,309
Queensland	180,033	.....	180,033	†39,057
South Australia.....	116,120	†24,641	91,479	15,997
Western Australia...	11,494	1,377	10,117	.....
Tasmania.....	40,596	9,826	30,770	10,876
New Zealand	358,717	.....	358,717	39,225
Australasia	1,984,063	107,671	1,876,392	367,899

* 30th June, 1891. † £3,397 was collected locally in aid of this. ‡ Of which amount £13,413 was collected by teachers, and retained as part of salaries.

Number of Private Schools.

The number of schools, and of scholars enrolled in private schools, in 1890, was as follows:—

Private Schools.

Colony.	Number of Schools.	Number of Teachers.	Gross Enrolment of Scholars.	
			Number.	Percentage to Population.
New South Wales.....	697	2,393	42,612	3·9
Victoria	789	2,037	40,181	3·6
Queensland.....	136	499	10,188	2·6
South Australia.....	363	881	15,255	4·8
Western Australia	19	43	1,662	3·5
Tasmania.....	101	*.....	4,420	3·1
New Zealand	320	883	15,743	2·5
Australasia	2,425	†6,736	130,061	3·5

* Information not available. † Exclusive of Tasmania.

Technical instruction is given in nearly all 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. So far the expenditure on this important branch of education can only be got for the colonies enumerated below, which was in 1890 :—

	£
New South Wales	25,439*
Victoria.....	38,613
Queensland	1,232
Tasmania	1,684

* In addition to this amount, £2,902 was collected as fees from students, which sum was retained by the lecturers.

In New South Wales, during the year 1878, a sum of £2,000 was granted by Parliament towards the organization of a Technical College, and for five years the work of the institution was carried on in connection with the School of Arts. In 1883, however, a board was appointed by the Government to take over its management, and the Technical College became thenceforth a State institution. Towards the end of 1889 the Board was dissolved, and the Technical College came under the direct control of the Minister of Public Instruction.

The college is open to students of each sex, and, during 1890, 383 female students attended for at least one term. The number of individual students in 1890 averaged 2,822 persons. The average enrolment per term was 1,686.

Branch technical schools have also been established in the suburbs, and in the northern, southern, and western districts of the Colony. In 1890 these country classes had an average of 2,126 students enrolled.

The Government have erected a new building for the technical college and technological museum at Ultimo, in the western portion of the metropolis.

Cost of technical education.

In 1890 the expenditure of the Board of Technical Education amounted to £25,439, and, in addition to this, the sum of £2,902 was contributed by the students as fees. The Parliamentary vote for the year was £29,850.

Technical education in Victoria.

Technical education in Victoria is extending rapidly, but while the Government of New South Wales has wholly borne the cost of this class of education, that of Victoria has received great assistance from private munificence, the Hon. F. Ormond, M.L.C., having given £15,500 to assist in the establishment of a Working Men's College. There are now over 2,000 students on the rolls of this institution. There are besides this college, the Schools of Mines and Design, wholly supported by the Government, and other technical schools in the various important centres of the Colony.

South Australia and Queensland.

Technical Education has well advanced in South Australia. The School of Mines and Industries has, in Adelaide, about 100 students on the roll, and a branch school has been established at the important mining centre of Moonta. Also in Queensland Technical Education is active; the classes are worked in conjunction with the Metropolitan School of Arts, the number of students on the rolls being nearly 600.

Technical schools in Tasmania.

In Tasmania the foundations of new Technical Schools were laid in 1889 in Hobart, but there are branch schools in Launceston. The schools are under the direction of local Boards of Advice, the members of whom act directly under the Minister in charge of Education. The number of students in 1890 was 250, with an average attendance of 150.

Western Australia and New Zealand have not extended their educational operations so as to embrace Technical Education.

Education as shown by marriage registers.

The Marriage Register affords further proof of the advance of education, and it has the further advantage of giving annual data, while the Census figures are only available for decennial periods. The numbers of those who signed the Marriage Register by marks were :—

Marriages, Australasia.

	1861.		1871.			1881.			1890.			Marriage Register signed with marks.	
	Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.		Marriages.	Marks.		
		M.	F.		M.	F.		M.	F.		M.		F.
New South Wales	3,222	596	989	3,953	573	768	6,284	347	525	7,876	218	208	
Victoria	4,434	*	*	4,693	342	650	5,896	171	245	9,187	138	141	
Queensland	320	*	*	970	o	*	1,703	84	169	3,195	94	115	
South Australia...	1,158	*	*	1,250	*	*	2,308	100	159	2,235	47	55	
Western Australia	149	*	*	159	*	*	197	*	*	278	*	*	
Tasmania	717	*	*	598	*	*	856	*	o	955	*	*	
New Zealand	878	*	*	1,864	*	o	3,279	105	190	3,797	62	73	
	10,878			13,487			20,523	807	1288	27,523	559	592	

* Information not available.

The percentages for those Colonies where the necessary information is available is worked out in the following table :—

Percentages of Mark Signatures.

Year.	Males.	Females.	Total.
1861	18.50	30.69	24.60
1871	10.58	16.40	13.49
1881	4.14	6.61	5.38
1890	2.13	2.25	2.19

The percentage in 1890 was therefore less than one-tenth of that in 1861, and there is every reason to expect that in the course of another few years the proportion will be still further diminished.

Percentages of mark signatures.
Spread of education shown by Postal Returns.

LETTERS AND NEWSPAPERS.

The Post Office returns of the various Colonies point indirectly to the spread of education, through showing the wonderful increase in the distribution of letters and newspapers that has taken place. The following table shows that while in 1851 only 2,165,000 letters and 2,150,000 newspapers passed through the Post Offices, these numbers had in 1890 increased to 172,596,000 and 96,309,000 respectively. The figures for 1890 in regard to letters and newspapers differ from those on page 184, allowance having been made for intercolonial postage counted by both the receiving and the despatching colonies :—

Australasia.

	Letters.	Newspapers.
1851	2,165,000	2,150,000
1861	14,801,000	11,640,000
1871	32,122,000	18,354,000
1881	85,483,000	47,611,000
1890	172,596,000	96,309,000

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	4·7	4·7
1861	11·8	9·3
1871	16·6	9·5
1881	30·9	17·2
1890	46·2	25·8

In 1890 the number of letters per inhabitant was, therefore, nearly ten times, and that of newspapers five and a half times, larger than in 1851.

PUBLIC LIBRARIES.

Public Libraries. In all the Colonies Public Libraries have been established, those in the capital cities generally going by the name of "The Public Library," while those in the country towns are known as Schools of Art, Mechanics' Institutes, &c. The Free Public Libraries in Melbourne and Sydney are splendid institutions, the former comparing favourably with many of the libraries in

European capitals. The following table shows the number of libraries which furnished returns, and the number of books belonging to them in the latest years for which returns have been furnished :—

	No. of Libraries.	No. of Books.
New South Wales.....	199	320,856
Victoria	379	688,650
Queensland.....	81	106,339
South Australia.....	134	149,470
Tasmania	38	67,390
New Zealand.....	303	292,108
Total of six Colonies	1,134	1,624,813

UNIVERSITIES AND COLLEGES.

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. 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.

The Government Endowment and Lecture Fees received by the Sydney and Adelaide Universities in 1890, and by the Melbourne University in 1889, were as follows :—

	Government Endowment.	Lecture Fees.
Sydney	£18,634	£5,365
Melbourne	16,500	14,983
Adelaide	3,182	3,348

In addition to the above annual endowment the Adelaide University has received a perpetual endowment of 50,000 acres of land from Government.

The number of students attending lectures in 1890 (Melbourne in 1889) is shown in the figures herewith :—

University.	Students attending Lectures.		
	Matriculated.	Not Matriculated.	Total.
Sydney	301	555	856
Melbourne	534	3	537
Adelaide	122	167	289
New Zealand (Affiliated Colleges)	355	251	606
Total	1,312	976	2,288

Affiliated
Colleges.

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, which is the seat of the Senate, 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.

Degrees.

The Australasian Universities are empowered to grant the same degrees as the British Universities, with the exception of degrees in Divinity. In all the Universities women have now been admitted to the corporate privileges extended to male students; and at the Sydney, Melbourne, and Adelaide Universities this includes qualifying for degrees in medicine.

The number of degrees, including *ad eundem* degrees, conferred by those Universities of which returns have been made are as follows :—

Sydney	859
Melbourne (to 1889).....	572
New Zealand.....	395

and there are upwards of 1,300 students qualifying for degrees at the present time.

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 period 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 alterations 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 sixty-seven members, though there is no limit fixed, and the Assembly 141. The tenure of a seat in the Council is for life. The only qualification required of members is that they shall be 21 years of age, and natural-born or naturalized subjects. The qualification for a member of the Assembly is the same as that for the Council in the main. Members of this body receive £300 a year, in

First Parliament
under Respon-
sible Govern-
ment.

addition to free railway passes, but members of the Council are unpaid. The duration of the Assembly is limited to three years. Manhood suffrage prevails, the only condition being six months' residence before the rolls are compiled.

The example and influence of New South Wales has not been Victoria. 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-eight members in the Council, and ninety-five in the Assembly. Members of the Council must be of the full age of 30 years, and for one year previous to the election must have possessed a freehold estate to the value of £100 per annum, free of encumbrance. The tenure of office is six years. Electors must possess a £10 freehold, or a leasehold of £25, or be mortgagors in possession of property rated not less than £10 per year. Graduates, legal and medical practitioners, ministers, certified school-masters, military and naval officers, and matriculated students are entitled to the franchise. Members of the Assembly must be 21 years of age, natural-born or naturalised subjects, and resident in the Colony for two years. The re-imbusement is £300 per annum. Three years is the limit of the duration of a Parliament. The suffrage is practically manhood, with a residence of twelve months.

Tasmania, on its separation from New South Wales, at the end Tasmania. 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. The Council consists of eighteen members, who hold office for six years. They must be 30 years of age, and natural-born or naturalised subjects; their remuneration is £100 per annum. The electors must possess a property qualification of £20 per annum freehold, or £80 leasehold, in addition to which there are professional and educational qualifications, coupled with a condition of residence. There are thirty-six members of the Assembly, whose qualification is the same as that for the Council, except that the minimum age is 21. The duration of the Assembly is limited to five years, and members receive £100 per annum.

South Australia. 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 twenty-four members and a House of Assembly of fifty-four. Both Houses are elected by the people. Eight members of the Council retire every three years, but are eligible for re-election. Members are not required to have a property qualification, but must have resided in the province for three years. Electors must have a freehold of £50, a leasehold of £20 annual value, or be an occupier of a dwelling of the clear annual value of £25, and must have been registered six months prior to the election. Members receive £200 a year. Members of the Assembly, as well as electors, are qualified by being 21 years of age, and enrolled for six months before the election. Members of the Lower House also receive £200 per annum. The duration of Parliament is limited to three years.

Queensland. 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 its first Parliament opened on 29 May, 1860. Its Legislative Council consists of members, nominated by the Governor. There are forty at present, but there is no limit fixed to the number. The tenure is for life. The qualification for members is that they must be 21 years of age, and natural-born or naturalised subjects. They receive no remuneration. The Legislative Assembly, of which there are seventy-two members, is elected by the people. Electors for the Assembly are enrolled under what is practically manhood suffrage, the only condition being six months' residence. Any person on the Electoral Rolls is qualified to be a member. The duration of Parliament is limited to three years, and members of the Assembly receive £300 a year.

In New Zealand, as in the other Colonies, the form of govern- New Zealand. ment in the early days was of a mixed description, but in the year 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, which was proclaimed a British Colony on Western
Australia. 1 June, 1829, was the last of the group to enjoy 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 continued until the end of 1890, when the new Constitution came into existence. Under it there are two houses of Legislature; the Upper House consists of fifteen nominated members, and the Lower House of thirty members, representing the thirty electorates into which the Colony is divided. For members of the Council no property qualification is required, but members of the Assembly must possess freehold estate to the value of £250, free of encumbrance, and electors for that body must have possessed freehold to the value of £100, leasehold to the value of £10 per annum, or must have occupied a house or lodgings rented at that amount, for six months prior to registration. In six years from the first summoning of Parliament, or when the population of the Colony reaches 60,000, the Legislative Council is to become elective, with a property qualification for members the same as that of the Assembly, while electors must be £200 freeholders, or £30 lease or householders. There is no payment of members in Western Australia. The first Premier is the Hon. John Forrest, and the first Representative Parliament is now engaged in its legislative labours.

LAND AND SETTLEMENT.

THE systems adopted for a settlement of Crown lands differ in every Colony, and the conditions for acquiring land are of a more or less liberal nature according to the circumstances in which each province is placed. In Victoria, Queensland, and Tasmania, which are the offshoots of the mother Colony of New South Wales, the land systems bear a considerable resemblance, the differences being rather of degree than principle; various designations being given to what are practically the same forms of conditional occupation of Crown lands under the deferred payment system. In South Australia, Western Australia, and New Zealand, however, the influence of the mother Colony was not so directly felt, and new experiments in colonisation were made. South Australia, for instance, was originally settled upon the Wakefield system—famous alike for its originality and its failure. In the other two colonies, under pressure of a different order of conditions, the objects of colonisation were sought to be obtained by legislation of a novel character.

Diversity of land legislation.

The Wakefield system.

The following pages are devoted to a description, in as concise a form as the subject will allow, of the systems of land legislation in the Seven Colonies of Australasia, and summaries are given, from the latest available data, of the results obtained under the various methods, from a practical point of view.

LAND LEGISLATION IN NEW SOUTH WALES.

The systems adopted for the settlement of an industrial population on the lands of New South Wales have varied according to the Colony's progress and development. In the earliest period land was alienated by grants, orders, and dedications, the power

Various systems of land alienation in New South Wales.

of disposing of the Crown lands resting solely with the Governor. In August, 1831, the principle of sale by auction was introduced, the minimum for country lands being fixed at 5s. per acre, but raised to 12s. in 1839. In 1843 the minimum was raised to 20s. per acre, with liberty to select at the upset price country portions not bid for, or on which the deposits had been forfeited. This is the first appearance of the principle of selection in the land legislation of New South Wales, but it was limited to lands that had been surveyed for sale by auction. This system lasted until the introduction of new legislation by the Parliament of New South Wales, and the abrogation of the Orders in Council which had hitherto constituted the authority under which land was alienated.

Land Act of
1861.

The discovery of gold in 1851, and the consequent rush of population to Australia, greatly altered the conditions of colonisation, and as the interest in gold-digging declined, so did the desire for settlement on the land increase, and the question had to be dealt with in an entirely new spirit, to meet the wants of the class of immigrants now desirous of being placed upon the soil. The agitation that thus sprang up resulted in the passing of the Crown Lands Act of 1861, under the leadership of Sir John Robertson. This measure had for its object the establishment of an industrial population side by side with the pastoral tenants. With this view an entirely new principle was introduced—that of free selection in limited areas before survey, coupled with conditions of residence and improvement, and the land was sold at 20s. per acre for country lots, payable by annual instalments carrying interest.

Pastoral
occupation.

The occupation of the waste lands of New South Wales for pastoral purposes was at first allowed under a system of yearly licenses. Any person could apply for such a license to occupy runs, the extent of which was limited only by the boundaries of the surrounding stations, the license fee being fixed at £10 per annum for a section of 25 square miles, or 16,000 acres in extent, £2 10s. being charged for every additional 5 square miles. This

system of yearly licenses was succeeded by one in which the squatter was given fixity of tenure, with a license fee calculated upon the stock-carrying capacity of the runs, instead of the extent of land occupied. The Occupation Act of 1861 inaugurated a new system, limiting the tenure of pastoral leases to five years in all but the first-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. Such evils were found to result from this system that in 1884, and again in 1889, Parliament was led to adopt amendments which are now in force, and the provisions of which, as regards pastoral occupation, are described further on. The Acts mentioned, while maintaining the principle of selection before survey, aimed at giving fixity of tenure to the pastoral lessees, and obtaining a larger rental from the public lands, while at the same time a restriction was placed on the sale of lands unconditionally.

Occupation Act
of 1861.

The Amending
Acts of 1884
and 1889.

Free Selection
before survey.

Under these measures the whole Colony is subdivided into three divisions, each subdivided into various land districts, one or more such districts forming local divisions, the administration of which is entrusted to a Local Land Board, composed of a chairman and not more than two assessors. The decisions of these Local Land Boards may be appealed against to the Land Court. The composition of the Land Court involved one of the principal innovations introduced in the land legislation of the Colony by the Act of 1889.

Territorial
divisions.

This Court is composed of a President and two members appointed by the Executive, whose decisions in matters of administration have the force of judgments of the Supreme Court; but whenever questions of law become involved, a case may be submitted to the Supreme Court, either upon the written request of the parties interested, or by the Land Court acting of its own accord. The judgments given on this appeal are final and conclusive. Under the enactments at present in force, land may be acquired by the following methods:—1st. By conditional and additional conditional purchases with residence. 2nd. By

Land Court.

conditional purchase without residence. 3rd. By the preferent right of purchase attached to conditional leases. 4th. By improvements purchases in gold-fields. 5th. By auction sales. 6th. By special sales without competition.

The maximum area allowed to be conditionally purchased by a selector differs in the Eastern and Central Divisions of the Colony, and in the Western Division land can be occupied only in the form of a lease, or alienated by auction or special sale as further described.

Conditional purchases.

The conditions for the purchase and occupation of Crown lands are more restricted in the Eastern than in the Central and Western Divisions. Nevertheless, any person above the age of 16 years may, upon any part of the Crown lands not specially exempt, select an area of from 40 to 640 acres, together with a lease of contiguous land not exceeding thrice the area of the conditional purchase. The price demanded is £1 per acre, of which 2s. per acre must be deposited when making the application, and the balance paid, together with interest at the rate of 4 per cent., by instalments of 1s. per acre per annum. Payment of instalments commences at the end of the third year, after which the whole of the balance may be paid in one sum at the selector's option. The selector must reside on his selection for a period of five years, and within two years must erect a substantial fence around his selection, though in some cases other permanent improvements will be allowed in lieu of fencing. After the completion of the term of residence the selector may purchase additional areas, contiguous to the original purchase, or he may purchase his conditional leasehold if he should have one. With regard to additional purchases fencing is required, but residence is not enforced. Married women judicially separated may select in their own right, and minors taking up lands adjoining the selection of their parents may fulfil the condition of residence under the paternal roof.

Residence and improvements.

Conditional leaseholds.

Conditional leaseholds, in conjunction with a selection, may be held for fifteen years at a rental fixed by the Land Board. These

leaseholds must be fenced within two years, one fence, however, being allowed to enclose both the conditional purchase and the lease. Conditional leases may at any time be converted into purchases, and the term of residence on both need not exceed five years from the date of application.

Land may be selected free from conditions as to residence, but the maximum area is limited to 320 acres, and no conditional lease is granted. The selection must be fenced in within twelve months after survey, and within five years additional improvements must be made to the value of £1 per acre. The price demanded is £2 per acre, and the deposits and instalments are double those in connection with an ordinary conditional purchase. No person under 21 can take advantage of this clause, and no non-residential selector is allowed to make any other conditional purchase whatever under the Act. Non-residential selections.

Special areas may be thrown open to selection under special conditions, the price not to be less than £1 10s. per acre, and the maximum area 320 acres. Non-resident selectors are charged double the rate paid by those who do reside. Special areas.

In the Central Division land may be conditionally purchased under the same terms as to residence, fencing, improvements, price, and mode of payment as required in the Eastern Division; but the limit of an individual selection has been fixed at 2,560 acres, with a corresponding increase of the conditional lease to three times that area. The acreage which may be purchased without residence, as well as the conditions in regard thereto, are the same for the Central as for the Eastern Division. In special areas the maximum extent of a selection has been fixed at 640 acres in the Central Division. Central Division.
Limit of area, and other conditions.

The Western Division embraces an area of 79,970,000 acres, watered entirely by the Darling River. This part of New South Wales is essentially devoted to pastoral pursuits. Conditional purchases, except on special areas, are not allowed in this division,

Homestead
leases.

but permanent pastoral settlement is encouraged in the form of homestead leases. Homestead leases for fifteen years may be granted within the resumed areas or vacant land in the Western Division, in areas of not less than 2,560 acres nor more than 10,240 acres. A deposit of 1d. per acre must be paid with the application, and the lessee is required to reside upon his lease for six months out of each of the first five years of his lease. The whole area must be fenced within two years, except the Land Board allow other improvements to be erected instead. An extension of the lease for seven years may be granted, provided that the carrying capacity of the land has been improved, and the land benefited. At the end of the final term, the lease may be put up to auction or tender, without compensation for improvements to the outgoing tenant. A new incoming tenant will, however, have to pay the Government for existing improvements at a valuation. Holders of pastoral leases may not also hold a homestead lease, and no person may hold more than one such lease.

Pastoral leases.

Under the Act of 1884 pastoral leases were surrendered to the Crown, and divided into two equal parts. One of these parts was returned to the lessee under an indefeasible lease for a fixed term of years, while the other half, called the resumed area, might be held under an annual occupation license, but was always open to selection—by conditional purchase in the Eastern and Central Divisions, and by homestead leases in the Western Division. Under the Act of 1889, the tenure of pastoral leases in the Western Division was fixed at twenty-one years, with a fresh assessment every seven years, and the right of extension at the end of seven years if the land has been improved in a satisfactory manner. In the Central Division, a pastoral lease extends to ten years, and in the Eastern Division to five years only. All improvements revert to the Crown at the end of the lease, without compensation. Pastoral lessees, in applying for an occupation license for the resumed area, must make a deposit at the rate of £2 per section of 640 acres.

In addition to the pastoral and homestead leases, special leases ^{Miscellaneous leases.} on favourable terms are granted of scrub lands, snow lands—that is, lands covered with snow during a part of the year,—inferior lands, and portions of land required for the protection of artesian wells. There are also annual leases for pastoral purposes, and residential leases on gold and mineral fields. Auction sales ^{Auction sales} to the extent of not more than 200,000 acres in any one year, are permitted, the upset price to be fixed by the Minister—town lands not to be less than £8 per acre, while the minimum for suburban lots is fixed at £2 10s., and for country lands at £1. Special terms can be made for the purchase of land on gold-fields, and for reclaimed lands,—and special leases are allowed in certain cases.

LAND LEGISLATION OF VICTORIA.

During the earlier period of the colonisation of Victoria, then ^{Early land legislation in Victoria.} known as the District of Port Phillip, in the Colony of New South Wales, the alienation of Crown lands was regulated by the Orders in Council already referred to. In the year 1840, however, the upset price of country lands, which in the whole possession was limited to 12s. per acre, was increased to 20s. in the District of Port Phillip alone. The regime of Orders in Council continued until 1860, when the system of free selection ^{Free selection.} of surveyed country lands was inaugurated, the uniform upset price being fixed at £1 per acre. No conditions were required to be fulfilled by the selector other than either a cash payment for the whole of his purchase, or for one half only, the remaining area being occupied under a yearly rental of 1s. per acre, with right of purchase at the original rate per acre. In 1862 a new Act ^{Act of 1862.} was passed. Large agricultural areas were proclaimed, within which land could be selected at the uniform price of £1 per acre. Modifications were also introduced in the mode of payment, the maximum area allowed to be selected by one person being limited to 640 acres, with conditions as regards improvements or cultivation. This Act was amended in 1865, when the principle was ^{Act of 1865.}

introduced of disposing of Crown lands within agricultural areas by means of leases, with right of purchase after the fulfilment of certain conditions as to residence and improvements. A new clause was added to meet the demand arising from the occupation of land adjacent to gold-fields. These Acts were, however, superseded by the Land Act of 1869 and the Pastoral Act of the same year. Hitherto the free selection system had, in Victoria, been limited to certain lands proclaimed within agricultural areas, and to allotments previously surveyed, thus avoiding the conflict which was then beginning to take place in New South Wales between the selector and the pastoralist. Under pressure of a sudden increase in the demand for land, arising from the enormous immigration into Victoria which had followed the discovery of gold, and the necessity for the people of finding other means of employment and other and more permanent sources of income, the Victorian Legislature adopted the system in vogue in the neighbouring colony with modifications to suit the local conditions. The Act of 1869 was amended in 1878, both these Acts expiring by effluxion of time in 1884, when a new Land Act was passed, the main tendency of which was to restrict the further alienation of the public estate by limiting the extent which might be sold by auction, and substituting for the existing method of selecting agricultural land a system of leasing such lands in certain defined areas, at the same time conserving to the lessee the privilege of acquiring from his leasehold the fee simple of 320 acres under the system of deferred payments.

Act of 1884.

The Mallee
Scrub.

A portion of the Crown Domain, known as the "Mallee Scrub," comprising some $11\frac{1}{2}$ million acres, wholly or partly covered with various species of stunted trees, was separately dealt with under a statute entitled the "Mallee Pastoral Leases Act of 1883." The land legislation of 1884, and the special enactment just referred to, have again been modified recently by the "Land Act of 1890," the following being the conditions under which agricultural lands may now be acquired, and the pastoral and Mallee scrub lands be leased in the Colony of Victoria.

The whole of the unalienated lands belonging to the Crown are divided into the following classes :—Pastoral Lands, Agricultural and Grazing Lands, Auriferous Lands, Lands which may be sold by auction, Swamp Lands, State Forests, Timber and Water Reserves. Classification of lands.

Pastoral lands cannot be alienated in fee, but can only be obtained by lease, such lease to expire not later than December 29, 1898, no lessee to hold more than one allotment. The lease is granted to the first applicant, but should more than one person apply on the same day, the lease is put up to auction. If no bid is offered the lease may be sub-divided, and so put up to sale. The rent is computed at the rate of 1s. per head of sheep, and 5s. per head of cattle, the number of such sheep and cattle being determined by the grazing capabilities of the land upon a basis of not more than 10 acres to a sheep, and the equivalent number of acres per head of cattle. Pastoral leases.

A pastoral lessee must pay half the rent in advance every six months; he cannot assign, sub-divide, or sub-let the lease; he must destroy all vermin and noxious growths, keep in good condition and repair all fences, tanks, dams, and other improvements, and must not destroy or ring timber, except for fencing purposes. The incoming tenant pays the outgoing one for all permanent improvements he has effected. Upon complying with all the conditions, the lessee may select 320 acres in one block for a homestead at £1 per acre. Conditions of a pastoral lease.

Agricultural and grazing lands are to be leased in "grazing areas," not to exceed 1,000 acres for any term of not more than fourteen years, at the end of the term the land to revert to the Crown, improvements to be allowed for at a valuation. The lessee may select out of his leased land an "agricultural allotment," not exceeding 320 acres in extent, or should he have selected under previous Acts he may increase his grazing area to 1,000 acres, and his agricultural allotment to 320 acres. The rent is Agricultural allotments and grazing areas.

Rent and conditions.

fixed at from 2d. to 4d. per acre for agricultural areas, on an assessment by the Local Board, with the addition of 5 per cent. on the assessed capital value of any permanent improvements that may be on the land. The area of an agricultural allotment is excised from the grazing lease, and a license to occupy such allotment is granted to the selector. The holder of a grazing lease is subject to the same conditions as the pastoral lessee, but has to enclose his land with a substantial fence within three years.

Conditions of license.

The license is issued for an agricultural allotment for a period of six years, at a yearly rental of 1s. per acre per annum, payable half-yearly in advance, and is not transferable. The licensee must destroy all vermin, and within six years must enclose his land, and effect improvements to the value of £1 per acre. He is also required to reside for five years. When these conditions are complied with, he may receive a Crown grant upon payment of 14s. per acre, or he can obtain a lease for fourteen years at 1s. per acre per annum, and at the end of the term he will receive his Crown grant.

Non-residential licenses.

Non-residential licenses are granted upon payment of double the ordinary license fee and other charges, but the area to be granted under non-residential licenses must not exceed 50,000 acres for the whole colony during any one year. For the purpose of enabling selectors to establish and cultivate hop-gardens, vineyards, or orchards, they may obtain a grant of part of their allotments not exceeding 20 acres, when so planted, upon payment of the difference between the amount of rent actually paid and the amount of purchase money.

Vineyard and orchards.

Auriferous lands.

Licenses to reside on or cultivate lands comprised within an auriferous area may be granted for a period not exceeding one year, the area not to exceed 20 acres. Land classified as auriferous cannot be alienated, but grazing licenses for such lands may be issued for a period of five years, subject to the right of any person to enter upon the land for the purpose of mining.

Lands comprised within certain areas notified in a schedule Auction sales. attached to the Act and lands within proclaimed towns or townships or within any city, town, or borough, proclaimed before the passing of the Lands Act of 1884, may be sold at auction, the upset price for country lands being £1 per acre, the maximum area not exceeding 1,000 acres, payment being at the rate of 25 per cent. cash, and the balance in twelve equal instalments at the end of every succeeding quarter.

The Act contains also provisions for the alienation of certain Swamp lands. lands designated as "swamp lands," subject to conditions as to their drainage.

Land situated within the State forests, and timber and water Forests and reserves. reserves, cannot be alienated, and the administration of the Forests Domain of the Crown is placed in the hands of local Forest Boards empowered to recover fees for licenses to cut or remove timber.

Leases for special purposes may also be obtained under the Special leases. provisions of this Act, which also provides for the administration of common lands, and miscellaneous matters incidental to land.

Lands situated in the north-western district of Victoria, over Mallee Pastoral Act. which the mallee scrub extends, were before the year 1883 leased under the general provisions for the occupation of pastoral lands, but they were subsequently made the subject of a special enactment designated as the "Mallee Pastoral Act of 1883," amended in 1885 and partly recast under the present Land Act of 1890. Under this special legislation the mallee country is divided into two parts, the mallee border extending along the southern margin of the mallee country, and the mallee blocks situated to the north of the border extending to the banks of the Murray River. In the mallee border the land is parcelled out in divisions of various areas designated as "mallee allotments," the maximum area of Mallee allotment. which must not exceed 20,000 acres. These allotments may

be leased for terms, which shall expire not later than the 1st December, 1903, the annual rent being from 10s. to 40s. per square mile.

Mallee blocks.

The "mallee blocks" are also of various areas, one portion of which can be held under a license to occupy for a period of five years, the other being leased for terms not to exceed twenty years from the passing of the Act on 1st December, 1883, at the rate of 2d. per head of sheep and 1s. per head of cattle for the first five years, double these amounts for the second period of five years, and 50 per cent. over the last figures for the remainder of the term. The annual rent is computed at the rate of 2d. per head of sheep, and 1s. per head of cattle depasturing thereon, but in no case must the yearly rent be less than 2s. 6d. for each square mile, or part of a square mile, of land.

Conditions of mallee leases.

The occupier or lessee of any part of a mallee block, or a mallee allotment, undertakes to pay the annual rent reserved in moieties; not to assign, subdivide, or cultivate any part of the same without the consent of the Board of Lands and Works; to destroy the vermin upon his block, and to fulfil certain other conditions; the Government retaining the right of resuming the land after giving due notice, compensation for improvements effected being given on assessment.

Vermin districts.

The Land Act also deals with districts described as "vermin districts," proclaimed as such by the Governor, the administration of which, for the special purpose of destroying vermin, is vested in local committees appointed by owners, lessees, and occupiers of the lands situated within such districts. For the purpose of erecting vermin-proof wire-fencing in certain districts a fencing rate may also be levied, the Minister also having power to deduct 5 per cent. of the amount levied in vermin districts for the purpose of paying for the erection of a vermin-proof fence between the mallee country and the mallee border.

LAND LEGISLATION OF QUEENSLAND.

