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The

Official Year Book

of

New South Wales.

1908-9.



J. B. TRIVETT.

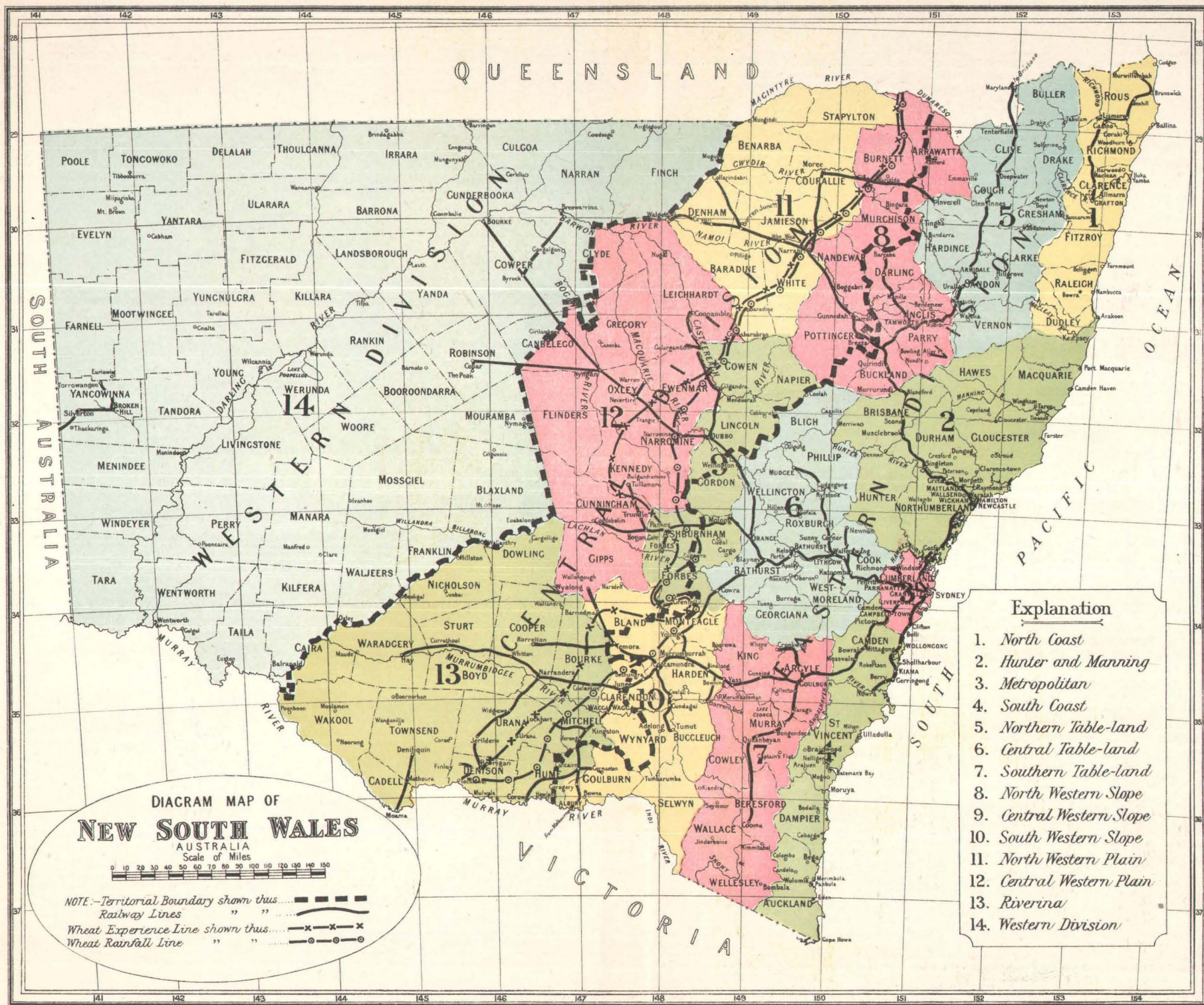
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THE  
OFFICIAL YEAR BOOK

OF  
NEW SOUTH WALES

1908-9

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JOHN B. TRIVETT, F.R.A.S., F.S.S.  
(GOVERNMENT STATISTICIAN).

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PUBLISHED BY AUTHORITY OF THE GOVERNMENT OF THE  
STATE OF NEW SOUTH WALES.

W. A. GULLICK, GOVERNMENT PRINTER.

1910

PROCEEDINGS OF THE

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## PREFACE.

THE best efforts of the staff available for the purpose have been devoted to the work of supplying the most recent information of topics of immediate public interest.

The whole of the text has been carefully revised, and in numerous instances re-written, while in several cases, the mode of presentation of the facts has been rendered more explicit, and every care has been taken to satisfy the needs of the readers of the present day.

Amongst the many important alterations which have been made, attention may be called to the chapter dealing with the early history of the State, which is now shown as a "Chronological Table," and will, therefore, be much more useful as a reference to the events of those interesting days.

The information relating to Education has been materially altered, and brought up to date, and particulars relating to the various systems have been stated as completely as possible.

With regard to Industrial and Economic matters, the legislation affecting Arbitration Courts, and the relations between employers and employees, have been comprehensively discussed, and such questions as Closer Settlement and Advances to Settlers have also received special attention.

The Federal Finances, especially as regards the effect on the resources of the State Government, have also been brought up to the latest available date; and the review of the financial relations existing between the Commonwealth and the States will be read with great interest at the present time.

The inauguration of a general system of Local Government has necessitated a substantial alteration in the method of keeping accounts, and in this issue a complete statement of the figures relating to Municipalities and Shires is given, as compiled in accordance with the provisions of the Local Government Act.

Attention should also be drawn to the Statistics dealing with sickness, from which it will be gathered that additional particulars have been obtained from the returns of Public Hospitals and Friendly Societies, the results of which are now published for the first time.

JOHN B. TRIVETT,

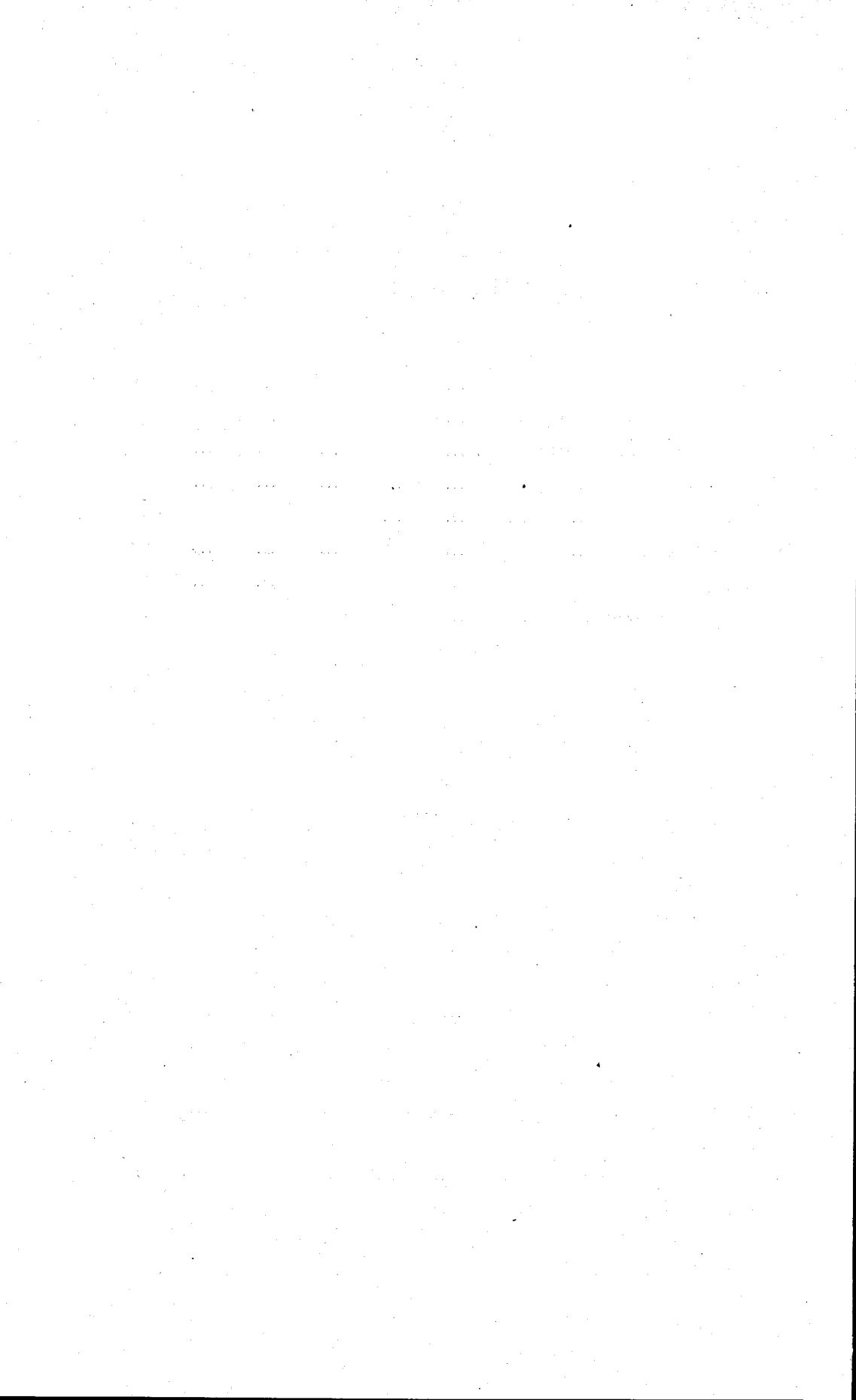
*Bureau of Statistics,  
April, 1910.*

*Government Statistician.*

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# CHRONOLOGICAL TABLE

OF

## Events in the History of British Settlement in New South Wales.

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- 1788 "First Fleet" arrived in Botany Bay and formal possession taken of Sydney Cove, January 26th. Governor Phillip proclaimed the Colony—Norfolk Island established as a dependency—La Perouse visited Botany Bay—Earthquake shocks—Lord Howe Island discovered—First settlement at Parramatta.
- 1789 Hawkesbury River discovered—First harvest reaped at Parramatta—Hurricane at Norfolk Island—Disease (small-pox) among aborigines—Nepean River discovered—First colonial-built boat, "Rose Hill Packet," launched.
- 1790 Second Fleet arrived with New South Wales Corps—"Sirius," lost at Norfolk Island—First brick store erected—Scarcity of provisions.
- 1791 Lieut.-Governor King brought Territorial Seal—Settlements at Prospect Hill and The Ponds—Third Fleet arrived—Corps of marines relieved by New South Wales Corps.
- 1792 Governor Phillip resigned—First Foreign Trading Vessel "Philadelphia" arrived.
- 1792-5 Military administration by Major Grose and Captain Paterson pending appointment of Governor.
- 1793 First free immigrants arrived in the "Bellona" and settled at Liberty Plains—Exploration of Blue Mountains attempted—First produce, 1,200 bushels wheat, sold by settlers to Government.
- 1794 Hawkesbury River settlements—"Scotch Martyrs" landed—Lieut.-Governor Grose left for England.
- 1795 Floods at Hawkesbury River agricultural settlements—Governor Hunter arrived—First church building opened—First printing press erected—Strayed cattle found at Cow Pastures.
- 1796 Port Hacking explored by Bass and Flinders—Duck River Bridge built—First theatre opened—Bass tried to cross Blue Mountains.
- 1797 Coal discovered at Illawarra and Coal (Hunter) River—Bass discovered Twofold Bay, Bass Strait, Western Port, &c.—Merino sheep brought from Cape of Good Hope—Tuggerah Lakes discovered.
- 1798 Town Clock set up—Severe hailstorms.
- 1799 Bass and Flinders returned from Van Diemen's Land—Flinders explored North Coast—Wilson reached Lachlan River—Hawkesbury floods.
- 1800 Governor Hunter recalled; superseded by Governor King—First Coal exported—Customs House established—Churches opened, St. John's, Parramatta, and St. Phillip's, Sydney.
- 1801 First general muster—First issue of Copper Coin—Hunter River Coal Mines worked.
- 1803 First Wool taken to England by Macarthur—Cayley attempted to cross Blue Mountains—Battery at George's Head completed—First Roman Catholic services, Rev. Mr. Dixon, celebrant—*Sydney Gazette and New South Wales Advertiser* established.
- 1804 Castle Hill convict insurrections—Newcastle settlement.
- 1805 Macarthur began sheep farming at Camden with imported Spanish Merinos.

## CHRONOLOGICAL TABLE.

- 1806 Governor Bligh arrived—Famine; Wheat 80s. bushel—"March Floods" on Hawkesbury and South Creek.
- 1807 Final despatch of Convicts for Norfolk Island ordered—Rum currency forbidden.
- 1808 Macarthur's trial—Bligh's deposition—Major Johnston assumed Government.
- 1809 Governor Macquarie arrived—Free school established—Street Regulations—Town Markets and Wharf built—Charlotte Place, Macquarie Place, and Hyde Park named.
- 1810 First Post Office established—First Horse Races.
- 1811 Hospital built—Public Pounds established—Lieut.-Col. Johnston court-martialled and cashiered.
- 1812 Creation of Governor's Court and Supreme Court—Sunday closing of shops—First plantation of Hops gathered.
- 1813 Blaxland, Wentworth, and Lawson crossed Blue Mountains—Deputy-Surveyor Evans' expeditions—Foundation stone laid, Sydney Lighthouse—Botanic Gardens commenced.
- 1814 Civil Courts created—Hume explored Berrima and Goulburn Districts—First Judge (J. H. Bent) arrived and was recalled.
- 1815 Lapstone Hill and Mount Victoria Road to Bathurst completed—Bathurst laid out by Governor Macquarie—Evans discovered Macquarie River—First Wesleyan Minister arrived—First steam engine in Sydney—First sitting of Supreme Court.
- 1816 Macquarie Tower and Lighthouse commenced—Conferences instituted with aboriginals—Allan Cunningham and Judge Advocate Wyldé arrived.
- 1817 Oxley's first journey inland—Meehan and Hume discovered Lakes George and Bathurst, and Goulburn Plains—Bank of New South Wales established—Captain King's coastal explorations—Hyde Park barracks built.
- 1818 Oxley's second journey to the Macquarie—Free immigration stopped—Great Western Road completed to Emu Ford—Benevolent Society established—Rose Hill packet boat service instituted.
- 1819 Commissioner Bigge's inquiry—St. James' Church commenced—Savings Bank opened at Sydney.
- 1820 Murrumbidgee discovered—Russian discovery ships arrived—Clyde River discovered—Burial ground (Town Hall) closed—Sir Jos. Banks died—Campbelltown laid out—Hunter River Floods.
- 1821 Governor Sir Thos. Brisbane arrived—Government Astronomer appointed—Ten ships despatched with Australian produce for England—First Roman Catholic Church opened—Philosophical (now Royal) Society founded.
- 1822 Agricultural Society established—First Colonial Attorney admitted—Bees introduced—St. James' Church opened.
- 1823 First Australian Constitution—Cunningham's explorations—Dr. Lang arrived—Oxley discovered Tweed River—Free settlers encouraged—Squatting commenced—"Particles of gold" found at Fish River by Assistant Surveyor McBrien.
- 1824 Freedom of Press assured—Trial by Jury instituted—First Land regulations—Hume and Hovell explored South—Legislative Council of seven Crown nominees—Charter of Justice proclaimed—First Executive Councillors appointed—First Act of Parliament in Australia—Sugar-cane grown on Hastings River—Australian Agricultural Company formed.
- 1825 Governor Darling arrived—Sydney Chamber of Commerce established—First Jury empanelled—Van Diemen's Land independent—Dr. Halloran's Grammar School—Drought which lasted three years.
- 1826 Sturt discovered River Darling—Cunningham's explorations—Church and School Corporation formed—Bank of Australia established—Australian Subscription Library founded—Illawarra settlement—Land Board appointed.
- 1827 Colony became self-supporting—Heavy Land and Stock speculations—*Sydney Gazette* became the first daily newspaper—Water Supply Scheme initiated—Hume discovered new road to Bathurst—Cunningham explored Upper Darling and pastoral district of Darling Downs.

- 1828 Drought (three years)—Sturt's expeditions and discovery of Darling and Murray Rivers—Legislative Council enlarged to fifteen members—First Census—Letters of Denization—Western Plains Settlers return—Clarence and Richmond Rivers discovered—"Australian" newspapers under the libel law of 1827.
- 1829 First Land Grant to the Church and School Corporation—First Act of Council—St. Mary's Cathedral founded—Gunpowder first made in Australia—Sturt's expedition down Murrumbidgee River to mouth of Murray—First Circuit Court.
- 1830 Convict rising at Bathurst—Bushrangers Act passed in one day—Sturt's overland journey—Scarcity of Labour—Lang's Scotch mechanics' introduced—Licensing Act.
- 1831 Governor Bourke arrived—Lord Ripon's Land regulations for Auction Sales—Mitchell's explorations north of Liverpool Plains—First Colonial-built steamer launched—First immigrant ship arrived—Government Domain opened—Australian Steam Conveyance Co. formed—Lang's Australian College founded—First steamer, "Sophia Jane," reached Sydney—First contract for conveyance of mails.
- 1832 First appropriation of Public Funds for Immigration—Church and School Corporation Charter revoked—King's school opened—*Government Gazette* first published—Sydney Theatre opened—Savings Bank of New South Wales instituted.
- 1833 Sydney Mechanics' School of Arts formed—Appellate jurisdiction of Privy Council extended to Colonies.
- 1834 Commercial Banking Company established—First Friendly Society formed—Trouble at Norfolk Island—Settlement, Twofold Bay.
- 1835 Mitchell established Fort Bourke on the Darling River—Bank of Australasia founded—First Roman Catholic Bishop (Dr. Polding) arrived—Sydney College Grammar School opened—Public Meeting petitioned "representation" in Parliament.
- 1836 Mitchell in the South (Australia Felix)—Squatting formally recognised—First Anglican Bishop (Dr. Broughton) arrived in Sydney—Bishopric of Australia separated from Diocese of Calcutta—Act passed for maintenance of ministers of Religion—Australian Museum founded.
- 1837 Select Committee on Transportation appointed in London—Great snow fall near Sydney—Australian Gaslight Company founded—Water Supply, tunnel from Botany swamps, completed.
- 1838 Drought, crops failed—Assignment system ceased—Speculation mania—Governor Gipps arrived—Botanic Gardens opened to the public—Reporters allowed in Legislative Council Chambers—Sale of Port Phillip Land at Sydney—Australian Club founded—Prepayment of postage by stamped covers.
- 1839 Squatting Act passed—Strzelecki found gold near Hartley.—Mr. (Sir) Alf. Stephen, Judge of Supreme Court—Military juries ceased.
- 1840 Monetary crisis—"Humane system" tried in Norfolk Island—Strzelecki's expedition to Western Port—Mt. Kosciusko named—Abolition of transportation—Land Revenues appropriated to public works and immigration—Wine industry established—New South Wales territory defined by Royal Instruction.
- 1841 Rev. W. B. Clarke found grains of alluvial gold near Bathurst—First (Immigration) Loan—Immigration Committee appointed—New Zealand became separate colony—Sydney lit with gas—First permanent Synagogue.
- 1842 Sydney Municipal Corporation established—Insolvency Law passed—Bank crisis—Crown Land Sales Act.
- 1843 Second Constitution Act, twelve nominees and twenty-four elected members of Legislative Council—Incorporation of Suburban and City Towns—Bank of Australia Lottery—First General election—Representative Assembly meets—"Boiling Down" of sheep.
- 1844 Exports exceeded imports—First District Court held—Pastoral Association formed—Norfolk Island annexed to Van Diemen's Land.
- 1845 Mitchell explored Barcoo—Responsible Government discussed.

## CHRONOLOGICAL TABLE.

- 1846 Governor Fitzroy arrived—Railroad agitation—Sydney Tram and Rail Company formed.
- 1847 Crown Land Leases Act—A.A. Co. abandoned Coal monopoly—Proposed German Immigration.
- 1848 Chinese immigration—Kennedy's last exploring expedition—Railway Commissioner appointed—Denominational School Board.
- 1849 Exodus of population to Californian gold fields—Australian Mutual Provident Society formed—Uniform twopenny postage instituted.
- 1850 First sod of first Australian railway turned at Sydney—University of Sydney founded.
- 1851 Hargreaves discovered payable gold near Bathurst—Gold proclaimed Crown property—Gold Commissioner—Mineralogical and Geological survey of New South Wales by Surveyor Stutchbury—Colony of Victoria founded.
- 1852 Gundagai floods (77 lives lost)—Gold Revenue allocated to Colonial Legislatures—First P. & O. mail steamer ("Chusan") arrived from England—First overland mail—Inauguration of Sydney University—Framing of Constitution.
- 1853 A.J.S. Bank incorporated—Newcastle-Maitland Railway Company formed—First steamer on the Murray—Sydney City Corporation dissolved—Australian Museum (founded 1838) incorporated.
- 1854 Russian War scare—Volunteer Forces enrolled—Fitzroy Dock commenced.
- 1855 Railway, Sydney to Parramatta, opened—Governor Denison arrived—Goldfields control scheme—Royal Sydney Mint established.
- 1856 First elective Parliament—First responsible Ministry sworn in—First registration Births, Deaths, and Marriages—Sydney Observatory established—Pitcairn Islanders placed on Norfolk Island—Norfolk Island transferred to jurisdiction of Governor of New South Wales.
- 1857 Floods—Wrecks of "Dunbar" (119 lives lost) and "Catherine Adamson" (21 lives lost) at Sydney Heads—Select Committee on Federation—First gold register issued—Sydney Exchange opened—P. & O. and Royal Mail Company's services inaugurated—Road Department—Goldfield regulations—Electoral lists and rolls printed—Corporation of Sydney restored.
- 1858 Manhood suffrage and vote by Ballot enacted—Telegraphic communication, Sydney to Melbourne—Royal Charter to Sydney University—Drought—Macarthur's sheep flocks dispersed.
- 1859 Separation of Queensland.
- 1860 Floods, Shoalhaven and Araluen—Kiandra goldfield rush—Cumberland Disease in Cattle—Rifle Association formed—Glebe Abattoirs—Deaf and Dumb and Blind Institution.
- 1861 Governor Sir J. Young arrived—Anti-Chinese riots at Lambing Flat and Burrangong goldfields—John Robertson's Land Acts—Free Selection before Survey—Constitutional crisis—Restriction of Chinese immigration—Emigration Commissioners, Parkes and Dalley, appointed.
- 1862 Drought—Raid by bushrangers on Lachlan (Eugowra) gold escort (£14,000 taken)—State aid to religion abolished—Real Property Act.
- 1863 Outlaw Gilbert's robbery, Bathurst and Canowindra besieged for thirteen days—Naval Brigade organised—Agent-General appointed—Northern Territory separated and annexed to South Australia.
- 1864 Bushranging outrages—Darling River Floods.
- 1865 St. Mary's Cathedral burned—Border Duties Conference—Stamp duties imposed.
- 1866 Public Schools Act (Sir H. Parkes) abolished National and Denominational School Boards—General Post Office, Sydney, commenced.
- 1867 Industrial Schools established—Municipalities Act.
- 1868 Governor Lord Belmore arrived—Duke of Edinburgh's visit—His attempted assassination at Clontarf—Foundation Sydney Town Hall laid.
- 1869 Eskbank Iron Company established—Old Australian Subscription Library converted into Free Public Library.

- 1870 Bush Fires—Intercolonial Exhibition at Sydney celebrating centenary of Cook's landing—Goldfields Commission—Imperial troops withdrawn from Australia.
- 1871 Forest Reserves established—Permanent military force raised—National Art Gallery founded.
- 1872 Governor Sir Hercules Robinson arrived—International Exhibition at Sydney—Death of W. C. Wentworth—Government Savings Banks—Public Works Expansion—Sydney Meat Preserving Works established—Cable to England completed.
- 1873 Intercolonial Conference, Sydney—First Volunteer encampment—Great activity on goldfields—San Francisco Company mail service established.
- 1874 Triennial Parliaments—Intercolonial Conference—General Post Office opened.
- 1875 New Land Act, "Dummying" restricted.
- 1876 Telegraphic Cable, Sydney-Wellington, completed—Rail to Bathurst opened.
- 1877 Conference of Free Selectors—Hargreaves pensioned for goldfields discovery.
- 1878 Seamen's strike—Forestry and Timber regulations—Technical College instituted in connection with Sydney Mechanics' School of Arts—Free Public Library and Museum opened on Sundays.
- 1879 Governor Loftus arrived—Royal Zoological Society founded—Garden Palace International Exhibition—First Steam Tramway in Sydney—Copyright Act.
- 1880 Public Instruction Act passed—Temora Goldfield—Electoral Act—Sydney Streets woodpaved.
- 1881 Colonial Sugar Refining Company's mill erected, Richmond River—Chinese Immigration restricted—Women admitted to lectures, Sydney University.
- 1882 Garden Palace destroyed by fire—Forest Conservation—Clyde Engineering Works established.
- 1883 Silver discovered at Broken Hill—Broken Hill Proprietary Syndicate formed—Biloela Graving Dock—New South Wales and Victorian railway systems connected—Foundation Stone laid, Sydney Town Hall.
- 1884 Land Sales' auctions restricted—Public Watering Places Act—Smelting Furnaces, Sunny Corner and Silverton—New Land Act passed.
- 1885 N.S.W. Military Contingent sent to Soudan—Broken Hill Silver Mines opened—Governor Carrington succeeded Lord Loftus—Territorial Division of the Colony—Local Land Boards.
- 1886 Industrial Depression—"Ly-ee-Moon," "Coringamite," and "Helen Nicol" wrecks.
- 1887 Bulli Mining disaster (eighty-three lives lost)—Metropolitan Board of Water Supply and Sewerage established—Loyalist meeting in Sydney (Jubilee celebrations)—Peat's Ferry railway accident.
- 1888 Bush Fires—Centennial celebrations—Drastic Legislation against Chinese immigration (poll tax £100)—Colliers' strike at Newcastle—Weekly mail service to England inaugurated—New South Wales and Queensland railway systems connected.
- 1889 Hunter River Floods—Hawkesbury River Bridge opened.
- 1890 Payment of members of Parliament—Strike at Broken Hill—Maritime and Shearers' strikes—Bush Fires—Bourke (Darling River) Floods.
- 1891 Failure of many Building Societies—Governor Lord Jersey arrived—Labour members returned to Legislative Assembly—Australian Auxiliary Squadron arrived—Federal Convention—Colonial Premiers' meeting—Australasian Colonies join Postal Union—Sir John Robertson died—Assisted immigration ceased.
- 1892 Strike at Broken Hill—Run on Government Savings Bank—Council of Conciliation established—Women's College, Sydney University, opened—Hunter River District Water Supply Board.
- 1893 Banking Crisis—Governor Sir R. Duff arrived—Parcel post inaugurated—Gold discovered at Wyalong—Electoral Act, "One Man One Vote."
- 1894 Shearers' strike—Royal Commission on Fish industry—First Offenders' Probation Act—Sir Alf. Stephen died—Railway disaster, Redfern Station.

## CHRONOLOGICAL TABLE.

- 1895 Land Legislation—Death of Sir R. Duff—Viscount Hampden succeeded—Land and Income Taxes imposed and Free-trade Tariff instituted.
- 1896 Death of Sir H. Parkes—Factories and Shops regulations—P. N. Russell bequest to School of Engineering, Sydney University—Public Service re-organised.
- 1897-8 Federal Convention Sessions, Adelaide, Sydney, and Melbourne.
- 1898 First year surplus of wheat for export.
- 1899 Earl Beauchamp succeeds Governor Hampden—Advances to Settlers instituted—Conciliation and Arbitration in Industrial Disputes—Australasian Federation Enabling Act Referenda—Early Closing of Shops—Boer War, first Contingent sent from New South Wales.
- 1900 Governor Beauchamp's Departure—Old-age Pensions instituted—Miners' Accident Relief Fund established—City Electric Tramways begun—Federal Elections.
- 1901 Federation of Australian Colonies—Industrial Arbitration Act—Duke of York's visit—Sydney Harbour Trust formed—Naval Contingent despatched to China.
- 1902 Sir H. H. Rawson as Governor—Mt. Kembla Colliery Explosion (ninety-five lives lost)—Jubilee of Sydney University—Women's Franchise—Closer Settlement—Public Health Act.
- 1903 Referendum favouring reduction of members of Legislative Assembly from 125 to 90.
- 1904 Reduced Parliament—Redistribution of Electorates—Second P. N. Russell bequest, Sydney University—Educational Reforms commenced.
- 1905 Flood on Tumut River—Assisted Immigration reintroduced.
- 1906 Barren Jack Dam authorised—Free Public School Education—North Coast Railway authorised—Local Government—Sydney Central Railway Station opened—Liquor Act, with drastic provisions.
- 1907 Department of Agriculture formed—Invalidity and Accident Pensions—Telephone, Sydney to Melbourne.
- 1908 Visit of American Fleet—Industrial Disputes—Minimum Wage—Subventions to Friendly Societies—Yass-Canberra Federal Capital Site selection—Coal Strike, Newcastle—Tramway Strike, Sydney.
- 1909 Lord Chelmsford, Governor—Fisher Library opened—Empire Commerce Congress—Old-age Pensions transferred to Commonwealth—Botany Wool Combing Works—Premiers' Conference on States' finance agreement with Commonwealth Government—Miners' Strikes, Broken Hill and Newcastle.