The land legislation of New South Wales in force on the date when the Moreton Bay District was formed into the Colony of Queensland, gave place soon after that event to a new system of settlement, better adapted to the requirements of the newly constituted Colony. Following, to a certain extent, upon the lines adopted by their neighbours, the legislators introduced in their regulations the principle of free selection before survey, and that of sales under the deferred payment system. Having a vast territory to dispose of, which did not, however, offer the same attractions as the southern provinces did, not being endowed with so temperate a climate, the Queensland Legislature considered it necessary to exercise great liberality in offering its land in lots of a greater area, and at a smaller price per acre, than were required from settlers in the other Colonies. Most liberal were also the provisions enacted to facilitate the exploration and occupation for pastoral purposes of the huge and almost unknown territory which they possessed, and the Pastoral Act of 1869 led to the occupation by an energetic race of pioneers of nearly the whole of the waste lands of the province. The rapid development of its resources, and the consequent increase of population, necessitated, later on, a revision of the conditions under which land may be either alienated or occupied, but although the tendency has been to curtail the privileges of the pastoralists, the alienation of the public estate by selection—conditional and unconditional—has been placed under enactments of a still more liberal character than existed in the earlier days. Under pressure of the new social movement, Queensland has followed in the wake of New Zealand and South Australia and granted to the working classes great facilities for acquiring possession of the soil. The regulations at present in force are based upon the legislation enacted under the Crown Lands Act of 1884, and its subsequent amendments in 1886, 1889, and 1891.

Methods of
acquiring land.

Land may be acquired in the following manner:—By conditional selection: agricultural farms up to 160 acres, price 2s. 6d. per acre, payable in five years at the rate of 6d. per acre per annum, personal residence; agricultural farms up to 1,280 acres, at from 15s. per acre, payable in five years, or a fifty years' lease at from 3d. upwards per acre per annum, residence, personal or by agent; by unconditional selection, at from 20s. per acre, payable in twenty annual instalments; by grazing farm selection, up to 20,000 acres, thirty years' lease at from $\frac{3}{4}$ d. upwards per acre per annum; by purchase at auction, agricultural land, upset price from 20s. per acre; grazing land, upset price from 10s. per acre, payments spread over three years, without interest in the case of agricultural land, and with 5 per cent. added in the case of grazing land, when instalments are paid later than six months from date of sale.

Land Divisions.

The Colony is, as far as is necessary, divided into Land Agents' Districts, in each of which there is a Public Lands Office and Government Land Agent, with whom applications for farms must be lodged. Applications for farms must be made in the prescribed form, and be signed by the applicant, but may be lodged in the Land Office by his duly authorised attorney. There is connected with the Survey Department, in Brisbane, an office for the exhibition and sale of maps, and there full information respecting lands available for selection throughout the Colony can be obtained on personal application. Plans can also be obtained at the District Offices.

The conditions under which country lands may be acquired for settlement by persons of either sex over eighteen years of age—married women excepted—are substantially as follows:—Surveyed areas of land are made available for selection as grazing farms over a great extent of Queensland territory within accessible distance of the seaboard. In these areas intending settlers can obtain grazing farms of areas up to 20,000 acres on lease for a term of thirty years at an annual rent varying according

to the quality of the land, three farthings an acre being the minimum. This rent is subject to reassessment by the Land Board after the first ten years, and subsequently at intervals of five years, but the rent cannot be increased at any reassessment to more than 50 per cent. above that for the period immediately preceding. The applicant first obtains a license to occupy, which is personal to the applicant and is not transferable, but may be exchanged for a lease for the balance of the term of thirty years as soon as the farm is enclosed with a substantial fence, which must be done within three years. This lease may be transferred or mortgaged, or the farm may be subdivided, or, with the consent of the Land Board, be sub-let. The land must be continuously occupied by the lessee or his agent for the whole term of the lease, and cannot be made freehold. The cost of survey, ranging from something like £30 for a farm of 2,560 acres to about £65 for a farm of 20,000—subject to increase or decrease according to locality—must be paid with a year's rent when the farm is applied for.

The more accessible lands near lines of railway, centres of population, and navigable waters, are set apart for agricultural farm selection in areas up to 1,280 acres. In the case of these farms the period of license is five years, during which the selector must fence in the land, or expend an equivalent sum in other substantial improvements. As in the case of grazing farms, as soon as the improvement condition has been complied with a lease is issued; but in this case for a longer term—namely, fifty years from the date of the license, and with a right of purchase. The annual rent may range from three pence per acre upwards (seldom exceeding one shilling) according to the quality and situation of the land, its natural supply of water, &c., and is subject to periodical reassessment, as in the case of grazing farms. The selector must occupy the land continuously, either in person or by agent, for the whole term of the lease. The cost of survey, ranging from about £10 to £12 for a farm of 160 acres to from £20 to £40 for a farm of 1,280 acres, must be borne by the selector.

Terms for
obtaining free-
holds.

When an agricultural farm not exceeding 160 acres in area is occupied by the selector in person, the freehold can be secured on extremely liberal terms as regards money payments, five annual payments of six pence per acre being all the purchase money required, and the cost of survey also being payable in like instalments. The conditions attached to the granting of these liberal terms are the expenditure in improvements of a sum equal to ten shillings per acre, and the immediate continuous and *bona-fide* personal residence on the land of the selector for five years. With regard to agricultural farms exceeding 160 acres in area, where the condition of occupation has been performed for five years by the continuous and *bona-fide* personal residence of one lessee, or for ten years by successive lessees, the freehold may be secured on payment of the prescribed purchasing price. If the purchase is made within twelve years from the commencement of the term of the lease, the price will be that mentioned in the proclamation declaring the land available for selection (not to be less than fifteen shillings per acre); if after that period, the price will be increased in proportion to the increase of rent upon re-assessment. The rent reserved under the lease usually amounts to about two-and-a-half per cent. on the purchasing price, and all rent paid during the period of personal residence is counted as part of the purchase money.

Village
Settlement.

With regard to village settlement special provision is made by law for the settlement of little communities, so that settlers may live together in townships for mutual convenience on allotments not exceeding one acre in extent, and with farms of eighty acres in close proximity to their residences. The freehold of these farms may be secured generally on the same terms as above stated in regard to agricultural farms not exceeding 160 acres in area, with the additional privileges that residence on an allotment in the township is held equivalent to residence on the farm, and one-fifth of the required improvements may be made on the allotment.

Two or more selectors of agricultural farms not exceeding 80 acres each may associate for mutual assistance under license from the Land Board. A selector may perform conditions of residence for himself and any other member of the association, providing that at least one selector is in actual occupation for every 160 acres; and if more than 10s. per acre is spent on permanent improvements on any one farm, the surplus may be credited to any other farm or farms in the group. In other respects the conditions are the same as in the case of agricultural farms of 160 acres.

Associated agricultural farms.

Areas of land are also available for unconditional selection at prices ranging from £1 per acre upwards, payable in twenty annual instalments. As the term implies, no other conditions than the payment of the purchase money are attached to this mode of selection—the disqualifications imposed in the case of agricultural farms being also removed, with the exception of the restriction upon the area allowed to be selected. The cost of survey, on the same scale as for agricultural farms, must be deposited with the first instalment of purchase money at the time of application.

Unconditional selection.

To approved persons of European extraction, paying their own passages or those of members of their families in full to Queensland from Europe, the United States of America, or any British possession other than the Australasian Colonies, land orders are issued of the value of £20 sterling for each person of 12 years and upwards, and of £10 for each child between 1 and 12 years of age. These land orders are available for ten years from the date of issue, to their full nominal value, for use by the head of the family in payment of the rent of any agricultural or grazing farm, *but not an unconditional selection*, held by him, or they may be used by the members of the family severally—wife and children under 18 years of age, of course excepted—in payment of the rent of farms held by them respectively. Land orders are not transferable, and can only be used by residents in the Colony. They are therefore of no use to anyone who does not settle on the land

Land Order System.

and fulfil the conditions as above described. A single land order of the value of £20 will, of course, suffice for the payment of the whole purchase money of a farm of 160 acres under the personal residence conditions above described, and only the survey and deed fees will need to be paid in cash.

LAND LEGISLATION OF SOUTH AUSTRALIA.

Land question theories.

The foundation of the Colony of South Australia was in itself the outcome of an attempt to put into actual practice one of those remarkable theories of colonisation, based upon an apparently unanswerable logic of reasoning, which the logic of hard practical facts is often apt to reverse. The policy of settlement upon which a wealthy Colony was to be created in a few years on the edge of a supposed desert continent was based upon principles enunciated by its author, Edward Gibbon Wakefield, in a pamphlet published in England about the year 1836, in which he advocated a scheme of centralised colonisation, the main idea of which was the sale of the lands in the new possession at a very high price for cash, the amounts thus realised being immediately devoted to the introduction of immigrants, whom the land-owners would immediately employ to reclaim the virgin forest, thus creating wealth and abundance where desolation had previously existed. But although Wakefield had fairly calculated upon the results of the action of man, the action of nature itself had been left out of consideration, and the scheme quickly proved an empty failure and a distressful speculation for the many whom its apparent logic had deluded into investing their means in the lands of the new Colony. Had not the discovery of great mineral resources occurred at an opportune time, the exodus into the eastern Colonies of the immigrants imported or attracted to South Australia would have emptied the country of its population and considerably retarded the progress of a territory not inferior in natural resources to other portions of the Australian continent.

The Wakefield system.

Measures were very soon introduced to modify the Wakefield Land legislation of 1872. system, but it was only in 1872 that an Act was passed more in conformity with the legislation of neighbouring Colonies, and giving to the poorer classes of the population a chance to settle upon the lands of the Crown under fair conditions.

The Land Act of 1872, adapted as it was to the needs of the Land Acts of 1888-90. time, gave way to other measures, and the regulations now in force are those of the Crown Lands Act of 1888, administered in conjunction with the Crown Lands Amendment Acts of 1889 and 1890. The Crown Lands Act of 1888 is referred to as the Principal Act. Part I of this Act refers to the power of the Governor to alienate Crown lands, exchange land for public purposes, lease lands to aboriginal natives or their descendants; to dedicate and reserve lands for public purposes, cancel and resume dedications and reserves, constitute divisions of the Colony into hundreds and counties, alter the boundaries of existing divisions, and set aside sites for towns or villages, &c. By clause 9 the Metals and minerals reserved. grant in fee simple of any land shall not be construed to convey or include any property in any metal, ore or mineral, coal or mineral oils in or upon the land, the same being reserved by the Crown; the Commissioners being allowed to authorise persons at any time to search, mine for, or remove any of the metals and other things reserved.

Part II deals with leases with the right of purchase and per- The leasing of lands. petual leases. No lands are to be leased unless previously surveyed; the Land Boards are entrusted with the duty of classifying lands, fixing the area of blocks, and the price and annual rent at which each block may be taken up on lease with right of purchase, and the annual rent at which such block may be taken up on perpetual lease. Applications for such lands may be made in Applications for lease. writing to the Commissioner, giving name and address of applicant, forwarding at the same time 20 per cent. of the first year's rent for the block applied for. The applications are referred to the

Land Board, who determine upon their acceptance, and may subdivide or alter the boundaries of the block applied for, or reject the application, and generally decide upon all matters, including price or annual rent, connected with such application. Lessees must execute their leases and pay the balance of the first year's assessment and prescribed fees within twenty-eight days after the acceptance of application has been notified and the lease has issued, otherwise forfeiting amounts paid and all rights to lease of the land.

Leases with
right of
purchase.

Leases with the right of purchase are granted for a term of twenty-one years, with the right of renewal for a further term of twenty-one years, the right of purchase exercisable at any time after the first six years of the term at a price fixed by the Boards, which must not be less than 3s. an acre.

Perpetual leases.

The rent charged for any perpetual leases for the first fourteen years is fixed by the Boards and notified in the *Government Gazette*, and the rent for every subsequent fourteen years is fixed by the Board after revaluation. Rents are payable annually in advance, and every lease contains a reservation to the Crown of all metals, ores, and minerals, gems, coal, timber, and mineral oils, in or upon the leased lands. All lessees under this part of the Act undertake to fulfil the following conditions :—1. To pay rent annually. 2. To pay all taxes and other impositions which may be payable in respect of the leased lands during the lease. 3. To fence the land within the first five years of the term, and keep the fences in repair. 4. To forthwith commence and continue to destroy, and keep the land from, vermin. 5. To keep and maintain all improvements the property of the Crown on the leased land in good order and repair. 6. To insure and keep insured in full all buildings the property of the Crown upon the leased land in the joint names of the Commissioner and lessee. 7. To permit access to the land to every person holding a mining license or mineral lease under Part V of the Act.

Conditions of
leasing.

Part III of the Act refers to the sale of lands for cash. Provision is made for the sale of special blocks of land by auction; all Crown Lands within Hundreds which shall have been offered for lease and not taken up may be offered for sale at auction for cash within two years of the date on which they were first offered for lease. Some lands may be sold by auction for cash, and shall not be sold upon credit or by private contract, the Commissioners fixing the upset price of both town and country lots offered to auction, provided always that no country lands shall be sold at less than 5s. per acre. Cash sales of land.

Part IV refers to pastoral leases, and enacts that all Crown lands not included in any Hundred may be leased for pastoral purposes. Pastoral lands are divided into three classes as follows:—Class 1 includes pastoral lands held under a new lease issued under certain previous Acts, or which having been held under such new lease were held under other leases expiring in the year 1888, or on the 1st January, 1887, and granted in lieu of such new lease. Class 2 includes all pastoral lands which were held by any pastoral lessee on the 14th November, 1884, for any other term of years. Class 3 includes all other pastoral lands. Pastoral leases.

When any pastoral lease in class 1 shall have expired, the land may be offered for lease at auction in such sized blocks as the Commissioner may determine, every such lease being for a term not exceeding twenty-one years, the annual upset rent payable in advance being fixed by valuation. The lessee shall also pay a deposit of 10 per cent. upon the value of the improvements on the lease, interest at 5 per cent. being allowed for such deposit, which shall be returned at the expiration of the lease, provided the improvements have not been allowed to fall into disrepair, in which case the deposit would be forfeitable wholly or in part. On the expiration of any pastoral lease, or the resumption of any lands included in any pastoral lease granted under the Act, the pastoral lessee shall be paid the value of all substantial water Renewal of leases.

Conditions of
pastoral leases.

improvements on the land leased or resumed, and in cases of resumption he shall also be compensated for the loss or the depreciation in the value of his lease. Pastoral lands in class 3 may be offered for lease at auction on the following terms:—The lease to extend over a term of thirty-five years at an annual upset rent of 2s. 6d. per square mile for the first fourteen years of the currency, afterwards during each successive term of seven years, the annual rent shall be fixed by valuation. Under the Crown Lands Amendment Act of 1890 these terms have been altered to forty-two instead of thirty-five years, the revaluation being made every fourteen years instead of seven as above. The lessee to covenant to stock the land before the end of the third year of the term with sheep in the proportion of at least five head, or with cattle in the proportion of at least one head for every square mile leased, and to keep the same so stocked, and before the end of the seventh year to increase the stocking to at least twenty sheep or four head of cattle for the remainder of the term.

Improvements. The expenditure of money for the purpose of improving the carrying capacity of the land exempts the lessee from fulfilling the condition with reference to stocking, the expenditure of 30s. before the end of the third year of the term, and that of £3 per square mile before the end of the seventh year wholly discharges the lessees from the covenant in reference to stock. This part of the Act also provides that leases may be granted to *bona-fide* discoverers of pastoral country at the rent of 2s. 6d. per square mile per annum.

Mining leases
and licenses.

Part V deals with leases and licenses to be issued for mining purposes, such leases to be for a term of 99 years, at an annual rent of 1s. per acre, and a further sum of 6d. in the £ on the net profits; a sum of at least £6 per acre of the area of the lease is to be expended in every two years, with the option of constantly employing one man for every 20 acres of the lease during nine months of the year. Specific mineral licenses may be granted by the Commissioners on payment of a fee of 20s. for permission to

Specific mineral
licenses.

search for metals and minerals, except gold, upon any specific mineral lands not exceeding 80 acres in extent, subject to the condition of employing at least one man. General mineral licenses for the term of one year are also issued, to search for any metals or minerals, except gold, upon any mineral lands. The leasing of auriferous lands is regulated by the Gold-mining Act of 1885.

General mineral leases.

Part VI refers to leases and licenses for miscellaneous purposes, including leases to discoverers of coal, guano, petroleum, or other substance not being a metal or metalliferous ores; sites for factories and other industrial undertakings, are also regulated under this part of the Act.

Miscellaneous leases.

In Part VII a new feature has been introduced into the land legislation of the Colony, in response to the claims of the working classes. Under this part it is enacted that certain lands of the province may be surveyed in blocks not exceeding 20 acres in area, and may be leased under the conditions affecting leases granted under Part II of this Act, either with the right of purchase or of perpetual lease; no one except a person who gains his livelihood by his own labour, and who has attained the age of 18 years being entitled to any such lease. The rent is payable annually in advance, and the lessee is bound to reside on such land for at least nine months in every year, but personal residence by the wife or any member of the family of every such lessee will be held as a fulfilment of the residence condition. Under the amended Act of 1890, working men's leases situated within a radius of 10 miles from the Post Office, Adelaide, cannot be taken up with the right of purchase, and the purchase of any such leases taken up under the provisions of the Principal Act cannot be completed.

Workingmen's blocks.

Under the Crown Lands Act Amendment Act of 1889, certain modifications were introduced in the procedure regulating the surrender of existing agreements and leases in exchange for leases under Part II of the Principal Act, and certain regulations were

Land Act of 1889.

enacted to deal with the rabbit pest, and provide for the erection of rabbit-proof fences, granting to District Councils the power to raise loans for this purpose. Provisions were also made for extensive alterations in the disposal of forest lands, and for various other matters relating to the alienation and lease of lands. Section 15 of the Principal Act was amended, so as to provide, among other matters, that no lessee shall hold under lease with a right of purchase at any one time more than 1,000 acres.

THE NORTHERN TERRITORY.

Northern
Territory.

The Northern Territory of South Australia includes the whole of the lands situated to the north of the 26th degree of south latitude, bounded by Queensland on the east, Western Australia on the west, and the Ocean on the north. This portion of the Continent is under the administration of a Resident, appointed by the Government of South Australia, and the alienation and occupation of lands within the Territory are conducted under regulations enacted by the South Australian Legislature, in accordance with "The Northern Territory Crown Lands Consolidation Act of 1882."

Alienation.

It is provided that lands may be purchased for cash, without conditions, in blocks not exceeding 1,280 acres, for 12s. 6d. per acre; they may also be bought under the deferred payment system, to the same maximum area, and at the same price, payable in ten years, together with an annual rent of 6d. per acre.

Pastoral
occupation.

Leases for pastoral occupation may be issued for a term not exceeding twenty-five years, for blocks up to 400 square miles, the annual rental for the first seven years being 6d. per square mile; while 2s. 6d. per square mile is charged during the balance of the term.

Tropical
productions.

In order to encourage the cultivation of tropical produce, such as rice, sugar, coffee, tea, indigo, cotton, tobacco, &c., special

provisions have been enacted. Blocks of from 320 acres to 1,280 acres may be let for such purposes at the rate of 6d. per acre per annum. If, at the expiration of five years, the lessee can prove that he had cultivated one-fifth of his area by the end of the second year of his term, and one-half by the end of the fifth year, he is relieved from all further payment of rent, and the amount already so paid is credited to him towards the purchase of the land in fee.

LAND LEGISLATION OF WESTERN AUSTRALIA.

The first regulations referring to land settlement in Western Australia were issued by the Colonial Office in 1829, at the time that Captain James Stirling was appointed Civil Superintendent of the Swan River settlement. The first special grants were made in favour of Captain James Stirling for an area of 100,000 acres near Geographe Bay, and Mr. Thomas Peel for 250,000 acres, on the southern bank of the Swan River and across the Channing to Cockburn Bay, the latter under covenant to introduce at his own cost 400 immigrants into the Colony by a certain date. Regulations were issued to the effect that persons proceeding to the settlement at their own cost, in parties in which the numbers were in the proportion of five females to every six male settlers, were to receive grants in proportion to the capital introduced, at the rate of 40 acres for every £3. Capitalists were also granted land at the rate of 200 acres for every labouring settler introduced at their expense, subject to the cancellation of the grant if the land was not brought under cultivation or reclaimed within twenty-one years. The regulations were amended by others of a similar nature issued on the 20th of July, 1830. In 1832, however, the mode of disposing of the Crown lands by sale came into force, the regulations issued in that year assimilated the system of settlement to that in force in the colonies of New South Wales and Van Diemen's Land. Other alterations were made

Early land
legislation in
Western
Australia.

System of selling
lands.

from time to time, until in 1873, an entirely new system was introduced, which has served as the basis of the regulations at present in force, which were promulgated on the 2nd March, 1887.

Land regulations of 1886.

The new land regulations, which were passed by the Legislative Council in 1886, came into force on the 2nd of March, 1887. For the purposes of the regulations the Colony is divided into six divisions:—The South-west Division, the Gascoyne Division, the North-west Division, the Kimberley Division, the Eucla Division, and the Eastern Division. All town and suburban lands in these divisions may be sold by public auction, at an upset price to be determined by the Governor-in-Council. Any person may apply to the Commissioner to put up for sale by auction any town or suburban lands already surveyed, on depositing 10 per cent. of the upset price, which is returned if he does not become the purchaser; should the purchaser not be the applicant, he must pay 10 per cent. on the fall of the hammer, and complete his purchase within thirty days.

Modes of conditional purchase.

There are four modes of obtaining land by conditional purchase in the South-west Division:—(1) By deferred payment, with residence within agricultural areas; (2) by deferred payment, with residence outside agricultural areas; (3) by deferred payment, without residence; (4) by direct payment without residence.

Agricultural areas.

Agricultural areas of not less than 2,000 acres may be set apart by the Governor-in-Council. The maximum area to be held by any one person is 1,000 acres, and the minimum 100 acres. The price is fixed by the Governor-in-Council at 10s. an acre, payable in twenty yearly instalments of 6d. an acre, or sooner if the occupier choose. Upon the approval of any application, a license is granted for five years. Within six months the licensee must reside on some portion of the land, and he must fence in the land with a good substantial fence during the term of his license. If these conditions are fulfilled, a lease is granted to him for fifteen years. After the lease has expired, provided the fence is in good

order and that improvements have been made equal to the full purchase money, and that the full purchase money has been paid, a Crown grant will be given.

Land may be purchased outside agricultural areas on deferred payment with residence, by free selection, otherwise subject to all the conditions required within agricultural areas, as already stated. Deferred payment system.

Under the third mode of purchase, the applicant is subject to all the conditions imposed under No. 1, except residence, but he has to pay double the price—or, £1 per acre,—in twenty yearly instalments of 1s. per acre. Non-residential purchases.

By the fourth mode, land to the extent of 1,000 acres, and not less than 100, within an agricultural area, may be applied for at a price (at present 10s. per acre) fixed by the Governor-in-Council. Within three years the land must be fenced, and within five years 5s. per acre must be spent on improvements. Direct payment system.

For garden purposes, small areas of not less than 5 acres nor more than 20 acres (except in special cases), at 20s. per acre, may be purchased on the condition that within three years the land shall be fenced, and one-tenth planted with vines or fruit-trees, or vegetables. Gardens and orchards.

In the Kimberley, North-west, Gascoyne, Eastern, and Eucla Divisions, special areas for purchase may be set apart of not less than 5,000 acres. The total quantity to be held by any one person in a division may not exceed 5,000 acres, nor be less than 100 acres. The price is at present 10s. an acre, payable in ten years, or sooner. Upon approval, a lease will issue for ten years. Within two years the land must be fenced. At the expiration of the lease, the fence being in good order, improvement in addition to the fencing equal to the purchase money having been made, and the purchase money having been paid, a grant from the Crown will be issued. Special areas.

Pastoral leases.

Pastoral lands are granted on lease, which gives no right to the soil or to the timber, and the lands may be reserved, sold, or otherwise disposed of by the Crown during the lease. The following are the terms of pastoral leases in the several divisions, all leases expire on the 31st December, 1907. The rental named is for every 1,000 acres. South-west.—In blocks of not less than 3,000 acres, at 20s. Gascoyne and Eucla.—In blocks of not less than 20,000 acres; for each of the first seven years, 10s.; for each of the second seven years, 12s. 6d.; for each of the third seven years, 15s. North-west.—In blocks of not less than 20,000 acres. For the first seven years, 10s.; for second seven years, 15s.; for the third seven years, 20s. Eastern.—In blocks of not less than 20,000 acres. For the first seven years, 2s. 6d.; for the second seven years, 5s.; for the third seven years, 7s. 6d. Kimberley.—In blocks of not less than 50,000 acres with frontage, and 20,000 without frontage; for the first seven years, 10s.; for the second seven years, 15s.; for the third seven years, 20s. Any lessee in the Kimberley and Eucla Divisions may have a reduction of one-half the rental due under the Regulations, computed from the 1st day of January, 1887, for the first fourteen years of his lease, if, in the Kimberley Division, within five years of the date of these Regulations, he have in his possession within the Division ten head of sheep, or one head of large stock for every thousand acres leased, or in lieu of stock in the Eucla Division if he have expended £8 per 1,000 acres, in tanks, wells, dams, or boring for water. A penalty of double rental for the remaining portion of the lease is imposed, except in the South-western Division, if the lessee has not within seven years complied with the stocking or improvement clause.

Rent reduced by stocking.

Land with poison plants.

Any person desirous of obtaining a lease of poisoned land may apply to the Commissioner, defining the boundaries and paying one year's rent at the rate of £1 per 1,000 acres, on the condition that the land is fenced in within three years; and if the poison plant is completely eradicated before the lease expires, the lessee will be entitled to a Crown grant.

Mining leases, not exceeding 200 acres, nor less than 20 acres, Mineral lands. are granted for seven years, at a rental of 5s. per acre per annum, but must be worked within one year. If the holder has erected, or gives security for the erection of suitable machinery to work the mine, he may obtain a Crown grant of not less than 20 acres, at the rate of £3 per acre.

LAND LEGISLATION OF TASMANIA.

In the earlier period of the occupation of Tasmania, from 1804 Early land regulations. to 1825, the island being administered as a part of New South Wales, its settlement was subject to the regulations affecting the disposal of the Crown domain in that Colony. After its constitution under a separate administration, the regulations issued from the Colonial Office for the settlement of the Crown lands in the mother Colony were made to apply also to Tasmania. New measures were introduced after self-government had been granted to the province, but they became so complicated and cumbersome that the necessity was felt of passing in 1890 an Act consolidating into one comprehensive and general measure the twelve Acts previously in force.

The business of the Lands and Survey Departments is now Land Act of 1890. transacted by virtue of the Crown Lands Act of 1890, under which, for the convenience of survey operations, the island is divided into thirteen survey districts. Lands of the Crown are divided into two classes, town lands and rural lands. Lands which are known to contain auriferous or other minerals, and such lands as may be necessary for the preservation and growth of timbers, are dealt with under separate sections, and the Governor-in-Council is empowered to reserve such lands as he may think fit for a variety of public purposes.

Free selection. In the rural division any person of the age of eighteen may select under this Act by private contract at the price and upon the terms set forth hereunder :—

One lot of rural lands not exceeding 320 acres nor less than 15 acres.

	£	s.	d.
100 acres at 20s.	100	0	0
Add $\frac{1}{2}$ for credit	33	6	8
	<hr/>		
	133	6	8

Payable as follows :—

	£	s.	d.
Cash at time of purchase	3	6	8
First year	5	0	0
Second year	5	0	0
Third year.....	10	0	0
And for every one of the eleven successive years to the fourteenth year inclusive at the rate of £10 per annum.....	110	0	0
	<hr/>		
	133	6	8

And so in proportion for any greater or smaller area than 100 acres, but credit will not be given for any sum less than £15. Additional selections may be taken up provided the total area held by one selector does not exceed 220 acres. Selection by agents is not allowed.

Conditions of
the credit
system.

The conditions in connection with the credit system are as follow :—The purchaser is to commence improvements at the expiration of one year from the date of contract, and during eight consecutive years shall expend not less than 2s. 6d. per acre per annum, under penalty of forfeiture. Any surplus over 2s. 6d. per acre spent in any year may be set against a deficiency in another year, so that £1 per acre is spent in the eight years. In the event of the full amount of improvements having been made before the expiration of the eight years, the purchaser may pay off any balance due, discount being allowed. Payment of instalments may in certain cases be postponed, but interest must be paid at the rate of 5 per cent. per annum. The time for making the improvements may be extended for two years in certain cases. Should instalments not be paid within sixty days after becoming

Default of
payment.

due the land may be put up to auction, the defaulter having the privilege of redeeming his land up to the time of sale by payment of the amount due with interest and costs. If land sold at auction by reason of default realises over the upset price, the excess is handed to the defaulter. Land purchased on credit is not alienable until paid for, but transfers are allowed. For five years after alienation land is liable to be resumed for mining purposes, compensation being paid to the occupier. All grants contain a reservation by the Crown of the right to mine for minerals.

Rural lands not alienated and not exempt from sale may be sold by auction. Town lands are sold only by this means. £1 per acre is the lowest upset price, and agricultural lots must not exceed 320 acres. Lands unsold by auction may be disposed of by private contract, within one year from the time of being offered at auction. No lands may be sold by private contract within 5 miles of Hobart or Launceston.

Auction sales.

Private contracts.

Mining areas may be proclaimed, within which land may be selected or sold by auction, in lots varying with the situation, from 1 to 10 acres if within a mile from a town, up to 100 acres if at a greater distance. In these cases residence for five years is required, in default the land to be forfeited to the Crown.

Mining areas.

Land selected or bought within a mining area is open to any person to search for gold or other mineral, after notice has been given to the owner or occupier, to whom compensation may be made for damage done. Persons occupying land in a mining town, under a business license, having made improvements to the value of £50, may purchase one quarter of an acre for £10.

Right to search for minerals.

Grazing leases of unoccupied country may be offered by auction, but such runs are liable at any time to be sold or licensed, or occupied for other than pastoral purposes. The rent is fixed by the Commissioner, and the run is put up to auction, the highest bidder receiving a lease for fourteen years. The lessee may

Grazing leases.

cultivate such portion of the land as is necessary for the use of his family and establishment, but not for sale or barter. Should any portion of the run be sold or otherwise disposed of a corresponding reduction may be made in the rent, which is paid half-yearly in advance. A lease is determinable should the rent not be paid within one month of becoming due. In the event of the land being wanted for sale or any public purpose six months' notice must be given to the lessee, and he is to be compensated for permanent improvements. Leases of not more than fourteen years may be granted for various public purposes, such as the erection of wharfs, docks, &c. Portions of a Crown reserve may also be leased for thirty years for manufacturing purposes.

LAND LEGISLATION OF NEW ZEALAND.

Land obtained
from the natives

The first establishments in New Zealand were formed upon land obtained from the various native tribes, and the task of distinguishing between the few *bona fide* and the numerous bogus claims to the possession of land thus acquired was the first difficulty which confronted Captain Hobson when, in 1840, he assumed the government of New Zealand. Trading in land with the natives had, from 1815 to 1840, attained to such proportions that the claims to be adjudicated upon covered 45,000,000 acres, the New Zealand Company, of which Mr. Edward Gibbon Wakefield, of South Australian fame, was the managing director, claiming an estate of no less than 20,000,000 acres in area. In the year 1840, the Legislature of New South Wales passed a Bill empowering the Governor of that Colony to appoint a Commissioner to examine and report upon all claims to grants of land in New Zealand, all titles, except those allowed by Her Majesty, being declared null and void. This Bill, before receiving the Royal assent, was superseded by an Act of the Local Council, passed in 1841, under which the remaining claims were settled, and new regulations were adopted for the future disposal of the Crown lands. When, later on, the Colony became divided into

independent provinces, each district had its own regulations, until, in 1858, an Act was passed by the General Assembly to regulate this question, embodying in one comprehensive measure the regulations under which land could be alienated or demised in the various provinces of the Colony. The Act of 1858 was repealed by that of 1876 and its amendments, the latter having since been repealed to give way to legislation of a more liberal nature.