## METEOROLOGY AND CLIMATE.

THE State of New South Wales lies almost entirely between the 29th and 36th parallels of south latitude, and between the 141st and 154th meridians of east longitude. Mr. H. A. Hunt, Commonwealth Meteorologist, states that the weather is chiefly determined by anticyclones or areas of high barometric pressure, in which the winds blow spirally outward from the centre or maximum. These anticyclones pass almost continuously across the face of the continent from east to west. The explanation of the existence of this high-pressure belt probably lies in the fact that this area is within the zone in which the polar and equatorial currents meet and for some time circulate before flowing north and south. The easterly movement depends on the revolution of the earth.

A general surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the equator. The movement causes sudden changes in the weather—heat when the surge is to the south, and very cold weather when it moves towards the equator. Probably, these sudden displacements of the air systems are due to thermal action, resulting in expansion or contraction in the atmospheric belts to the north and south of Australia.

New South Wales is peculiarly free from cyclones, although one, occasionally, may reach the State from the north-east tropics or the Antarctic low-pressure belt which lies to the south of Australia. The monsoonal disturbances are also, on rare occasions, the source of cyclones.

### PREVAILING WINDS.

Generally speaking, the prevailing winds in the summer months blow from the north on the coast with an easterly tendency which extends to, and in parts beyond, the highlands, while in the western districts they usually have a westerly tendency.

In winter, the prevailing direction is westerly. Off the southern areas of the State the winds are almost due west, but proceeding northwards a southerly tendency is assumed, while on reaching latitudes north of Sydney the direction is almost due south. When they reach the north-eastern parts of the State, these winds are deflected in a westerly direction and become merged in the south-east trade winds north of latitude 30°. During the cold months of the year, Australia lies directly in the great high-pressure stream referred to elsewhere, and there appears to be an inclination for the high pressure when passing over the continent to be broken up into individual anticyclonic circulations moving contra-clockwise in the southern hemisphere.

The highest barometric readings, or the deepest anticyclonic area, will be found over the centre of Australia. From this high-pressure area the currents of wind begin to flow by force of gravity to the surrounding regions of lesser pressure, commencing at first with very light breezes flowing almost parallel to the trend of the isobar; but as they gather momentum they become more and more deflected, until on reaching the limit of the propelling force they blow nearly at right-angles to their isobars. This is more especially noticeable when they reach the south-eastern and south-western part of the continent, for in those regions the well-known V-shaped depressions of the Antarctic low-pressure belt add their attractive inner force to the outward repelling force of the high-pressure areas. The velocity of the wind at these points is thus considerably accelerated, and hence the storms and heavy seas prevailing during the winter months off the Leeuwin, in Western Australia, and on the coast of Victoria.



If we follow the path of a current of wind from the centre of a high pressure to its destined goal, viz., the centre of a low pressure, it will be found to describe an evolute curve, or circulate spirally outwards in its early stages, while the reverse is the case in the wind-path of low-pressure or cyclonic systems, the final stages being in the form of an involute curve. In addition to these phenomena of the wind in high and low pressure areas, there is also a tripping motion or deflection earthwards.

As winter merges into spring, and spring into summer, the passing of the sun to the south of the equator causes the tropical low-pressure belt to descend polewards, and within close touch of Australia. The high-pressure belt which in the winter months controls the weather, is likewise forced southwards, and travels over the Southern Ocean, an occasional anticyclone reaching the mainland in the latter end of the spring, but very seldom in summer.

With the coming southwards of this low-pressure belt, the weather is controlled during the summer months by sub-tropical conditions. The barometers on the mainland being relatively low as compared with the prevailing readings over the western, southern, and eastern ocean surrounding, a reversal of direction in wind currents takes place as compared with that experienced in winter. The depression then ensuing on the mainland (instead of a high pressure) is still further intensified by the action of the sun on the arid interior, and the winds immediately begin to respond to the low-pressure attractive force, and flow in from the surrounding ocean with a spiral motion. This movement must be duly regarded, or the cause of the prevailing north-east winds on our coast, as well as the "southerly busters," will not be clearly understood.

With a high-pressure system over the Tasman Sea, another to the west of the Great Australian Bight, monsoonal or tropical low depressions covering the greater part of the mainland, and an Antarctic V-depression to the west of the Tasman Sea, the wind conditions will be as follows:—

In the first place, the high pressure lying to the east of New South Wales, conforming to the laws of wind circulation in the southern hemisphere, has a northerly circulation on its western limits. As this boundary lies almost parallel to the trend of the coast-line, northerly winds are found to prevail some distance off the shore; but the circulation is weak, owing to the depleted energy in anticyclones at this time of the year (summer), and it is, therefore, necessary to look elsewhere for some other cause for the strength which prevails in the seasonal north-easters.

Continued observation at Sydney shows that these winds are barely perceptible during the morning hours; in fact, up to noon the air is hot and muggy, owing to a listless veering to the north-west bringing back the reflected heat in the air from the country lying between the seaboard and the mountains. But at noon, or shortly afterwards, a decided freshening takes place, until at about 3 p.m. a moderate to fresh breeze is blowing along the seaboard. Later in the day the force of the wind relaxes, until at sundown it ceases entirely.

These characteristics may occur day after day; and if such be the case, there is a tendency for the wind to commence earlier, and die away later. If no break occurs in the weather in the shape of a "southerly buster" or a thunderstorm, the north-easter, after blowing continuously for several days, may eventually blow throughout the night. In the early morning there will be a lull, followed by a fog—the precursor of a hot day. The fog is soon dissipated by light westerly winds and blown away to sea, and the wind then veers to the N.W., gradually increases in force, and is accompanied by a rapid rise in the temperature. The thermometer may, indeed, rise as much as 10 or 20 degrees in the course of a few hours, occasionally reaching a maximum of 100 degrees and over. During the evening a thunderstorm may bring

temporary relief, only to be followed by a sweltering night and a return of the north-west wind on the succeeding day. The heat conditions will probably be dissipated then by a "southerly buster," lasting possibly till morning. The "southerly buster" rarely persists for any lengthened period after sunrise during the midsummer months; but in late spring or early autumn it may last for several days.

The cause of the initial direction of the north-easters has been stated above; but it is in the low-pressure conditions prevailing over the interior that an explanation of their velocity is to be sought. In the early morning the barometers in that region are uniformly level; but with the rising of the sun the air becomes heated, expands, and ascends. A fall in the barometric pressure is the result, while to fill the partial void occasioned by the rising of the heated air, a current sets in from the coastal regions. This indraft to the interior gathers strength in proportion to the increase of the sun's power there, while it diminishes with the declining sun according as the inflow is sufficient to raise the inland pressure to uniformity.

But while this low pressure is fairly constant over the mainland, the anti cyclone in the Great Bight is steadily moving eastward over the Southern Ocean, with its accompanying Antarctic depression in advance. When this low pressure has passed to the east of Tasmania, its vortical power is also exercised upon the northerly current blowing off the coast, with the result that the north-easter is deflected into a north-wester, and the winds are drawn from the interior across the coastal regions to supply this new attractive force. The V-depression, impinging on the high pressure to the east of it, and at the same time being compressed by the still advancing high pressure to the west, loses its former obtuse-angular formation, which finally becomes acute. A line bisecting this angle divides the northerly circulation in the fore-angle from the southerly circulation in that of the rear. At the same time the entire system is sucked northwards by the continental depression. Hence it follows that in succession to the extremely hot north-westerly winds we experience after a very short lull a burst from the south of even greater velocity than that of the preceding currents. The thunderstorms that frequently precede or accompany the change are probably caused by the violent intermixing of these opposing currents, with their extremes of dryness and humidity, assisted in no small measure by the dust particles pervading the air generally.

#### THE SEASONS, TEMPERATURE, AND RAINFALL.

Situated as it is in the temperate zone, New South Wales has four seasons, depending on the annual march of temperature. From a meteorological point of view, these are arranged as follows:—Summer months, December, January, and February; autumn months, March, April, and May; winter months, June, July, and August; spring months, September, October, and November.

January is the hottest and July the coldest month, and the temperatures of autumn and spring represent approximately the mean of the whole year.

New South Wales may be compared favourably with any country in the world. Taking into consideration the comparatively low latitudes in which it is situated, it offers a remarkable variety of temperate climates. From Kiandra, on the Southern Tableland, to Bourke, on the Great Western Plain, its climate may be compared with that of the part of Europe from Edinburgh to Messina; but more generally it resembles that of Southern France and Italy.

The rainfall of New South Wales is extremely variable. Generally speaking, the wet season extends over the first six months of the year, although occasionally the most serviceable rains come in the spring. The coastal

districts are subject to the heaviest falls, ranging from 30 inches in the south to 70 inches in the north. Despite their proximity to the sea, the mountain chains are not of sufficient elevation to cause any great condensation, so that, with slight irregularities, the average rainfall gradually diminishes towards the western limits of the State, the figures ranging from a mean of about 50 inches on the seaboard to 10 or 20 inches on the western plains.

The distribution of rainfall in New South Wales is dependent on three factors—(1) the energy present in the atmospheric systems, (2) the rate of travel of the atmospheric stream, and (3) the prevailing latitudes in which the anticyclones are moving.

The chief agencies for precipitating rainfall are also three in number, viz., Antarctic depressions, monsoonal depressions, and anticyclonic systems. Antarctic depressions are mainly responsible for the good winter rains in the Riverina and on the south-western slopes. A seasonal prevalence of this type of weather would cause a low rainfall on the coast and tablelands, and over that portion of the inland district north of the Lachlan River. A monsoonal prevalence ensures a good season inland north of the Lachlan, but not necessarily in eastern and southern areas. An anticyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains. Equal representation of all these agencies, in conjunction with the main governing features previously stated, will be followed by a good season throughout the State.

New South Wales may be divided, naturally, into four climatic divisions, each with characteristic features, namely:—The Coastal division, the Tableland, the Western Slopes, and the Western Plains.

The Coastal division lies between the Great Dividing Range and the sea, and is from 30 to 150 miles wide. Sydney is situated on the coast, halfway between the extreme northern and southern limits of the State, in latitude 33° 51' 41" S. Its mean annual temperature is 63° Fahrenheit, corresponding with that of Barcelona in Spain, in latitude 41° 22' N., and Toulon in France, in latitude 43° 7' N. The range is only 17°, calculated over a period of fifty years, the mean summer temperature being about 71°, and the mean winter temperature 54°. At Naples, which has about the same mean temperature as Sydney, the range is 27°, between the means 74° and 47°.

The following table shows the average monthly meteorological conditions of Sydney based on the experience of the fifty years ended 1908:—

Month.	Average Reading of Standard Barometer at 9 a.m. corrected to 32° Fah. and to mean sea level.	Temperature (in shade).			Rainfall.			
		Mean Standard.	Average Reading of Maximum Thermometer.	Average Reading of Minimum Thermometer.	Average Monthly.	Greatest Monthly.	Least Monthly.	Average number of days Rain.
January ...	29 931	71 6	78 3	64 9	3 448	10 489	0 419	14 1
February ...	29 983	71 1	77 2	64 8	4 719	18 556	0 344	13 9
March ...	30 060	69 3	75 4	63 0	5 162	18 760	0 419	15 2
April ...	30 117	64 6	70 9	58 2	5 400	24 490	0 060	13 3
May ...	30 105	58 5	64 9	52 0	5 123	20 868	0 214	15 7
June ...	30 097	54 3	60 4	48 2	5 332	16 296	0 190	12 8
July ...	30 121	52 3	58 9	45 6	4 614	13 208	0 120	12 1
August ...	30 114	54 3	62 2	47 5	3 290	14 886	0 040	11 5
September ...	30 053	58 9	66 3	51 3	2 872	14 045	0 083	12 1
October ...	30 009	63 4	71 0	55 8	2 861	10 810	0 210	12 6
November ...	29 989	66 9	74 2	59 6	3 000	9 880	0 200	12 6
December ...	29 920	70 0	77 2	62 8	2 457	7 804	0 453	12 9
The whole year ...	30 042	63 0	69 7	56 1	48 283	24 490	0 040	158 8

Taking the coast as a whole, the difference between the mean summer and mean winter temperature is not much over 20°—a range so small as to be rarely found elsewhere.

The North Coast districts are favoured with a warm, moist climate, the rainfall averaging from 40 to 70 inches annually. The mean temperature for the year is from about 66° to 69°, the mean summer being 75° to 78°, and the mean winter 56° to 58°. In the South Coast district the rainfall varies from 30 to 60 inches, and the mean temperature ranges between 57° and 63°, the summer mean being from 66° at the foot of the ranges to 70° on the coast, and the winter from 48° to 54° over the same area.

The coastal rains come in from the sea with both south-east and north-east winds, being further augmented in the later part of the year by thunderstorms, which cross the mountains from the north-west. The principal precipitating agencies are the Antarctic depressions, the anti-cyclones when travelling in high latitudes, while in the extreme north-east reliable rains are precipitated by the south-east trades. The rainfalls are much heavier immediately near the coast.