The land laws of New Zealand, based upon the Act of 1885, with amendments made in 1887 and 1888, are more liberal than those of any of the Colonies, except South Australia and Queensland, which have borrowed from New Zealand the system of perpetual leases and workingmen's blocks—adapting to local conditions the principles of the New Zealand Village Settlement System. Land legislation in New Zealand.

The Colony is now divided into ten land districts, and Crown lands are thus classified:—(a) Town and village lands in sites reserved for urban settlement; (b) suburban lands; (c) rural lands divided into first and second class, according to the nature of the country. Town and village land can only be obtained at auction; suburban lands, either at auction or by selection in the same manner as rural lands. Any person of 17 years or over may select suburban or rural lands under one of the three following systems, at his option:—For cash, for deferred payments, or under perpetual lease. Land may be selected either in surveyed or unsurveyed areas. Surveyed lands, after forty-five days' notification, are open for application, and any unselected areas remain open for selection. In the event of more than one application for the same area, the matter is decided by lot. Unsurveyed lands are open to selection after notification, and, should there be more than one application for the same land, it goes to the first applicant. Land districts.

Under the cash system, no person can take up more than 640 acres of first class, or 2,000 acres of second class rural land in any one district. Land not notified under the Act of 1887 may be sold Cash system.

either on application or by auction, without restriction as to area. If sold by auction, it must have been previously surveyed into sections.

Deferred pay-
ments.

The size of allotments under the deferred payment system must not exceed 20 acres in suburban, or 640 acres in rural agricultural land; the price for the former being not less than £4 10s. per acre, and for the latter not less than 18s. 9d. for first-class, or 7s. 6d. for second-class land. Payments are to be made half-yearly in equal instalments, five years being allowed in suburban and fourteen years in rural lands. A license to occupy is issued immediately after selection, the chief conditions imposed being residence for four years on suburban and six years on rural land, unless certain improvements are effected, and the balance of purchase money paid previously. Residence may be dispensed with altogether in the case of bush or swamp lands, provided certain improvements are made.

Improvements.

In regard to suburban land, the selector must cultivate not less than one tenth the first year; one-fifth the second year, and within four years must have three-fourths cultivated, the whole fenced, and have substantial improvements made to the value of £10 per acre. In the case of first class rural land one-twentieth must be cultivated the first year, one-tenth the second year, and one-fifth within four years. Besides this, in six years improvements must have been effected to the value of £1 per acre. If the land is in the second class, substantial improvements, equal to one-tenth the value of the land, must be made within one year; another 10 per cent. within the next year, and a third 10 per cent. before the end of the sixth year. After these conditions are complied with the selector can have the value of the unpaid instalments capitalised, and pay interest thereon at the rate of 5 per cent., instead of the half-yearly instalments. He is at liberty, henceforth, to pay off any portion of such capitalised value, upon which the interest will be proportionately reduced. Any time after effecting improvements, and within eighteen years of the date of the license,

Capitalisation of
balances.

if the payments are completed the selector shall be entitled to his Crown grant. He is also at liberty to exchange his license for a perpetual lease, in which case all past payments go to credit of rent.

Under the perpetual lease system a deposit of £1 10s. must accompany the application, which sum will be forfeited if the lease is not duly executed. The annual rent is calculated at 5 per cent. on the capital value of the land. The improvements are secured to the holder of a perpetual lease, upon an indefeasible title, with perpetual rights of renewal, giving in fact the security of a freehold without sinking capital in the purchase. The maximum area of a perpetual lease is 640 acres of first class, and 2,000 acres of second class land. Each lease is for thirty years, but renewable for another term of twenty-one years ; should the holder refuse to renew the lease it is put up to auction, and the incoming tenant has to pay the lessee the full value of improvements. These leases cannot be transferred, sub-let, mortgaged, or assigned until a statutory declaration of the fulfilment of certain conditions has been made ; but surrenders are permitted with the sanction of the Land Board. The conditions of residence and improvement are similar to those under the deferred payment system. Holders of perpetual leases, after they have fulfilled the conditions, may obtain a freehold at a price represented by the capital value on which the rent of 5 per cent. has been calculated.

A settler under the Homestead System makes no payment for the land beyond the fees for survey, but has to reside for five years, erect a dwelling, and cultivate one-third of the area if open land, and one-fifth if bush land. If of the age of 18 years or over he may select from 50 to 75 acres ; if under 18, from 20 to 30 acres ; but no family or household may have more than 200 acres of first-class, or 300 acres of second-class land. A Crown grant is issued on fulfilment of the conditions. The Amended Act of 1887 contains provision for other classes of settlement in special areas, and among others there is a scheme for attracting to New Zealand the crofters of the north of Scotland.

Village Settlement System.

The Village Settlement System introduced a new feature into Australasian land legislation, the object being to afford facilities for acquiring land to persons of limited means. The tenure was a perpetual lease, the first term being for thirty years, with renewals of twenty-one years on a valuation, but with no right of purchase. The only charge for the lease was 10s. for registration. Allotments could not exceed 50 acres, and married applicants had the preference over single ones. Advances were made to the settlers of £20 towards the erection of a dwelling, 25s. per acre for under-scrubbing and bush-felling, and 25s. per acre for burning, grassing, fencing, and other improvements. These advances were made to the extent of 20 acres only, so that the maximum advance was £70. Where there was no bush nor clearing the advance was limited to £20 for the house, which had to be erected within six months of the date of selection. Interest on the advance was charged at the rate of 5 per cent. per annum, payable half-yearly, and no provision was made for repaying the principal. The selector had to live on the land, to cultivate one acre within two years, and within four years half the remainder of his section. This exceedingly liberal measure was only a short time in operation, having been suspended by the Atkinson Government, in consequence of the abuses that had crept in. A resumption of the Village Settlements, under an amended system is, however, probable.

Pastoral leases.

Leases or licenses of pastoral lands may be obtained for a period of twenty-one years; land sufficient to keep all the year round 20,000 sheep, or 5,000 head of cattle, may be offered in one lot. Small grazing runs are also obtainable with an absolute lease for twenty-one years, but with no right of purchase. Full valuation for improvements is given at the end of the lease. The lessee possesses the right of cultivation, and may take up a selection of not more than 150 acres around the homestead. Runs, not exceeding 20,000 acres, may be let by auction for grazing purposes for twenty-one years, with a right of renewal for a similar

Grazing runs.

term. If the lessee declines to renew, he is paid by the incoming tenant the value of his improvements. The upset rent may vary from 1½d. per acre upwards. Residence on the run for six years is compulsory, and during that period improvements must be effected to the value of four years' rental.

AUSTRALASIAN SETTLEMENT.

From the particulars given in the foregoing pages it will have been made abundantly clear that the main object of the land legislation, however variously expressed, has been to secure the settlement of the public estate by an industrious class, who, confining their efforts to areas of moderate extent, would thoroughly develop the resources of the land. But where the character of the country does not favour agricultural occupation or mixed farming, the laws contemplate that the State lands should be leased in blocks of considerable size for pastoral occupation, and it was hoped that, by this form of settlement, vast tracts, which when first opened up seemed ill-adapted even for the sustenance of live stock, might be ultimately made available for industrial settlement. To how small an extent the express determination of the legislators to settle an industrious peasantry on the soil was accomplished will presently be illustrated from the records of several of the provinces, but in regard to pastoral settlement the purpose was fully achieved—large areas, pronounced by even experienced explorers to be an uninhabitable wild have since been occupied by thriving flocks, and every year sees the great Australian desert of the early explorers receding step by step. The following statement shows the area of land alienated by each province, the area leased, and the area neither alienated nor leased. The term “alienated” is used to denote that the figures include lands granted without purchase, the area so disposed of has not been inconsiderable in several provinces :—

Settlement of
the Public
Estate.

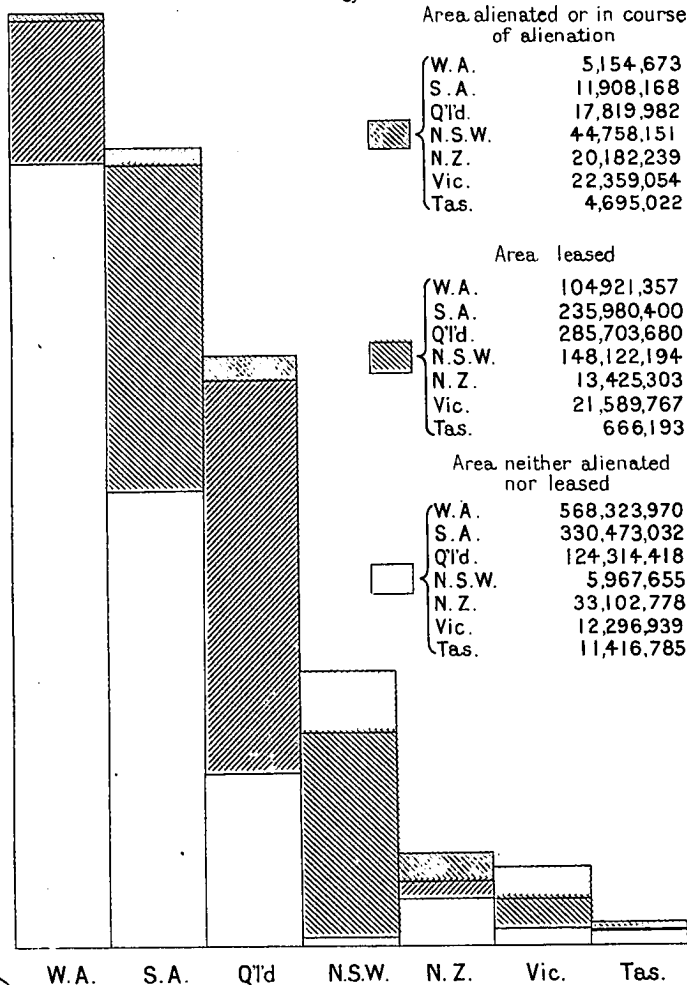
Areas alienated
or leased.

Alienation and Leasing of Public Estate in each Colony at the close of 1890.

Colony.	Area.	Area Alienated.	Area Leased.	Area neither Alienated nor Leased.	Proportion of Area of Colony.		
					Alienated.	Leased.	Neither Alienated nor Leased.
	Acres.	Acres.	Acres.	Acres.	Per cent.	Per cent.	Per cent.
New South Wales	198,848,000	44,758,151	148,122,194	5,967,655	22·5	74·5	3·0
Victoria	56,245,760	22,359,054	21,589,767	12,296,939	39·8	38·4	21·8
Queensland	427,838,080	17,819,982	285,703,680	124,314,418	4·2	66·8	29·0
South Australia	578,361,600	11,908,168	235,980,400	330,473,032	2·1	40·8	57·1
Western Australia	678,400,000	5,154,673	104,921,357	568,323,970	0·8	15·5	83·7
Tasmania	16,778,000	4,695,022	666,193	11,416,785	28 0	4·0	68 0
New Zealand	66,710,320	20,182,239	13,425,303	33,102,778	30·3	20·1	49·6
Australasia... ..	2,023,181,760	126,877,289	810,408,894	1,085,895,577	6·3	40·0	53·7

ALIENATION OF LANDS

AT CLOSE OF 1890



The figures in the foregoing table disclose many grounds for congratulation ; but of 2,023 million acres which comprise the area of Australasia, 937 millions or 46·3 per cent. is under occupation for productive purposes, and there is every probability that this area will be greatly added to in the near future. New South Wales shows the least area unused, for out of nearly 200 million acres only six millions remain unoccupied, and some of this comparatively small area is represented by land which the State has reserved from occupation. The Colony of Tasmania, whose territory is less than one-twelfth part of the area of New South Wales, has nearly twice as much land unoccupied as there is in the larger Colony, the western part of the island being so rugged as to forbid settlement. New Zealand, favoured also with a beneficent climate, has about half its area unutilised, a circumstance entirely due to the mountainous character of its territory. Settlement in Western Australia is only in its initial stage ; much of its area is practically unknown, and much of what is known is thought to be little worth settlement. Much the same thing was confidently predicted of western New South Wales and South Australia, though as subsequent events proved the forebodings were untrue. In the territory under the control of the South Australian Government only 43 per cent. is in occupation, but if the Northern territory were included the proportion of South Australian property under occupation would be found to be considerably greater. The practice of sales by auction without conditions of settlement was a necessary part of the system of land legislation which prevailed in most of the Colonies ; but this ready means of raising revenue offered the temptation to the Governments, where land was freely saleable, to obtain revenue in an easy fashion. The result of the system was not long in making itself felt, for pastoralists and others desirous of accumulating large estates were able to take advantage of those sales, and of the ready manner in which transfers of land conditionally purchased could be made, to acquire large holdings, and so the obvious intentions of the Lands Acts were defeated. Notwithstanding failures in this respect, the Acts

Proportion of
area under
occupation.

Evils of the
auction system.

NUMBER OF HOLDINGS.

have otherwise been successful, as will appear from the following table as well as elsewhere in this volume.

Settlement in
New South
Wales and New
Zealand.

It is unfortunate that detailed information regarding settlement can only be given for two of the Colonies, New South Wales and New Zealand ; this will be found in the following table :—

Holdings, New South Wales and New Zealand, 1890.

Holdings.	New South Wales.		New Zealand.	
	Number of Holdings.	Area of Holdings.	Number of Holdings.	Area of Holdings.
		Acres.		Acres.
1 to 50 acres	16,390	315,345	20,015	307,183
51 to 300 acres:.....	18,448	2,694,311	.....	.....
51 to 320 acres .....	.....	.....	16,380	2,477,333
301 to 1,000 acres.....	10,084	5,522,986	.....	.....
321 to 1,000 acres.....	.....	.....	5,123	2,776,207
1,001 to 10,000 acres ...	4,382	11,780,408	1,922	5,193,984
10,001 acres and upwards	656	20,843,827	337	8,642,822
Totals	49,960	41,156,877	43,777	19,397,529

Proportion of
owned and
leased land.

Out of the 41,156,877 acres set down to New South Wales in the foregoing, 36,445,122 acres are in the actual occupation of the owners, and 4,711,755 acres are held under rent. In New Zealand the proportion of rented land is much greater, the area occupied by the owners is 12,410,242 acres, while the proportion rented is 6,987,287, or 36 per cent. The most remarkable feature of the table is that in New South Wales more than half the alienated land is owned by 656 persons, while in New Zealand 337 own nearly 45 per cent.

FINANCE.

PUBLIC REVENUE.

THE total income of the Australasian Governments for the year 1890-91 amounted to £29,922,897, and their expenditure to £31,035,390, leaving an apparent deficit of £1,112,493. The revenue returns of all the Colonies are for the fiscal year only, and take no account of balances carried over from a previous year. This is an important consideration in dealing with Australasian finances, as the expenditure set against a particular year is quite irrespective of whether it rightly forms a charge against that year, or partly also against other years. In the case of Victoria a surplus of £578,268 was available from a previous year, so that the actual deficit to be set against 1891-2 was by no means large:—

Revenue and Expenditure, 1890-91.

Colony.	Revenue Proper.	Expenditure.
	£	£
New South Wales	10,047,152	10,378,603
Victoria	8,343,588	9,128,699
Queensland	3,350,223	3,684,655
South Australia	2,732,222	2,603,498
Western Australia	497,670	435,623
Tasmania	758,100	722,746
New Zealand	4,193,942	4,081,566
Australasia.....	29,922,897	31,035,390

The New South Wales and Western Australian returns are for the year ending December, 1891; Victoria, Queensland, and South Australia, June, 1891; and Tasmania and New Zealand for December, 1890.

The revenue is mainly derived from taxation, which produced £11,410,991, and from public services, such as railways, post and telegraphs, which yielded £12,149,762; in all £23,560,753, or

Sources of
revenue.

nearly 79 per cent. of the total revenue. The following table shows the revenue of each Colony, arranged under the various heads :—

Public Revenue, 1890-91.

Colony.	Taxation.		Railways.	Post and Telegraphs.	Public Lands.	All other Revenue.	Total Revenue Proper.
	Customs.	Other.					
	£	£	£	£	£	£	£
New South Wales ..	2,168,264	748,100	3,439,233	648,553	2,266,612	776,340	10,047,152
Victoria	2,525,572	727,069	3,306,580	499,506	613,068	671,793	8,343,588
Queensland	1,261,757	266,883	882,702	218,801	534,342	185,078	3,350,223
South Australia....	615,266	212,036	1,198,157	214,027	245,573	247,163	2,732,222
Western Australia..	237,697	19,931	65,710	31,336	101,981	41,015	497,670
Tasmania	329,067	125,364	102,642	60,101	79,965	60,961	758,100
New Zealand	1,535,568	638,117	1,143,939	338,315	330,956	206,607	4,193,942
Total, Australasia	3,673,491	2,737,500	10,139,123	2,010,639	4,172,497	2,180,647	29,022,897

Revenue per head.

The revenue per head averaged £7 17s. 3d., and ranged from £5 5s. 6d. for Tasmania, to £9 19s. 3d. for Western Australia. The rate for each Colony, subdivided into the classification adopted in the previous table, was as follows :—

Revenue per head of Population, 1890-91.

Colony.	Taxation.		Railways.	Post and Telegraphs.	Public Lands.	All Other Revenue.	Total Revenue Proper.
	Customs.	Other.					
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales....	1 17 11	0 13 1	3 0 2	0 11 4	1 10 7	0 13 7	8 15 8
Victoria	2 4 7	0 12 10	2 18 6	0 8 9	0 10 9	0 11 10	7 7 3
Queensland	3 4 2	0 13 7	2 4 11	0 11 2	1 7 3	0 9 5	8 10 6
South Australia....	1 18 6	0 13 3	3 14 10	0 13 4	0 15 4	0 15 5	8 10 8
Western Australia ..	4 15 2	0 8 0	1 6 3	0 12 7	2 0 10	0 16 5	9 19 3
Tasmania.....	2 5 9	0 17 5	0 14 4	0 8 4	0 11 2	0 8 6	5 5 6
New Zealand	2 9 5	1 0 7	1 16 10 ⁵	0 10 11	0 10 8	0 6 8	6 15 1
Australasia	2 5 7	0 14 4	2 13 4	0 10 7	1 1 11	0 11 6	7 17 3

The Colonies differ considerably in respect to the proportion of revenue raised by taxation. Tasmania obtained 59·9 per cent. of its revenue from this source, while New South Wales raised only 29·0 per cent. Taking Australasia as a whole, the proportion of revenue derived from taxation has increased from 33·6 to 38·1 per cent. since 1881.

The proportion of total revenue and the amount per inhabitant raised by taxation for each Colony in 1881 and 1890-91 were :—

Revenue from Taxation.

Colony.	Proportion of Revenue.		Amount per Inhabitant.	
	1881.	1890-91.	1881.	1890-91.
	Per cent.	Per cent.	£ s. d.	£ s. d.
New South Wales...	26·4	29·0	2 6 7	2 11 0
Victoria	39·2	39·0	2 6 1	2 17 5
Queensland.....	37·1	45·6	2 19 2	3 17 9
South Australia.....	25·0	30·3	1 19 2	2 11 9
Western Australia...	42·5	51·8	3 13 1	4 6 8
Tasmania	53·3	59·9	2 6 1	3 3 2
New Zealand.....	39·3	51·7	2 19 10	3 10 0
Australasia.....	33·6	38·1	2 9 4	2 19 9

The amount raised in Australasia by taxation, per head of population, in 1881, was £2 9s. 4d., increasing to £2 19s. 9d. in 1890-91. The Colony with the highest revenue from this source is Western Australia, New South Wales and South Anstralia being at the other end of the scale. A false impression is apt to be gathered from a bare statement of the amounts per head, as it

may be assumed that the provinces obtaining the least revenue are the most lightly taxed, while those with large revenues are heavily burthened. The truth is often the reverse of this. Where the taxation is obtained through the custom house, a low consumption of taxable goods under a high tariff—such as is the case in South Australia,—may give a revenue per inhabitant not greater than a high consumption under a low tariff, as is the case of New South Wales. A reference to the preceding table will show the truth of this. Australasia raises in proportion to its total income a less sum by taxation than most countries concerning which information is available, as the following table shows. The figures, however, prove very little, because in most of these countries taxation is the chief source of revenue, while in the Colonies a large share of the income is obtained from railways and telegraphs, which, in older countries, are generally in the hands of private companies. The returns are either for 1889 or 1890 :—

Percentage of Revenue derived from Taxation to Total Revenue.

	Per cent.		Per cent.
United Kingdom	82·2	Denmark	86·0
France	82·2	Netherlands.....	81·1
Germany (Empire)	48·7	Belgium	49·4
Russia.....	66·9	Switzerland	47·2
Austro-Hungary	58·8	United States	92·7
Italy	73·3	Canada	79·2
Spain	70·6	Argentine Republic	57·6
Portugal.....	85·3		
Sweden and Norway	61·8	Australasia	38·1

Revenue from
sale of land.

The practice of treating money derived from the sale and occupation of Crown lands as revenue obtains in all the Colonies, and the money so raised forms one of the largest items of their annual income. The revenue from this source has considerably fallen off in most Colonies of late years, and must continue to do so as the alienation of the public estate progresses. The proportion of revenue, and also the amount per inhabitant, raised from land is highest in Western Australia and New South Wales, and lowest in Victoria and New Zealand.

The proportion of total revenue and the amount per inhabitant raised from the sale and occupation of Public Lands were:—

Revenue from Sale of Lands.

Colony.	Proportion of Revenue.		Amount per Inhabitant.	
	1881.	1890-91.	1881.	1890-91.
	Per cent.	Per cent.	£ s. d.	£ s. d.
New South Wales	42·0	22·6	3 14 2	1 19 7
Victoria	16·4	7·3	0 19 3	0 10 9
Queensland	35·2	15·9	2 16 0	1 7 3
South Australia	30·0	9·0	2 2 8	0 15 4
Western Australia	15·9	20·5	1 7 5	2 0 10
Tasmania	4·9	10·5	0 4 3	0 11 2
New Zealand	6·9	7·9	0 10 6	0 10 8
Australasia.....	25·9	13·9	1 17 11	1 1 11

PUBLIC EXPENDITURE.

The amount disbursed by the Government of New South Wales is far larger than that of any other Colony of the group; it exceeds that of Victoria by over one and a quarter million, and is equal to the united expenditure of New Zealand, Queensland, and South Australia. Large expenditure of New South Wales.

The total expenditure for each Colony, distributed under various heads, was:—

Public Expenditure, 1890-91.

Colony.	Railways.	Post and Telegraphs.	Public Instruction	Interest and charges on Public Debt.	All other Services.	Total Expenditure.
	£	£	£	£	£	£
New South Wales..	2,357,372	693,473	756,863	1,905,636	4,665,254	10,378,603
Victoria	2,469,800	744,096	775,124	1,646,834	3,492,795	9,128,699
Queensland	639,507	333,048	266,304	1,139,034	1,306,672	3,684,655
South Australia ..	620,229	188,327	136,482	827,993	830,467	2,603,498
Western Australia.	68,348	41,243	12,486	76,772	236,774	435,623
Tasmania	110,227	67,754	41,458	223,652	279,655	722,746
New Zealand	725,332	257,684	397,885	1,640,289	1,060,376	4,081,566
Australasia...£	6,990,905	2,325,625	2,386,607	7,460,260	11,871,993	31,035,390

EXPENDITURE PER HEAD.

Details of
expenditure.

It will be seen from the foregoing statement that 22·6 per cent. of the whole expenditure is for working the railways of the Colonies, a service not usually undertaken by the State. Post and Telegraphs absorb 7·5 per cent., Public Instruction 7·7 per cent., and the interest on the Public Debt 24 per cent. The rates of expenditure per head of population in the services were as follows:—

Rate of Expenditure for Services.		£	s.	d.
Railway		1	16	9
Post and Telegraphs		0	12	3
Public Instruction		0	12	7
Interest on public debt.....		1	19	2
All other Services		3	2	5
Total		£8	3	2

Expenditure per
inhabitant.

Adopting the classification of expenditure used in the preceding table, the amount per inhabitant of each province is given below. It may be here mentioned that in New South Wales the street tramways are the property of the State, and are under the same management as the railways, and are included therewith in the various statements in this chapter relating to revenue and expenditure.

Expenditure per head of Population, 1890-1.

Colony.	Railways.		Post and Telegraphs		Public Instruc- tion.		Interest and charges on Public Debt.		All Other Services.		Total Expendi- ture.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
New South Wales..	2	1 2	0	12 1	0	13 3	1	13 4	4	1 7	9	1 5
Victoria.....	2	3 7	0	13 1	0	13 8	1	9 1	3	1 8	8	1 1
Queensland	1	12 7	0	16 11	0	13 7	2	17 11	3	6 6	9	7 6
South Australia....	1	18 9	0	11 9	0	8 6	2	11 8	2	11 11	8	2 7
Western Australia	1	7 5	0	16 6	0	5 0	1	10 9	4	14 9	8	14 5
Tasmania	0	15 4	0	9 5	0	5 9	1	11 2	1	18 11	5	0 7
New Zealand	1	3 4	0	8 4	0	12 10	2	12 9	1	14 2	6	11 5
Australasia ...	1	16 9	0	12 3	0	12 7	1	19 2	3	2 5	8	3 2

The most remarkable feature in the general expenditure 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 Australasia is slightly less than one-fourth of the total expenditure, and £1 19s. 2d. per head of population, while the relative expenditure for each Colony, during 1890-91 was :—

Proportion of Total Revenue to pay Interest on Public Debt.	
	Per cent.
New South Wales	18·4
Victoria.....	18·0
Queensland	30·9
South Australia	31·8
Western Australia	17·6
Tasmania	30·9
New Zealand	40·2
	24·0
Australasia	24·0

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 £7,460,260, required to pay interest and charges on Public Debt during 1890-91, £3,148,218 was directly recouped by the profit on public railways, while a further amount was 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 breakwaters, lighthouses, bridges, and other works of public utility.

Interest on
Public Debt of
other countries.

The subjoined table shows the proportion of total expenditure required to pay interest on the public debt in the countries mentioned. The figures are either for the year 1889 or 1890 :—

Per-centage of Interest on Public Debt to total Expenditure,

	Per cent.
United Kingdom	29·0
France	40·2
°Germany (Empire)	4·7
Russia	31·6
Austro-Hungary ^f	28·7
Italy.....	36·7
Spain	34·9
Portugal	47·7
Sweden and Norway	9·9
Denmark.....	11·6
Netherlands	26·1
Belgium	30·2
°Switzerland	4·1
United States.....	9·0
India	5·8
Canada.....	26·1
Argentine Republic	25·7
Australasia.....	24·0

• Confederate debt only.

If Australasia be taken as a whole, the proportion required to pay interest on the Public Debt is not large in comparison with that of most other countries, and, should allowance be made for the return from works for which the debt was incurred, its position in this respect would be equalled by few.

GENERAL AND LOCAL REVENUE AND EXPENDITURE.

Taxation for
local govern-
ment.

Systems of local government are in force in all the Colonies, but the extent to which the power of self-taxation for local purposes has been availed of is very different in the several Provinces. Thus almost the whole area of Victoria, Queensland, and New Zealand, and the settled districts of the province of South Australia is included within the boundaries of municipalities,

shires, and divisions ; but, in the remaining Colonies of the group, local works of a large part of the country still form a charge upon the central government. The following table shows the area incorporated, and that yet to be placed under local supervision (information regarding four colonies, however, can only be given) :—

Incorporated and Unincorporated Areas.

Colony.	Area.	
	Under care of Local Bodies.	Unincorporated.
	Square miles.	Square miles.
New South Wales	2,315	308,385
Victoria	87,078	806
Queensland	668,252	245
Tasmania	12,535	13,680

The following table shows the total revenue received by the local bodies, the amounts collected locally and the endowment from the general government ; for Western Australia no information is available :—

Local Revenue and Expenditure.

Colony.	Revenue			Total Expenditure.
	Collected locally.	Endowment from Government.	Total.	
	£	£	£	£
New South Wales...	772,902	154,736	927,638	935,967
Victoria	1,273,855	577,456	1,851,311	2,084,860
Queensland	406,287	323,817	730,104	745,894
South Australia.....	258,286	141,396	399,682	359,958
Tasmania	178,727	22,535	201,262	205,071
New Zealand	1,219,240	144,008	1,363,248	1,381,321
Australasia.....	4,109,297	1,363,948	5,473,245	5,713,071

The expenditure in the last column includes the amount charged to the loans raised by local bodies, and also differs from the sum given on page 281, which excludes the State endowment.

REVENUE PER HEAD.

Adding together the revenue obtained by the State and to that raised by local taxation the figures in the following statement are arrived at; in the case of the General Revenue, receipts from loans are not included.

Local and General Revenue, 1890-91.

Colony.	General.	Local.	Total.
	£	£	£
New South Wales	10,047,152	772,902	10,820,054
Victoria	8,343,588	1,273,855	9,617,443
Queensland	3,350,223	406,287	3,756,510
South Australia	2,732,222	258,286	2,990,508
Western Australia.....	497,670	.....*	497,670
Tasmania.....	758,100	178,727	936,827
New Zealand	4,193,942	1,219,240	5,413,182
Australasia	29,922,897	4,109,297	34,032,194

* No returns.

The receipts from loans which are included in local revenue given above, were in New South Wales £143,586, Queensland £64,550, and New Zealand £51,500; the amounts for other Colonies cannot be distinguished.

The total revenue per head from all sources ranged from £9 19s. 3d. in the case of Western Australia, to £6 10s. 4d. in Tasmania, while that for Australasia generally was £8 18s. 10d.

Revenue per head of population:—

Colony.	General.	Local.	Total.
	£ s. d.	£ s. d.	£ s. d.
New South Wales	8 15 8	0 13 6	9 9 2
Victoria	7 7 3	1 2 6	8 9 9
Queensland	8 10 6	1 0 8	9 11 2
South Australia	8 10 8	0 16 1	9 6 9
Western Australia.....	9 19 3	.....*	9 19 3
Tasmania.....	5 5 6	1 4 10	6 10 4
New Zealand	6 15 1	1 19 3	8 14 4
Australasia	7 17 3	1 1 7	8 18 10

* No returns.

Besides the revenue which is raised by general or local taxation from public lands and for Services rendered, the various Colonies have had available considerable sums of loan funds, but it is not proposed to consider this source of income in the present place, as the whole question of the Public Debt is dealt with elsewhere; however, under the head of general expenditure presently given, the expenditure from loans will be shown.

The total sum expended by the general and local Government of Australasia during the year 1890-91 fell little short of £46,000,000, or £12 1s. 4d. per head. Of this large sum £31,035,390, or £8 3s. 2d. per inhabitant, was spent by the general Governments from their revenues, and £10,536,634 or £2 15s. 4d. per inhabitant from loans; the local expenditure, exclusive of course of a sum equal to the Government endowment, was £4,349,123 or £1 2s. 10d. per inhabitant. The loan expenditure given for Tasmania is exclusive of £1,124,879—the sum paid by the State for the purchase of the Main Line Railway :—

General Loan and Local Expenditure.

Colony.	Government.		Local.	Total.
	General.	Loans.		
	£	£	£	£
New South Wales.....	10,378,603	4,835,101	781,231	15,994,935
Victoria	9,128,699	2,649,888	1,507,404	13,285,991
Queensland.....	3,684,655	1,478,269	422,077	5,585,001
South Australia.....	2,603,498	593,163	218,562	3,415,223
Western Australia'	435,623	77,994	.....*	513,617
Tasmania	722,746	503,402	182,537	1,408,685
New Zealand	4,081,566	398,817	1,237,312	5,717,695
Australasia.....	31,035,390	10,536,634	4,349,123	45,921,147

* No returns.

EXPENDITURE FROM LOANS.

Dividing the expenditure under each Colony by the population the following figures are obtained :—

Expenditure per Head of Population.

Colony.	Government.		Local.	Total.
	General.	Loans.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales.....	9 1 5	4 4 7	0 13 8	13 19 8
Victoria	8 1 1	2 6 9	1 6 7	11 14 5
Queensland.....	9 7 6	3 15 3	1 1 6	14 4 3
South Australia.....	8 2 7	1 17 1	0 13 8	10 13 4
Western Australia	8 14 5	1 11 3	.....*	10 5 8
Tasmania	5 0 7	3 10 1	1 5 4	9 16 0
New Zealand	6 11 5	0 12 10	1 19 10	9 4 1
Australasia.....	8 3 2	2 15 4	1 2 10	12 1 4

* No returns.

EXPENDITURE FROM LOANS.

As shown in one of the tables just given, the expenditure of Australasia during 1890-91 from funds derived out of the proceeds of loans was £10,536,634 ; of this amount £6,867,203 was for railways, and £3,669,431 for other public works. Besides these sums, there was an apparent expenditure of £1,096,400 in redemption of loans, but this last item in no way affects the amount of the public debt, and no further reference need be made to it

The following statement gives the expenditure for each Colony, the amount for railways being stated separately :—

Expenditure on Works.

Colony.	Expenditure on—		Total.
	Railways.	Other Public Works.	
	£	£	£
New South Wales	3,096,290	1,738,811	4,835,101
Victoria	2,000,787	649,101	2,649,888
Queensland	1,026,665	451,604	1,478,269
South Australia	244,997	348,166	593,163
Western Australia.....	41,631	36,363	77,994
Tasmania	*269,604	233,798	*503,402
New Zealand	187,229	211,588	398,817
Australasia	6,867,203	3,669,431	10,536,634

* Exclusive of £ 1,124,870 paid for Main Line Railway.

The loan expenditure for New South Wales and Western Australia is for the year ending December, 1891; Victoria and South Australia, June, 1891, and for the remaining colonies, December, 1890, these being the dates of the latest published returns.

The total expenditure from loans up to the year 1890-91, exclusive of the amounts paid in redemption of loans, was £182,994,070. Of this sum £136,052,846, or nearly three-fourths, was spent in the construction of Railways, Water Supply, Sewerage, and Electric Telegraphs—directly reproductive works—whilst of the balance a very large sum was expended on other

TOTAL LOAN EXPENDITURE.

works of a permanent nature, such as roads and bridges, harbour and dockworks, lighthouses, schools, and public buildings generally. These, though not in all cases revenue-producing, have been undertaken for the development of the resources of the Colonies and for facilitating settlement; £7,687,633 was expended on defence works and immigration. In the New Zealand returns, a very large sum has of necessity been placed under miscellaneous expenditure, as there is no available record of the services upon which the loans of the old Provisional Governments were expended, except where such was for the construction of Railways. The following table shows the total loan expenditure for each Colony up to the respective dates mentioned for the previous table, except South Australia which closed December, 1890:—

Loan Expenditure of each Colony.

Colony.	Amount spent on works yielding direct Revenue.				Other Works and Services.	Total.
	Railways.	Water Supply and Sewerage.	Electric Telegraphs.	Total.		
	£	£	£	£	£	£
New South Wales..	35,582,392	5,569,109	775,404	41,927,055	7,235,452	49,162,507
Victoria	33,585,446	7,180,115	.....	40,765,561	2,693,161	43,458,722
Queensland	16,401,085	251,526	806,824	17,459,435	8,024,535	25,483,970
South Australia ..	11,382,756	2,826,416	839,722	15,048,894	4,830,755	19,885,649
Western Australia..	874,129	7,725	237,965	1,119,819	333,555	1,453,374
Tasmania	3,254,409	.....	101,550	3,355,959	2,834,732	6,190,691
New Zealand	15,208,374	561,101	606,648	16,376,123	*20,983,034	37,359,157
Australasia.....	116,288,591	16,396,082	3,368,173	136,052,846	46,941,224	182,994,070

* Provincial Loans to the amount of £11,535,469 expended prior to 1876, included in this amount.

For New South Wales with the amount set down due to Railways there is included £1,491,711 expended on Tramways. The

expenditure on other works and services given above in one sum may be still further subdivided :—

Loan Expenditure on Works not directly Productive.

Colony.	Roads and Bridges, Harbours, &c.	Defence Works	Immigra-tion.	Miscella-neous.	Total.
	£	£	£	£	£
New South Wales.....	3,712,170	1,013,679	569,930	1,034,673	7,235,452
Victoria	717,080	93,299	.....	1,377,776	2,693,161
Queensland.....	2,675,932	151,534	2,691,775	2,505,244	8,024,535
South Australia.....	2,623,033	230,906	.....	1,932,761	4,836,755
Western Australia	133,175	.....	.....	200,380	333,555
Tasmania.....	1,645,132	116,591	235,000	333,009	2,334,732
New Zealand	4,479,931	429,719	2,145,150	*13,923,134	20,933,034
Australasia	15,936,564	2,045,773	5,641,355	23,267,027	46,941,224

* Provincial Loans expended prior to 1876 included in this amount.

The next table shows the amount expended per inhabitant from loan funds, the classification already made being adopted :—

Amount per Head Expended from Loans.

Colony.	Amount spent on Works yielding direct Revenue.				Other Works and Services.	Total.
	Railways.	Water Supply and Sewerage.	Electric Telegraphs	Total.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales...	31 2 1	4 17 5	0 13 6	36 13 0	6 6 6	42 19 6
Victoria	29 12 9	6 6 8	.....	35 19 5	2 7 6	38 6 11
Queensland	42 4 5	0 12 11	2 1 6	44 18 10	20 13 2	65 12 0
South Australia ..	35 14 10	3 17 6	2 12 9	47 5 1	15 3 3	62 8 9
Western Australia	17 10 1	0 3 1	4 15 3	22 8 5	6 13 7	29 2 0
Tasmania	22 12 10	.....	0 14 2	23 7 0	19 14 5	43 1 5
New Zealand	24 6 2	0 17 11	0 19 5	26 3 6	33 10 9	59 14 3
Australasia	30 11 3	4 6 1	0 17 9	35 15 1	12 6 9	48 1 10

REPRODUCTIVE WORKS.

The loan expenditure per head varies considerably in the several Colonies, ranging from £29 2s. in the case of Western Australia, to £65 12s. in Queensland. In all the Colonies the debt has increased in a much greater ratio than the population, but the justification of this expenditure will, for most of the Colonies, be found in the objects for which the debt was incurred. The works or services paid for out of loan funds, and the amount paid on account of each service, are shown in the tables on pages 284 and 285. The following is a further statement giving the percentage of loan money devoted to reproductive works, and may throw some additional light on the subject.

Proportion of Loans spent on Reproductive Works.

Colony.	Proportion of Loan Expenditure devoted to Revenue-yielding Works.
	Per cent.
New South Wales	85·3
Victoria	93·8
Queensland	68·5
South Australia	75·7
Western Australia	77·1
Tasmania	54·2
New Zealand	43·8
Australasia	74·3

The figures in the foregoing statement, however, do injustice to both Tasmania and New Zealand, and to a less extent to Queensland and South Australia ; for, though no direct revenue-yielding works of any moment have been omitted, still much of the loan expenditure of the Colonies indicated, though not actually bringing in revenue to the State, have so facilitated settlement that the expenditure yields an indirect return.

PUBLIC DEBT.

The gross Public Debt of Australasia, at the end of 1891, amounted to £192,565,327, which has been raised by Debentures, Inscribed Stock, and Treasury Bills. The amount of each class of

Stock outstanding is given hereunder. The New South Wales figures are practically as the accounts stood on the 2nd January, 1892, and therefore include the loan of £4,500,000 floated in the previous September, also £294,200 converted into 3½ per cent. Stock; but it excludes the sum of £1,503,100 redeemed on the 1st January. The South Australian and Victorian figures include the loans raised in February, April, and July, 1891. In all other Colonies the figures are approximately for December, 1891, allowance having been made for new issues and redemptions taking place during that year:—

Gross Indebtedness of each Colony.

Colony.	Debenture Bonds.	Inscribed Stock.	Treasury Bills.	Total.
	£	£	£	£
New South Wales	11,822,949	36,963,600	2,223,884	51,010,433
Victoria	22,560,801	21,049,464	.....	43,610,265
Queensland	12,013,000	17,421,734	.....	29,434,734
South Australia	11,860,400	9,296,900	500,000	21,657,300
Western Australia	496,501	1,120,944	.....	1,617,445
Tasmania	5,028,950	1,000,000	403,850	6,432,800
New Zealand	9,514,911	29,287,439	.....	38,802,350
Australasia	73,297,512	116,140,081	3,127,734	192,565,327

Western Australia, Tasmania, and New Zealand have established general Sinking Funds. The amounts at the credit of these funds, also the net Public Debt of each of the Colonies, is given below:—

Net Indebtedness.

Colony.	Gross Public Debt.	Sinking Funds.	Net Indebtedness.	
			Total.	Per Inhabitant.
	£	£	£	£ s. d.
New South Wales.....	51,010,433	.....	51,010,433	43 15 6
Victoria	43,610,265	.....	43,610,265	37 13 4
Queensland.....	29,434,734	.....	29,434,734	71 14 7
South Australia.....	21,657,300	.....	21,657,300	68 3 1
Western Australia	1,617,445	85,106	1,532,339	28 15 2
Tasmania	6,432,800	124,804	6,307,996	41 6 7
New Zealand.....	38,802,350	1,407,604	37,394,746	58 19 6
Australasia.....	192,565,327	1,617,514	190,947,813	48 19 6

DEBTS REDUCED TO COMMON BASIS.

Rate of interest
to be considered.

The relative burthen of the public debt for each Colony is not to be determined by comparing the gross amount with the population, unless the rate of interest payable is also taken into consideration. Thus the general average interest payable by New South Wales is 3·80 per cent., while New Zealand pays 4·22 per cent., so that a debt of £100 in the former is not more burthen-some than £90 in the latter Colony. To afford an exact basis of comparison, the debt of each Colony is shown in the following statement, as it would be if the interest payable were uniformly 4 per cent., which is practically the average for all the Colonies. The amounts in all cases are exclusive of short-dated Treasury Bills :—

Public Debt of Australasia reduced to a 4 per cent. basis.

Colony.	Average rate of Interest payable on existing Public Debt.	Total Debt.	
		On 4 per cent. basis.	Per Inhabitant.
	Per cent.	£	£ s. d.
New South Wales	3·803	46,383,811	39 16 1
Victoria	4·002	43,632,070	37 13 8
Queensland	4·053	29,824,744	72 13 8
South Australia	4·085	21,606,893	66 7 1
Western Australia.....	4·214	1,614,319	30 5 11
Tasmania... ..	4·114	6,072,414	39 15 9
New Zealand	4·222	39,470,154	62 5 0
Australasia	4·028	189,134,819	48 10 2

In 1884 the nominal rate of interest on New South Wales loans was fixed at $3\frac{1}{2}$ per cent., at which rate stock to the amount

of £28,294,200 has been sold to January, 1892. It was not till 1888 that this example was followed by any of the other Colonies, when Queensland successfully floated the loan of £2,520,100 at the reduced rate, and in 1889 Victoria, South Australia, Tasmania, and New Zealand, in the order named, were successful in issuing stock at a similar nominal rate. Western Australia is now the only Colony floating loans at 4 per cent. The following shows the amount and proportion to the total debt under each rate of interest for Australasia:—

Rates of Interest Payable.

Interest rate per cent.	Amount of Stock.	Percentage of Total Public Debt.
	£	Per cent.
Nil.....	68,271	0·04
7.....	15,000	0·01
6½.....	35,000	0·02
6.....	2,894,858	1·50
5.....	14,481,298	7·52
4½.....	50,000	0·03
4½.....	5,742,133	2·98
4.....	115,869,749	60·17
3½.....	53,409,018	27·73
Total	192,565,327	100·00

The dates of repayment of the amounts which constitute the Public Debt of Australasia, extend from the year 1892 to the year 1941.

In the subjoined table, the amount of redemptions in consecutive quinquennial periods is shown. In the case where loans are redeemed within a certain period at the option of the Government, the latest date has been adopted. It will be seen that during the next five years the Colonies will have to redeem over £11,000,000, but it will be fifteen years before they will be called upon to pay off their loans to an inconvenient extent. The heaviest period in the series is from 1922 to 1926, when over £40,000,000, will

be redeemable, of which £16,500,000 are New South Wales stock:—

Periods for the Redemption of Loans.

Period.	New South Wales.	Victoria.	New Zealand.	Other Colonies.	Australasia.
	£	£	£	£	£
1892-1896	1,840,400	2,571,000	5,511,800	1,444,960	11,373,050
1897-1901	1,702,700	5,581,365	133,900	1,556,523	8,974,493
1902-1906	2,645,700	5,457,000	114,600	226,998	8,444,298
1907-1911	6,113,200	6,000,000	1,065,000	7,547,700	20,725,900
1912-1916	60,000	4,000,000	1,475,100	16,944,950	22,480,050
1917-1921	11,794,200	10,000,000	.....	3,310,700	25,104,900
1922-1926	16,500,000	10,000,000	.....	13,008,834	40,108,834
1927-1931 .....	.....	.....	24,504,255	450,000	25,014,255
1932-1936	7,186,300	.....	.....	4,107,599	11,293,899
1937-1941 .....	.....	.....	2,708,000	4,063,500	6,831,500
Total, distributed....	47,851,500	43,610,265	35,632,655	53,261,759	180,356,179
Treasury Bills	2,223,884	.....	.....	903,850	3,127,734
Loans redeemed in annual drawings and amounts not classified under any specific year	935,049	.....	3,169,695	4,976,670	9,081,414
Total, Public Debt....	51,010,433	43,610,265	38,802,350	59,142,279	192,565,327

Australasian Debts incurred for the development of the Colonies.

It has been frequently insisted upon in this chapter that the Public Debt of Australasia has been incurred as an aid to the development of the material resources of the Colonies, and, unlike that of European nations, no portion of it has been expended on war charges, except in New Zealand to a small extent, and very little compared with the total amount on defence and other works of an entirely unproductive character. The debt has certainly, even from the first, increased at a much higher ratio than the population, but this was a necessary corollary to the progress of the country, inasmuch as the Governments of all the Colonies systematically opposed the prosecution of railways and similar undertakings by private enterprise. The amount of the Public Debt in decennial periods since 1861 is given hereunder. The increase between the periods has been, in round numbers, from 1861 to 1871, 27 millions; from 1871 to 1881, 57 millions, and from 1881 to 1891, 97 millions.

Growth of Public Debt, 1861-1891.

Colony.	1861.	1871.	1881.	1891.
	£	£	£	£
New South Wales...	4,017,630	10,614,330	16,924,019	51,010,433
Victoria	6,345,060	11,994,800	22,426,502	43,610,265
Queensland.....	70,000	4,047,850	13,245,150	29,434,734
South Australia.....	866,500	2,167,700	11,196,800	21,657,300
Western Australia..	.....	.....	511,000	1,617,445
Tasmania .....	.....	1,315,200	2,003,000	6,432,800
New Zealand	600,761	8,900,991	29,659,111	38,802,350
Australasia.....	11,899,951	39,040,871	95,965,582	192,565,327

The figures just given would be incomplete without corresponding information of the debt per head for the same period. In 1861 the debt stood at £9 10s. 5d.; in 1871, £19 16s. 4d.; in 1881, £34 0s. 2d., while in 1891 it was £49 7s. 9d. For each Colony the figures stand as follow:—

Public Debt per Head—1861-1891.

Colony.	1861.	1871.	1881.	1891.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales.....	11 4 5	20 10 0	21 14 8	43 15 6
Victoria	11 14 3	16 0 11	25 9 7	37 13 4
Queensland.....	2 0 9	32 6 11	58 7 2	71 14 7
South Australia.....	6 16 8	11 13 7	39 2 1	68 3 1
Western Australia .....	.....	.....	17 0 6	30 7 6
Tasmania .....	.....	12 18 5	16 16 10	42 3 0
New Zealand	6 1 4	33 6 9	59 4 2	61 3 11
Australasia	9 10 5	19 16 4	34 0 2	49 7 9

Besides the debt incurred by the various Governments, there are in some of the Colonies debts contracted by local bodies or municipalities; these aggregate about eleven and a-half millions but information regarding two of the Colonies (South Australia and Western Australia) is not available. The local debts, so far as ascertained, were, New South Wales, £1,751,296, or less sinking funds, £1,628,203; Victoria, £2,944,440, Tasmania, £420,450, and New Zealand, £6,427,474. Local debts.

LOAN ISSUES.

Terms on which
loans were
raised.

The following statement shows the terms on which the principal colonies were able to borrow in the London market during the years 1889, 1890, and 1891. The computations allow for the repayment of the various loans at par on maturity. The loans are arranged in the order in which they were floated, and it will be seen that the market has been gradually rising against the colonies during the whole period. The loan yielding least income to investors and consequently the most favourable to the colony borrowing, was the Victorian loan of January, 1889, which gave the investors £3 7s. 3d. per cent., while the highest was the West Australian loan of July, 1891, which gave investors £4 1s. 5d. per cent. During the period covered by the table the average interest has increased nearly seven shillings per cent., the increase being fairly general:—

Loans floated in 1889-90-91.

Colony.	Date of Negotiation.	Principal.		Currency of Loan.	Average rate per cent. at which Stock was sold.		Interest per cent. to Investors.
		Rate of Interest.	Amount.		Gross Amount.	Ex Accrued Interest.	
	1889.	Per cent.	£	years.	£ s. d.	£ s. d.	£ s. d.
Victoria	January.	3½	3,000,000	35	103 5 11½	102 14 10	3 7 3
South Australia...	January.	3½	1,317,800	40	100 1 10	99 4 6	3 10 9
Tasmania	April....	3½	1,000,000	30 to 50	98 5 8½	97 13 6	3 12 2
New South Wales	July	3½	3,500,000	30	102 8 0½	99 17 5½	3 10 2
Western Australia	July	4	100,000	45	108 15 3	108 1 11	3 12 2
New Zealand	October..	3½	2,700,000	50	95 16 8	95 10 2	3 13 10
	1890.						
Queensland.....	March	3½	2,264,734	34½	97 18 7	96 7 4	3 13 8
Victoria	April....	3½	4,000,000	34	101 10 4½	100 2 4	3 9 11
	1891.						
South Australia...	February	3½	*455,400	48	98 1 5	97 4 6½	3 12 6
Victoria	April....	3½	2,000,000	35	97 11 4	96 4 3	3 14 2
Queensland.....	May-June	3½	2,500,000	40	89 19 4½	89 15 0	3 19 7
Victoria	July	3½	1,000,000	34½	96 5 5	96 2 4	3 14 2
Western Australia	July	4	250,000	40	100 10 10	99 1 6½	4 1 5
New South Wales	Sept.....	3½	4,500,000	27	95 0 5	94 4 5	3 16 8

* Part of the £1,532,913 loan.

Nothing has occurred in the colonies which would warrant the great change that the last three years have witnessed. All are engaged in systematically developing their resources, and the position of most of them is distinctly better than as the case a few years ago. Most of the loans offered during the year 1891

were more or less failures, and in some cases the failure was absolute. Such a condition of things was entirely unforeseen in 1890, and has confidently been attributed to the general stringency begotten by the Argentine crisis, and not to any want of faith in the resources of Australasia ; but whatever the cause may be the effect has been very disturbing to Colonial Government finance, and most of the Treasurers have been obliged to issue Treasury Bills to tide them over their difficulties and give them time to adjust their expenditure. These Treasury Bills are mostly short dated, having a currency of from two to four years with interest at from 4 to 4½ per cent.

Failures of Colonial loans.

The cost of floating loans varies for the different colonies. The average expense per £100 of stock is given in the following table for the four colonies, concerning which there is information. In all cases except the Tasmanian loans of 1884 and 1886, the stock is inscribed. It will be seen that for recent loans Victoria has been able to place its stock on the London market at the minimum of cost :—

Cost of floating loans.

Cost of Floating Loans.

Colony.	Year of Negotiation.	Principal.		Expenses per £100 Stock.
		Rate of Interest.	Amount.	
New South Wales	1888	3½	£ 5,500,000	£ 1 11 5
	1889	3½	3,500,000	1 13 0
	1891	3½	4,500,000	1 8 11
Victoria.....	1889	3½	3,000,000	1 2 11
	1890	3½	4,000,000	1 2 10
	1891	3½	2,000,000	1 2 11
	1891	3½	1,000,000	1 2 6
Tasmania	1884	4	800,000	0 18 3
	1886	4	1,000,000	0 18 0
	1889	3½	1,000,000	1 4 10
Queensland	1891	3½	2,500,000	1 14 9

The selling price of a loan is not perhaps the most exact test which may be applied to ascertain the credit of a country in the

Selling price of
Colonial stock.

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 table on page 292 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, 1891, due allowance being made in each case for accrued interest, and for repayment of loans at par at maturity. Similar figures for the same month of 1868 and 1878 have been added :—

Interest per cent. returned by Stock.

Country.	1868.	1878.	1891.
	£ s. d.	£ s. d.	£ s. d.
New South Wales	5 0 0	3 16 3	3 12 2½
Victoria	4 17 6	4 2 6	3 12 2
Queensland	5 6 3	4 5 0	3 16 11¼
South Australia	5 2 6	4 2 6	3 16 2
Tasmania	5 8 9	4 12 6	3 19 8
New Zealand	5 1 3	4 15 0	3 17 10
Canada	5 12 6	4 9 0	3 12 0
Cape of Good Hope	5 1 3	4 11 3	3 13 0
Natal	5 11 3	4 11 3	3 12 0½
India.....	3 13 9	3 10 6	3 8 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 £72 could be obtained for twenty-three years previously. In June, 1891, British consols were selling at a rate which would yield £2 15s. 8d. per cent. interest; Canadian and Indian stock were also selling at slightly better rates than the best Australasian stock. This is certainly anomalous, as there is nothing in the history of these last-mentioned countries, or in the nature of their resources, to warrant even the slight preference shown to their stock above that of New South Wales or Victoria.

CURRENCY.

The coins circulating in Australasia are those of the United Kingdom. Gold is the standard, the silver and copper current are more properly tokens than coins. Gold coins are legal tender to any amount, silver for an amount not exceeding forty shillings, and bronze for one shilling. The standard weight and fineness of each coin are given below. The least current weight of a sovereign is 122·5 Imperial grains, and a half-sovereign 61·125 grains :—

Coins of United Kingdom current.
Standard weight of coins.

Coins in circulation.

Denomination of Coin.	Standard Weight.	Standard Fineness.
	Imperial grains.	
Gold { Sovereign	123·27447	{ Eleven-twelfths fine gold, one-twelfth alloy, or decimal fineness ·91666.
{ Half-sovereign	61·63723	
Silver..... { Crown.....	436·36363	{ Thirty-seven-fortieths fine silver, three-fortieths alloy, or decimal fineness ·925.
{ Double Florin..	349·09090	
{ Half-crown	218·18181	
{ Florin	174·54545	
{ Shilling	87·27272	
{ Sixpence	43·63636	
{ Threepence.....	21·81818	
Bronze ... { Penny.....	145·83333	{ Mixed metal, copper, tin, and zinc.
{ Halfpenny	87·50000	

The only coins struck at the Sydney and Melbourne Mints are of gold, though silver and bronze of English coinage are also issued; the amounts of these issued during 1891 were at the Sydney Mint—silver, £17,200; bronze, £1,980; and at the Melbourne Mint—£33,850 and £1,915 respectively. The Sydney Branch of the Royal Mint was opened on the 14th May, 1855, and that in Melbourne on the 12th June, 1872. The amount of gold received for coinage up to the end of 1891, in the Sydney Mint was 18,705,258 oz., valued at £70,337,829, and that received into the Melbourne Mint amounted to 12,829,773 oz., valued at £51,352,820.

Coinage of Australian Mints.

MINT RECEIPTS AND ISSUES.

Gold minted at
Sydney and
Melbourne.

The following table shows the quantity of gold received into the two Mints to the end of 1891, that received from outside sources being distinguished from that locally produced :—

Gold received at the Sydney and Melbourne Mints.

Country in which the Gold was raised.	Quantity received for Coinage.
Sydney Mint :—	
	oz.
New South Wales	7,558,815
Queensland	7,106,131
South Australia	74,845
New Zealand	2,249,940
Other Countries	1,472,508
Old Coin, &c.	243,019
Total Sydney Mint	18,705,258
Melbourne Mint :—	
Victoria	10,122,256
Other Countries	2,707,517
Total Melbourne Mint	12,829,773
Australasia	31,535,031

Total value of
Australasian
gold.

The total value of gold raised in Australasia to the end of 1890 was £342,031,743, of which amount 33·8 per cent. passed through the Mints, during the same period.

The following table shows the amount of gold coin and bullion issued to the end of 1891 by each mint :—

Value of Gold Coin and Bullion issued by the Mints.

Mint.	Sovereigns.	Half-sovereigns.	Bullion.	Total Value of Coin and Bullion issued.
	£	£	£	£
Sydney	64,701,500	2,497,500	2,942,467	70,141,467
Melbourne	45,635,541	277,807	5,436,599	51,349,947
Total	110,337,041	2,775,307	8,379,066	121,491,414

The quantity of gold received into the Sydney Mint in 1891 was 787,225 oz., valued at £2,818,002, of which only 142,470 oz., or less than one-fifth, was the produce of New South Wales. Queensland contributed 541,534 oz., or at least two-thirds of the whole, the remainder being chiefly from New Zealand and South Australia, and old coin received for reminting. The amount of gold received into the Melbourne Mint for the same year was 805,231 oz., valued at £3,208,352, of which more than three-fourths was the produce of Victoria.

The gold coin issued in 1891 from the Sydney Mint was 2,596,000 sovereigns, and 154,000 half-sovereigns. The Melbourne Mint issued 2,749,592 sovereigns during the year, but no half-sovereigns have been issued since 1887. The value of the coinage issued from the Sydney, Melbourne, and London Mints was as follows—that of the London Mint being only for 1890, later returns not being available:—

	£
Sydney	2,818,002
Melbourne	3,208,352
London	7,680,262

Besides gold coin the Sydney Mint during 1891 issued gold bullion to the value of £93,424, and the Melbourne Mint to the value of £460,064.

BANKING.

The banks trading under special Acts of Parliament or Charter are required by law to furnish quarterly statements of their assets and liabilities in a specified form, and from these statements the tables in this chapter have been compiled. The returns furnished by the banks, though in compliance with the laws of the various colonies, are by no means so satisfactory as could be desired.

Thus, in the subsequent table, the total liabilities of the banks are given as £117,393,290, and the assets £171,020,826, showing a surplus of assets of £53,627,536. If the returns gave all the facts in relation to the operation of the banks, this surplus would be represented almost entirely by capital or funds provided out of their own resources, but the capital and reserve funds amount only to £27,074,050, so that there is a balance of £26,500,000 to be otherwise accounted for. This sum represents deposits obtained in England and elsewhere, and used in their Australian business. The total English deposits with Australasian banks, however, is probably not less than 42 millions. The laws relating to statements to be made by banks are somewhat out of date, and the returns are not to be taken without question as indicating the stability or otherwise of the banks, for an institution may show, as did the late Oriental Bank Corporation, a large surplus of assets over liabilities in the Colonies, and yet be on the brink of insolvency by reason of its operations elsewhere.

Distribution of
Banks.

Of the twenty-eight banks operating in Australasia at the close of 1891, sixteen had offices in New South Wales, sixteen in Victoria, eleven in Queensland, ten in South Australia, five in Western Australia, four in Tasmania, and six in New Zealand. There was only one bank doing business in each of the seven colonies, two that did business in six colonies, one in five colonies, three in four, three in three, five in two, and thirteen banks did not extend their business beyond the limits of one colony. The liabilities and assets of the banks in the different colonies during the December quarter of 1891 are shown in the following table; the figures must be taken with the qualifications already given:—

Liabilities, December Quarter, 1891.

Colony.	Notes in circulation not bearing Interest.	Bills in circulation, not bearing Interest.	Deposits.		Balances due to other Banks.	Total.
			Not bearing Interest.	Bearing Interest.		
New South Wales..	£ 1,073,425	£ 115,090	£ 9,188,873	£ 26,470,817	£ 108,530	£ 37,556,735
Victoria	1,408,320	115,606	9,722,121	29,911,234	167,003	41,324,284
Queensland	636,846	31,791	2,908,900	7,144,357	114,577	10,836,771
South Australia ...	459,082	17,548	1,739,323	5,985,584	51,909	8,303,506
Western Australia..	90,521	7,068	536,560	830,371	3,366	1,467,886
Tasmania	149,075	27,470	1,052,180	2,805,013	159,039	4,192,791
New Zealand	946,045	57,065	3,324,312	9,345,012	35,393	13,711,317
Australasia....	5,363,314	371,647	23,522,769	82,492,393	643,167	117,393,290

Assets, December Quarter, 1891.

Colony.	Coin.	Bullion.	Landed Property.	Notes and Bills discounted, and all other Debts due to the Bank.	Notes and Bills of other Banks, and Balances due from other Banks.	Total.
New South Wales..	£ 4,716,067	£ 79,763	£ 1,634,605	£ 45,001,118	£ 2,036,978	£ 53,468,536
Victoria	6,795,128	323,508	1,964,390	52,586,838	638,541	62,307,405
Queensland	1,735,522	346,393	729,330	17,482,380	314,555	20,653,180
South Australia ..	1,523,020	18,141	513,832	8,339,191	356,363	10,805,547
Western Australia..	336,626	21,740	111,422	1,772,784	43,435	2,336,007
Tasmania	713,010	...	83,873	3,571,923	59,445	4,428,251
New Zealand	2,231,242	126,346	525,455	13,968,054	165,803	17,016,900
Australasia....	18,155,615	914,896	5,562,907	142,772,283	3,615,120	171,020,826

The preceding table shows that nearly 95 per cent. of the Liabilities Australasian liabilities of the bank consisted of deposits, viz. — of Deposits. £111,015,162 out of £117,393,290. The statements by banks

CAPITAL AND RESERVED PROFITS.

in each colony, with the exception of Tasmania, distinguish between deposits at call and deposits bearing interest. In Tasmania, although not obliged by law to do so, the same distinction has been made by every bank but one; and assuming the proportion of deposits at call to total deposits in that bank to be the same as in the case of the other banks doing business in Tasmania, the total deposits at call are as stated in the table, viz:—£28,522,769, or somewhat over 25 per cent. of all deposits.

Capital and
Reserves.

The total shareholders' capital invested in all the banks amounts to £17,506,084, and the reserve profits £9,567,966. The capital, profits, and other information regarding banks are given below. The institutions are not stated separately, but grouped together under the heading of the colony or country in which their head-quarters are situated. The figures refer to the December quarter, 1891:—

Capital and Reserved Profits.

Banks whose Head Offices are in	Number of Banks.	Capital paid up.	Reserved Profits at the time of declaring last Dividend.	Total.
		£	£	£
England	87	7,367,156	2,971,531	10,338,687
New South Wales	4	2,833,980	2,506,338	5,340,318
Victoria	8	4,806,250	3,007,021	7,813,271
Queensland	3	1,350,000	544,173	1,894,173
South Australia	1	400,000	159,873	559,873
Western Australia	1	70,000	83,492	153,492
Tasmania	2	278,698	224,308	503,006
New Zealand	1	400,000	71,230	471,230
Total	28	17,506,084	9,567,966	27,074,050

The following table shows the reserve of coin and bullion held by the banks as against their total Australasian liabilities, and also against their liabilities at call, viz., deposits at call and note circulation. The table, however, cannot be taken as complete, as those banks which receive deposits in England and elsewhere, and which do not include such deposits, or liabilities are shown in too favourable a light :—

Reserves of coin and bullion.

Cash Reserves.