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

Station.	Least Distance from East Coast.		Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
	miles.	feet.		Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
Casino ... ..	28	82	67.1	74.2	56.3	25.6	116.4	21.0	43.84	
Lismore ... ..	13	52	67.8	78.2	59.4	22.2	116.2	28.2	53.36	
Clarence Heads ... ..	0	122	68.1	74.4	58.6	15.1	108.0	36.4	55.58	
Grafton ... ..	22	40	67.2	77.1	57.6	27.0	118.0	20.9	33.85	
Port Macquarie ... ..	0	49	63.8	71.6	54.9	17.6	105.4	24.8	61.93	
Singleton ... ..	40	135	64.2	76.1	52.1	20.3	113.9	22.0	29.54	
Morpeth... ..	15	20	63.8	73.9	54.3	18.1	108.7	26.0	38.73	
West Maitland... ..	18	40	64.3	75.0	52.8	20.5	115.0	24.0	33.72	
Port Stephens ... ..	0	30	64.1	72.6	53.1	20.8	111.2	30.2	54.13	
Newcastle ... ..	1	34	64.5	72.5	55.4	15.4	110.5	31.3	47.33	
Pitt Town ... ..	26	40	64.0	76.1	52.6	20.0	113.0	27.2	30.96	
Emu ... ..	36	87	62.7	73.2	50.4	16.2	107.6	26.8	29.88	
Sydney ... ..	5	146	63.0	70.9	53.8	13.6	108.5	35.9	48.28	
Wollongong ... ..	0	54	62.9	70.1	54.8	17.0	113.4	31.9	42.08	
Nowra ... ..	6	30	62.8	70.6	54.3	21.0	110.3	29.6	35.45	
Point Perpendicular ... ..	0	284	61.6	69.1	53.8	15.0	105.2	25.5	57.02	
Moruya Heads ... ..	0	50	61.2	68.2	53.1	19.8	114.8	22.3	35.59	
Bodalla ... ..	7	40	59.9	69.1	50.5	27.7	114.1	18.6	36.45	
Bega ... ..	0	50	59.7	69.6	48.9	24.9	115.6	16.6	31.50	
Eden ... ..	0	107	60.0	67.7	51.8	14.2	106.0	29.3	34.34	

Coming to the tableland from the coast, a different climatic region is found. On the northern tableland the rainfall is consistent, ranging from 30 inches in the western parts to 40 inches in the eastern. The temperature is cool and bracing, the average for the year being between 54° and 60°: the mean summer temperature lies between 65° and 70°, and the mean winter between 43° and 45°. The southern tableland is the coldest part of the State, the mean annual temperature being only about 56°. In the summer the mean ranges from 57° to 68°, and in the winter from 34° to 44°. At Kiandra, the elevation of which is about 4,640 feet, the mean annual temperature is 44.5°. Near the southern extremity of the tableland, on the Snowy and Munioing Ranges, the snow generally lingers throughout the year.

## METEOROLOGY AND CLIMATE.

The statement below shows, for the tableland division, similar particulars to those already given for the coastal division :—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Tenterfield ... ..	80	2,827	59·4	70·1	47·2	25·6	107·1	12·0	33·51
Inverell ... ..	124	1,980	60·0	73·1	45·9	25·0	110·6	13·4	30·60
Glen Innes ... ..	90	3,518	57·9	68·2	44·4	24·7	107·3	14·4	31·79
Bundarra ... ..	113	2,000	60·8	72·3	48·8	25·2	101·0	17·5	29·71
Armidale ... ..	81	3,333	56·4	67·8	44·0	24·3	105·2	13·9	31·77
Walcha ... ..	83	3,386	54·5	66·3	47·4	23·4	104·1	10·0	30·49
Murrurundi ... ..	94	1,545	60·9	73·7	49·7	19·8	107·3	19·0	31·83
Cassilis ... ..	120	1,500	60·8	73·6	45·3	21·7	111·7	15·8	23·77
Scone ... ..	78	680	62·7	74·8	49·8	23·4	114·4	22·2	23·42
Muswellbrook ... ..	68	475	63·8	75·2	49·4	25·4	117·6	19·0	23·46
Mudgee ... ..	121	1,635	62·1	73·8	49·0	29·3	114·9	18·0	25·93
Bathurst ... ..	96	2,200	57·2	70·0	44·1	28·3	112·5	13·0	23·73
Kurrajong Heights ... ..	35	1,870	53·3	61·7	43·9	13·3	99·5	25·5	49·88
Mount Victoria ... ..	61	3,490	54·4	65·2	42·6	19·6	106·0	11·9	37·05
Katoomba ... ..	58	3,349	53·5	63·0	42·4	15·3	100·0	25·9	56·47
Carcoar ... ..	111	2,380	56·1	70·4	43·0	19·4	104·9	15·4	29·63
Springwood ... ..	42	1,216	61·1	70·8	47·2	17·4	104·8	32·5	40·95
Cowra ... ..	126	987	63·1	78·8	48·5	23·5	116·1	21·6	24·67
Picton ... ..	22	549	60·0	71·7	49·2	24·3	112·0	19·7	29·31
Crookwell ... ..	81	2,000	52·0	64·7	39·4	23·7	100·8	12·1	31·81
Moss Vale ... ..	31	2,205	55·7	66·1	44·1	17·7	106·0	18·9	38·83
Goulburn ... ..	54	2,129	56·4	67·9	44·0	24·6	111·0	13·0	25·49
Yass ... ..	92	1,657	58·5	71·8	44·1	20·7	108·5	21·5	24·01
Queanbeyan ... ..	60	1,899	56·5	67·4	42·0	22·2	109·4	15·8	22·60
Kiandra ... ..	88	4,640	44·5	56·4	32·4	24·0	102·3	<sup>20 below zero</sup>	64·04
Cooma ... ..	52	2,637	54·3	60·2	41·6	29·1	112·0	8·5	19·15
Bombala ... ..	37	3,000	53·9	62·4	42·8	26·6	104·1	15·5	22·87

To the west of the tableland division, where the land slopes away to the great plain district of the interior, the rainfall is distributed uniformly, and varies from 20 inches in the western parts to 30 inches in the eastern. By far the greater part of the wheat area is situated on the western slopes, an average rainfall of 25 inches being sufficient to ensure good yields. The mean annual temperature ranges from 69° in the north to 60° in the south; in the summer from 81° to 74°, and in the winter from 53° to 47°.

North of the Lachlan River, good rains are expected from the monsoonal disturbances during February and March, although these may come as late as May, and incidentally during the remainder of the year. These monsoonal or seasonal rains are caused by the radiation in the interior during the summer months. The heat, during this period, suspends the moisture accumulated chiefly from the Southern Ocean, and towards the close of the

summer and early in autumn the sun's power is reduced and the dew-point reaches the precipitating point,

In the Riverina district, south of the Murrumbidgee generally, and on the south-western slopes, fairly reliable rains, light but frequent, are experienced during the winter and spring months. These are an extension of the rains from South Australia and Victoria, and are carried into New South Wales by south-west winds, off-shoots from the great trade-wind belt.

The next statement gives, for the principal stations on the western slopes, information similar to that shown for the coastal and tableland divisions:—

Station.	Least Distance from East Coast.		Altitude.		Temperature (in Shade).						Rainfall— Mean Annual.
					Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	°	inches.	
Moree ... ..	204	680	68·6	81·1	54·5	26·5	117·3	18·0	23·35		
Warialda ... ..	162	1,106	63·4	77·8	49·3	29·4	117·7	16·0	28·06		
Bingara ... ..	153	1,200	63·9	75·1	52·7	28·4	116·6	15·5	30·49		
Narrabri ... ..	193	697	66·8	81·0	51·8	28·8	118·9	18·4	26·50		
Gunnedah ... ..	156	874	66·1	79·6	51·2	28·0	120·6	16·7	24·98		
Coonabarabran ... ..	185	1,710	59·9	73·1	46·4	33·1	111·9	11·4	29·51		
Quirindi ... ..	115	1,278	63·9	76·5	48·5	27·1	113·6	17·0	27·86		
Dubbo ... ..	177	863	63·6	77·4	49·2	27·4	115·4	19·9	22·38		
Forbes ... ..	176	789	63·0	77·0	48·6	24·5	118·4	24·0	20·01		
Young ... ..	140	1,416	61·2	74·1	48·3	28·2	113·9	20·3	25·39		
Marsdens ... ..	187	700	64·8	76·8	49·2	25·0	119·7	19·0	19·56		
Murrumburrah ... ..	126	1,268	61·1	72·7	46·9	27·1	114·9	20·0	22·95		
Wagga Wagga ... ..	158	615	61·6	76·0	47·3	28·1	119·0	18·4	21·62		
Urana ... ..	213	400	62·3	76·2	48·1	22·6	117·0	18·4	16·99		
Albury ... ..	175	531	60·7	74·4	47·2	28·3	117·3	20·2	28·04		

The western district consists of a vast plain, the continuity of which is broken only by the insignificant Grey and Barrier Ranges. Owing to the absence of mountains in the interior, the annual rainfall over a great part of this division, which lies in the zone of perpetual high pressure, does not exceed 10 inches. It increases from 8 inches on the western boundary to 10 and 15 inches along the Darling River, and 20 inches on the eastern limits. The mean annual temperature ranges from 69° in the north to 62° in the south; in the summer from 83° to 74°, and in the winter from 53° to 45°.

Although the summer readings of the thermometer in this district may be from 10° to 20° higher than those on the coast, the heat is not distressing, and is, in fact, preferred by many people to the moisture and more enervating heat of the coastal regions. Excessive heat is experienced occasionally, and with many summers intervening, its occurrence being in all probability due to a temporary stagnation in the easterly atmospheric drift. Under normal conditions, air entering Western Australia with a temperature of from 70° to 80° would only accumulate 20° to 25° by contact with the radiation from the soil during its passage across the continent.

Where there is stagnation, however, the air resting over the sandy soils of the interior becomes superheated, and on reaching the western districts of the eastern States shows a temperature sometimes as much as 40° above the normal. Extensive bush fires also cause a local rise in temperature, and this is due, not only to the actual heat generated, but also to the liberation of combustible matter into the atmosphere; and it has further been affirmed that the presence of a small excess of carbonic acid gas above the normal quantity in air raises the temperature several degrees. The winter is almost perfect. An average temperature of over 50°, accompanied by clear skies and an absence of snow, leaves little to be desired. It is fortunate, from the standpoint of health, that the climate of the Western Division is dry, otherwise the interior of the State, probably, would have become, with abundant rains, an impenetrable jungle. It is also owing chiefly to the dryness of the climate that Australia produces the best merino wool in the world.

The meteorological conditions of the western plains will be seen from the following statement; the information is similar to that given already for the other divisions of the State:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina ... ..	345	430	69·3	84·0	52·9	26·3	122·3	24·8	16·59
Walgett... ..	286	522	68·3	82·7	52·9	25·8	122·2	23·7	19·05
Bourke ... ..	386	350	69·3	83·4	54·0	27·3	127·0	25·0	15·15
Wilcannia ... ..	473	246	66·5	80·3	52·1	26·2	120·8	21·8	10·37
Cobar ... ..	345	803	66·6	81·5	51·7	24·9	118·7	25·0	14·60
Broken Hill ... ..	555	1,000	64·7	79·1	50·8	23·3	115·9	28·0	9·24
Mount Hope ... ..	296	600	65·3	80·9	50·3	24·8	123·6	24·6	15·17
Condobolin ... ..	227	700	62·7	76·8	50·8	25·6	122·2	20·5	17·51
Wentworth ... ..	478	144	64·1	76·9	51·1	26·7	119·0	25·0	11·79
Hay ... ..	309	291	63·5	76·2	50·4	28·5	117·3	21·1	14·18
Euston ... ..	422	188	64·2	77·0	51·0	33·2	124·8	17·1	12·06
Deniliquin ... ..	287	268	61·9	74·6	48·2	30·2	121·1	18·0	16·35

## CONSTITUTION AND PARLIAMENTS

NEW South Wales was proclaimed a Crown Colony by Governor Phillip on his landing in Port Jackson in 1788. The Governor at first had virtually autocratic power and was responsible for his actions solely to the Colonial Office in London. In 1824, under the provisions of an Imperial Act, the Governor was empowered to appoint a Legislative Council, by whose advice he was to be guided. It consisted of seven members, but the number was afterwards increased to fifteen. In the course of time it was recognised that a legislative body appointed exclusively by the Crown could not manage effectively the affairs of a large and rapidly increasing commercial and agricultural community, and in 1843 a semi-representative Legislative Council was created consisting of thirty-six members, of whom twelve were appointed by the Crown and twenty-four elected by the people.

For several years before the mining epoch of 1851, a strong desire had been growing amongst the colonists for self-government and the large increase of population in consequence of the gold discoveries added strength to the agitation for a free Constitution. Under an Act passed by the Imperial Parliament in 1851 provision was made to confer a Constitution upon New South Wales. Accordingly, in 1852, a Select Committee of the Legislative Council was appointed to prepare a new Constitution, and ultimately the Constitution Act of 1853 was passed. This Act, the basis of our present Constitution, established two Legislative Chambers, the Legislative Council of at least twenty-one members nominated by the Crown, and the Legislative Assembly of fifty-four members elected by the people.

Before the Constitution could become operative it was necessary to obtain the sanction of the British Parliament. This was granted under the Imperial Act of 1855, and the first Parliament met in the following year.

The Constitution Act has since been amended in various particulars, and the present form of Government is briefly as follows :—

### THE GOVERNOR.

The Governor is the representative of the Crown, and is appointed by the Imperial Government, the term of office being five years. The Constitution provides for a salary of £5,000 per annum, and allowances for the Governor's staff amount to about £800 annually, these sums being provided by the State. The present Governor is Baron Chelmsford, K.C.M.G. During the absence of the Governor, the duties of administration devolve on the Lieutenant-Governor, and should both the Governor and the Lieutenant-Governor be incapacitated, the duties are performed by the Senior Judge of the Supreme Court.

The powers and privileges of the Governor are set forth in his Commission. As representative of the Crown, he has power to assent to Acts of Parliament, or to withhold the assent pending reference to the Imperial Government, and there are certain classes of bills to which he is bound to refuse Royal assent. He may summon his own Executive Council, appoint Judges, Justices of the Peace, Commissioners, and other necessary officers and Ministers, and may remove these officials from their positions. The prerogative of mercy is vested in him, but is never exercised except with the advice of the Executive Council.



The Governor may appoint members of the Upper House, and summon, prorogue, or dissolve any Parliament. In the exercise of these functions he is in general guided by the advice of the Executive Council, but in special circumstances he acts at his own discretion, especially with regard to dissolution.