Colony.	Coin and Bullion.	Total Liabilities.	Liabilities at Call.	Per centage of Coin and Bullion.	
				To Total Liabilities.	To Liabilities at Call.
	£	£	£		
New South Wales	4,795,835	37,556,735	10,862,298	12·77	44·15
Victoria	7,117,636	41,324,284	11,130,441	17·22	63·95
Queensland	2,131,915	10,836,771	3,545,746	19·67	60·13
South Australia..	1,546,161	8,303,506	2,248,405	18·62	68·77
West'rn Australia	408,366	1,467,886	627,081	27·82	65·12
Tasmania	713,010	4,192,791	1,201,255	17·01	49·36
New Zealand.....	2,357,588	13,711,317	4,270,857	17·19	55·20
Australasia ...	19,070,511	117,393,290	33,886,083	16·24	56·28

It will thus be seen that New South Wales holds the weakest position in the proportion of cash reserves both to total liabilities and liabilities at call.

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

Extent of banking operations

CAPITAL AND DEPOSITS IN BANKS.

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.
	Paid up Capital and Reserves.	Deposits.	Total.	
United Kingdom	284	626	910	£ 24
France	140	128	268	7
Germany	85	146	231	5
Russia	42	64	106	1
Austria	45	102	147	4
Italy	25	83	108	4
Spain	31	16	47	3
Portugal	6	4	10	2
Belgium	11	19	30	5
Holland	14	6	20	4
Sweden	9	15	24	5
Norway	5	1	6	3
Denmark	2	21	23	12
Switzerland	5	12	17	6
Cape Colony	2	7	9	6
Argentina	12	17	29	8
Uruguay	3	5	8	12
United States	270	760	1,030	16
Canada	13	27	40	8
Australasia	27	111	138	37

SAVINGS BANKS.

In all the colonies Savings Banks are in existence, either directly or indirectly under the control of 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 twenty-six 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 :—

Savings and Post Office Banks, 1890-91.

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 ...	143,826	4,730,469	32 17 10	4 4 7	12·8
Victoria	297,430	5,628,577	18 18 6	4 18 9	26·1
Queensland	45,885	1,666,855	36 7 0	4 4 10	11·7
South Australia	74,686	2,158,228	28 17 11	6 14 9	23·3
Western Australia ...	3,014	31,486	10 8'11	0 12 11	6·2
Tasmania	25,324	521,250	20 11 8	3 11 9	17·4
New Zealand	118,344	3,137,023	26 10 2	5 0 3	18·9
Australasia ...	708,509	17,873,888	25 4 7	4 13 9	18·6

The following table shows the like information for some of the principal countries of the world, and is given on the authority of "The Year Book of Commerce" for 1890-91 :—

Country.	No. of Depositors.	Amount of Deposits in Savings Bank.	Average Amount per Depositor.
		£	£ s. d.
United Kingdom	5,800,473	108,127,440	18 13 0
Sweden	1,010,794	13,659,000	13 10 3
Norway	452,736	10,364,000	22 18 0
Holland	499,445	5,980,000	12 0 0
Prussia	5,029,174	144,462,000	28 14 6
Belgium	598,675	10,409,000	17 7 9
Switzerland.....	802,697	23,749,000	29 11 11
Italy	3,508,565	69,188,851	19 14 5
France	5,097,000	92,557,000	18 4 0
United States.....	4,021,523	296,920,000	73 16 7
Australasia, 1890-91.....	708,509	17,873,888	25 4 7

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 deposit in these institutions is equal to nearly £34 for

Total deposits.

TOTAL DEPOSITS IN BANKS.

each inhabitant of Australasia. The largest amount on deposit as compared with population is found in Victoria with £39 13s. 9d., or nearly £6 above the average of all the colonies. The particulars for each will be found below :—

Total Deposits in Banks of Australasia, 1890-91.

Colony.	Deposits in Banks (Averages for the last quarter of 1891).	Deposits in Savings Banks, 1890-91.	Total Deposits.	Amount of Deposits per head of Pop- ulation.
	£	£	£	£ s. d.
New South Wales.....	35,659,690	4,730,469	40,390,159	35 12 3
Victoria	39,633,355	5,628,577	45,261,932	39 13 9
Queensland.....	10,053,257	1,666,855	11,720,112	29 15 4
South Australia.....	7,774,907	2,158,228	9,933,135	31 0 0
Western Australia ...	1,366,931	31,486	1,398,417	28 1 10
Tasmania	3,857,198	521,250	4,378,448	29 17 0
New Zealand.....	12,669,824	3,137,023	15,806,847	25 4 4
Australasia.....	111,015,162	17,873,888	128,889,050	33 16 3

Large sums are also deposited with various Building and Investment Societies, but the returns are deficient. The latest available returns show that the amounts so invested were, in New South Wales £2,881,918, Victoria £5,285,702, New Zealand £285,528.

LIFE ASSURANCE.

Law relating to
Assurance.

The law in some of the colonies does not provide for the publishing of sworn returns by Life Assurance Companies, and although valuable and interesting reports are made annually by

some companies, it has been found quite impossible to distinguish the progress of assurance in each individual colony. Most of the companies have extended their business beyond the Colony in which their chief office is established; the following figures therefore refer to Australasia generally, though only to those offices whose head-quarters are in the colonies. The assets of eleven societies mount to £16,079,136, of which £9,007,310 are invested in mortgage, £2,707,279 in loans on policies and personal security, £1,283,458 in Government securities, £124,909 in shares, £1,717,167 in freehold and leasehold property, cash, principally at fixed deposit, £723,198, and sundry debts, £515,815. The interest earned during the year amounted to £887,729, being at the rate of 5·81 per cent.; the net increase in the accumulated funds was £1,438,262.

On analysing the accounts of these societies, as published, it is seen that the total number of outstanding policies, and the amount they represent, are not given. With regard to new business it will be found that in 1890 there were 32,011 policies issued, to the value of £9,201,925, or an average amount upon each policy of £287, the highest average for the last ten years. This means an increase of 1,514 policies, amounting to £511,383, over the transactions of the previous year, and an advance in the average value of the policies by £2. Since the end of the year 1880 the societies in question issued altogether no less than 300,183 new policies, representing an assurance of £83,177,728, but there is nothing in the published accounts to show how many of these policies have lapsed, and how many still remain in force. The new annual premiums, which amount to £296,612, bear an average rate of £3·223 per cent. to the total amount of new assurance.

The amount of premiums received in 1890 was £2,186,791, of which sum £279,624 was income from new premiums, and £1,907,167 was for renewals. The amount just given was

£37,707 in excess of the income of the previous year. The total receipts, obtained by adding to the premium income the items "consideration for annuities granted," "interest," and other receipts, came to £3,094,745, as against the sum of £2,966,917 in the year 1889, being an increase of £127,828. The average rate of interest realised by the nine offices from which this could be ascertained, as already stated, was 5·81 per cent. ; some of the purely mutual offices, however, realised considerably over 6 per cent.

Claims and
surrenders.

Claims and surrenders during the year amounted to £1,087,303, of which sum £715,355 was for claims with bonus additions, £125,572 for endowments and endowment assurances matured, and £246,375 for surrenders, &c. The total amount paid to policy-holders in 1890 was £1,161,644, as against £1,060,494 in 1889. The expenses of the year exceeded those of the previous year by £91,948. This is equivalent to an increase of 8·63 per cent. on the expenditure of 1889, while the increase in the premium income was only 1·75 per cent., and in the gross income 4·31 per cent.

If however, the comparison be made between the years 1881 and 1890, instead of 1889 and 1890, an increase of 116 per cent. is shown in premium income and of 136 per cent. in gross income, while the amount paid for claims and surrenders increased in the same period by no less than 240 per cent.

In 1881 claims and surrenders absorbed 31·42 per cent. of the premium income while in 1890 this ratio had risen to 49·72 per cent. This increase is mainly due to the growth in age of the offices, but partly also to the small proportion of new business permanently retained.

The total income for the ten years was £22,317,496, of which amount £16,779,939 was contributed by policy-holders as premiums, and consideration for annuities granted, and £5,537,557 was from

PREVALENCE OF LIFE ASSURANCE.

interest and other sources. Of the total income £7,390,101, or 33·11 per cent. was returned to policy-holders, and £3,795,446 or 17·01 per cent. was absorbed by expenses, while £11,131,919, or 49·88 per cent. has been saved, and added to the funds of the societies to meet future liabilities.

The following figures, based on the latest available returns, show the existing condition of ordinary life assurance in Australasia as compared with other parts of the world.

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	296
Canada	9	25	364
United Kingdom	12	18	482
United States	10	25	552

The average policy is scarcely a fair measure of thrift. In these colonies mutual assurance is the rule, and members of the various societies have acquired large bonus additions, and the average existing policy and bonus of four of the leading assurance companies doing business in Australasia, is £342, as compared with the £296 shown in the comparative table. For the other countries named this information is not obtainable.

It would seem that the practice of insuring life is much more prevalent in Australasia 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 amount assured, per inhabitant, is considerably higher than in the other countries shown in the table.

Prevalence of Life Assurance.

MONEY ORDER BUSINESS.

MONEY ORDERS, &c.

Money Order
business.

The business transacted in the various Postal Departments 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.	
	Number.	Amount.	Number.	Amount.
		£		£
N. S. Wales	442,425	1,252,305	441,845	1,193,954
Victoria	251,267	778,313	229,745	720,189
Queensland.....	113,237	375,045	78,109	262,296
South Australia.....	37,639	216,060	65,262	202,176
Western Australia	6,914	24,996	3,570	11,066
Tasmania	68,992	161,216	59,316	134,862
New Zealand.....	176,427	602,077	151,747	548,833
Australasia.....	1,096,901	3,410,012	1,029,594	3,073,376

The average amount of each money order issued was £3 2s. 2d., 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 13s. 11d.

Besides the money orders mentioned above, a system of postal notes is in force in all the colonies except New South Wales.

BANKRUPTCIES.

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These notes are issued at fixed amounts, varying from 1s. to 20s.
The number of notes paid and their value during 1890 was:—

Postal Notes, 1890.

Colony.	No.	Amount.
		£
Victoria	401,197	167,263
Queensland	24,907	5,348
South Australia	115,006	38,343
Western Australia	1,921	435
Tasmania	4,556	1,435
New Zealand	184,041	67,977
Total (six colonies)	731,628	280,801

BANKRUPTCIES.

During 1890 the number of bankruptcies was largest in New South Wales, the total number for the whole of Australasia being 3,254. This number includes 70 private arrangements under the Insolvency Act of South Australia, for which neither liabilities nor assets are shown, and 56 insolvencies in Western Australia, for which the amount of liabilities only is returned as £42,398. The cases for which complete returns are available numbered therefore only 3,128, and were distributed as follows:—

Bankruptcies, 1890.

Colony.	Number of Sequestrations.	As shown in Bankrupts' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
New South Wales	1,193	1,203,685	540,726	662,959
Victoria	795	2,301,271	2,041,200	260,071
Queensland	335	241,336	138,116	103,220
South Australia	77	58,398	36,043	22,355
Tasmania	76	85,746	32,161	53,585
New Zealand	652	608,533	493,989	114,544
Total (six colonies) ...	3,128	4,498,969	3,282,235	1,216,734

AVERAGE LIABILITIES.

Little reliance can be placed upon the statements made by bankrupts as to the state of their affairs, the assets being invariably exaggerated. Taking the figures given above for what they are worth, it would appear that the average amount of liabilities per bankrupt was £1,438; of assets, £1,049, showing a deficiency of £389. The year 1890 was rather exceptional in the number and extent of its failures, and in the following table the average figures for ten years are given. The assets, however, have been omitted, as the statements, as far as some of the colonies are concerned, are palpably worthless :—

Bankruptcies—Average, 1881–90.

Colony.	Number of Sequestrations.	Liabilities, as shown in Bankrupts' Schedules.
New South Wales	974	746,893
Victoria	583	912,659
Queensland	246	196,988
South Australia	213	197,749
Tasmania	71	67,953
New Zealand	849	576,601
Total	2,936	2,698,843

PRIVATE WEALTH.

THE first century of Australasian history closed on the 26th Australasian
wealth. January, 1888. It is impossible to trace step by step the progress made during that period, as the data for the 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 private 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 Private 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
1890	1,169,000,000	*988,000,000

* Increase for 27 years.

The progress exhibited in this table is marvellous, and as Marvellous
increase. 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 the Dictionary of Statistics.

The figures in regard to the wealth of Australasia do not include the value of State property, which in these colonies 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 at least 1,329 millions.

Value of Public Works.

Wealth of Principal Countries, 1888.

Country.	Private Wealth.	Wealth per head.	State Income per head.	Private Income per head.	Ratio of Public Debt to Private Wealth.
	Millions.	£	£	£	per cent.
Australasia (1890).....	1,169	309·0	7·8	*57·0	15·8
United Kingdom	9,400	246·1	2·3	33·7	7·7
France	8,598	221·6	3·1	27·8	14·7
Germany	6,437	132·5	3·8	22·2	6·8
Russia.....	5,089	55·4	1·0	11·5	14·8
Austria-Hungary.....	3,855	96·1	2·5	15·5	15·0
Italy	2,963	97·8	2·4	12·2	15·5
Spain	2,516	142·9	1·8	16·5	10·3
Portugal.....	408	82·7	1·8	12·1	27·5
Sweden and Norway	880	122·1	1·1	21·6	2·2
Denmark	404	192·4	1·4	32·5	2·8
Holland	980	213·0	2·3	22·6	9·1
Belgium	1,007	165·0	2·3	28·0	7·6
Switzerland	494	164·7	0·9	19·0	3·5
United States	12,824	205·2	1·5	39·0	1·7
Canada	980	196·0	1·6	26·0	6·1
Argentine Republic.....	509	164·2	4·8	24·0	21·6

* New South Wales only.

Land and the improvements thereon form the great bulk of Value of Land. Australasian wealth, for out of the 1,169 millions at which it is valued, about 821 millions, or 70 per cent., is represented by what is termed real estate. The valuation of lands and buildings presents no difficulty except in the case of Western Australia and New South Wales ; as regards the first-mentioned colony the only data procurable are very meagre, but the area, situation, and use to which the lands are put are known, and from these data an approximation has been formed.

Only a very small part of New South Wales is under municipal Land in New South Wales. government, and until the last Census was taken the valuation of lands outside the municipal area could only be a matter of speculation. The Census Act, however, was so framed that every holder of land was required to make a declaration of the value of his property, and from the return so obtained the present estimate was compiled. The value of lands, buildings, and other improvements thereon has been set down at £303,152,000 ; of this sum 141 millions represents property subject to municipal taxation, 117 millions country lands outside municipalities, and 45 millions the improvements thereon.

In Victoria the valuation of municipalities is 214 millions ; an Land in Victoria. inspection of the returns, however, will show that this is an under estimate, as some of the municipalities, notably Melbourne City, have placed the capital value at only ten times the annual value, which is obviously too low a figure. Making a correction on this account the estimated valuation of property within municipalities may be set down at 233 millions ; to this must be added the value of improvements on pastoral properties which are not reckoned in the municipal valuation. In New South Wales similar improvements, which originally cost 73 millions, were valued by the owners at 45 millions, equal to 11s. 3d. per head of sheep depastured. Reckoning every head of large stock as equal to ten sheep, for Victoria these improvements are

taken to be worth 13s. 4d. per sheep, which fixes their value at 23 millions, making the total value of land and improvements in Victoria 256 millions.

Land in the other Colonies.

For South Australia the valuation adopted is that of the Land Tax Office ; for Western Australia the land has been valued at slightly over 5 millions, which sum is liable to correction should there be any evidence of a more exact valuation. For the other Colonies the municipal values have been accepted, with the addition for improvements not valued by the municipalities of 8s. per sheep for Queensland, 12s. 6d. for Tasmania, and 13s. 4d. for New Zealand.

Value of Live Stock.

In determining the valuations of live stock expert assistance has been obtained. The prices of sheep in the estimate varies from 6s. 9d., in the case of New South Wales and Queensland, to 8s. ; 9s. 6d. and 10s. for Victoria, New Zealand, and Tasmania, respectively. For cattle the prices taken have been :—New South Wales, £5 12s. ; Victoria, £6 12s. ; Queensland, £4 5s. ; South Australia, £6 ; Western Australia, £5 15s. ; Tasmania, £7 ; New Zealand, £6 10s.

Coin and Bullion.

Coin and bullion are taken to be for each colony the amount in the local banks, with the addition of £3 10s. per head of population, which is the estimate of the authorities at the Sydney Mint of the amount of coin in circulation in the province of New South Wales.

Shipping, Mining, &c.

The shipping of each Colony has been valued at £24 per ton for steamers and £9 for sailing vessels. The valuations of mining properties presented many difficulties, but it is believed these have been satisfactorily surmounted. In the New South Wales estimate each mine has been valued separately ; for Victoria this was found to be impossible, and the net yearly earnings have been taken to be 12½ per cent. of the value of the mines exclusive of the plant,

and the latter has been taken at £1,850,000, the amount appearing in the Victorian Year Book ; these two sums taken together amount to £6,080,000. The estimates of the other Colonies have been similarly prepared. The value of merchandise and produce has been taken as equal to 40 per cent. of the imports and exports taken together ; this is what a fair valuation fixes as being the proportion in New South Wales. A reduction, however, has been made in the case of South Australia, the trade of which is unduly swollen by the inclusion of silver, lead, and bullion from Broken Hill.

For the purpose of the census the houses of New South Wales have been grouped according to their rental value, and an estimate made of the value of the furniture which such houses are likely to contain ; the total so obtained amounts to a little over 14½ millions or £13 per head. This rate has been adopted for all the Colonies except Victoria, which, owing to the greater concentration of life in cities, is likely to have a higher valuation, and £15 has been adopted, while £3 per inhabitant has been added for the value of personal property.

Value of houses
and furniture.

To estimate with closeness the value of the plant employed in industries, not including the items already recited, was a matter of no little difficulty. It is true that exact estimates of the agricultural, dairying, and manufacturing industries are obtainable for nearly all the provinces, and in most instances from official sources ; but the amount of accurate information regarding the remaining industries is not more than would make their valuation a matter of pure speculation. In some of the provinces are small private railways, as well as tramways, waterworks, irrigation plant, wharfage and shipping appliances, and in all are found the means for carrying on a fairly perfect system of interchange. These items of wealth have been valued in such a way as was possible, and the results appear under the last item of the valuation sheet here presented.

Plant and
machinery.

Private Wealth, 1890.

Classification.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
	£	£	£	£	£	£	£	£
Land, Houses, and Permanent Improvements. .	303,152,000	256,230,000	61,662,000	71,500,000	5,100,000	23,609,000	99,977,000	821,280,000
Live Stock	34,664,000	21,862,000	32,834,000	8,262,000	2,903,000	2,427,000	17,253,000	120,205,000
Coin and Bullion	9,726,000	11,136,000	3,808,000	2,537,000	463,000	1,139,000	4,773,000	33,582,000
Merchandise	17,864,000	14,438,000	5,548,000	4,349,000	619,000	1,354,000	6,429,000	51,151,000
Household Furniture and Personal Property ..	17,950,000	20,399,000	6,237,000	5,124,000	778,000	2,325,000	10,011,000	62,874,000
Shipping owned in Colony	1,910,000	1,427,000	781,000	669,000	73,000	350,000	1,839,000	7,049,000
Mines and Mining Plant	18,340,000	6,080,000	4,773,000	1,875,000	250,000	2,500,000	4,210,000	38,033,000
Plant employed in Agricultural, Manufac- turing, and other industries not elsewhere included	8,878,000	12,552,000	2,716,000	4,325,000	433,000	656,000	5,700,000	35,260,000
Total	412,484,000	344,224,000	118,414,000	99,141,000	10,619,000	34,360,000	150,192,000	1,169,434,000

From the data given the wealth of each province may be stated as follows:—

Private Wealth, 1890.

Colony.	Private Wealth.	Per Inhabitant.	Ratio of Public Debt to Private Wealth.
	£	£	
New South Wales	412,484,000	368	11·7
Victoria	344,224,000	304	12·0
Queensland	118,414,000	301	23·7
South Australia	99,141,000	310	21·3
Western Australia.....	10,619,000	218	12·9
Tasmania.....	34,360,000	236	18·7
New Zealand	150,192,000	240	25·8
Australasia.....	1,169,434,000	309	15·8

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.

The figures relating to the wealth of the provinces are irrespective of the money owing to persons outside Australasia. That this is considerable is certain from the value of some of the known items. Thus the Banks trading in Australasia have British deposits to the extent of some forty-two millions, of which at least twenty-six are used in their Australasian business. Various estimates have been made of the amount of this indebtedness, but no figures yet published can be taken as absolutely reliable.

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

Money owned
outside
Australasia.

Distribution of
property.

estates of such persons, be taken as indicative of the distribution of wealth throughout the rest of the community, it would appear that 12·3 per cent. of the inhabitants of Australasia have property, which is a much wider distribution than obtains elsewhere. The distribution appears most general in South Australia and Victoria. The average value of estates is greatest in Victoria, and least in Tasmania, as the following table shows. The value of estates, however, is not a point upon which much stress can be placed. The occurrence at irregular intervals of the deaths of very wealthy persons tends to give undue importance to the colony affected; for in a population numerically small the average may possibly be affected by one such death. The returns for New Zealand are not available :—

Per centage of Persons leaving Property, and Average Value of Estates, 1881-90.

Colony.	Per centage of persons dying who left property to total deaths.	Average Value of deceased Estates.
New South Wales	11·56	£ 2,864
Victoria	14·28	2,601
Queensland	7·77	1,634
South Australia	14·27	1,350
Western Australia.....	10·93	.....
Tasmania	11·06	1,223
Average	12·31	2,395*

* Western Australia not included.

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 poorer 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, 1890.

Article.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
Grain—								
Wheat .....lb.	390	300	246	390	390	362	454	334
Rice & Oat-meal .....lb.	18·9	22·2	22·5	13·8	32·4	16·2	15·9	18·0
Potatoes .....lb.	182	311	242	210	102	509	472	288
Sugar .....lb.	94·8	105	102	96·9	114	96·3	88·7	95·8
Tea .....lb.	6·8	7·3	8·5	5·6	10·7	7·2	6·0	7·0
Coffee .....oz.	8·7	17·8	11·2	20·8	21·0	12·2	8·1	13·0
Cheese .....lb.	4·3	...	...	...	...	...	4·5	4·5
Butter .....lb.	16·6	...	...	...	...	...	16·0	16·0
Salt .....lb.	33·7	22·0	46·3	33·0	19·0	36·1	29·6	33·0
Meat—								
Beef .....lb.	176	155	280	...	...	60	90	...
Mutton .....lb.	85	98	90	...	...	150	110	...
Pork & Bacon.lb.	10	12	...	...	...	...	...	...

It will be seen that the consumption of wheat varies from 246 lb. in Queensland to 454 lb. in New Zealand, the average consumption being 334 lb. per head. Rice and oatmeal vary greatly in the quantity used, only 13·8 lb. being the consumption of South Australia, as against 32·4 lb. in Western Australia. The use of tea is universal in Australia, the consumption being largest in Western Australia and Queensland—with 171 oz. and 136 oz. Large consumption of Tea.

respectively. Sugar also enters largely into consumption, the average being 106 lb. per head in Victoria and 95 lb. in New South Wales. Coffee is not a favourite beverage in Australasia, the consumption being not quite one-ninth that of tea. It is used most largely in South Australia, where the annual demand amounts to 21 oz.

Consumption of Potatoes.

The consumption per head of potatoes in some of the colonies is probably less than the foregoing table shows; thus in the case of Tasmania the returns show a consumption of 509 lb., and in New Zealand 472 lb. It is probable that potatoes are in some years grown in excess of the local requirements, and the market in New South Wales and other continental Colonies not being sufficient to absorb this excess, it remains unconsumed or is given to live stock and poultry; under the circumstances it is impossible to determine the quantity actually entering into the food consumption of the population.

Consumption of Meat.

The consumption of meat has been determined with exactness for only five colonies, but these may be taken as fairly representing the whole group. The average quantity of beef consumed in the year amounts to 152 lb. per head, that of mutton to 107 lb., and of pork 11 lb.; in all, 270 lb. It would 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 five persons. It is obvious, therefore, that much meat must be wasted.

Meat consumption of Australasia.

The quantity of meat used by the Australasian people, as shown by the above figures, is the most remarkable feature of their diet. The consumption per inhabitant in Germany is 64 lb., in Australia it is four times that quantity, while in the United States, a meat exporting country, the consumption is little more than half that of Australasia. The following table shows the meat consumption per head for the principal countries of the world:—

Average Consumption of Meat per annum.

Country.	lb. per inhabitant.	Country.	lb. per inhabitant.
Great Britain	109	Holland	57
France	77	Sweden	62
Germany	64	Norway	78
Russia	51	Denmark	64
Austria	61	Switzerland	62
Italy	26	United States.....	150
Spain	71	Canada	90
Belgium.....	65	Australasia.....	270

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

Quantity of food
indicative of
prosperity.

Quantity of Food Annually Consumed in principal Countries.

Country.	lb. per Inhabitant.						Tea and Coffee— Ounces.	Daily Energy— Foot tons.
	Grain.	Meat.	Sugar.	Butter and Cheese.	Potatoes.	Salt.		
United Kingdom ...	378	109	75	19	380	40	91	3,739
France	540	77	20	8	570	20	66	3,993
Germany	550	64	18	8	1,020	17	78	4,708
Russia	635	51	11	5	180	19	6	3,532
Austria	460	61	18	7	560	14	28	3,502
Italy.....	400	26	8	4	50	18	20	2,152
Spain	480	71	6	3	20	17	6	2,597
Portugal	500	49	12	3	40	17	18	2,659
Sweden	560	62	22	11	500	28	112	4,012
Norway	440	78	13	14	500	40	144	3,627
Denmark.....	560	64	22	22	410	25	140	4,071
Holland	560	57	35	15	820	20	240	4,635
Belgium.....	590	65	27	15	1,050	...	142	5,034
Switzerland	440	62	26	11	140	...	110	2,766
Roumania	400	82	4	9	80	...	8	2,414
Servia	400	84	4	9	80	...	8	2,422
United States.....	370	150	53	20	170	39	162	3,415
Canada.....	400	90	45	22	600	40	72	4,013
Australasia	352	270	96	21	288	16	115	4,470

Thermo-
dynamic power
of foods.

Taking the articles of the foregoing list, with the exception of tea and coffee, 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 in Australasia, is only exceeded by that of Germany, Holland, and Belgium. For purpose of comparison the figures of Dr. Edward Smith, F.R.S., in his well known work on Foods, have been used, and the heat developed has been reduced to the equivalent weight lifted 1 foot high. In estimating the thermo-dynamic effect of food, grain has been reduced to its equivalent in flour, and regard has been paid to the probable nature of the meat consumed. The figures for potatoes are given as they appear in the Dictionary of Statistics, but it is a probable supposition that but a small proportion of the quantity over 400lb. set down for any country is required for human consumption, and the figures relating to some of the countries—notably the three just mentioned—are therefore excessive. The substances included in this table are largely supplemented both in America and Europe by other foods, but not more so than in these colonies; and in the table just given will probably be found a just 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 strongly in favour of these colonies when the average amount of work which each individual in the community is called upon to perform is taken into consideration. In Australasia the proportion of women and children engaged in laborious occupations is far smaller than in Europe and America, and the hours of labour of all persons are also less, so that the amount of food-energy required is reduced in proportion.

Food consumed
in excess of
requirements.

In Mulhall's Dictionary of Statistics, under the heading of "Diet," is given a measure of the aggregate amount of work performed by persons doing physical and mental labour, and it would appear that the food of an average man, when burnt in the body, should be equal to at least 3,300 foot tons of work daily,

that of a woman 2,200, and of a child 1,100 foot tons. For Australasia the average of all persons would be about 2,125 foot tons, whereas, from the table just given, the amount of work which the daily food consumed by each individual in the colonies from the principal foods consumed is equivalent to, is not less than 4,470 foot tons. The quantity of food consumed in these colonies would therefore appear to be far in excess of the actual requirements of the population, and though the excess may be looked upon as waste, it is none the less evidence of the wealth of the people whose circumstances permit them to indulge in it.

The following table gives the annual consumption of tobacco in ^{Tobacco.} Australasia and the principal countries of the world. The use of tobacco appears to be more prevalent in Queensland and Western Australia than in any of the other colonies, while the least consumption is in Tasmania and South Australia. Compared with other parts of the world, the average consumption of Australasia will not appear excessive:—

Average Annual Consumption of Tobacco per Inhabitant in various Countries.

Country.	lb.	Country.	lb.
Australasia	2·53	Austria-Hungary	3·77
New South Wales	2·75	Italy	1·34
Victoria	2·61	Spain	1·70
Queensland	3·34	Holland	6·92
South Australia	1·93	Belgium	3·15
Western Australia	3·18	Switzerland	3·24
Tasmania	1·97	Sweden	1·87
New Zealand	2·06	Denmark	3·70
United Kingdom	1·41	Turkey	4·37
France	2·05	United States	4·40
Germany	3·00	Canada	2·11
Russia	1·23	Brazil	4·37

Taking Australasia as a whole it compares very favourably with most of the European countries in the quantity of intoxicants annually consumed by each inhabitant, as the following statement ^{Consumption of Intoxicants.}

CONSUMPTION OF INTOXICANTS.

shows. The figures are reduced to gallons of proof spirit from data given in Mulhall's Dictionary of Statistics, and 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	2·90

Intoxicants
consumed by
each Colony.

The following table shows the consumption for all the colonies during the year 1890. In the case of South Australia and Western Australia, whence no returns relating to breweries are obtainable, the consumption of beer has been assumed to be at the same rate as that of New South Wales. :—

Consumption of Intoxicants in the Australasian Colonies, 1890.

Colony.	Spirits.		Wine.		Beer, &c.		Equivalent in Alcohol (proof) per inhabitant.
	Total.	Per inhab- itant.	Total.	Per inhab- itant.	Total.	Per inhab- itant.	
	galls.	galls.	galls.	galls.	galls.	galls.	galls.
New South Wales	1,201,946	1·09	802,150	0·73	11,710,936	10·63	2·68
Victoria	1,110,371	0·99	1,559,603	1·39	21,490,556	19·21	3·38
Queensland	613,620	1·58	270,508	0·70	3,948,003	10·16	3·10
South Australia	169,126	0·53	554,462	1·74	3,385,442	10·63	2·43
Western Australia	58,025	1·23	216,860	4·60	501,534	10·63	3·98
Tasmania	92,209	0·64	24,073	0·17	1,329,671	9·29	1·88
New Zealand	432,882	0·70	115,088	0·19	4,922,577	7·92	1·77
Total and Means....	3,678,179	0·98	3,542,744	0·95	47,288,809	12·65	2·90

The largest consumption of spirits per inhabitant is in Queensland, Western Australia being second. Wine is used most freely in Western Australia, South Australia, and Victoria, and beer in the Colony of Victoria. The average consumption of alcohol in all the colonies amounts to 2.90 gallons of proof spirit per inhabitant, ranging from 3.98 gallons in Western Australia to 1.77 gallons in New Zealand. The total for Victoria is 45 per cent. larger than that of New South Wales. The figures relating to the production of beer in Victoria may, however, be over-stated, for as no excise duty is levied in that colony it is quite possible that the returns furnished by the various breweries are greatly exaggerated.

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 recently made it would appear that the strength of these wines offered for sale varies from 24 to 37 per cent. of spirit. On the same authority it was stated that imported beers ranged 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 varied according to the make from 11.21 to 15.12, the average being 13.75 per cent. It is generally understood, however, that since the imposition of excise duties on colonial beer in 1887, the strength of the article has been somewhat reduced, and does not average more than 13 per cent. of proof spirit.

Strength of
Australian
Wines and Beers.

COST OF LIVING.