#### SUCCESSION OF GOVERNORS.

The succession of Governors, from the foundation of the State to the present time, is given in the following statement:—

	From	To
Captain A. Phillip, R.N. ....	26 Jan., 1788	10 Dec., 1792
Major F. Grose, New South Wales Corps (Lieutenant-Governor) .....	11 Dec., 1792	12 Dec., 1794
Captain W. Paterson, N.S.W. Corps (Lieutenant-Governor) .....	13 Dec., 1794	1 Sept., 1795
Captain J. Hunter, R.N. ....	7 Sept., 1795	27 Sept., 1800
Captain P. G. King, R.N. ....	28 Sept., 1800	12 Aug., 1806
Captain W. Bligh, R.N. ....	13 Aug., 1806	26 Jan., 1808
During Governor Bligh's suspension--		
Major G. Johnston, N.S.W. Corps .....	26 Jan., 1808	28 Dec., 1809
Lieutenant-Colonel J. Foveaux, N.S.W. Corps .....		
Colonel W. Paterson, N.S.W. Corps .....		
Major-General L. Macquarie .....	1 Jan., 1810	30 Nov., 1821
Major-General Sir T. Brisbane, K.C.B. ....	1 Dec., 1821	30 Nov., 1825
Lieutenant-General Ralph Darling .....	19 Dec., 1825	21 Oct., 1831
Major-General Sir Richard Bourke, K.C.B. ....	3 Dec., 1831	5 Dec., 1837
Sir George Gipps, Knt. ....	24 Feb., 1838	11 July, 1846
Sir Charles A. Fitzroy, K.C.B., K.H. ....	2 Aug., 1846	17 Jan., 1855
Sir William Thomas Denison, K.C.B. ....	20 Jan., 1855	22 Jan., 1861
The Right Honorable Sir John Young, K.C.B., G.C.M.G. ....	22 Mar., 1861	24 Dec., 1867
The Right Honorable the Earl of Belmore, P.C. ....	8 Jan., 1868	22 Feb., 1872
Sir Hercules George Robert Robinson, G.C.M.G. ....	3 June, 1872	19 Mar., 1879
The Right Honorable Sir Augustus William Frederick Spencer Loftus, P.C., G.C.B. ....	4 Aug., 1879	9 Nov., 1885
The Right Honorable Baron Carrington, P.C., G.C.M.G. ....	12 Dec., 1885	1 Nov., 1890
The Right Honorable the Earl of Jersey, P.C. G.C.M.G. ....	15 Jan., 1891	28 Feb., 1893
The Right Honorable Sir Robert William Duff, P.C., G.C.M.G. ....	29 May, 1893	15 Mar., 1895
The Right Honorable Viscount Hampden, G.C.M.G. ...	21 Nov., 1895	5 Mar., 1899
The Right Honorable Earl Beauchamp, K.C.M.G. ....	18 May, 1899	30 April, 1901
Admiral Sir H. H. Rawson, R.N., G.C.B. ....	27 May, 1902	27 May, 1909
The Right Honorable Baron Chelmsford, K.C.M.G. ...	28 May, 1909	Still in office.

During the intervals between the departure of the Governor and the arrival of his successor, or during the Governor's absence from New South Wales, the duties were performed by the Lieutenant-Governor.

#### THE EXECUTIVE COUNCIL.

The Executive Council as constituted at present consists of eleven members, including the Governor as President. The Vice-President of the Executive is the representative of the Government in the Legislative Council. The other members are the eight Ministers controlling the Departments of State, and one honorary Minister. The office of Executive Councillor is honorary, and each member is supposed to resign on a change of Ministry.

#### THE LEGISLATIVE COUNCIL.

No limit is set in the Constitution Act as to the maximum number of members of the Legislative Council, but the minimum is fixed at twenty-one. The number of Councillors at present is fifty-seven. All persons under 21 years of age, persons not natural-born nor naturalised subjects, those in allegiance to a foreign power, Government contractors or persons interested

in Government contracts except as members of a company exceeding twenty in number, and members of either House of the Federal Parliament, are disqualified for membership. Subject to these few restrictions any citizen may be appointed. Members are not reimbursed for their services, but are granted a free railway pass, and hold their seats for life subject to certain conditions as to good conduct.

THE LEGISLATIVE ASSEMBLY.

There are 90 electoral districts in the State, each of which is represented by one member in the Legislative Assembly. Every member must be an adult natural-born or naturalised British subject. Members of the Legislative Council, persons holding non-political offices of profit under the Crown, pensioners during pleasure or for a term, persons under electoral disqualification, the insane, and members of the Federal Legislature, are disqualified. The tenure of seat is for the duration of the Parliament to which the member is elected. Reimbursement for services is granted at the rate of £300 per annum to members not in receipt of official salary, and each member receives a free railway pass. The electoral qualification is as follows:—All male or female adults who are natural-born or naturalised British subjects, and not debarred under any of the terms of the Electoral Act, may become enrolled in the electoral division in which they reside, and vote therein. In order to be enrolled, a person must have his principal place of residence in the State continuously for one year, or, if naturalised, for one year after naturalisation, and must reside in the electoral district for which he seeks enrolment for a continuous period of three months prior to the date of application. General lists of electors are prepared once a year, and provisional lists are prepared and revised each month.

The Constitution Act makes no distinction between the powers and privileges of the two Houses of Parliament, but no inconvenience has been felt on this score, since it is tacitly agreed that the procedure in each House shall be conducted according to that of its prototype in the Imperial Parliament.

Since the inauguration of responsible government there have been twenty complete Parliaments: the dates at which each was opened and closed appear in the table below. An Act constituting triennial Parliaments was passed in 1874; previously the limit of duration was fixed at five years.

Parliament.	Opened.	Dissolved.	Duration.			No. of Sessions.
			yr.	nth.	dy.	
First ... ..	22 May, 1856...	19 Dec., 1857...	1	6	28	2
Second ... ..	23 March, 1858...	11 April, 1859...	1	0	19	2
Third ... ..	30 Aug., 1859...	10 Nov., 1860...	1	2	11	2
Fourth ... ..	10 Jan., 1861...	10 Nov., 1864...	3	10	0	5
Fifth ... ..	24 Jan., 1865...	15 Nov., 1869...	4	9	22	6
Sixth ... ..	27 Jan., 1870...	3 Feb., 1872...	2	0	7	3
Seventh ... ..	30 April, 1872...	28 Nov., 1874...	2	6	28	4
Eighth ... ..	27 Jan., 1875...	12 Oct., 1877...	2	8	16	3
Ninth ... ..	27 Nov., 1877...	9 Nov., 1880...	2	11	12	3
Tenth ... ..	15 Dec., 1880...	23 Nov., 1882...	1	11	8	3
Eleventh ... ..	3 Jan., 1883...	7 Oct., 1885...	2	9	4	6
Twelfth ... ..	17 Nov., 1885...	26 Jan., 1887...	1	2	9	2
Thirteenth ... ..	8 March, 1887...	19 Jan., 1889...	1	10	11	3
Fourteenth ... ..	27 Feb., 1889...	6 June, 1891...	2	3	7	4
Fifteenth ... ..	14 July, 1891...	25 June, 1894...	2	11	11	4
Sixteenth ... ..	7 Aug., 1894...	5 July, 1895...	0	10	29	1
Seventeenth ... ..	13 Aug., 1895...	8 July, 1898...	2	10	26	4
Eighteenth ... ..	16 Aug., 1898...	11 June, 1901...	2	9	26	5
Nineteenth ... ..	23 July, 1901...	16 July, 1904...	2	11	24	4
Twentieth ... ..	23 Aug., 1904...	12 July, 1907...	2	10	20	4
Twenty-first ... ..	2 Oct., 1907...	.....	.....	.....	.....	.....

At the election of the first Parliament the following persons were qualified to vote:—All male adult British subjects who, at the time of registration of electors, and for six months previous to that date, owned freehold estate valued at £100, or occupied building or lodging or land under lease of three years, valued at £10 per annum. Holders of Government pastoral licenses and persons who had a yearly salary of £100, or paid £40 per annum for board and lodging, were also entitled to vote. Electors were allowed to vote in each electorate in which they possessed the necessary qualifications. In 1858 the franchise was given to every male adult British subject who, for six months previous to the collection of the rolls, had resided in the district, or held freehold or leasehold property of the clear value of £100, or annual value of £10, or occupied building valued £10 per annum, or held Crown lease or license for pastoral purposes. Holders of miners' rights were allowed to vote in "gold-fields" electorates. Officers of military or police service were disqualified, as well as the insane, criminals, and persons in receipt of eleemosynary aid.

In 1893 the property qualifications were eliminated, and the franchise was placed on its present basis, each elector being entitled to vote in one electorate only. By a special Act, passed in 1896, the Police were allowed the privilege of voting. In 1903 women were admitted to voters' privileges on the same basis as in the case of male electors.

The next table gives details of the voting at the six elections since the adoption of the principle restricting each elector to one vote.

Parliament.	Voters on Roll.	Number of Electors to a Member.	Total Members returned.	Members unopposed.	Contested Electorates.				
					Electors on Roll.	Votes recorded.	Per cent. age of Votes recorded.	Informal Votes.	Per cent. age of Informal Votes.
Sixteenth ...	298,817	2,390	125	1	254,105	204,246	80·38	3,310	1·62
Seventeenth ...	267,458	2,139	125	8	238,233	153,034	64·24	1,354	0·88
Eighteenth ...	324,339	2,595	125	3	294,481	178,717	60·69	1,638	0·92
Nineteenth ...	346,184	2 769	125	13	270,861	195,359	72·13	1,534	0·79
Twentieth { Males...	363,062	7,661	90	2	304,396	226,057	74·26	3,973	0·59
{ Females	326,428				262,433	174,538	66·51		
Twenty { Males..	392,845	8,288	90	5	370,715	267,301	72·10	13,543	2·87
first { Females	353,055				336,680	204,650	60·78		

As the table shows, the largest percentage of votes was recorded at the first election in the group, when no less than 80·4 per cent. of the electors in contested districts exercised the privilege of the franchise. This election involved a strenuous contest on fiscal reform, and the small proportions of votes recorded at the two succeeding elections were due partly to the fact that no definite issue was at stake, the chief question being which leader should negotiate for federation with the other colonies. At the election for the nineteenth Parliament over 72 per cent. of qualified electors voted, and the figures for the 1904 election show that only 70·7 per cent. of the electors took the trouble to record their votes. This was the first State election at which women voted, and it appears that while 74 per cent. of qualified male voters recorded their votes, only 66 per cent. of the females did so. In 1907 the proportion of men who voted decreased to 72 per cent., and only 60·78 per cent. of the women recorded their votes. Although greater facilities for voting were introduced at this election, the figures show a marked diminution in the number of people interested in the important political questions of the day. This is especially noticeable in the case of women electors, two-fifths of whom neglected to vote.

The various Ministries which have held office since the establishment of Responsible Government, together with the duration in office of each, are shown below :—

No.	Ministry.	From—	To—	Duration.
				months. days.
1	Donaldson ... ..	6 June, 1856	25 Aug., 1856	2 20
2	Cowper ... ..	26 Aug., 1856	2 Oct., 1856	1 8
3	Parker ... ..	3 Oct., 1856	6 Sept., 1857	11 4
4	Cowper ... ..	7 Sept., 1857	26 Oct., 1859	25 20
5	Forster ... ..	27 Oct., 1859	8 Mar., 1860	4 13
6	Robertson ... ..	9 Mar., 1860	9 Jan., 1861	10 1
7	Cowper ... ..	10 Jan., 1861	15 Oct., 1863	33 6
8	Martin ... ..	16 Oct., 1863	2 Feb., 1865	15 18
9	Cowper ... ..	3 Feb., 1865	21 Jan., 1866	11 19
10	Martin ... ..	22 Jan., 1866	26 Oct., 1868	33 5
11	Robertson ... ..	27 Oct., 1868	12 Jan., 1870	14 17
12	Cowper ... ..	13 Jan., 1870	15 Dec., 1870	11 3
13	Martin ... ..	16 Dec., 1870	13 May, 1872	16 29
14	Parkes ... ..	14 May, 1872	8 Feb., 1875	32 26
15	Robertson ... ..	9 Feb., 1875	21 Mar., 1877	25 13
16	Parkes ... ..	22 Mar., 1877	16 Aug., 1877	4 26
17	Robertson ... ..	17 Aug., 1877	17 Dec., 1877	4 1
18	Farnell ... ..	18 Dec., 1877	20 Dec., 1878	12 3
19	Parkes ... ..	21 Dec., 1878	4 Jan., 1883	48 15
20	Stuart ... ..	5 Jan., 1883	6 Oct., 1885	33 2
21	Dibbs ... ..	7 Oct., 1885	21 Dec., 1885	2 15
22	Robertson ... ..	22 Dec., 1885	25 Feb., 1886	2 4
23	Jennings ... ..	26 Feb., 1886	19 Jan., 1887	10 22
24	Parkes ... ..	20 Jan., 1887	16 Jan., 1889	23 28
25	Dibbs ... ..	17 Jan., 1889	7 Mar., 1889	1 19
26	Parkes ... ..	8 Mar., 1889	22 Oct., 1891	31 15
27	Dibbs ... ..	23 Oct., 1891	2 Aug., 1894	33 11
28	Reid ... ..	3 Aug., 1894	13 Sept., 1899	61 11
29	Lyne ... ..	14 Sept., 1899	27 Mar., 1901	18 14
30	See ... ..	28 Mar., 1901	14 June, 1904	38 18
31	Waddell ... ..	15 June, 1904	29 Aug., 1904	2 15
32	Carruthers ... ..	30 Aug., 1904	1 Oct., 1907	37 3
33	Wade ... ..	2 Oct., 1907	Still in office.	.....

The Wade Ministry, which is at present in office, is composed of the following members :—

Premier and Attorney-General ... ..	Hon. C. G. WADE, K.C.
Colonial Secretary and Secretary for Mines ... ..	Hon. W. H. WOOD.
Colonial Treasurer ... ..	Hon. T. WADDELL.
Secretary for Lands ... ..	Hon. S. W. MOORE.
Secretary for Public Works ... ..	Hon. C. A. LEE.
Minister for Agriculture ... ..	Hon. J. PERRY.
Minister of Public Instruction, and for Labour and Industry ... ..	Hon. J. A. HOGUE.
Minister for Justice and Solicitor-General ... ..	Hon. J. GARLAND.
Minister without portfolio ... ..	Hon. C. W. OAKES.
Vice-President of Executive Council, and Representative of the Government in the Legislative Council ... ..	HON. J. HUGHES.

Mr. Garland was sworn in as a member of the Ministry on the 21st December, 1909.

## POPULATION.

On the date of the foundation of the Colony of New South Wales—26th January, 1788, Captain Phillip landed about 1,030 persons. The growth of the settlement for many years was very slow, and at three periods the population was diminished by the subdivision of the Parent Colony and the creation of new colonies out of the separated portions. These periods were—1803, when Tasmania was constituted, 1851, the date of the foundation of the Colony of Victoria, and 1859, when the latest colony, Queensland, was established.

During the first 40 years of the Colony's history, "musters" of the population were made periodically by authority of the Governor, the results being obtained sometimes under very faulty conditions; and at other times, notably during the term of Governor Macquarie's tenure of office, the figures are of a most reliable nature. The following table shows, as nearly as can be ascertained, the probable population of New South Wales, including Norfolk Island, at quinquennial intervals from the end of the year 1790 until the year 1828, when the first Australian Census was taken:—

Year.	Total Population.
1790	2,800
1795	4,500
1800	6,200
1805	7,400
1810	10,100
1815	13,300
1820	25,300
1825	33,500

Only the totals are given, since for the period of the "musters" very scanty details are available, the sex of the children being unstated.

The first census was taken in the year 1828 and was specially ordained by an Act passed by the Governor and Council on 30th June of that year.

The enumeration was made during the month of November, the result showing a total of 36,598 persons, of whom 27,611 were males and 8,987 females, the remarkable disparity of approximately 3 to 1 exhibiting a most unwholesome preponderance of the male sex.

The slow growth during the 40 years to which the previous figures relate was followed by a rapid increase in population, induced by the steady development which resulted from the progressive public policy inaugurated during the governorship of Sir Richard Bourke. A system of immigration was introduced on a scale of annually increasing dimensions, which appeared in definite strength in the year 1832, so that at the end of 1833 the population had increased to 61,000, being an advance of 27,500 on the number for the year 1825, or at the rate of 82 per cent. for the period of eight years.

Thenceforward the increase was most pronounced, as will appear from the following figures deduced from each succeeding census, inclusive of that for

the year 1856, the epoch of the introduction of Responsible Government into New South Wales :—

Date of Census.	Males.	Females.	Total.	Increase per cent. for period.	Average Increase per annum.
— Nov. 1828	27,611	8,987	36,598	—	—
2 Sept. 1833	44,644	16,150	60,794	66·1	4,839
2 Sept. 1836	55,539	21,557	77,096	26·8	5,434
2 Mar. 1841	87,298	43,558	130,856	69·7	10,752
2 Mar. 1846	114,769	74,840	189,609	44·9	11,751
1 Mar. 1851	109,643	81,356	190,999*	0·7	15,747†
1 Mar. 1856	150,488	119,234	269,722	41·2	15,745

\* Exclusive of Victoria (population 77,345), separated from New South Wales in 1851.

† Victoria included.

As to the increasing proportional advance in population during the period 1828-56, apart from the natural increase by the excess of births over deaths, the reasons are clearly perceptible in the assisted immigration policy strenuously pursued from the year 1832 onwards, in the additional impetus in development caused by unassisted immigration during the later years, induced by the success achieved by the earlier assisted type, and finally in the immense attraction to the outside world arising from the discovery and expansion of the goldfields in New South Wales and Victoria in 1851. During the eight years 1828-1836 the population increased at the rate of about 5,000 per annum, during the next ten years by 11,000 per annum, and during the last ten years, from 1846-56, at a rate of nearly 16,000 yearly, taking the population of Victoria into account for the year 1851. In the latter year the territory now known as Victoria was separated from the mother colony, and contained at that time 77,345 persons; and it is the loss of this number which caused the apparent anomaly shown above of almost identical values of population of New South Wales in 1846 and 1851.

After the year 1856 there was yet another reduction in the territory of New South Wales, before the area of the mother colony became confined to its present boundaries. This occurred in 1859, when the colony of Queensland, with a population of 16,907, was separated from New South Wales.

The first census taken after New South Wales was restricted to its present limits was on the 7th April, 1861, when the ascertained population was 350,860. Thereafter the numbers were determined decennially, the last census having been taken on the 31st March, 1901, when the population had increased to 1,359,133. The population at each census period from 1861 to 1901 will be seen below, and, in addition, the estimated population as at the 31st December, 1908, is shown. The figures are inclusive of aboriginal natives—the number of whom is assumed during the inter-censal period to remain constant at the figure ascertained at the last census. In 1901 the number was 4,287 (2,451 males and 1,836 females):—

Year.	Males.	Females.	Total.	Numerical Increase.
1861	198,488	152,372	350,860	.....
1871	275,551	228,430	503,981	153,121
1881	411,149	340,319	751,468	247,487
1891	612,562	519,672	1,132,234	380,766
1901	712,456	646,677	1,359,133	226,899
1908	859,402	745,607	1,605,009	245,876

The relative increase from census to census, and to the end of 1908, may be measured according to the several methods shown in the following statement. In the first column, the population in 1861 is taken as a basis :—

Year.	Index Number of Population.	Total increase for each period.	Increase per annum for period.	Persons per square mile.
1861	100	per cent.	per cent.	1·12
1871	144	.....	.....	1·61
1881	214	43·64	3·69	2·41
1891	323	49·11	4·08	3·64
1901	387	50·67	4·19	4·38
1908	457	20·04	1·84	5·17
		18·09	2·17	

It will be seen that the population has increased more than fourfold since 1861, and has more than doubled since 1881, but there has been a great falling-off in the rate of increase since 1891. Prior to that year the annual increase was about 4 per cent., but thence onward to 1904 it was under 2 per cent. Since 1904 the rate of increase has advanced, and was, in 1907, higher than at any time since 1891. In 1861 the number of persons per square mile was 1·1, in 1891 it was 3·6, and in 1908 it was 5·2.

The growth of population depends upon two factors—the natural increase or excess of births over deaths, and the increase by excess of immigration over emigration. The increases derived from each source during successive periods since 1861 are seen in the following table :—

Period.	Total increase.			Increase per annum.		
	By excess of Births over Deaths.	By excess of Immigration over Emigration.	Total.	By excess of births over deaths.	By excess of Immigration.	Total.
1861-71	106,077	47,044	153,121	per cent. 2·68	per cent. 1·27	per cent. 3·69
1871-81	140,382	107,105	247,487	2·49	1·95	4·08
1881-91	211,301	169,465	380,766	2·51	2·05	4·19
1891-1901	226,676	223	226,899	1·84	...	1·84
1901-1908	183,019	62,857	245,876	1·64	0·59	2·17

The steady decline in the rate of natural increase is due to the falling birth-rate, as there has been a constant improvement in the death-rate. The decline was most marked in the period 1891-1901.

The increase by excess of immigration grew steadily larger during each inter-censal period up to 1891, but the decade 1891 to 1901 shows a very glaring contrast with the previous periods, its increase by excess of arrivals being only 223. There has been, however, a considerable improvement since 1901.

The period 1861-1871, following the discovery of gold, saw the excitement abate somewhat, and a demand for land created. The public lands were, therefore, thrown open for free selection, and many persons were assisted to immigrate to the State. During the next period, 1871-1881, the stream of assisted immigration continued, and a vigorous policy of public works was

inaugurated. This policy was continued throughout the next decade, and, consequently, many persons were attracted to the State by the ease with which employment could be obtained and by the high rate of wages, notwithstanding that State-aided immigration practically ceased in 1886. Towards the end of this period, expenditure, both State and private, was suddenly curtailed, and there was a scarcity of employment and consequent check to immigration. The year 1891 saw the end of immigration, and for twelve years after the population progressed only by reason of the natural increase. The balance of migration was, moreover, affected by the rush of men to Western Australia after the discovery of gold in 1894, and by the departure of over 5,000 troops to the war in South Africa, from 1899 to 1901. Most of the latter have since returned, as well as many of those in the former category, and the excess of immigration since 1901 has improved, the figures being 62,857, as stated.

The population is determined with absolute precision at each decennial census. As, however, the population for the intervening years is required for many purposes it becomes necessary to determine it as accurately as possible, and estimates are therefore made from the records of births and deaths, and of immigration and emigration. The registers of births and deaths ensure a reliable return under those heads, and, as regards the migration returns, experience shows that, while the records of overland migration are by no means perfect, they give with fair accuracy the gain or loss to the State across its borders. In the case of the sea traffic, however, the returns are less reliable, as there are persons who go on board vessels after the passenger-list has been completed, and whose departure is not recorded. A conference of Australian Statisticians, held in 1906, agreed upon a method of estimating the population as follows:—

That the Census of 1901 be taken as the starting point, and the future estimates of population be published from that basis.

That the Registrar-Generals' returns of Births and Deaths, and the Customs and Railway Departments' Certificates of arrivals and departures be accepted for the compilations.

That ten per cent. be added to the railway returns of arrivals and departures by land for New South Wales, Victoria, Queensland and South Australia to allow for unrecorded traffic by rail and road.

That the following percentages on recorded departures by sea be added thereto for the unrecorded departures:—New South Wales, 9; Victoria, 9; Queensland, 10; South Australia, 7; Western Australia, 5; and Tasmania, 12·5.

That the elements of population be published quarterly on a uniform basis.

That where the distribution of sexes of persons travelling overland is unknown the proportion of males and females be fixed on the basis of the recorded sea traffic for the corresponding period.

That full-blooded aborigines be excluded from the populations, but shown on a separate line in the estimates of population.

That henceforth the mean population of each of the four quarters be taken, and the mean of these be accepted as the mean of the year.

That seamen discharged, or having deserted, and all seamen signing on, be taken into account as arrivals and departures respectively.

In the United Kingdom, where migration is more or less steady, it is the practice to estimate the population at any time on the assumption that the annual rate of increase during the last inter-censal period has steadily continued. This method, however, would not be at all suitable for New South Wales, on account of the irregular movement of the population.



The variations in the annual growth of population are shown in the following table, which gives the population of New South Wales, inclusive of aborigines, at the end of each of the last eighteen years. The increases due to each of the factors are given, as well as the annual increase per cent. :—

Year (31st December).	Population.	Annual Increase.			Increase per cent. per annum.
		By excess of Births over Deaths.	By excess of Immigration over Emigration.	Total.	
1891	1,162,190	23,172	17,158	40,330	3.50
1892	1,191,790	25,631	3,969	29,600	2.55
1893	1,214,550	24,320	— 1,560	22,760	1.91
1894	1,239,250	23,781	919	24,700	2.03
1895	1,262,270	23,860	— 840	23,020	1.86
1896	1,278,970	20,667	— 3,967	16,700	1.32
1897	1,301,780	22,983	— 173	22,810	1.78
1898	1,323,130	19,561	1,789	21,350	1.64
1899	1,344,080	20,560	390	20,950	1.58
1900	1,364,590	22,028	— 1,518	20,510	1.53
1901	1,379,527	21,854	— 6,917	14,937	1.09
1902	1,407,619	21,189	6,903	28,092	2.04
1903	1,431,611	19,469	4,523	23,992	1.70
1904	1,461,549	23,307	6,631	29,938	2.09
1905	1,496,007	24,523	9,935	34,458	2.36
1906	1,530,984	25,973	9,004	34,977	2.34
1907	1,573,224	25,785	16,455	42,240	2.76
1908	1,605,009	26,435	5,350	31,785	2.02

The — sign indicates a decrease on account of excess of departures over arrivals.

This table shows clearly the falling-off between 1891 and 1901 ; inasmuch as during six of the years the balance of migration was against the State. It is, however, satisfactory to note the change for the better since 1901, until in 1907 the total increase, 42,240 was the largest in any year since 1885. In 1908 the total increase was 31,785—the excess of births was the highest during the period covered by the table, but the excess of immigration was not so great as during any of the previous four years. There is a very large movement of population each year, but it can hardly be described as immigration or emigration in the popular sense in which those terms are used, and is largely due to the arrival and departure of tourists and business men.

The main reasons adduced for the lack of immigration to Australia are the distance of the country from Europe, the cost of passage and the comparative ignorance of European people with regard to the resources of the State. In 1905, however, matters were very radically changed, and systematic efforts have since been made in the United Kingdom to advertise the progress and resources of the State, assistance being now granted as an inducement to immigrants. There has also been a revival of public interest in the matter, and already a great change is to be seen ; 681 picked persons, of most desirable character, were assisted to immigrate to the State by the Government in 1906, 2,845 persons in 1907, and 2,896 in 1908 ; and generally the movement of population with the United Kingdom, which, during the five years 1901-05, was against the State, turned during 1906 largely in favour of it.

The next table shows the arrivals in, and departures from, the State by sea and by land during the last eighteen years, proper allowance being made therein for those unrecorded :—

Year.	Arrivals.			Departures.		
	By Sea.	By Land.	Total.	By Sea.	By Land.	Total.
1891	69,919	77,270	147,189	56,775	73,256	130,031
1892	62,197	68,255	130,452	57,476	69,007	126,483
1893	66,909	49,693	116,602	64,034	54,128	118,162
1894	75,588	47,090	122,678	71,773	49,986	121,759
1895	76,051	58,075	134,126	72,128	62,838	134,966
1896	62,633	64,746	127,379	67,887	63,459	131,346
1897	67,016	71,349	138,365	65,611	72,927	138,538
1898	75,526	69,940	145,466	71,398	72,279	143,677
1899	77,634	71,983	149,617	71,563	77,664	149,227
1900	68,783	82,530	151,313	67,190	85,641	152,831
1901	76,139	87,474	163,613	69,500	101,030	170,530
1902	81,191	79,459	160,650	67,400	86,347	153,747
1903	70,570	81,773	152,343	63,632	84,188	147,820
1904	72,978	83,284	156,262	63,588	86,043	149,631
1905	74,170	98,134	172,304	63,682	98,687	162,369
1906	79,465	113,871	193,336	68,792	115,540	184,332
1907	101,125	140,214	241,339	81,886	142,998	224,884
1908	101,589	144,152	245,741	88,683	151,708	240,391

The following table shows the movement of population between New South Wales and various countries during the last five years. More than 83 per cent. of the movement is with the other Australasian States, and nearly one-half of the movement with countries outside Australia is with New Zealand :—

Countries.	1904.	1905.	1906.	1907.	1908.
ARRIVALS.					
Australian States	126,194	142,449	162,165	198,948	200,734
New Zealand	14,314	15,093	16,525	20,204	20,277
United Kingdom	4,842	4,859	5,641	9,782	10,788
Other British Possessions	3,172	3,490	3,825	6,737	7,015
Foreign Countries	7,740	6,413	5,180	5,668	6,927
Total	156,262	172,304	193,336	241,339	245,741
DEPARTURES.					
Australian States	121,931	135,457	154,999	191,753	203,298
New Zealand	12,782	12,310	15,452	18,774	19,587
United Kingdom	5,837	5,501	4,627	4,583	6,605
Other British Possessions	3,980	4,278	4,508	4,836	5,039
Foreign Countries	5,101	4,823	4,746	4,938	5,862
Total	149,631	162,369	184,332	224,884	240,391

The net gain from the countries outside the Commonwealth during 1908 was 7,914. In 1906 the gain was 1,838, and in 1907, 9,260. Excluding New Zealand, the excess of arrivals from countries beyond Australia during 1908 was 7,224. From the United Kingdom there was a gain of 4,183; from South Africa, 1,363; from Canada, 872; and from foreign countries, 1,065, while there was a loss of 259 to other British possessions.