Sufficient data are not available to enable a 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

Cost of living in
the Australasian
Colonies.

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.

Income and expenditure of the people.

In the year 1890 an estimate was made of the yearly expenditure of the population of New South Wales, and it was found that while the income amounted to 63 million pounds sterling the expenditure amounted to £52,131,400, the balance of £10,868,600 representing the savings of the people, and the incomes of absentees. By "savings" is meant that portion of their income, whether realised or not, which was not expended by the people of the country on their necessary maintenance. It will, of course, be understood that no increments to land values have been taken as part of the unrealised income. The expenditure of the year 1890, distributed under various heads, is herewith given, as an indication of the way in which the people of this Colony disburse their income :—

Distribution of Expenditure of the Population of New South
Wales, 1890.

	£
Food and non-alcoholic beverages.....	15,873,400
Fermented and spirituous liquors	4,774,100
Tobacco	1,193,600
Clothing and drapery	8,391,600
Furniture	805,900
Rent or value of buildings used as dwellings	6,726,700
Locomotion.....	1,705,600
Fuel and light	1,797,300
Personal attendance and service	1,918,000
Medical attendance, medicine, and nursing.....	1,427,800
Religion, charities, education (not including State expenditure)	716,400
Art and amusement	995,900
Books, newspapers, &c.	765,400
State services, postage, telegrams, succession dues	743,100
Household expenses not included elsewhere	2,814,600
Miscellaneous expenses	1,482,000
	£52,131,400

The expenditure for the year given amounted to £47 6s. 3d. per head, or at the rate of 2s. 7d. per day. The daily expenditure may be thus distributed :—

	Pence per day.	Proportion of Expenditure.
Food	9·5	30·4
Clothing	5·0	16·1
Rent	4·0	12·9
Direct Taxes	0·3	0·9
Sundries	12·3	39·7
	31·1	100·0

According to Mulhall the expenditure per inhabitant in the leading countries of Europe and in the United States is :—

Annual Expenditure per head in various countries.

Country.	Expenditure per inhabitant	Country.	Expenditure per inhabitant.
	£ s. d.		£ s. d.
United Kingdom	29 14 9	Norway	19 0 0
France	23 19 4	Denmark	28 11 5
Germany	20 3 4	Holland	20 17 4
Russia	10 1 11	Belgium	25 8 2
Austria	14 4 9	Switzerland	18 0 0
Italy	11 11 0	United States	32 16 2
Spain	15 12 6	Canada	23 6 2
Portugal	11 5 6	New South Wales	47 6 3
Sweden	20 8 4		

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 New South Wales 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 £18 14s. 9d. in this Colony, as against £14 4s. 9d. in Great Britain, the earnings required to pay for this food are not

Cost of living and earnings.

Cost of food compared with earnings.

COST OF FOOD AND BEVERAGE.

larger proportionately than in the countries which show most favourably in the table. The number of working days in the year is assumed to be 300, allowing for thirteen days' sickness and fifty-two Sundays :—

Annual Cost of Food and Beverage.

Country.	Average annual cost of food and beverage.	Ratio of cost of food to earnings.	Day's earnings equal to annual cost of food.
	£ s. d.	per cent.	days.
United Kingdom	14 4 9	42·2	127
France	12 4 5	44·0	132
Germany	10 18 5	49·1	148
Russia	5 19 7	52·0	156
Austria.....	7 17 4	50·8	152
Italy	6 4 10	51·2	153
Spain	8 9 0	51·2	154
Portugal	7 3 0	59·1	177
Sweden	9 18 11	45·2	136
Norway	9 15 0	47·6	143
Denmark	11 14 0	36·0	108
Holland	10 8 0	46·0	138
Belgium	12 3 1	43·4	130
Switzerland	8 11 7	45·2	135
United States.....	9 17 7	25·3	76
Canada.....	8 9 0	32·5	98
Australasia (New South Wales)	18 14 9	32·8	98

RELIGION.

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 twenty Bishoprics in the Colonies, including the Sees in New Zealand. Each Colony preserves its autonomy in church matters, but the Bishop of Sydney is nominal head or Primate within the boundaries of Australia and Tasmania. In 1872 the ties between the church and the various Colonies under the jurisdiction of the Primacy were strengthened by the adoption of one common constitution. A general assembly of representatives of each of these Colonies meet in Sydney every five years to discuss church affairs in general. New Zealand is excluded from this amalgamation, as it possesses a Primacy of its own. The Synodical system of Church Government, by means of a legislative body, consisting of the clergy and representatives of the laity, prevails throughout Australasia, whether as individual Colonies or collectively as a group.

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. The present Archbishop of Sydney, who was created a Cardinal in 1885, is the head of the Roman Catholic Church throughout Australasia, and to assist him in the church administration there are five Archbishops, fifteen Bishops, and four Titular Bishops throughout the Colonies.

Presbyterian. Amongst the earliest free colonists who settled in the Hawkesbury district was a small party of Presbyterians, and one of the first 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 Presbyterian Church is united in a federated union, but the church in each Colony acts independently as regards local ecclesiastical administration, and preserves its autonomy in respect to funds and property. A Moderator is elected annually as a representative head in each Colony, but he cannot exercise independent jurisdiction.

Wesleyan. 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. Till 1873 the church in Australasia was affiliated with the British Wesleyan Conference, but in that year it was

constituted an independent and separate conference. The church in each Colony holds annual sessions, and at triennial periods a general conference is convened for the whole body in Australasia.

In the eyes of the State all religions are equal in Australasia. ^{State-aid.} State aid to all denominations has been for many years practically abolished in all the Colonies except Western Australia. South Australia, in 1851, was the first Colony to withdraw such aid after it had been in force only three years, and Queensland, in 1860, shortly after the assembling of the first Parliament, passed an Act abolishing any future maintenance to religion, and limited future payments to the clergy then actually in receipt of State aid. Only one clergyman now survives, who is in receipt of £100 per annum. New South Wales passed a similar Act in 1862, and the expenditure on this account, which in that year was over £32,000, had fallen in 1890 to £9,793. The other Colonies of the group subsequently abolished State aid with the exception previously mentioned, Victoria being the last to withdraw in 1875.

No other denominations beyond the four mentioned above 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, though in different Colonies 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. ^{Proportion of different bodies.} 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.

STRENGTH OF THE DENOMINATIONS.

The religious returns of the census for Australasia are still incomplete, but from such information as is available a very close estimate of the strength of the various denominations may be made. This is given in the following statement :—

Adherents to various Religious Denominations,
Census Period, 1891.

Denomination.	Number.
Church of England	1,516,190
Roman Catholic	829,180
Presbyterian.....	495,830
Wesleyan and Primitive Methodists	440,680
Congregational.....	78,120
Baptist	84,340
Lutheran	75,240
Salvation Army	42,820
Unitarian	4,230
Other Protestants	49,770
Hebrews	14,820
Pagans	49,580
Others and Unspecified	129,280
	3,810,080

Predominant
denominations.

Thus, at the Census of 1891, it appears that about 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, Lutherans, and Salvation Army, the numbers of each, with the exception of the last-named, 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. The Salvation Army is a new element in the 1891 Census, any adherents of this persuasion that may have existed in 1881 having been grouped with "Other Persuasions." The large number classed as "unspecified, &c.," includes small sects, those objecting to State religion, and those who claim no religion at all.

POPULATION.

ON the 26th January, 1788, Captain Phillip arrived in Sydney Harbour, bringing with him an establishment of 1,030 people, all told. Settlement soon spread from the parent colony, first to Tasmania in 1803, and afterwards to other parts of the Continent and New Zealand; so that at the end of 1891 the population of Australasia had grown to 3,899,177 persons, thus disbursed :—

Population of Australasia, December 31, 1891.

	Males.	Females.	Total.
New South Wales	630,870	534,430	1,165,300
Victoria	606,918	550,886	1,157,804
Queensland	232,566	177,779	410,345
South Australia	169,704	156,062	325,766
Western Australia	32,228	21,057	53,285
Tasmania	80,917	71,702	152,619
New Zealand	336,174	297,884	634,058
Australasia.....	2,089,377	1,809,800	3,899,177

If to these numbers, which are principally those of the people of European descent, there be added an estimated population of 200,000 Australian aborigines in an uncivilized state in Western Australia, South Australia, and Queensland, and the Maoris in New Zealand, who, according to the returns, numbered 41,993, the total population of Australasia at the end of 1891 was 4,141,170. Population in 1891.

The growth of the population of Australasia in different periods, commencing from the date of the first settlement, is shown in the following series, an enumeration of the people having been taken in most of the years quoted :— Growth of population.

INCREASE OF POPULATION.

Increase of Population to end of 1891.

Years.	Population of Australasia.	Annual rate of Increase per cent.
1788	1,030	.....
1801	6,508	15·13
1821*	35,610	8·87
1831	79,306	8·34
1841	211,095	10·23
1851	430,596	7·36
1861*	1,252,994	11·30
1871*	1,924,770	4·39
1881*	2,742,550	3·60
1891*	3,809,895	3·34

* Census years.

Ratio of Increase.

It would be but a reasonable expectation that the ratio of increase should fall as the population advanced, and such has been the case since 1851. The high rate of 11·3 per cent. from 1851 to 1861 is, of course, due to the gold discovery, which was so strong an incentive to immigration. The high annual increase between 1831 and 1841 is owing to the policy of State-aided immigration, which was then in vogue. Prior to this period the high average arose from the small number operated on.

Increase in other countries.

The following are the annual rates of increase over various periods in certain countries undergoing extensive settlement :—

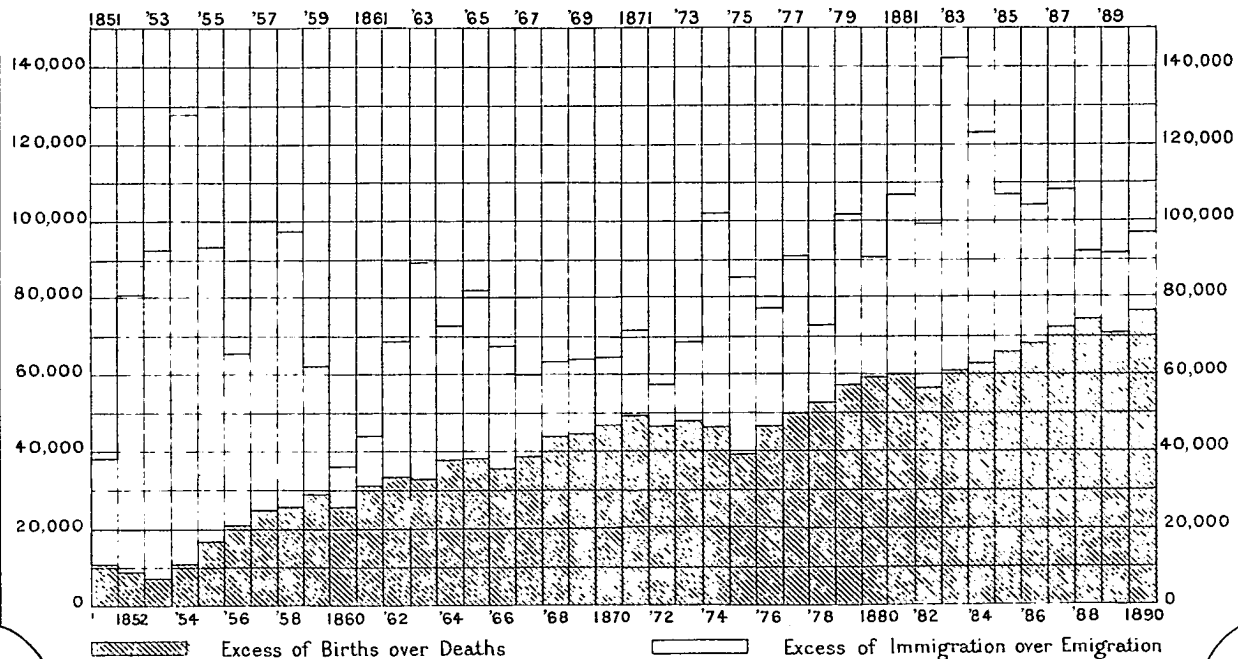
Rates of increase in other Countries.

Country.	Period.	Annual rate of Increase.
Argentine Republic	1869-90	3·13
Cape Colony	1880-91	2·71
Brazil	1872-83	2·54
Canada	1881-91	1·10
Chili	1875-85	1·99

Increase of Australasian population.

The population of Australasia, as shown by the Census of 1891, had increased threefold since 1861, and nearly twofold since 1871, while the annual *ratio* of increase for the whole thirty years was

INCREASE OF POPULATION



3·78 per cent. Taking the Colonies individually, the rate of increase for Queensland is the highest, a circumstance mainly to be attributed to the large numbers introduced under the system of State-aided immigration which has prevailed in the Colony for many years, but the largest numerical increase was that of New South Wales. The population of each Colony in Census periods is shown below, commencing with 1861 :—

Census Population, 1861-91

Colony.	1861.	1871.	1881.	1891.	Annual Increase per cent., 1861-1891
New South Wales	350,860	503,981	751,468	1,132,234	3·98
Victoria	540,322	731,528	862,346	1,140,405	2·52
Queensland	30,059	120,104	213,525	393,718	8·95
South Australia	126,830	185,626	279,865	320,431	3·12
Western Australia	15,691	25,353	29,708	49,782	3·92
Tasmania	90,211	101,785	115,705	146,667	1·63
New Zealand.....	99,021	256,393	489,933	626,658	6·34
Australasia	1,252,994	1,924,770	2,742,550	3,809,895	3·78

The following table gives the total increase of each colony for the whole period referred to, and also distinguishes the natural increase arising through the excess of births over deaths from the increase caused by the excess of arrivals over departures :—

Increase from January, 1861, to December, 1891.

Colony.	Excess of		Total Increase.
	Births over Deaths.	Immigration over Emigration.	
New South Wales.....	477,491	339,263	816,754
Victoria	476,966	142,991	619,957
Queensland	129,898	252,391	382,289
South Australia	166,310	35,344	201,654
Western Australia.....	16,557	21,228	37,785
Tasmania.....	59,310	5,534	64,844
New Zealand	297,028	257,919	554,947
Australasia	1,623,560	1,054,670	2,678,230

Movements of
Population.

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 attraction of liberal land laws, the fertility of the soil, the permanence of employment, and the policy of assisted immigration. The bare statement, however, of the gross increase of each colony due to immigration, if taken by itself is apt to be misleading, since the original density of population must be deemed a factor affecting the current of immigration. The following figures show the density of population in each colony at the various dates corresponding with those given in a preceding table:—

Density of
Population.

Density of Population per square mile.

	1861.	1871.	1881.	1891.
New South Wales	1·13	1·62	2·42	3·65
Victoria	6·15	8·32	9·81	12·98
Queensland	·04	·18	·32	·59
South Australia.....	·14	·20	·31	·35
Western Australia	·01	·02	·03	·05
Tasmania	3·44	3·88	4·41	5·59
New Zealand	·95	2·45	4·69	6·00
Australasia.....	·40	·61	·87	1·21

The population of Australasia, even including the native races, only reaches a density of 1·28 persons per square mile, which is far below that of any other civilised country. Excluding, however, Australian Aborigines and Maoris, the density is not more than 1·21 per square mile.

A comparison with the density of population in the older countries of the world is of little 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 statement, that compiled early in 1891 for the *Statesman's Year Book*, by Mr. E. G. Ravenstein, F.R.G.S., gives the density of the populations of the great divisions of the Globe, as follows :—

Continent.	Area in square Miles.	Population.	Persons per square Mile.
Europe	3,555,000	380,200,000	106·9
Asia	14,710,000	830,000,000	56·4
Africa	11,514,000	127,000,000	11·0
North America	6,446,000	89,250,000	13·9
South America	6,837,000	36,420,000	5·3
*Australasia	3,288,000	4,730,000	1·4
Polar Regions.....	4,889,000	300,000	0·06
The World	51,239,000	1,467,900,000	28·6

*Inclusive of Pacific Islands.

There had always been, even in the earliest years of settlement, a steady if not a large stream of immigration to these colonies, but in 1851, memorable for the finding of gold, this condition of things showed a marked change. 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 new colony of Victoria, which had then just been separated from New South Wales. This rush continued for some years afterwards, causing an unprecedented increase in the population of 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—

Port Phillip (now known as Victoria).....	76,162
Remaining portion of the Colony.....	189,341

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 and increased the lead yearly until 1871, when its population exceeded that of New South Wales by no less than 228,230. That year marked the furthest period of separation ; nearly every subsequent year showed a nearer approach in numbers, until at the census of 1891 the Southern Colony had only a lead of 8,171, but at the end of that year the positions were again reversed, and New South Wales had probably a larger population than Victoria by about 7,500.

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 over many years. At the census taken in 1891, the population had reached 626,658 souls, exclusive of Maoris, or fully six times that of 1861. 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.

Increase due to immigration.

Much of the increase, especially in New South Wales, Queensland, and New Zealand, was due to assisted immigration. The following table shows the number of all immigrants introduced into the Colonies, either wholly or partly at the expense of the State, to the end of 1890 :—

Number of State-aided Immigrants to 1890.

Colony.	Prior to 1880.	1881 to 1890.	Total.
New South Wales	114,253	34,079	148,332
Victoria	140,102	.....	140,102
Queensland	52,399	103,140	155,539
South Australia	88,050	7,298	95,348
Western Australia.....	889	4,552	5,441
Tasmania.....	18,965	2,734	21,699
New Zealand	*100,920	14,614	*115,534
Australasia.....	515,578	166,417	681,995

* Exclusive of number prior to 1870, of which no record can be found.

The following tables shows the increase of population by excess of immigration over emigration for four decennial periods ending with 1890 :—

Excess of Immigration.

Colony.	1851-60.	1861-70.	1871-80.	1881-90.
New South Wales.....	95,041	45,539	103,284	164,200
Victoria	398,753	38,935	*12,682	112,093
Queensland	†	69,191	73,849	116,060
South Australia.....	33,024	17,949	34,569	*16,189
Western Australia	6,867	5,319	*339	12,496
Tasmania.....	6,770	*3,228	*1,427	5,572
New Zealand	44,142	119,237	132,976	9,065
Australasia.....	584,597	292,942	330,230	403,297

* Denotes excess of emigrants. † Included in New South Wales figures.

Taking the last eleven years, which the following figures illustrate, it will be seen that no Colony exhibits uniformity in the immigration returns, while some show in several years an excess of departures:—

Excess of Immigrants over Emigrants, 1881–91.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1881 ...	16,673	4,976	10,127	11,622	452	1,166	1,970	46,986
1882 ...	16,034	6,563	16,456	186	263	587	2,375	42,464
1883 ...	27,278	6,597	33,656	3,665	562	689	8,657	81,104
1884 ...	23,944	8,525	17,543	584	1,075	816	7,724	60,211
1885 ...	24,829	9,027	9,829	6,895 ^p	1,883	388 ^p	2,757	41,042
1886 ...	18,073	15,436	7,695	8,586 [*]	4,208	302 [*]	199 [*]	36,325
1887 ...	7,202	15,445	11,527	2,884 ^s	2,421	1,797	211	35,719
1888 ...	6,633	25,757	5,651	8,477 ^s	1,053 [*]	383 [*]	10,548 [*]	17,580
1889 ...	8,241	9,794	4,340	2,453 [*]	816	1,172	701 [*]	21,209
1890 ...	15,293	9,973	764 [*]	2,951 [*]	1,869	418	3,181 [*]	20,657
1891 ...	20,754	4,654	1,570	977 [*]	3,742	6,082	3,198 [*]	32,627

* Denotes excess of departures.

AGES OF THE PEOPLE.

Average ages of the people.

The average age of the population of Australasia (excluding New Zealand, the returns for which are not yet to hand) was 24·5 years; the average age of the males was 25·5 years, and that of the females was 23·4 years. Taking the colonies separately it will be seen from the following table that the oldest average population was that of Victoria 25·6 years, and the youngest that of New South Wales and Queensland 23·7 years. The male population of Western Australia had the highest age average, 27·6 years, owing to the large influx of adult males some few years since, attracted thither by the discoveries of gold at Kimberley and elsewhere. The youngest male population was in New South Wales and South Australia, each of which averaged 24·7 years. The youngest

female population was found in Queensland, where the average was 21·5 years ; the oldest was in Victoria, 24·6 years :—

Average Ages.

Colony.	Males.	Females.	Total.
New South Wales	24·7	22·5	23·7
Victoria	26·5	24·6	25·6
Queensland	25·2	21·5	23·7
South Australia	24·7	23·8	24·3
Western Australia.....	27·6	22·0	25·3
Tasmania	25·6	23·7	24·7

In looking at these figures it must be remembered that the same average may be due to opposite causes ; for instance, a large middle-age population with a small proportion of children and old people, as in Queensland, gives much the same result as a large population at the dependent ages and a small proportion of those at the supporting ages, as in Tasmania. The following table shows, with regard to the six colonies mentioned above, the number of males at the dependent ages from infancy to 15 years ; at the supporting ages from 15 to 65 ; and the old age group, or from 65 years upwards :—

Age Groups—Males.

Colony.	Dependent Ages up to 15 years.		Supporting Ages, 15 and under 65.		Old Ages, 65 and over.	
	Number.	Percentage of Male Population.	Number.	Percentage of Male Population.	Number.	Percentage of Male Population.
New South Wales.	218,433	35·9	372,900	61·3	16,670	2·8
Victoria.....	198,829	33·2	375,948	62·8	23,637	4·0
Queensland	74,189	33·2	145,954	65·2	3,636	1·6
South Australia ...	64,004	38·4	97,293	58·3	5,504	3·3
Western Australia.	8,677	29·1	20,027	67·2	1,103	3·7
Tasmania	29,216	37·7	44,008	56·7	4,336	5·6

It will be noticed that the proportion of males at the dependent ages is far greater in South Australia and Tasmania than in any of the other Colonies, and this arises through the emigration from those provinces of many of the able-bodied men in search of opening for their labour in other Colonies. On the other hand the numbers of males of the supporting ages in those Colonies is very low. The reverse is the case in Western Australia, where the

Circumstances affecting the averages.

Age groups of males.

Age group distribution of males.

proportion of dependent males is smaller than that of any other Colony, while the proportion of men of the supporting ages is greater. These facts are to be accounted for by the immigration into Western Australia of large numbers of adult males, many of whom probably came from one of the two colonies first mentioned. The high birth-rate of New South Wales accounts for the larger proportion of those of dependent ages, as compared with those of Victoria, but at the supporting ages there is very little difference between them. With regard to the old age group the proportion in Queensland, 1·6 per cent., is undoubtedly low. Tasmania, with 5·6 per cent., has the largest proportion of aged inhabitants, and Victoria comes next with 4 per cent., while the proportion of inhabitants 65 years and over in New South Wales is only 2·8 per cent., or one-half the proportion shown by Tasmania. It is interesting to note that at the Census of 1881 Queensland had the greatest proportion of population at supporting ages, nearly 60 per cent. of her total; at that period Victoria came next, having 59 per cent.; Western Australia was third, with nearly 59 per cent.; the proportion in South Australia was slightly lower, while that of New South Wales was rather less than 58 per cent.

Comparison
with Census of
1881.

Males of
Military ages.

The period in males from 20 to 40 years is generally called "the soldiers' age," as the men included in that group would naturally be those first called upon to undertake the defence of the country in the event of war. It will be seen from the following table that Australasia has a force of nearly 700,000 men to draw upon for this purpose:—

Males of Military Age, 20 to 40 years.	
New South Wales	209,237
Victoria	207,033
Queensland	86,593
South Australia	53,964
Western Australia	12,018
Tasmania	24,858
New Zealand	97,864
Australasia	691,567

Thus, it would seem, 60 per cent. of the effective military force of Australasia would have to come from New South Wales and Victoria, the proportion from the first-named Colony being 30·26, and 29·93 from Victoria. The next largest proportion, 14·15 per cent., would come from New Zealand, and Queensland would furnish 12·52 per cent., South Australia 7·80 per cent., Tasmania 3·60 per cent., and Western Australia 1·74 per cent. At the census of 1881 the males of military age in Australasia numbered 451,700, of whom New South Wales contributed 29·18 per cent., Victoria 25·27 per cent., Queensland 10·28 per cent., South Australia 11·62 per cent., Western Australia 0·96 per cent., Tasmania 3·52 per cent., and New Zealand 19·16 per cent. These figures show that while South Australia has only increased her actual number of males from 20 to 40 years of age by 1,435, she has declined in proportion to the whole Australasian population of those ages from 11·62 per cent. in 1881 to 7·80 in 1891. All the other colonies show more or less a proportionate as well as a numerical increase during the same period.

The female population of Australasia, excluding New Zealand, may be conveniently grouped into three divisions as follows:—
Dependent ages, from infancy to 15 years; reproductive ages, from 15 to 45; and those over 45 years of age. The numbers of each class in the several provinces are shown in the following figures:—

Age Groups—Females.

Colony.	Dependent ages, up to 15 years.		Reproductive ages, 15 and under 45.		Ages of 45 years and over.	
	Number.	Percentage to Female Population.	Number.	Percentage to Female Population.	Number.	Percentage to Female Population.
New South Wales..	213,336	41·3	239,416	46·4	63,199	12·3
Victoria.....	195,346	36·0	263,664	48·6	83,981	15·4
Queensland	72,409	42·6	79,396	46·7	18,134	10·7
South Australia ...	62,174	40·5	68,796	44·8	22,660	14·7
Western Australia.	8,410	42·1	9,254	46·3	2,311	11·6
Tasmania	28,334	41·0	30,594	44·3	10,179	15·7

Proportionate
distribution of
females.

The female population, it will be seen, is distributed among the various colonies in much more even proportions than the males. Victoria has the least ratio of dependent females, the greatest proportion of those of reproductive ages, and with the exception of Tasmania the highest relative number of females over the reproductive age. The rates for the other provinces are remarkably even, New South Wales, Queensland, and Western Australia having almost an identical proportion of reproductive females, while South Australia and Tasmania are nearly equal at a slightly lower rate.

BIRTHS AND DEATHS.

Birth rates of
the Colonies.

The birth rate of Australasia for the years 1851-60 averaged 39·32 per thousand of the population, rising to 40·80 for the years 1861-70, then dropping again to 36·82 for the years 1871-80, and still further to 34·75 for the last decade. The following are the rates of each Colony for the periods mentioned :—

Birth-rates, 1851-90.

Colony.	Births per Thousand of Population.			
	1851-60.	1861-70.	1871-80.	1881-90.
New South Wales	40·35	41·65	38·77	36·98
Victoria	37·42	40·91	33·88	31·82
Queensland	40·35	42·36	38·41	37·91
South Australia	44·35	43·57	37·81	36·00
Western Australia... ..	32·91	37·02	32·10	34·99
Tasmania	37·51	31·61	30·65	34·83
New Zealand	41·31	40·71	40·79	33·70
Australasia	39·32	40·80	36·82	34·75

Birth-rate per 1000 shewn thus
Excess of Births over Deaths "

BIRTH & DEATH RATES

Death-rate per 1000 shewn thus

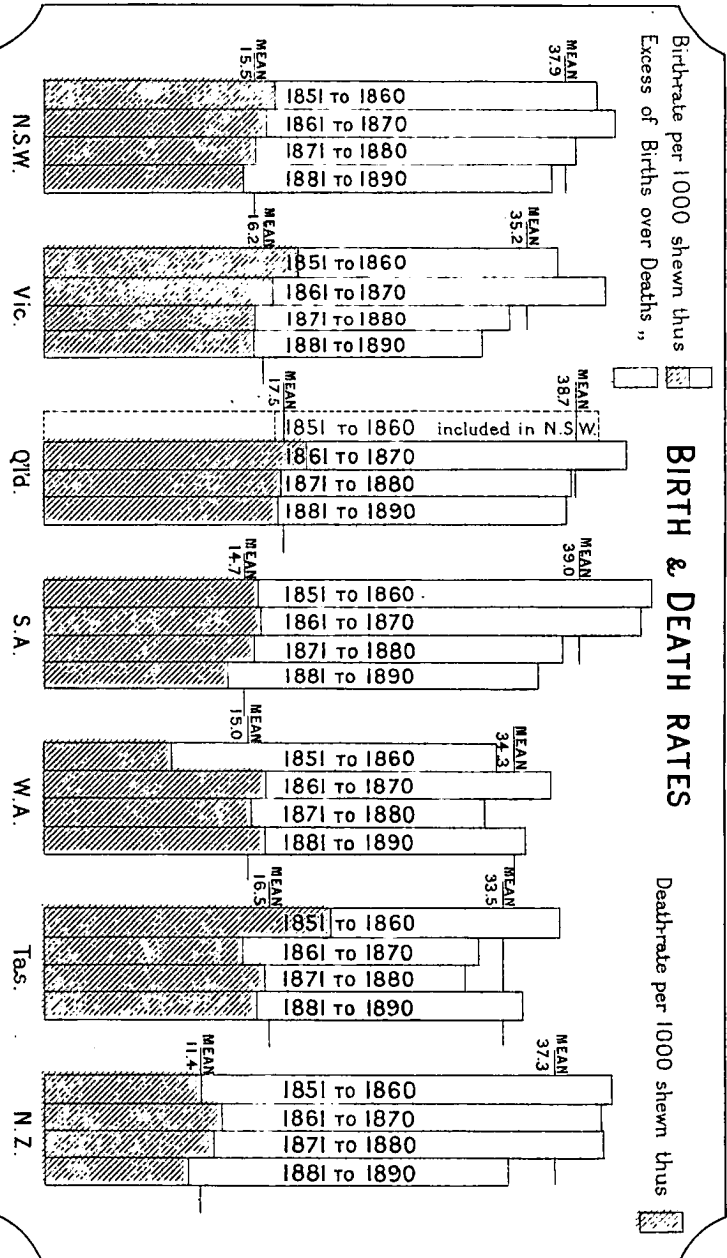


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In all the Colonies except Western Australia the birth-rate shows a decline from the first to the last of the four decennial periods. The cause of this, so far as most of the Colonies are concerned, is the increase in the proportion which persons under marriage age bear to the whole community. If a comparison were possible between the number of births, and the number of women of child-bearing age, during the four decennial periods given above, the later periods would probably be found to show little falling off.

The birth-rates of each Colony for the last eleven years were as follow :—

Birth-rates, 1881-91, per 1,000 inhabitants.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1881	37·90	31·24	36·29	38·69	34·02	33·65	38·04	35·81
1882	37·20	30·06	35·85	37·50	35·67	33·84	37·43	34·79
1883	37·32	30·26	36·92	37·53	33·57	34·84	36·46	34·86
1884	38·44	30·93	35·75	38·62	33·38	36·52	36·18	35·44
1885	37·79	31·33	36·66	38·71	34·53	36·18	34·70	35·22
1886	37·43	31·30	38·16	35·95	38·15	35·47	33·15	34·74
1887	37·06	32·50	38·94	34·70	36·63	35·40	32·14	34·77
1888	37·20	32·70	39·12	33·55	34·47	34·83	31·33	34·62
1889	34·97	33·35	38·13	32·80	35·95	33·92	30·23	33·80
1890	35·36	33·60	39·66	32·54	33·09	33·49	29·42	33·95
1891	34·60	33·62	36·67	33·30	35·05	33·21	29·01	33·44

The mean death-rate of the Australasian Colonies from 1851 to 1860 was 17·51, falling to 16·14 from 1861-70 to 15·14 from 1871-80, and still further to 14·32 from 1881-90. During the last decennial period five Colonies had a death-rate higher than the average rate of Australasia, viz., Queensland, 17·11; Western Australia, 16·08; Tasmania, 15·57; Victoria, 15·42; and New South Wales, 14·65; while only two Colonies were below the average, viz., South Australia, 13·43, and New Zealand 10·40 per 1,000. The following table shows the death-rates of each Colony for four decennial periods from 1851-90 :—

Death-rates of the Colonies.

DEATH-RATES.

Death-rates, 1851-90.

Colony.	Deaths per 1,000 of Population.			
	1851-60.	1861-70.	1871-80.	1881-90.
New South Wales	19·96	16·41	15·59	14·65
Victoria	18·73	16·82	15·45	15·42
Queensland	16·96	19·11	17·33	17·11
South Australia	15·64	15·82	15·31	13·43
Western Australia	9·34	16·27	15·12	16·08
Tasmania	21·13	14·50	16·09	15·57
New Zealand	11·50	12·94	12·29	10·40
Australasia	17·51	16·14	15·14	14·32

The death-rate of each Colony for the last eleven years are given in the following table, but the statement viewed in the light of a comparison between the Colonies is not in every case just, as no account is taken of the ages of the people :—

Death rates 1881-91, per 1,000 inhabitants.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1881	15·08	14·16	14·66	14·50	13·95	14·88	11·15	14·08
1882	16·05	15·32	17·99	15·19	14·08	15·95	11·22	15·02
1883	14·61	14·29	18·82	14·90	17·77	17·36	11·51	14·52
1884	16·10	14·48	22·97	15·61	21·57	15·88	10·47	15·29
1885	16·48	15·01	19·58	12·81	17·27	15·89	10·71	14·98
1886	15·05	15·18	16·91	13·62	20·97	15·15	10·54	14·42
1887	13·38	15·74	14·89	12·64	16·52	16·15	10·31	13·78
1888	13·91	15·44	15·18	12·00	15·28	14·84	9·46	13·62
1889	13·87	17·79	16·24	11·13	13·78	14·96	9·45	14·35
1890	12·90	16·10	14·51	12·32	11·44	14·74	9·65	13·49
1891	14·26	16·26	12·87	13·02	17·05	15·00	10·34	14·03

Death-rate of Colonies compared with other nations.

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 European countries where it is 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 for the ten years ending 1889 for European countries, and for the ten years 1881-1890 for the Australasian Colonies :—

Birth and Death Rates per 1,000 inhabitants.

Country.	Birth Rate.	Death Rate.	Excess of Births per 1,000 inhabitants.
New South Wales	36·98	14·65	22·33
Victoria.....	31·82	15·42	16·40
Queensland	37·91	17·11	20·80
South Australia.....	36·00	13·43	22·57
Western Australia.....	34·99	16·08	18·91
Tasmania.....	34·83	15·57	19·26
New Zealand.....	33·70	10·40	23·30
Australasia	34·75	14·32	20·43
England and Wales	32·74	19·20	13·54
Scotland	32·44	19·12	13·32
Ireland.....	23·86	18·33	5·53
United Kingdom.....	31·48	19·07	12·41
France ..	24·16	22·11	2·05
Germany	37·16	25·31	11·85
Belgium	30·58	21·06	9·52
Netherlands	34·65	21·38	13·27
Austria.....	38·25	29·63	8·62
Hungary	44·57	33·55	11·02
Switzerland.....	28·57	21·07	7·50
Italy.....	37·03	27·50	9·53
Denmark	32·16	18·85	13·31
Norway	30·89	16·65	14·24
Sweden	29·34	17·04	12·30

No better testimony to the salubrity of the climate of Australasia 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.

Salubrity of the Climate.

MARRIAGES.

Marriage-rates
of the Colonies.

The marriage-rate of the Colonies per 1,000 of the population for the four decennial periods from 1851 to 1890 has been as follows:—

Marriage Rates, 1851-90.

Colony.	Marriage-rates per 1,000 of Population.			
	1851-60.	1861-70.	1871-80.	1881-90.
New South Wales	9·97	8·49	7·80	7·92
Victoria	10·57	7·26	6·28	7·74
Queensland	9·97	10·58	7·90	8·56
South Australia	9·99	8·42	8·30	7·44
Western Australia	10·04	8·33	6·73	6·95
Tasmania	13·88	6·80	6·96	7·56
New Zealand.....	10·13	9·54	7·79	6·40
Australasia.....	10·57	8·11	7·27	7·59

Taking the last period mentioned above, it will be seen that the average rate for the whole of Australasia was 7·59, while the rates in the different Colonies ranged from 8·56 in Queensland to 6·40 in New Zealand. The rates of each Colony for the last eleven years are shown in the following table:—

Marriage-rates, 1881-91, per 1,000 inhabitants.

Year.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.	Australasia.
1881	8·82	6·79	7·52	8·34	6·67	7·35	6·65	7·44
1882	8·70	7·09	8·56	8·75	7·04	8·11	7·09	7·87
1883	8·83	7·44	8·93	8·53	6·88	9·16	6·86	8·03
1884	8·47	7·74	8·91	8·33	7·02	8·00	6·93	7·98
1885	8·22	7·73	8·93	7·86	7·37	8·22	6·72	7·84
1886	8·06	7·86	8·45	6·35	7·73	7·55	5·99	7·49
1887	7·55	7·64	8·40	6·33	7·44	7·02	5·98	7·26
1888	7·57	8·48	8·93	6·65	6·90	6·93	6·00	7·48
1889	7·06	8·43	8·27	6·56	6·77	6·89	5·95	7·36
1890	7·15	8·21	8·22	7·02	5·89	6·64	6·11	7·36
1891	7·39	7·68	7·21	7·31	8·11	6·63	6·05	7·20

It must be borne in mind that the above are the ratios of *marriages* to population. To ascertain the ratios of *persons* married it is therefore necessary to double the figures in each case.

A comparison of the marriage-rate of Australasia with that of other countries, where the social conditions are essentially different, is not of much value, and therefore is not given here.

NATIVE RACES.

At the census of 1891 only 38,879 Aborigines were enumerated, of whom 8,280 were in New South Wales, 565 in Victoria, 23,789 in South Australia, and 6,245 in Western Australia. The figures relating to New South Wales and Victoria include all aborigines now living in those provinces, but the returns from the other colonies are very imperfect. It has been asserted that there are some 70,000 aborigines in Queensland, but this, however, is a very crude estimate, and may be far wide of the truth. In the case of South Australia, a large number of the aborigines in the Northern Territory are entirely outside the bounds of settlement, and it seems probable that they are as numerous in that colony as in Queensland. The census of Western Australia includes only those aboriginals in the employment of the colonists, and as large portions of this, the greatest in area of all the Australasian colonies, are as yet unexplored, it may be presumed that the number of aborigines enumerated in the census is very far short of the total in the colony. The aboriginal population of the entire Continent may be set down at something like 200,000.

The original inhabitants of New Zealand, or Maoris, as they The Maoris. are called, are quite a different race. They are gifted with a considerable amount of intelligence, quick at imitation, and brave even to rashness; on the other hand they are avaricious, and oft-times ferocious. According to the census of 1881 they numbered 44,097. Like the Australian aborigines they appear to be decreasing in number, the census of 1886 enumerating only 41,432,

and that of 1891, 41,523 (22,633 males and 18,890 females). To these must be added 2,119 half-castes (1,074 males and 1,045 females), so that the totals are 23,707 males and 19,935 females, or altogether 43,642. It is believed, however, that at the time the colonists first landed their number was fully 120,000.

CHINESE.

Chinese in the Colonies in 1891.

At the census of 1891 the Chinese and half-caste Chinese in the whole group of Colonies were estimated to number, distributed as follows :—

New South Wales	14,156
Victoria	8,489
Queensland	8,574
South Australia	3,676
Western Australia	917
Tasmania	839
New Zealand.....	4,292
	40,943
Australasia	40,943

Prohibitive legislation.

Since 1880 it has been deemed expedient by the Governments of all the Colonies except Western Australia, and South Australia as far as her Northern Territory is concerned, 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, except in Western Australia, where the tax is £10, and in the Northern Territory where no tax is imposed. These stringent regulations have had the effect of bringing about the almost entire cessation of this class of immigration.

NATURALIZATION.

The number of persons naturalised in Australasia during 1890 was 1,067, and of these three-fourths belonged to Queensland and New Zealand. The following are the figures for each Colony :—

Colony.	Germans and other German speaking nations.	Scandinavians.	Chinese.	Others.	Total.
New South Wales	42	30	.....	27	99
Victoria	47	67	.....	27	141
Queensland	195	109	.....	40	344
South Australia	25	10	.....	19	54
Western Australia .....	.....	.....	.....	.....	.....
Tasmania	3	5	2	1	11
New Zealand.....	163	181	7	67	418
Australasia	475	402	9	181	1,067

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, but 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 of the Colonies, of which they are the seat of Government. The abnormal aggregation of the population into their capital cities is a most unfortunate element in the progress of these Colonies, and is one which seems to become every year more marked.

POPULATION IN CAPITALS.

Population of
capital cities of
Colonies at
various dates.

The increase in the population of the chief cities of Australasia and the estimated numbers of their inhabitants at the various census periods, are given in the following table, which illustrates the remarkable progress referred to:—

Population of Capital Cities.

	1841.	1851.	1861.	1871.	1881	1891.
Sydney	29,973	44,240	93,241	134,736	224,211	383,386
Melbourne	4,479	23,143	139,916	206,780	282,947	490,902
Brisbane	*829	2,543	6,051	15,029	31,109	101,564
Adelaide	†8,480	†14,577	18,303	42,744	103,864	133,252
Perth .....	.....	.....	.....	5,244	5,822	8,447
Hobart .....	.....	.....	19,449	19,092	21,118	33,450
Wellington.....	.....	.....	.....	7,908	20,563	33,224

* In 1846. † In 1840. ‡ In 1850.

The aggregation of population is most marked in the case of Melbourne, but Adelaide and Sydney are also conspicuous. The proportion of population in each capital compared with that of the whole Colony is set forth in the subjoined table, for the two years 1881 and 1891:—

Proportion of Population of Capitals.

	1881.	1891.
	Per cent.	Per cent.
Sydney	28·79	34·11
Melbourne	32·14	43·09
Brisbane	13·70	25·80
Adelaide	36·27	41·58
Perth.....	19·36	16·97
Hobart	17·75	22·81
Wellington	4·10	5·30

The percentage of New Zealand population resident in Wellington is small, but, though it is the capital of the Colony, this city is greatly exceeded in population by Auckland, as well as Dunedin and Christchurch; but even in the largest of these cities—Auckland—the population is not more than 8·15 per cent. of that of the whole Colony.

The following is a list of the cities and towns of Australasia with a population exceeding 5,000 ; in all cases the suburbs are included :—

Population of Cities and Towns.

City or Town.	Population.	City or Town.	Population.
New South Wales—		Queensland— <i>continued</i> —	
Sydney	383,386	Gympie	8,449
Newcastle	51,561	Ipswich	7,625
Broken Hill	19,789	Toowoomba	7,007
Parramatta	11,677	South Australia—	
Goulburn	10,916	Adelaide	133,252
Maitland	10,214	Port Adelaide	15,976
Bathurst	9,162	Western Australia—	
Wollongong	8,803	Perth	8,447
Albury	5,447	Freemantle	5,607
Orange	5,064	Tasmania—	
Victoria—		Hobart	33,450
Melbourne	490,902	Launceston	17,208
Ballarat	46,033	New Zealand—	
Bendigo	37,238	Auckland	51,127
Geelong	24,210	Christchurch	47,846
Castlemaine	6,802	Dunedin	45,865
Stawell	5,191	Wellington	33,224
Queensland—		Invercargill	8,551
Brisbane	101,564	Napier	8,341
Rockhampton	13,380	Nelson	6,626
Maryborough	8,700	Oamaru	5,621
Townsville	8,564	Wanganui	5,011

SOCIAL CONDITION.

SAVINGS OF THE PEOPLE.

Working man's Paradise.

THE Colonies of Australasia have from very early days 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 wage-earners 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.

Banks.

Some idea both of the celerity and extent of this accumulation may be gathered from the increase of deposits in the Banks carrying on business in the Colonies, and in the following table the deposits in Banks at four decennial periods are given :—

Deposits in Banks (including Savings Banks).

	1861.	1871.	1881.	1891.
	£	£	£	£
New South Wales.....	5,645,101	7,989,801	23,006,720	40,390,159
Victoria	7,575,406	12,476,677	23,721,348	45,261,932
Queensland	334,503	1,647,830	5,633,097	11,720,112
South Australia.....	875,327	2,038,719	6,231,004	9,933,135
Western Australia	*2,487	*15,583	*23,344	1,398,417
Tasmania	†729,085	875,512	2,969,390	4,378,448
New Zealand	905,675	3,789,639	10,618,893	15,806,847
	16,067,584	28,833,761	72,203,796	128,889,050
Per head of population.....	£13	£15	£26	£33

* Savings Banks only.

† Banks of issue only

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 1891 the deposits per head of population increased by about 120 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 older country. In 1861, 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, and in 1890 to £16. 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.

Increase of
Deposits.

Turning to the case of the wage-earning classes in the Colonies, 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 the last decade show this in a marked degree. In the interval between 1881 and 1891 it appears that the number of depositors in Savings Banks increased from 311,124 to 708,509, or more than double. In 1881, however, each depositor had an average of £30 in the Bank, but in 1890-91 he had only £25. The amount per depositor in decennial periods from 1861 may appear to point to a serious retrogression, declining 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 less affluent classes of the community are more largely represented in the books of the banks than was formerly the case and the smaller amount of average deposit seems to show that habits of thrift have in a greater degree permeated the community. 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

Savings Banks.

Habits of thrift.

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, averaging £36 7s. per head, while those of Western Australia have the least, their average being only £10 8s. 11d. The subjoined table shows the progress of accumulation in each of the Colonies for the several periods :—

Savings Banks.

	1861.		1871.	
	Depositors.	Amount.	Depositors.	Amount.
		£		£
New South Wales.....	12,203	615,409	24,379	945,915
Victoria	12,001	582,796	45,819	1,117,761
Queensland.....	242	12,193	6,769	407,134
South Australia.....	3,248	131,590	14,270	517,000
Western Australia	† 224	2,487	‡ 1,062	15,583
Tasmania	*	*	8,500	217,413
New Zealand	1,144	22,921	14,275	454,966
	29,062	1,367,396	115,074	3,675,772
Amount per Depositor ...	£47		£32	

	1881.		1890-91.	
	Depositors.	Amount.	Depositors.	Amount.
		£		£
New South Wales.....	72,384	2,698,703	143,826	4,730,469
Victoria	101,829	2,569,438	297,430	5,628,577
Queensland.....	20,168	944,251	45,885	1,666,855
South Australia.....	37,742	1,288,450	74,686	2,158,228
Western Australia	3,219	23,344	3,014	31,486
Tasmania	14,728	369,278	25,324	521,250
New Zealand	61,054	1,549,515	118,344	3,137,023
	311,124	9,442,979	708,509	17,873,888
Amount per Depositor ...	£30		£25	

* Information not available.

† 1863, first year of Savings Banks.

‡ 1872.

INSOLVENCY.

The view presented in the last section, of the accumulation of ^{Insolvency.} wealth, would be incomplete without a glance at the other side of the picture. 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 1890.

It must be pointed out that some 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 expect.

Insolvencies.

Colony.	1861.		1871.		1881.		1890.	
	No.	Liabilities	No.	Liabilities	No.	Liabilities	No.	Liabilities
New South Wales.....	463	£ 580,727	544	£ 325,941	724	£ 370,290	1,193	£ 1,203,635
Victoria.....	1,287	1,088,298	631	444,117	620	303,892	795	2,301,271
Queensland.....	24	46,866	73	411,835	153	73,602	335	241,336
South Australia.....	108	101,140	247	246,713	215	123,629	77	58,398
Tasmania.....	155	173,933	25	62,560	33	113,770	76	85,746
New Zealand.....	*	*	737	*	1,406	823,018	652	608,533
	2,037	1,999,964	2,257	1,491,166	3,151	1,717,201	3,128	4,498,969

* No Return.

+ Returns not complete.

Schedules of insolvents not reliable.

Decrease of
Insolvencies
generally.

From the above table 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 other 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, 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 probably greater. The proportion of insolvents to population in Australasia has largely decreased since 1861, the numbers being, per 1,000 inhabitants:—

1861	16·09
1871	11·46
1881	12·87
1890	8·39

NEWSPAPERS AND LETTERS.

Australasian
Newspapers.

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 been even more rapid 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 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 1890, which comprises all the Colonies, shows that no less than 96,309,000 newspapers passed through the Post Offices, being an average of 26 to every inhabitant. Allowance has been made, as before, for newspapers entered in both the sending and the receiving Colony.

In the same year there were 172,596,000 letters delivered through the post, being more than 46 letters for every man, woman, and child in Australasia. Allowance has been made in this figure for about 12,500,000 intercolonial letters counted both in the receiving and despatching colonies. 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.

Amount of
correspondence.

PARKS, MUSEUMS, &c.

All the Australasian capitals are liberally supplied with parks and recreation grounds. In Sydney and the suburbs there are parks, squares, and public gardens comprising an area of 3,761 acres, including 780 acres, which form the Centennial Park. In addition to these there is the picturesque National Park, of 36,320 acres, situated about 16 miles from the centre of the Metropolis. Melbourne has no less than 5,293 acres of recreation grounds, of which 1,723 acres are within the city boundaries, 2,788 acres in the suburban municipalities, and 782 acres outside those municipalities. Adelaide is surrounded by a broad belt of park lands, and also contains a number of squares within the city boundaries, covering altogether an area of 2,300 acres. Brisbane, Hobart, Perth, and the chief cities of New Zealand are also well

Parks and
Recreation
Grounds.

Botanic
Gardens.

provided for in this respect. In all the Colonies large areas of land have been dedicated as public parks. The Botanic Gardens of Sydney, Melbourne, Brisbane, and Adelaide are included in the areas above referred to. Each of these gardens has a special attraction of its own. They are all well kept, and reflect great credit upon the communities to which they belong.

Museums and
Art Galleries.

The various capitals of the Colonies, and also some of the prominent inland towns, are provided with museums for the purposes of instruction as well as recreation, and, in addition, there are in Sydney, Melbourne, Adelaide, and Hobart art galleries, containing excellent collections of paintings and statuary. All these institutions are open to the public free of charge.

PUBLIC CHARITIES.

As shown in the chapter on "Finance," wealth in Australasia is widely distributed, and the contrast between rich and poor, which seems so peculiar a phase of old-world civilizations, finds no parallel in these southern lands. That there is poverty in the colonies is undeniable, but no one in Australasia is born to poverty, and that hereditary pauper class, which forms so grave a menace to the freedom of many States, has, therefore, no existence here.

Propertied
classes.

It is estimated that in the United Kingdom six persons in every hundred possess property to the amount of £100; whereas in the colonies the proportion is not less than 12·3 per cent. This bare statement shows the vast difference in the conditions of life in Australasia and in the richest country of Europe. No poor rate is levied in the colonies, nor is such needed; for although it may happen that from time to time the assistance of the State is claimed by, and granted to, able-bodied men who are unable to

find employment, that assistance takes the form of wages paid for work specially provided by the State to meet a condition of the labour market which is certainly abnormal.

The chief efforts of the authorities, as regards charity, are directed towards the rescue of the young from criminal companionship and temptation to crime, the support of the aged and infirm, the care of the imbecile or insane, and the subsidising of private charity for the cure of the sick and injured, and the amelioration of want. State assistance to charities.

Even where the Government grants aid for philanthropic purposes, the management of the institutions supervising the expenditure is in private hands; and in addition to State-aided institutions there are numerous private charities, whose efforts for the relief of those whom penury, sickness, or misfortune has afflicted are beyond all praise. Supervision of expenditure.

The rescue of the young from crime is attempted in two ways—first, by means of Orphanages, Industrial Schools, and Reformatories, which take care of children who have been abandoned by their natural guardians, or who are likely, from the poverty or incapacity of their parents, to be so neglected as to render them liable to lapse into crime; and, secondly, by sequestering children who have already committed crime, or whose parents or guardians find themselves unable to control them. Rescue of the young from crime.

It will be noticed that the number of deaths from accident in the Australasian colonies is very great. This arises from the peculiar nature of the occupations in which a large proportion of the adult male population is employed. Although a century has elapsed since settlement commenced in Australasia, its resources are by no means developed, and very many men are at work far away from the home comforts of everyday life, and from home attendance in case of sickness or injury. Hospitals are therefore absolutely essential under the conditions of life in the country districts of the colonies, and they are accordingly found in every important country town. Necessity for hospitals.

INSANE PATIENTS.

The following table shows the total expenditure and the number of persons admitted to the hospitals during the year 1890, as far as information can be obtained :—

Hospitals, 1890.

Colony.	Total expenditure.	No. of persons admitted during the year.
	£	
New South Wales	142,688	15,756
Victoria	144,348	17,634
Queensland	102,179	12,874
South Australia*	12,416	2,026
Western Australia.....	.....	70
Tasmania	16,263	2,180
New Zealand	70,327	7,202

* Adelaide Hospital only.

Asylums for
the Insane.

All the Colonies possess institutions for the care of the insane, which are under Government control. The treatment meted out to the inmates is that dictated by the greatest humanity, and the hospitals are fitted with all the conveniences and appliances which modern science points out as most calculated to mitigate or remove the affliction under which these unfortunates labour.

The following table shows the number of insane patients remaining on 31st December, and expenditure for the year 1890 :—

Insane Patients.

Colony.	No. of patients.	Expenditure.
		£
New South Wales	3,102	96,138
Victoria	3,627	108,380
Queensland	1,082	33,000
South Australia	817	22,634
Western Australia	125	4,000
Tasmania	354	13,868
New Zealand	1,797	35,210
Australasia	10,904	313,230

The amounts expended on destitute asylums and benevolent societies cannot be separated from other items of expenditure in some of the Colonies. As far as they can be ascertained they were, for 1890, including both Government aid and private contributions, in New South Wales, £79,164 ; Victoria, £70,867 ; Queensland, £28,906 ; Western Australia, £8,677 ; and Tasmania, £15,970 ; while the number of inmates of the various asylums was, at the end of 1890 :—

Colony.	Inmates.
New South Wales	3,219
Victoria	2,522
Queensland	773
South Australia	344
Western Australia.....	168
Tasmania	751
New Zealand	565
Australasia	8,342

A liberal amount of out-door relief is given in all the Australasian Colonies, the expenditure on which is included in the amounts given for destitute asylums and benevolent societies. Out-door Relief.

The total expenditure of the Governments of the Australasian Colonies in connection with all forms of relief and in aid of hospitals and other charitable institutions amounted in 1890 to £638,243 ; adding to this the amount of private subscriptions, &c., the poor and the unfortunate have benefited during the year to the extent of over £1,100,000. This sum, though not excessive in proportion to the population, may yet appear large in view of the general wealth of the Colonies, which should preclude the necessity of so many seeking assistance ; and there is the risk that the charitable institutions may encourage the growth of the pauper element, for while free quarters and free food are so accessible those who are disinclined to work are tempted to live at the public expense. Public and private expenditure in charity.

LAW AND CRIME.

Methods of
criminal
procedure.

Proceedings against a person accused of an offence may be initiated, by the laws of all the provinces, either by formal arrest or by summons. Serious offences are not often dealt with by process of summons, though on the contrary, in some of the colonies, it is not unusual even in trivial cases for the offender to be arrested. These circumstances should be taken into consideration when dealing with apprehensions by the police, which are unusually numerous in Australasia, as the subjoined statement shows :—

Apprehensions, 1890.

Colony.	Offences.					Total.	Per-centage to total Population.
	Against the Person.	Against Property with violence.	Against Property without violence.	Forgery and Offences against the Currency.	Against Good Order, &c.		
New South Wales..	2,080	948	4,159	140	30,335	38,568	3·5
Victoria	2,667	1,017	3,778	87	31,045	38,594	3·4
Queensland	1,771	*	1,624	*	9,008	12,403	3·2
South Australia ..	663	104	402	21	5,809	6,999	2·2
Western Australia	371	26	510	8	3,775	4,690	9·9
Tasmania	483	21	605	19	5,233	6,411	4·5
New Zealand	1,537	755	1,627	63	14,719	18,701	3·0
Australasia ..	10,478	*	15,914	*	99,974	126,366	3·4

* Not separately distinguished.

Cases dealt with
by magistrates.

In 29,433 cases out of the 126,366 dealt with by the magistrates, the parties concerned were discharged, either as guiltless, or because evidence sufficient to establish their guilt was not forthcoming; 93,244 were summarily convicted, and condemned either to fine or imprisonment; while 3,689 were committed to take their trial before a jury. In dealing with the figures in the foregoing table it may be assumed that all the crime, properly so-called, is included under the first four headings; the offences under the other headings being chiefly drunkenness and its concomitant disorderly conduct and foul language, and breaches of municipal by-laws.

The total apprehensions for offences other than those against good order, as they are called, were for each province :—

Apprehensions for serious offences.

Colony.	Number of Apprehensions.	Percentage to Population.
New South Wales	8,233	0·75
Victoria	7,549	0·67
Queensland	3,395	0·87
South Australia	1,190	0·37
Western Australia	915	1·94
Tasmania	1,128	0·78
New Zealand	3,982	0·64
Australasia	26,392	0·71

The number of convictions by magistrates is shown in the following table, which is noteworthy as illustrating certain peculiarities attending the administration of the law in some of the colonies. Thus, the number of persons arrested for offences as against good order, as shown by a preceding table, was 99,974, whilst the punishments awarded amounted to 78,725, or 78·7 per cent., varying from 90·1 per cent. in the case of South Australia, down to 64·8 per cent. in that of Victoria. The following are figures referred to :—

Convictions by magistrates.

Summary Convictions, 1890 :—

Colony.	Offences.						Percentage to total Population.
	Against the Person.	Against Property with Violence.	Against Property without Violence.	Forgery and Offences against the Currency.	Offences against Good Order.	Total.	
New South Wales..	1,795	429	2,191	6	26,571	30,992	2·8
Victoria	1,816	450	2,093	1	20,134	24,494	2·2
Queensland	977	*	768	*	7,769	9,514	2·4
South Australia	419	68	233	.....	5,233	5,953	1·9
Western Australia	217	13	317	.....	2,649	3,201	6·8
Tasmania	233	3	364	1	4,361	4,962	3·4
New Zealand	813	378	929	.....	12,003	14,128	2·3
Australasia ..	6,270	*	8,249	*	78,725	93,244	2·5

* Not separately distinguished.

Arrests for
drunkenness.

More than half the arrests, and nearly half the summary convictions, are for drunkenness. The figures for each province are given in the following statement, which also gives the number of arrests and convictions for this offence to every hundred of the population. The number of arrests in Western Australia is singularly large, being almost as high as the figures for South Australia, which has seven times the population. The work of the police in arresting drunken persons seems to be about the same in New South Wales, Queensland, and Victoria, but while convictions seem to be the lot of the person arrested in the two colonies first named, in Victoria so rigid a practice does not obtain, for 43 out of every 100 arrested escape without being punished by the Bench, probably preferring to estreat a small amount of bail, rather than face exposure in the Court :—

Drunkenness, 1890.

Colony.	Total Apprehensions.	Summary Convictions.	Percentage to Population.	
			Of Apprehensions.	Of Convictions.
New South Wales...	18,654	17,022	1·7	1·5
Victoria	18,501	10,475	1·6	0·9
Queensland.....	6,332	6,192	1·6	1·6
South Australia.....	2,382	2,268	0·7	0·7
Western Australia...	2,097	1,595	4·4	3·4
Tasmania	1,151	1,116	0·8	0·8
New Zealand	5,900	5,744	0·9	0·9
Australasia.....	55,017	44,412	1·5	1·2

Arrests no
criterion as to
extent of
drunkenness.

A return showing only the number of arrests for drunkenness is not a safe index as to the abuse of alcoholic liquors, for a great deal depends on the state of the law and the manner in which it is administered, and it is evident that the maintenance of the law intended to preserve public decency will always be less strict in sparsely settled country districts than in larger centres of population where the police are comparatively more numerous, if not in proportion to the population, at least in proportion to the area

they have under their supervision. The quantity of intoxicants consumed per head is perhaps a safer index to the habits of communities living under like conditions; but comparisons so based should not be pushed to extremes, for as it has often been pointed out the larger part of the alcohol which enters into consumption is that consumed by the population who are not drunkards. Information as to the quantity of intoxicants used per inhabitant in each province during 1890 is given below, wines and beers being reduced to their equivalent of proof spirit:—

Consumption of liquor per head.

Consumption of Intoxicants per head.

Colony.	Proof gallons of alcohol per head of population.
New South Wales	2·68
Victoria.....	3·88
Queensland	3·10
South Australia	2·43
Western Australia	3·98
Tasmania	1·88
New Zealand	1·77
Australasia	2·90

The consumption of various classes of intoxicants in the several Colonies is shown in the chapter on "Food Supply and Cost of Living."

The following table shows the number of police, the number of inhabitants to each police constable, and the average area which Police in proportion to inhabitants.

PROPORTION OF POLICE.

each constable had under his supervision during the year 1890; it is obvious that in nearly every colony the police force requires strengthening:—

Police, 1890.

Colony.	Number of Police.			Number of Inhabitants to each Police Constable.			Area under Supervision of each Police Constable in Country Districts.
	Metro-politan Area.	Country Districts.	Whole Colony.	Metro-politan Area.	Country Districts.	Whole Colony.	
							Square miles.
New South Wales	594	1,057	1,651	651	702	667	294
Victoria	742	763	1,505	659	850	756	115
Queensland	177	721	898	519	417	471	927
South Australia ...	167	259	426	795	735	762	3,489
Western Australia ...	...	...	173	...	...	281	6,127
Tasmania	50	156	306	663	719	475	168
New Zealand .....	...	...	506	...	...	1,236	252

The record of apprehensions cannot be regarded as altogether a trustworthy indication of the social progress of Australasia, because it includes many kinds of offences which cannot fairly be classed as criminal, and the number of these has a tendency to increase with the increase of local enactments. The record of committals for trial for the more serious offences coming before the Courts, taken in conjunction with the convictions for crime in the Superior Courts, may be regarded as much more conclusive on the question of the progress of society or the reverse. In some respects even this evidence is misleading, for in the less populous provinces there are no Courts intermediary between the Magistrates and the Supreme Courts, so that many offences which, in New South Wales and Victoria for example, are tried by a jury are in some of the other provinces dealt with by the Magistrates.

Decrease of
crime.

From the following table it will be seen that while the number of apprehensions has decreased from 43·3 per thousand of population in 1861 to 33·8 in 1890, committals have decreased from 2·2 to 1·0 per thousand, and convictions by jury from 1·3 to 0·6 per thousand in the same period.

Apprehensions, Committals, and Convictions.

Year.	Per 1,000 of Population.		
	Apprehensions.	Committals.	Convictions in Superior Courts.
1861	43·3	2·2	1·3
1871	36·2	1·4	0·8.
1881	43·2	1·2	0·7.
1890	33·8	1·0	0·6

In noting these facts and comparing results with that obtained in Great Britain during the same period, it must not be forgotten that some of the provinces 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 the expectation may be not unreasonably 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.

It is 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 now in the most favourable position in regard to serious crime—is the one which suffered most from the transportation system. Whatever be the explanation, the fact, however, remains that New South Wales, Western

Greater ratio of convictions in certain Colonies.

COMMITTALS AND CONVICTIONS.

Australia, and Queensland have a higher rate of criminal convictions than the other provinces, and that South Australia shows a marked contrast in its freedom from serious crime. The following table shows the convictions in the Superior Courts of the different Colonies, at decennial periods, from 1861 to 1890 :—

Convictions at Decennial Periods :—

Colony.	1861.	1871.	1881.	1890.
New South Wales	437	628	1,066	955
Victoria	846	511	332	662
Queensland	24	91	92	275
South Australia	62	91	213	82
Western Australia	35	65	61	41
Tasmania	127	74	51	46
New Zealand	100	162	270	227
Australasia	1,631	1,622	2,085	2,288

Committals by magistrates.