The following statement gives the population of each of the States of the Commonwealth at the Census of 1901, and at the 31st December, 1908, exclusive of full-blooded aborigines. The proportion of population in each State is shown, and the rate of increase per annum since the Census of 1901 :—

State.	Population 31st March, 1901.		Population 31st December, 1908.		Increase per cent. per annum from the Census to 31st December, 1908.
	Number.	Per cent.	Number.	Per cent.	
New South Wales ...	1,354,846	35·91	1,600,722	37·26	2·18
Victoria ...	1,201,070	31·83	1,273,313	29·64	0·76
Queensland ...	498,129	13·20	558,237	12·99	1·48
South Australia ...	362,604	9·61	407,179	9·48	1·51
Western Australia ...	184,124	4·88	270,823	6·30	5·10
Tasmania ...	172,475	4·57	185,824	4·33	0·97
Commonwealth...	3,773,248	100·00	4,296,098	100·00	1·69

The average natural increase of the Commonwealth is about  $1\frac{1}{2}$  per cent. per annum. It is, therefore, apparent from the final column of the table that New South Wales and Western Australia have materially gained by immigration since the Census, that Queensland and South Australia have been stationary in this respect, and that Victoria and Tasmania have lost by the excess of departures over arrivals.

#### DISTRIBUTION OF SEXES.

It is estimated that, at the end of 1908, there were 859,402 males and 745,607 females in the State, the proportion of the sexes being, therefore, males 53·54 per cent., and females 46·46 per cent., or about 115 males to 100 females. At the Census of 1901, the males constituted 52·42 per cent. and the females 47·58 per cent. of the total. The distribution of the sexes has undergone little change for several years past, but the tendency during the last 50 years has been continuous towards equality, as will be seen from the following statement, which gives the proportion of males and females at each Census from 1861 to 1901, and at the end of 1908 :—

Year.	Proportion of Males.	Proportion of Females.	Males per 100 Females.
	per cent.	per cent.	No.
1861	56·57	43·43	130
1871	54·67	45·33	121
1881	54·86	45·14	121
1891	54·14	45·86	118
1901	52·42	47·58	110
1908	53·54	46·46	115

The excess of males over females is chiefly at ages above 30 years, and is due to the large immigration of males in former years. In 1901 there was less difference between the proportion of the sexes than ever before, as there was very little immigration during the preceding ten years, and the natural increase of females, which is larger than that of males, had its due effect. In 1908 the proportion of males was higher than in 1901, owing to increased immigration during the interval.

#### URBAN AND RURAL POPULATION.

To those who are unacquainted with the conditions of Australian progress, the figures relating to the distribution of population in New South Wales will appear somewhat remarkable. The population living

in the Metropolitan area is considerably larger than that in all the other towns of the State in combination, and is also greater than the whole of the rural population. At the Census of 1901, 35·8 per cent. of the settled inhabitants of New South Wales resided in the metropolis, 32·8 per cent. in the other urban districts, and 31·4 per cent. in the rural districts. The following statement shows the distribution of the population on the 31st March, 1901:—

		Per cent.
In the Metropolitan area...	481,830	35·8
In Newcastle and Suburbs ...	53,741	
In 11 towns with population of 5,000 and under 20,000 ...	98,889	
In 42 " " 2,000 " 5,000 ...	125,683	32·8
In 62 " " 1,000 " 2,000 ...	91,359	
In 106 " " 500 " 1,000 ...	72,771	
Total Urban Population ...	924,273	68·6
Rural Population ...	422,447	31·4
Total (urban and rural) ...	1,346,720	100·0
Shipping ...	8,026	
Aborigines ...	4,287	
Lord Howe Island...	100	
Total Population, New South Wales ...	1,359,133	

During the ten years from 1891 to 1901, while the rural population increased by 34,216, (or 8·8 per cent.) the urban population increased by 194,254 (or 26·6 per cent.), and of the latter 98,547 were in the metropolitan district. It would therefore appear, judging by ratio of increase, that the urban population is increasing three times as rapidly as the rural. Thirty years ago, out of every 1,000 persons living in New South Wales, 532 were in the rural districts of the State, but the proportion is now only 314, and this anomaly exists although every possible inducement has been offered to persons to settle away from the towns. The following table shows the urban as distinct from the rural population at each census from 1861 to 1901:—

	1861.	1871.	1881.	1891.	1901.
Sydney and Suburbs ...	95,789	137,586	224,939	383,283	481,830
Other Towns ...	64,045	97,037	201,731	346,736	442,443
Total Urban ...	159,834	234,623	426,670	730,019	924,273
„ Rural ...	189,116	266,956	321,571	388,231	422,447
Total ...	348,950	501,579	748,241	1,118,250	1,346,720

The total population shown here is exclusive of shipping and aborigines. These figures indicate that at some period between 1871 and 1881 the urban population, which had previously been smaller than, became equal to, the population living in the rural districts. The year when this event occurred was probably 1875. Thenceforward the urban population grew far more rapidly, so that in 1901 it was found to exceed the rural by about 120 per cent. The progress of population will be best seen from the following table, which gives the respective proportions per cent. of the urban and rural population to the whole population of the State:—

	1861.	1871.	1881.	1891.	1901.
Sydney and Suburbs ...	27·45	27·43	30·06	34·27	35·78
Other Towns ...	18·35	19·35	27·00	31·01	32·85
Total Urban ...	45·80	46·78	57·06	65·28	68·63
„ Rural ...	54·20	53·22	42·94	34·72	31·37

The relation of these two sets of figures will, perhaps, be more clearly perceived by a presentation of the annual increase per cent. during each decade, of urban and rural population :—

	1861-71.	1871-81.	1881-91.	1891-1901.
Urban ... ..	3·92	6·16	5·51	2·39
Rural ... ..	3·50	1·88	1·91	0·85

As the normal rate of increase due to the excess of births over deaths during the period 1871 to 1881 was 2·32 per cent., from 1881 to 1891, 2·23 per cent., and from 1891 to 1901, 1·80 per cent., the figures in the above table show clearly that the rural districts of the State are not retaining, and have not retained for many years past, their natural increase of population, and that the towns have attracted not only immigrants to the State, but also some portion of the rural population. Various causes have conduced to this state of affairs. In England, France, and Germany, the abnormal growth of the urban population during the last thirty or forty years has been due largely to the increase in the manufacturing industries, which, necessarily, have been established in or near towns, have changed the occupations of the people, and have consequently attracted from the country young people in search of employment. Even in the United States, the most favoured country for the agricultural labourer, the same conditions exist, but in this case the rise of the great cities has been accompanied by an increase in the rural population.

In Australia, however, influences of a different kind are at work, and the growth of the metropolitan centres has been marked by special features. There can be no difficulty in understanding the growth of cities such as London, which are large trading centres. But in New South Wales, Sydney, which contains over 36 per cent. of the population, and whose commerce is the most valuable of the ports of Australia, can claim little trade which is not due to the productiveness of the State. There has been no abnormal increase of factories, yet, as previously indicated, the rural growth has been slower than the metropolitan.

The rapid growth of Sydney has been due mainly to the physical features of the coast line of New South Wales which render Port Jackson the only considerable commercial outlet. The coastal rivers are all short, and their estuaries do not present good roadsteads for shipping. The State had its beginning on the site whereon has grown the metropolis, and Sydney, being the chief port, has been of necessity the only channel through which immigrants from foreign lands could pass to the interior. Immigrants to Australia linger in their port of debarkation, and seldom care to leave it while employment is procurable.

In this connection the following table is of interest, as it shows where the persons of different nationalities in the State have settled, whether in the towns or in the country. The figures represent the approximate proportion per cent. of the total population residing in the urban and rural districts at the census of 1901 :—

District.	Nationality.			All persons.
	Australian.	British.	Foreign.	
Metropolis ... ..	33·40	47·21	44·43	35·78
Other Incorporated Towns..	27·74	26·23	24·85	27·64
Rural... ..	38·86	26·56	30·72	36·58
Total ... ..	100·00	100·00	100·00	100·00

There is an apparent discrepancy between the proportions in the last table and in that on the preceding page. This is owing to the fact that in the last table only incorporated towns are included as "urban," whereas in the first table all towns with a population of 500 and over are included.

It will be seen that nearly half the British and foreign-born residents in the State are situated in the metropolis, and about three in every four in the urban districts collectively. Only one-third of the Australian-born dwell in the metropolis, but it should be noted that 90 per cent. of the British and foreign-born are adults, as against 40 per cent. of the Australian-born.

The backward state of rural development in New South Wales is largely explained by the great attention which the pastoral industry has received. Wool-growing has been for many years the staple industry. The actual tending of the flocks needs few hands, while the handling of bales of wool at a convenient place of shipment demands all the resources of a great commercial centre. A consideration of the circumstances governing settlement thus makes it clear that, while areas of splendid country devoted to primary production are in the hands of a comparatively small population, the production from primary sources has been so valuable that it has been possible to support a relatively large number of people collected in the centres of secondary production and distribution. With the advent of the public policy of closer settlement which is now being developed in this State, there is every probability of a large modification in the relative figures of urban and rural population.

#### THE METROPOLIS.

The Metropolis includes Sydney and the forty municipalities which surround it, as well as the islands of Port Jackson, and embraces an area of a little over 142 square miles. The area included may be described roughly as a square bounded on the east by the sea coast, and on the south by the waters of Botany Bay and George's River; on the west by Hurstville, Canterbury, Enfield, Strathfield, Concord, and Ryde; on the north by Ryde, Eastwood, Willoughby, and Manly. The habitations within these limits are fairly continuous, with the exception of parts of Ryde and Canterbury. The following statement shows, at the Census of 1901, and on the 31st December, 1908, the population of each municipality of the metropolis:—

Municipality.	Population 31st Mar., 1901.	Population 31st Dec., 1908.	Municipality.	Population 31st Mar., 1901.	Population 31st Dec., 1908.
City of Sydney ... ..	118,207	118,380	Leichhardt ... ..	17,454	23,440
†Camperdown ... ..	7,931	9,080	Manly ... ..	5,035	9,630
Alexandria ... ..	9,341	10,920	Marrickville ... ..	18,775	25,780
Annandale ... ..	8,349	10,400	Eastwood ... ..	713	920
Ashfield ... ..	14,329	19,200	Mosman ... ..	5,691	12,100
Balmain ... ..	30,076	30,150	Newtown ... ..	22,598	26,300
Bexley ... ..	3,079	5,620	North Sydney ... ..	22,040	30,500
Botany ... ..	3,383	4,150	Paddington ... ..	21,984	22,300
Botany, North ... ..	3,772	5,490	Petersham ... ..	15,307	19,670
Burwood ... ..	7,521	8,860	Randwick ... ..	9,753	14,650
Canterbury ... ..	4,226	8,850	Redfern ... ..	24,219	24,030
Concord ... ..	2,818	3,480	Rockdale ... ..	7,857	12,230
Darlington ... ..	3,784	3,390	Ryde ... ..	3,222	4,380
Drummoyne ... ..	4,244	7,560	St. Peter's ... ..	5,906	7,960
Enfield ... ..	2,497	3,160	Strathfield ... ..	2,991	3,670
Erskineville ... ..	6,059	7,000	Vaucluse ... ..	1,152	1,770
Glebe ... ..	19,220	20,400	Waterloo ... ..	9,609	10,470
Homebush ... ..	*	540	Waverley ... ..	12,342	17,700
Hunter's Hill ... ..	4,232	4,460	Willoughby ... ..	6,004	11,170
Hurstville... ..	4,019	6,830	Woollahra ... ..	12,351	15,000
Kogarah ... ..	3,892	6,570			
Lane Cove ... ..	1,918	3,940	Total ... ..	487,900	522,100

\* Included with Strathfield. † Camperdown was incorporated with the City on the 1st January, 1909.

The population of the Metropolis is rather unevenly distributed. Half of the inhabitants are crowded into a little over 6,000 acres, having a density from 25 to 100 per acre, while one-third occupy about 18,000 acres with an average density of 9, and the remainder are scattered over about 67,000 acres, and have a density of a little over 1 per acre.

## COUNTRY DISTRICTS.

Round the Metropolitan districts settlement at first followed the main roads, but with the establishment of the railway, the population settled within reach of the railway lines. In the coastal area, where the bulk of the people dwell, the development of the towns has more than kept pace with the general population. Thus, in the Valley of the Hunter, with its large agricultural and mining industries, population has made rapid strides. Newcastle and suburbs, for instance, increased from 7,810 in 1861, to 54,991 in 1901, and 64,270 in 1908. The Illawarra district, rich in coal and pasture, and the dairy, maize, and sugar-growing districts of the Clarence and Richmond Rivers have also increased largely in their urban population.