The committals by magistrates, and the convictions in the Superior Courts of each province per 1,000 of population during 1890, were as follows :—

Committals and Convictions, 1890 :—

Colony.	Per 1,000 of Population.	
	Committals.	Convictions.
New South Wales	1·3	0·9
Victoria	1·0	0·6
Queensland	0·8	0·7
South Australia	0·5	0·3
Western Australia	1·4	0·9
Tasmania	0·8	0·3
New Zealand	0·8	0·4
Australasia	1·0	0·6

A classification of the offences for which the convictions took place is given in the subjoined table :—

Classification of offences.

Convictions in Superior Courts, 1890 :—

Colony.	Offences.				Total.
	Against the Person.	Against Property, with Violence.	Against Property without Violence, Forgery, &c.	Against Good Order, &c.	
New South Wales.....	221	135	548	51	955
Victoria	105	174	355	28	662
Queensland	51	11	200	13	275
South Australia	21	3	49	9	82
Western Australia ...	14	.....	26	1	41
Tasmania	17	.....	14	15	46
New Zealand	40	47	132	8	227
Australasia	469	370	1,324	125	2,288

The very large number of convictions in New South Wales may perhaps be accounted for to some extent by a more rigorous administration of the law than obtains in other provinces ; partly, also, to the fact of there being no law to prevent the influx of criminals, such as exists, and is strictly enforced, in some of the other Colonies.

Convictions in New South Wales.

The punishment of death is very seldom resorted to except in cases of murder, though formerly such was not the case. Thus, in 1861, the executions in the whole of the Colonies amounted to 20 ; they had fallen to 8 in 1871, to 5 in 1881, and to 2 in 1890. One of these last-mentioned took place in New South Wales, the other in Queensland. In South Australia, the extreme penalty has been most sparingly inflicted, executions having numbered only 8 during the last 20 years, and none having occurred since 1883. The following table shows the number of executions in each province, in each decade of the last 50 years, as far as the returns are available :—

Capital Punishment.

PRISONERS IN CONFINEMENT.

Executions, 1841-1890.

Colony.	1841-50.	1851-60.	1861-70.	1871-80.	1881-90.
New South Wales	} 68	37	34	27	23
Victoria		47	41	19	13
Queensland		1	14	18	15
South Australia .....	.....	7	12	6	2
Tasmania	83	32	15	3	5
New Zealand.....	.....	.....	.....	12	8
Total	151	124	116	85	66

Number of
Prisoners in
Gaols.

The returns relating to the prisons of the Colonies are in some cases very incomplete. The prisoners in confinement at any specified time may be divided into those who have been tried and sentenced, those who are awaiting their trial, and debtors. The returns of four of the Colonies allow of this distinction being made :—

Prisoners in Confinement on 31st December, 1890.

Colony.	Tried and Sentenced.	Awaiting Trial.	Debtors.	Total.
New South Wales.....	2,292	129	4	2,425
Victoria	1,769	118	.....	1,887
South Australia.....	242	10	.....	252
New Zealand	517	43	2	562
Total	4,820	300	6	5,126

The returns of Queensland and Tasmania give the total number of prisoners in confinement on 31st December as 635 and 174 respectively, while Western Australia returns a daily average of 265. Taking this figure to be correct for 31st December, this would give a total prison population for Australasia of 6,200, or about 1·6 in every thousand of population.

SUICIDES.

Suicides would unfortunately appear to be increasing in number, Suicides. if not in proportion to population. 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 :—

	1861.	1871.	1881.	1890.	Average of 10 years. 1881-1890.
New South Wales	45	30	83	104	93
Victoria	64	90	102	123	110
Queensland	°	8	30	67	48
South Australia	13	11	34	22	27
Western Australia	1	*	4	5	5
Tasmania	7	4	6	17	7
New Zealand.....	*	°	42	64	59
Total	130	143	301	402	349
Per 100,000 of population	13·0	8·4	10·9	10·8	10·7

* Information not available.

Compared with the total number of deaths, suicides in the Australasian colonies during the last twenty years (except in Western Australia where the information is only available for eight years), show the following proportion per 100,000 :—

Deaths by Suicide in Australasia, 1871-90.

Colony.	Per 100,000 Deaths.	Per 100,000 Inhabitants.
New South Wales	639	9·6
Victoria	749	11·6
Queensland	889	15·1
South Australia	602	8·6
Western Australia.....	774	12·8
Tasmania	363	5·7
New Zealand	812	9·2
Australasia	704	10·3

Tasmania, therefore, stands in a more favourable position than any of the other Colonies, and is the only Colony in which the rate is less than in the United Kingdom, where deaths by suicides average only 7 per 100,000 of population. Compared with the rates of some European countries that of Australasia is however, Rate of deaths by suicide.

small, for during the years 1885-87 there were no less than 13·0 suicides in Belgium, 15·9 in Austria, 20·5 in France, and 20·8 in Germany per 100,000 inhabitants.

ILLEGITIMACY.

Births of Illegitimate Children and Total Births.

	1871.		1881.		1890.	
	Illegiti- mates.	Total Births.	Illegiti- mates.	Total Births.	Illegiti- mates.	Total Births.
New South Wales	782	20,143	1,263	28,993	2,051	38,960
Victoria.....	747	27,382	1,382	27,145	1,913	37,578
Queensland	156	5,205	345	8,220	748	15,407
South Australia ...	*	7,082	*	10,708	259	10,364
Western Australia	*	760	*	1,005	*	1,561
Tasmania	*	3,053	*	3,918	*	4,813
New Zealand	*	10,592	534	18,732	603	18,278
	1,685	74,217	3,524	98,721	5,574	126,961
Per cent. of Births	3·19	.....	4·24	.....	4·62	.....

* 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.....	4·4
Victoria.....	4·5
Queensland.....	4·3
South Australia.....	2·2
Western Australia	4·2
Tasmania	4·2
New Zealand	2·7
England	5·4
Ireland	2·3
Scotland	9·3

DIVORCE.

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.

In New South Wales the chief grounds on which divorce is granted are adultery since marriage on the part of the wife, and adultery with cruelty on the part of the husband. A measure has, however, passed through both Houses of the Legislature, and will probably soon come into force, which will in the main assimilate the law to that of Victoria, where in addition to the grounds mentioned above divorces may be granted on both sides for desertion for over three years, habitual drunkenness, habitual cruelty and neglect, imprisonment for over three years and still in prison on commuted capital sentence, or under penal servitude for seven years, conviction within one year previously of attempt to murder, or assault with intent to commit grievous bodily harm, assault or cruel beating, and, in the case of the husband, five years frequent convictions for crime, and habitually leaving wife without support. In the colonies of Queensland, South Australia, Western Australia, Tasmania, and New Zealand, divorces are granted principally for adultery on the part of the wife, and adultery coupled with desertion for over two years on the part of the husband.

The following table shows the number of decrees for dissolution of marriage, and for judicial separation granted in each Colony in

NUMBER OF DIVORCES.

quinquennial periods since 1867, as far as it is possible to procure the information :—

Divorces, &c., 1867-1890.

Colony.	1867-70.		1871-75.		1876-80.		1881-85.		1886-90.	
	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.	Divorces.	Judicial separation.
New South Wales .....	...	...	10	...	81	2	98	13	171	29
Victoria	31	8	33	6	41	2	74	8	124	9
Queensland .....	...	...	4	1	14	...	5	2	26	3
South Australia	7	1	22	3	35	2	31	10	23	2
Western Australia	6	2	...	...	1	1	5	...	8	...
Tasmania	1	1	9	...	9	...	9	...	15	2
New Zealand.....	*...	*...	*...	*...	*...	*...	*...	*...	110	5
Australasia	45	12	78	10	181	7	222	33	477	50

* Information not available.

Divorce was legalised in New South Wales in 1873, and in Queensland in 1870, so that no figures appear for those colonies in the first quinquennial period. The totals for all except the last period are exclusive of New Zealand.

Sufficient data are not to hand to admit of a comparison of divorces and marriages, except on the basis of the number of each in any year. Taking the figures in the foregoing table, the following results are shown :—

Divorces, &c., per 10,000 Marriages.

Colony.	1867-70.	1871-75.	1876-80.	1881-85.	1886-90.
New South Wales.....	...	+11·2	32·0	31·1	51·7
Victoria	20·9	16·0	16·9	24·4	31·1
Queensland.....	...	8·0	18·7	6·0	19·0
South Australia.....	15·6	33·5	34·6	33·1	24·3
Western Australia	117·8	...	20·5	44·8	53·5
Tasmania	7·8	27·4	22·0	18·0	35·4
New Zealand	*...	*..	*...	*...	63·5

* Information not available. † 1874 and 1875 only.

PROPORTION OF DIVORCES.

In the subjoined table will be found the figures for each of the years 1886-90, from which it will be seen that, taking the colonies as a whole, divorce is decidedly increasing:—

Divorces, &c., 1886-90.

Colony.	1886.		1887.		1888.		1889.		1890.	
	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.	Divorces.	Judicial Separation.
New South Wales	32	4	25	3	28	5	44	8	42	9
Victoria	16	...	18	5	28	1	22	3	40	...
Queensland	1	...	...	1	6	...	11	...	8	2
South Australia	10	1	3	1	2	...	6	...	2	...
Western Australia	2	...	...	...	2	...	1	...	3	...
Tasmania	6	1	...	...	4	...	3	1	2	...
New Zealand.....	24	...	16	1	32	...	17	1	21	3
Australasia	91	6	62	11	102	6	104	13	118	14
Totals	97		73		108		117		132	
Number of marriages	25,079		25,067		27,000		26,810		27,525	
Divorces and Separations per 10,000 marriages ...	38·7		29·1		40·0		43·6		48·0	

The proportion of divorces to 10,000 marriages is much higher in the colonies than in the United Kingdom; but, at the same time, very much lower than in most of the other European countries or the United States.

Divorces (inclusive of Judicial Separations) during the years 1877-86, per 10,000 Marriages.

Country.	Divorces per 10,000 Marriages.	Country.	Divorces per 10,000 Marriages.
Ireland	2	Hungary	64
Austria	10	Belgium	69
Canada	12	Sweden	73
United Kingdom.....	18	Holland	91
England	19	Roumania	106
Russia	22	France.....	127
Italy	24	Germany.....	152
Scotland	29	Denmark.....	406
Norway.....	30	United States	444
Poland	55	Switzerland	468

INSANITY.

Ratio of
insanity.

The number of insane persons under official cognizance throughout Australasia on the 31st December, 1890, was 11,019. This represents 2·9 per 1,000 of the population. The rates in the United Kingdom for the same period were—England, 3·0; Scotland, 3·1; and Ireland, 3·5. 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 1890, from which it will appear that the greatest proportion is to be found in Victoria, and the smallest in Tasmania, South Australia, and Western Australia :—

	Insane persons per 1,000 of population.
New South Wales.....	2·8
Victoria	3·3
Queensland.....	2·8
South Australia.....	2·6
Western Australia.....	2·6
Tasmania	2·2
New Zealand	2·9
Australasia.....	2·9

The following figures are given by Mulhall for a series of years, in most cases from 1884 to 1888 :—

Number of Insane per 1,000 Inhabitants.

Country.	Number of Insane.	Country.	Number of Insane.
Ireland	3·7	Austria	2·0
United States	3·3	Canada	1·8
England	3·2	Italy	1·7
Scotland	3·2	Belgium and Holland ...	1·2
Scandinavia	2·9	Russia	1·1
France	2·5	Switzerland	1·1
Germany	2·4	Spain and Portugal	0·7

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, which will one day form the source of a large and profitable trade. The political institutions of the Seven Colonies have been described, but very little has been said of the system of local self-government which, in one form or another, pervades Australasia to a greater or less extent; nor has there been room to dilate at any length 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. 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.

Australasia's
future.

It is impossible for a reflective mind to survey the progress made by Australasia in little more than a 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 acclimatisation. 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.



APPENDIX.

AUSTRALASIAN STATISTICS,

1861-1891.

APPENDIX.

—

AUSTRALASIAN STATISTICS, 1861 TO
1890 OR 1891.

—

Population on 31st December of each year.

Colony.	1861.	1871.	1881.	1891.
	No.	No.	No.	No.
New South Wales...	357,978	517,758	782,080	1,165,300
Victoria	541,800	747,412	879,886	1,157,804
Queensland	34,367	125,146	226,574	410,345
South Australia.....	126,830	185,626	286,044	325,766
Western Australia...	15,691	25,353	30,064	53,285
Tasmania	90,211	101,785	118,369	152,619
New Zealand	99,021	266,986	500,075	634,058
Australasia.....	1,265,898	1,970,066	2,823,092	3,899,177

Increase of Population during previous ten years.

Colony.	1861.	1871.	1881.	1891.
	No.	No.	No.	No.
New South Wales...	179,310	159,780	264,322	383,220
Victoria	444,311	205,612	132,474	277,918
Queensland	25,792	90,779	101,428	183,771
South Australia.....	63,130	58,796	100,418	39,722
Western Australia...	12,115	9,692	4,711	23,221
Tasmania	21,024	11,574	16,584	34,250
New Zealand	83,986	167,965	233,089	133,983
Australasia.....	829,668	704,198	853,026	1,076,085

APPENDIX.

Births.				
Colony.	1861.	1871.	1881.	1891.
	No.	No.	No.	No.
New South Wales...	14,681	20,143	28,993	39,567
Victoria	23,461	27,382	27,145	38,516
Queensland.....	1,423	5,205	8,220	14,730
South Australia.....	5,551	7,082	10,708	10,756
Western Australia...	585	760	1,005	1,786
Tasmania	3,207	3,053	3,918	4,947
New Zealand	3,441	10,592	18,732	18,273
Australasia.....	52,349	74,217	98,721	128,575

Deaths.				
Colony.	1861.	1871.	1881.	1891.
	No.	No.	No.	No.
New South Wales...	5,343	6,407	11,536	16,310
Victoria	10,522	9,918	12,302	18,623
Queensland.....	500	1,785	3,320	5,170
South Australia.....	1,962	2,378	4,012	4,211
Western Australia...	257	332	412	869
Tasmania	1,477	1,363	1,733	2,234
New Zealand	1,109	2,642	5,491	6,518
Australasia.....	21,170	24,825	38,806	53,935

Marriages.				
Colony.	1861.	1871.	1881.	1891.
	No.	No.	No.	No.
New South Wales...	3,222	3,953	6,284	8,452
Victoria	4,434	4,693	5,896	8,800
Queensland.....	320	970	1,703	2,895
South Australia.....	1,158	1,250	2,308	2,315
Western Australia...	149	159	197	413
Tasmania	717	598	856	988
New Zealand	878	1,864	3,277	3,808
Australasia.....	10,878	13,487	20,521	27,671

Shipping—Inwards.

Colony.	1861.	1871.	1881.	1890.
	tons.	tons.	tons.	tons.
New South Wales...	366,236	706,019	1,456,239	2,413,247
Victoria	549,195	663,002	1,219,231	2,178,551
Queensland.....	18,879	47,196	455,985	468,607
South Australia.....	103,196	187,314	684,203	1,141,693
Western Australia...	57,456	63,922	145,048	484,534
Tasmania	113,610	107,271	192,024	475,618
New Zealand	197,986	274,643	420,134	662,769
Australasia.....	1,406,558	2,049,367	4,572,864	7,825,019

Shipping—Outwards.

Colony.	1861.	1871.	1881.	1890.
	tons.	tons.	tons.	tons.
New South Wales...	379,460	794,460	1,330,261	2,348,625
Victoria	540,807	692,023	1,193,303	2,184,790
Queensland.....	17,010	45,702	426,506	442,172
South Australia.....	96,135	186,310	675,388	1,195,981
Western Australia...	57,800	63,026	139,998	420,327
Tasmania	116,608	108,889	191,738	475,629
New Zealand	205,350	265,618	413,487	649,705
Australasia.....	1,413,170	2,156,028	4,370,681	7,717,229

Shipping—Inwards and Outwards.

Colony.	1861.	1871.	1881.	1890.
	tons.	tons.	tons.	tons.
New South Wales...	745,696	1,500,479	2,786,500	4,761,872
Victoria	1,090,002	1,355,025	2,412,534	4,363,341
Queensland.....	35,889	92,898	882,491	910,779
South Australia.....	199,331	373,624	1,359,591	2,337,674
Western Australia...	115,256	126,948	285,046	904,861
Tasmania	230,218	216,160	383,762	951,247
New Zealand	403,336	540,261	833,621	1,312,474
Australasia.....	2,819,728	4,205,395	8,943,545	15,542,248

Imports.

Colony.	1861.	1871.	1881.	1890.
	£	£	£	£
New South Wales...	6,391,555	9,609,508	17,587,012	22,615,004
Victoria	13,532,452	12,341,995	16,718,521	22,954,015
Queensland.....	967,951	1,562,665	4,063,625	5,066,700
South Australia.....	1,976,018	2,158,022	5,320,549	8,333,783
Western Australia..	147,913	*226,656	404,831	874,447
Tasmania	954,517	778,087	1,431,144	1,897,512
New Zealand	2,493,811	4,078,193	7,457,045	6,260,525
Australasia.....	26,464,217	30,755,126	52,982,727	68,001,986

* In 1872.

Exports.

Colony.	1861.	1871.	1881.	1890.
	£	£	£	£
New South Wales...	5,594,839	11,245,032	16,307,805	22,045,937
Victoria	13,828,606	14,557,820	16,252,103	13,266,222
Queensland.....	709,599	2,760,045	3,540,366	8,554,512
South Australia.....	2,032,311	3,582,397	4,508,754	8,961,982
Western Australia..	95,789	*209,196	502,770	671,813
Tasmania	905,463	740,638	1,555,576	1,486,992
New Zealand	1,370,247	5,282,084	6,060,866	9,811,720
Australasia	24,536,854	38,377,212	48,728,240	64,799,178

* In 1872.

Total Trade.

Colony.	1861.	1871.	1881.	1890.
	£	£	£	£
New South Wales...	11,986,394	20,854,540	33,894,817	44,660,941
Victoria	27,361,058	26,899,815	32,970,624	36,220,237
Queensland.....	1,677,550	4,322,710	7,603,991	13,621,212
South Australia.....	4,008,329	5,740,419	9,829,303	17,295,765
Western Australia..	243,702	*435,852	907,601	1,546,260
Tasmania	1,859,980	1,518,725	2,986,720	3,384,504
New Zealand	3,864,058	9,360,277	13,517,911	16,072,245
Australasia.....	51,001,071	69,132,338	101,710,967	132,801,164

* For 1872.

Domestic Produce Exported, as per Customs' Returns.

Colony.	1861.	1871.	1881.	1890.
	£	£	£	£
New South Wales...	4,000,269	5,757,574	11,955,277	17,232,725
Victoria	10,596,368	11,151,662	12,480,567	10,291,821
Queensland	698,747	2,407,888	3,478,376	8,412,244
South Australia.....	1,838,639	3,289,861	3,755,781	4,550,139
Western Australia...	147,913	192,144	498,634	659,661
Tasmania	408,980	730,946	1,548,116	1,430,806
New Zealand	1,339,241	5,171,104	5,762,250	9,428,761
Australasia	19,030,157	28,701,179	39,479,001	52,006,157

Total Export of Wool, as per Customs' Returns.

Colony.	1861.	1871.	1881.	1890.
	£	£	£	£
New South Wales...	2,170,777	5,309,268	7,530,792	9,232,672
Victoria	2,095,264	4,702,164	5,450,029	5,933,603
Queensland.....	613,074	1,158,833	1,331,869	2,524,742
South Australia.....	695,405	1,350,689	1,911,972	1,876,240
Western Australia...	54,297	*122,637	256,690	261,352
Tasmania	326,413	298,160	498,400	419,173
New Zealand	523,728	1,606,144	2,914,046	4,150,599
Australasia	6,478,958	14,547,895	19,893,798	24,398,381

* In 1872.

Gold—Quantity Produced.

Colony.	1861.	1871.	1881.	1890.
	oz.	oz.	oz.	oz.
New South Wales...	465,685	323,609	149,627	127,761
Victoria	1,967,453	1,355,477	858,850	583,560
Queensland.....	1,077	171,937	270,945	610,587
South Australia.....	*	*	16,976	26,086
Western Australia..	*	*	*	22,256
Tasmania.....	*	6,005	56,693	23,451
New Zealand	194,031	730,029	270,561	193,193
Australasia	2,628,246	2,587,057	1,623,652	1,591,894

* Gold found in these years was very small.

Live Stock—Sheep.

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	5,615,054	16,278,697	36,591,946	55,986,431
Victoria	6,239,258	10,002,381	10,267,265	12,736,143
Queensland	4,093,381	7,403,334	8,292,883	18,007,234
South Australia	3,038,356	4,412,055	6,810,856	7,050,544
Western Australia..	279,576	670,999	1,267,912	2,524,913
Tasmania	1,714,498	1,305,489	1,847,479	1,619,256
New Zealand	2,761,583	9,700,629	12,985,085	18,117,186
Australasia.....	23,741,706	49,773,584	78,063,426	116,041,707

Live Stock—Horned Cattle.

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	2,271,923	2,014,888	2,597,348	1,909,009
Victoria	628,092	799,509	1,286,677	1,782,978
Queensland	560,196	1,168,235	3,618,513	5,558,264
South Australia.....	265,434	143,463	314,918	574,032
Western Australia..	33,795	49,593	63,009	130,970
Tasmania	87,114	101,540	130,526	162,440
New Zealand	193,285	436,592	698,637	831,831
Australasia.....	4,039,839	4,713,820	8,709,628	10,949,524

Live Stock—Horses.

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	233,220	304,100	398,577	444,163
Victoria	84,057	181,643	278,195	436,459
Queensland	28,983	91,910	194,217	365,812
South Australia.....	52,597	78,125	159,678	199,605
Western Australia..	10,720	22,698	31,755	44,384
Tasmania	22,118	23,054	25,607	31,165
New Zealand	28,275	81,028	161,736	211,040
Australasia.....	459,970	782,558	1,249,765	1,732,628

Area under Crop.

Colony.	1861.	1871.	1881.	1890.
	acres.	acres.	acres.	acres.
New South Wales...	295,917	393,413	569,243	852,704
Victoria	410,406	851,354	1,435,446	2,031,955
Queensland	4,440	59,969	117,664	224,993
South Australia.....	400,717	837,730	2,156,407	2,093,515
Western Australia..	24,705	51,724	53,353	69,676
Tasmania	163,385	155,046	148,494	157,376
New Zealand	68,506	337,282	1,070,906	1,636,179
Australasia.....	1,368,076	2,686,518	5,551,513	7,066,398

Grass and fallow lands are not included.

Alienation of Lands at close of 1890.

Colony.	Area Alienated in Fee Simple.	Area in process of Alienation.	Area Alienated or in process of Alienation.	Area neither Alienated nor in process of Alienation.
	acres.	acres.	acres.	acres.
New South Wales...	26,278,033	18,480,118	44,758,151	154,089,849
Victoria	16,091,880	6,267,174	22,359,054	33,886,706
Queensland.....	10,258,657	7,561,325	17,819,982	410,018,098
South Australia.....	7,002,339	4,905,829	11,908,168	566,453,432
Western Australia..	5,154,673	†.....	5,154,673	673,245,327
Tasmania	4,695,022	.....	4,695,022	12,082,978
New Zealand	*19,666,916	515,323	20,182,239	46,528,081
Australasia.....	89,147,520	37,729,769	126,877,289	1,896,304,471

* Includes 841,021 acres held under perpetual lease. † Return not available.

Occupation of Lands at close of 1890.

Colony.	Area of Colony.	Area Alienated or in process of Alienation.	Area Leased.	Area neither Alienated nor Leased.
	acres.	acres.	acres.	acres.
New South Wales...	198,848,000	44,758,151	148,122,194	5,967,655
Victoria	56,245,760	22,359,054	21,589,767	12,296,939
Queensland.....	427,838,080	17,819,982	235,703,680	124,314,418
South Australia.....	578,361,600	11,908,168	235,980,400	330,473,032
Western Australia..	678,400,000	5,154,673	104,921,357	568,323,970
Tasmania	16,778,000	4,695,022	666,193	11,416,785
New Zealand	66,710,320	20,182,239	13,425,303	33,102,778
Australasia....	2,023,181,760	126,877,289	810,408,894	1,085,895,577

Public Revenue (Proper).

Colony.	1861.	1871.	1881.	1890-91.
	£	£	£	£
New South Wales...	1,421,831	2,238,900	6,714,327	10,047,152
Victoria	2,952,101	1,691,266	5,186,011	8,343,588
Queensland	238,238	799,005	1,971,208	3,350,223
South Australia	558,587	778,094	2,171,983	2,732,222
Western Australia..	67,261	*105,300	206,205	497,670
Tasmania	256,958	271,928	505,006	758,100
New Zealand	691,464	1,342,116	3,757,493	4,193,942
Australasia	6,186,440	7,226,609	20,512,233	29,922,897

* In 1872.

Public Expenditure.

Colony.	1861.	1871.	1881.	1890-91.
	£	£	£	£
New South Wales...	1,540,005	2,733,102	5,783,683	10,378,603
Victoria	3,092,021	1,754,251	5,108,642	9,128,699
Queensland	255,180	787,555	1,782,272	3,684,655
South Australia	482,951	759,478	2,054,284	2,603,498
Western Australia..	*161,786	†98,248	197,386	435,623
Tasmania	324,447	287,262	463,684	722,746
New Zealand	Not to hand	†931,768	3,675,797	4,081,566
Australasia	5,856,390	7,351,664	19,065,748	31,035,390

* Inclusive of Imperial expenditure.

† In 1872.

‡ Provincial expenditure.

Gross Public Debt at end of each Year.

Colony.	1861.	1871.	1881.	1891.
	£	£	£	£
New South Wales...	4,017,630	10,614,330	16,924,019	51,010,433
Victoria	6,345,060	11,994,800	22,426,502	43,610,265
Queensland	70,000	4,047,850	13,245,150	29,434,734
South Australia	866,500	2,167,700	11,196,800	21,657,300
Western Australia..	.....	.....	511,000	1,617,445
Tasmania .....	.....	1,315,200	2,003,000	6,432,800
New Zealand	600,761	8,900,991	29,659,111	38,802,350
Australasia	11,899,951	39,040,871	95,965,582	192,565,327

Public Debt per Inhabitant at end of each Year.

Colony.	1861.	1871.	1881.	1891.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
New South Wales...	11 4 5	20 10 0	21 14 8	43 15 6
Victoria	11 14 3	16 0 11	25 9 7	37 13 4
Queensland	2 0 9	32 6 11	58 7 2	71 14 7
South Australia.....	6 16 8	11 13 7	39 2 1	68 3 1
Western Australia...	.....	.....	17 0 6	30 7 6
Tasmania .....	.....	12 18 5	16 16 10	42 3 0
New Zealand	6 1 4	33 6 9	59 4 2	61 3 1½
Australasia.....	9 10 5	19 16 4	34 0 2	49 7 9

Total Deposits in all Banks.

Colony.	1861.	1871.	1881.	1890-91.
	£	£	£	£
New South Wales...	5,645,101	7,989,801	23,006,720	40,390,159
Victoria	7,575,406	12,476,677	23,721,348	45,261,932
Queensland	334,503	1,647,830	5,633,097	11,720,112
South Australia.....	875,327	2,038,719	6,231,004	9,933,135
Western Australia ..	2,487*	15,583*	23,344*	1,398,417
Tasmania	729,085†	875,512	2,969,390	4,378,448
New Zealand	905,675	3,789,639	10,618,893	15,806,847
Australasia ...	16,067,584	28,833,761	72,203,796	128,889,050

* Savings Banks only.

† Banks of Issue only.

Deposits in Banks of Issue (average of quarter ending December).

Colony.	1861.	1871.	1881.	1891.
	£	£	£	£
New South Wales...	5,029,692	7,043,886	20,308,017	35,659,690
Victoria	6,992,610	11,358,916	21,151,910	39,633,355
Queensland	322,310	1,240,696	4,688,846	10,053,257
South Australia.....	743,737	1,521,719	4,942,554	7,774,907
Western Australia...	.....*	.....*	.....*	1,366,931
Tasmania	729,085	658,099	2,600,112	3,857,198
New Zealand	882,754	3,334,673	9,069,378	12,669,824
Australasia	14,700,188	25,157,989	62,760,817	111,015,162

* Information not available.

Deposits in Savings Banks.

Colony.	1861.	1871.	1881.	1890-91.
	£	£	£	£
New South Wales...	615,409	945,915	2,698,703	4,730,469
Victoria	582,796	1,117,761	2,569,438	5,628,577
Queensland	12,193	407,134	944,251	1,666,855
South Australia	131,590	517,000	1,288,450	2,158,228
Western Australia...	2,487*	15,583†	23,344	31,486
Tasmania	No information	217,413	369,278	521,250
New Zealand	22,921	454,966	1,549,515	3,137,023
Australasia	1,367,396	3,675,772	9,442,979	17,873,888

* In 1863, the first year of Savings Banks.

† In 1872.

Number of Letters and Post-cards.

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	4,369,463	7,509,500	26,355,600	58,385,300
Victoria	6,109,929	11,716,166	26,308,347	62,526,448
Queensland	515,211	1,792,644	5,178,547	14,709,504
South Australia	1,540,472	3,162,774	10,758,605	16,794,679
Western Australia...	193,317	668,957*	995,188	2,629,698
Tasmania	835,873	1,189,994	2,682,329	5,172,824
New Zealand	1,236,768	6,081,607	13,215,235	22,877,320
Australasia.....	14,801,033	32,121,642	85,493,851	183,095,773

* For 1872.

Number of Newspapers.

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	3,384,245	3,992,100	16,527,900	40,597,200
Victoria	4,277,179	5,172,970	11,440,732	22,729,005
Queensland	427,489	1,307,305	4,530,263	11,463,726
South Australia	1,089,424	2,212,620	5,927,332	9,460,075
Western Australia...	137,476	352,608°	715,046	2,135,906
Tasmania	895,656	1,136,338	2,345,700	4,941,571
New Zealand	1,428,351	4,179,784	6,124,021	11,137,846
Australasia.....	11,639,820	18,353,725	47,610,994	102,465,329

° For 1872.

Miles of Telegraph (Poles).

Colony.	1861.	1871.	1881.	1890.
	No.	No.	No.	No.
New South Wales...	1,616	4,674 ^o	8,515	11,231
Victoria .....	.....	2,295*	3,350	6,958
Queensland	169	2,525	6,280	9,830
South Australia...	597	1,183	4,946	5,623
Western Australia ..	.....	750 ^o	1,585	2,892
Tasmania .....	.....	291 ^o	928	2,004
New Zealand .....	.....	2,015	3,824	5,060
Australasia.....	.....	13,733	29,428	43,598

* In 1873.

Government Railways—Net Earnings.

Colony.	1861.	1871.	1881.	1890-91.
	£	£	£	£
New South Wales...	13,817	158,257	705,892	1,143,050
Victoria .....	.....	†382,438	732,223	987,922
Queensland	°.....	21,660	114,638	263,107
South Australia ...	11,186	22,834	128,653	608,220
Western Australia...	°.....	°.....	(-)2,907	(-)14,430
Tasmania	*.....	591	6,721	20,012
New Zealand .....	*.....	.....	368,927	420,998
Australasia.....	.....	.....	2,054,147	3,428,879

(-) minus = loss. * Railways not in existence. † 1873.

Railways—Miles open for Traffic.

Colony.	1861.	1871.	1881.	1890-91.
	No.	No.	No.	No.
New South Wales...	73	358	1,041	2,263
Victoria	214	329	1,247	2,763
Queensland .....	.....	218	800	2,195
South Australia	56	132	849	1,829
Western Australia...	.....	.....	92	585
Tasmania	45	167	399
New Zealand	1,333	1,956
Australasia.....	343	1,082	5,529	11,990

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