The next statement shows, at the Census of 1901, and at the 31st December, 1908, the populations of the principal country municipalities of New South Wales:—

Municipality.	Population.		Municipality.	Population.	
	Census, 1901.	31st Dec., 1908.		Census, 1901.	31st Dec., 1908.
Albury .. .. .	5,821	6,980	Lithgow .. .. .	5,268	8,160
Armidale .. .. .	4,249	5,000	Liverpool .. .. .	3,901	4,820
Bathurst .. .. .	9,223	9,700	Maitland, East and West ..	10,073	11,900
Bourke .. .. .	2,609	1,980	Mudgee (including Cudjiegong)	5,774	6,180
Broken Hill .. .. .	27,500	32,020	Narrabri and West Narrabri..	2,963	3,250
Casino .. .. .	1,926	3,750	Newcastle and Suburbs ..	54,991	64,270
Cobar .. .. .	3,371	4,900	Orange and East Orange ..	6,331	7,180
Cootamundra .. .. .	2,424	2,850	Parkes .. .. .	3,181	3,860
Deniliquin .. .. .	2,644	2,750	Farramatta .. .. .	12,500	13,800
Dubbo .. .. .	3,409	4,500	Penrith .. .. .	3,539	4,000
Forbes .. .. .	4,294	4,680	Singleton .. .. .	2,872	3,080
Glen Innes .. .. .	2,918	3,500	Tamworth .. .. .	5,709	6,800
Goulburn .. .. .	10,612	10,700	Tenterfield .. .. .	2,604	3,040
Grafton and South Grafton..	5,147	5,450	Wagga Wagga .. .. .	5,108	5,800
Granville .. .. .	5,094	7,700	Wellington .. .. .	2,984	4,800
Hay .. .. .	3,012	2,800	Windsor .. .. .	2,039	4,250
Inverell .. .. .	3,293	4,170	Wollongong .. .. .	3,545	4,120
Katoomba .. .. .	2,270	3,660	Yass .. .. .	2,220	2,400
Kempsey .. .. .	2,329	2,670	Young .. .. .	2,755	3,040
Lismore .. .. .	4,378	7,100			

None of these municipalities is densely populated, the most closely inhabited having only a little over 6 persons per acre. The largest is Cudjiegong, with an area of 122,880 acres, and the smallest Singleton, with 621 acres.

## AGES OF THE PEOPLE.

The Census of 1901 furnished full particulars with regard to the ages of the people of New South Wales at that date. The table below shows the number of persons, male and female, at each quinquennial period of age up to 85. The males in their 21st year numbered 12,754, and the females, 13,457. Aboriginal natives are not included:—

Ages.	Population.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ... ..	80,308	78,553	158,861	11·31	12·18	11·73
5—9 ... ..	84,189	81,946	166,135	11·86	12·71	12·26
10—14 ... ..	81,582	80,097	161,679	11·49	12·42	11·93
15—19 ... ..	70,423	70,736	141,159	9·94	10·97	10·43
20—24 ... ..	62,448	64,818	127,266	8·89	10·07	9·45
25—29 ... ..	56,273	56,043	112,316	8·01	8·70	8·34
30—34 ... ..	52,596	46,697	99,293	7·45	7·25	7·36
35—39 ... ..	52,335	41,593	93,928	7·41	6·46	6·96
40—44 ... ..	44,930	33,436	78,366	6·35	5·19	5·80
45—49 ... ..	33,338	24,001	57,339	4·71	3·73	4·24
50—54 ... ..	25,615	19,327	44,942	3·62	3·00	3·33
55—59 ... ..	19,634	15,376	35,010	2·77	2·39	2·59
60—64 ... ..	16,733	12,192	28,925	2·36	1·89	2·14
65—69 ... ..	13,005	9,237	22,242	1·84	1·44	1·65
70—74 ... ..	7,772	5,202	12,974	1·10	·80	·96
75—79 ... ..	3,578	2,844	6,422	·51	·44	·47
80—84 ... ..	1,883	1,574	3,457	·27	·25	·25
85 and over ... ..	800	678	1,478	·11	·11	·11
Unspecified { Children	277	44	321	.....	.....	.....
{ Adults ...	2,286	447	2,733	.....	.....	.....
All Ages .....	710,005	644,841	1,354,846	100·00	100·00	100·00

At ages under 30 there is very little difference in number between the males and females—in fact, between ages 15 and 25 the females are the greater. At ages over 30 the males are very much much in excess of the females. If a comparison be made with the results of the previous census, it will be found that the age constitution of the people has materially altered since 1891. The Census of that year showed a steady progression in the population, both of males and females, from infancy to old age, the only exceptions being that the males showed increases in the periods from 20 to 25 years and from 25 to 30 years. The results of the Census of 1901 show that the largest number at any age period is found from 5 to 10 years, while the number in the first age group—under 5 years—is also exceeded by the total between 10 and 15 years. Not only has the proportion of the children under 5 decreased since 1891, but the actual number has decreased by 6,112.



The following statement shows the population distributed in certain conventional groups, and, in order to account for the whole population, the unspecified have been apportioned among the specified :—

Group.	Number.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total.
Infants—under 5 ...	80,318	78,564	158,882	11·31	12·19	11·73
School age—5-14...	165,791	162,064	327,855	23·35	25·13	24·20
Supporting ages—15-64...	436,781	384,650	821,431	61·52	59·65	60·63
Old age—65 and over ...	27,115	19,563	46,678	3·82	3·03	3·44
Total ...	710,005	644,841	1,354,846	100·00	100·00	100·00
Adults—21 and over ...	380,472	320,008	700,480	53·59	49·63	51·70
Military age—20 to 39 ...	225,485	.....	.....	31·76	.....	.....
Reproductive age—15 to 44	.....	313,655	.....	.....	48·64	.....

The statutory school ages extend over eight years, from 6 to 14. At this life-period there were 133,238 boys and 130,597 girls, the total being 263,835, or 19·47 per cent. of the whole population.

#### BIRTHPLACES OF THE PEOPLE.

The great majority of the inhabitants of New South Wales are of British origin ; those born in the United Kingdom, or in Australia of British parents, numbering no less than 96½ per cent. of the total, those mainly of British extraction 1 per cent., and only 2½ per cent. were of foreign parentage.

At the census of 1901 the birthplaces of 1,353,408 persons were ascertained, only 1,438 being unknown.

The following statement shows the number and proportion of each sex born in various countries. The figures are exclusive of aborigines :—

Birthplace.	Number.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ...	487,039	490,137	977,176	68·67	76·07	72·20
Other Australian States and New Zealand ...	59,272	53,295	112,567	8·36	8·27	8·32
England and Wales ...	78,441	51,298	129,739	11·06	7·96	9·58
Scotland ...	18,566	12,151	30,717	2·62	1·89	2·27
Ireland ...	30,463	29,482	59,945	4·30	4·58	4·43
Other British Possessions	4,518	1,435	5,953	·64	·22	·44
Total, British Empire	678,299	637,798	1,316,097	95·65	98·99	97·24
German Empire ...	6,390	2,326	8,716	·90	·36	·64
Other European Countries	10,437	2,120	12,557	1·48	·33	·93
United States of America and Possessions ...	2,205	925	3,130	·31	·14	·23
Chinese Empire ...	9,890	103	9,993	1·39	·02	·74
Other Foreign Countries...	775	173	948	·11	·03	·07
Total, Foreign Countries	29,697	5,647	35,344	4·19	·88	2·61
At Sea ...	1,100	867	1,967	·16	·13	·15
Not stated...	909	529	1,438	.....	.....	.....
All Countries ...	710,005	644,841	1,354,846	100·00	100·00	100·00

The natives of the British Empire resident in New South Wales, including of course the Australian born, numbered 1,316,097, or 97·24 per cent. of the whole population.

The foreign-born numbered 35,344, or 2·61 per cent. of the total. Of these, Europeans were the most numerous, comprising 21,273, or 60·2 per cent. of the foreign-born. Asiatics came next with 10,261, or 29·0 per cent., followed by Americans with 3,330, or 9·4 per cent., and Africans with 93, or ·3 per cent. The foreign countries which contributed the highest numbers to the population were the Chinese Empire, with 9,993; German Empire, 8,716; Sweden and Norway, 3,190; and the United States of America, 3,130.

The foreign-born population are almost entirely adults, only 4 per cent. of the males and 11 per cent. of the females being under 21. The British-born inhabitants also are composed largely of adults. The natives of New South Wales are most numerous at the younger ages, 62·5 per cent. of native-born males and 61·4 per cent. of females of the same type being under 21. Of the natives of the other Australian States living in New South Wales a little more than two-thirds are adults.

The following statement shows the proportion per cent. of the population born in various countries at each census from 1861 to 1901:—

Birthplaces.	1861.	1871.	1881.	1891.	1901.
New South Wales ... ..	45·80	58·55	62·16	64·58	72·20
Other Australian States and New Zealand ... ..	1·34	2·68	5·94	7·56	8·32
England and Wales ... ..	24·43	17·75	14·77	13·74	9·58
Scotland ... ..	5·21	3·99	3·35	3·28	2·27
Ireland ... ..	15·67	12·53	9·24	6·68	4·43
Other British Possessions ... ..	·99	·39	·50	·44	·44
<b>Total, British Empire ... ..</b>	<b>93·44</b>	<b>95·89</b>	<b>95·96</b>	<b>96·28</b>	<b>97·24</b>
German Empire ... ..	1·57	1·32	1·01	·85	·64
Other European Countries ... ..	·20	·18	·88	1·11	·93
Chinese Empire ... ..	3·71	1·43	1·36	1·17	·74
Other Foreign Countries ... ..	1·08	·90	·56	·41	·30
<b>Total, Foreign Countries ... ..</b>	<b>6·56</b>	<b>3·83</b>	<b>3·81</b>	<b>3·54</b>	<b>2·61</b>
At Sea ... ..	.....*	·28	·23	·18	·15
<b>All Countries ... ..</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>

\* Not ascertained; included with "Other Foreign Countries."

It is evident that the proportion of the Australian-born has been steadily increasing, and of the foreign and British born diminishing continuously, since 1861.

At the date of the last census 74,089 natives of New South Wales were living in the other five States and in New Zealand, and in New South Wales there were 112,099 natives of the other States, so that the excess in New South Wales of immigrants from other parts of Australasia was 38,010 persons. The distribution in each State was as follows :—

State.	Natives of each State living in New South Wales.	Natives of New South Wales living in each State.	Gain to New South Wales.	Loss to New South Wales.
Victoria ... ..	56,019	22,404	33,615	.....
South Australia ... ..	22,059	4,128	17,931	.....
Queensland ... ..	14,968	24,868	.....	9,900
New Zealand ... ..	10,589	6,492	4,097	.....
Tasmania .. ..	7,577	2,075	5,502	.....
Western Australia ... ..	887	14,122	.....	13,235
Total ... ..	112,099	74,089	61,145	23,135
			Net gain, 38,010	

Thus New South Wales gained from Victoria, South Australia, Tasmania, and New Zealand, but lost to Queensland and Western Australia.

#### COLOURED ALIEN RACES.

Restrictive legislation was already in force in New South Wales prior to the federation of the Australian States, to prevent the entry of Asiatic races. One of the first measures passed by the Federal Parliament was the Immigration Restriction Act, which provided for the exclusion from the Commonwealth of any person unable to write out and sign a passage of fifty words in a European language specified by an officer of the Customs. Under the Immigration Restriction Amendment Act of 1905, the dictation test was altered by the substitution of any prescribed language for a European language. Other undesirable persons specified in the Act are prohibited from entering the Commonwealth.

During the six years the Act has been in force, 1251 persons have been refused admittance, of whom 95 per cent. failed to pass the test. The number refused admittance in 1907 was 62, and in 1908, 108. The Act exempts certain persons in possession of certificates of exemption, His Majesty's land and sea forces, the master and crew of any public vessel of any Government, any person duly accredited by any Government, and any person who satisfies an officer of the Customs that he has been living in the Commonwealth previously.

The immigration of Pacific Islanders to Australia is now prohibited by the Pacific Islands Labourers Act, which was passed in December, 1901. This Act was particularly directed against the continued employment of these aliens on the sugar plantations, and under its provisions all agreements for their employment terminated on the 31st December, 1906. Arrangements were made during 1907 by the Commonwealth Government for the deportation to their homes of the Islanders already employed.

At the end of March, 1909, there were 235 coloured labourers engaged in the sugar industry of the northern rivers of this State.

At the census of 1901 the number of coloured persons in New South Wales was 14,833, the countries of birth being as follows. Aboriginal natives of Australia are not included :—

Birthplace.	Males.	Females.	Total.
<b>Asiatics—</b>			
*China (including half-caste) ... ..	10,590	673	11,263
India and Ceylon ... ..	1,663	18	1,681
Japan ... ..	152	9	161
Syria ... ..	454	268	722
Other Asiatics ... ..	148	5	153
<b>Total Asiatics ... ..</b>	<b>13,007</b>	<b>973</b>	<b>13,980</b>
<b>Africans—</b>			
Egypt ... ..	13	6	19
Mauritius and the Seychelles ... ..	167	89	256
Algeria (Arabs) ... ..	89	.....	89
Other Africans ... ..	16	6	22
<b>Total Africans ... ..</b>	<b>285</b>	<b>101</b>	<b>386</b>
<b>Polynesians and Melanesians—</b>			
New Caledonia ... ..	43	3	46
New Hebrides ... ..	46	2	48
Fiji ... ..	21	4	25
South Sea Islands (not otherwise described)	265	10	275
Other Polynesians ... ..	71	2	73
<b>Total Polynesians and Melanesians</b>	<b>446</b>	<b>21</b>	<b>467</b>
<b>Grand Total ... ..</b>	<b>13,738</b>	<b>1,095</b>	<b>14,833</b>

\* Includes 282 Chinese and 1033 half-castes born outside the Chinese Empire.

*Chinese.*—The most numerous of the coloured races was the Chinese, who constituted also the most important foreign element in the whole population. They were first attracted to the State by the gold discoveries, and in 1901 numbered 11,263, namely, 10,222 of full blood and 1,041 of half-caste, and were nearly all males. Prior to 1891 the half-castes were not enumerated. The number of Chinese in the State at the date of each census from 1861 to 1901 was as follows :—

Census.	Males.	Females.	Total.	Proportion per cent. of total population.
1861	12,986	2	12,988	3·70
1871	7,208	12	7,220	1·43
1881	10,141	64	10,205	1·36
1891	13,555	601	14,156	1·26
1901	10,590	673	11,263	·83

It will be seen that there has been a gradual decrease since 1871 in the proportion of Chinese. From 1861 to 1871 the decline was probably due to the diminished gold yield and the discovery of richer fields in the neighbouring States. From 1891 to 1901 the results of the Chinese Restriction Act, which was passed in 1888, are evident. In 1887, the year before the passing of the Act, the number of Chinese arriving in New South Wales was 4,436, in 1888 the arrivals were 1,848, but since that year the highest number has been 176, in 1904. Other Acts to restrict the immigration of Chinese had been passed in 1867 and 1881.

*Japanese.*—The Japanese were but a very small part of the population numbering only 152 males and 9 females, and nearly all were situated in Sydney and Newcastle, being engaged as ship and house servants.

*Indians and Cingalese.*—The coloured natives of India and Ceylon numbered 1,681, and were almost entirely males, there being only 18 females. The number was swollen by the presence of 173 Indian soldiers who had come to take part in the Commonwealth celebrations in January, 1901. The persons of these countries were to be found chiefly in the metropolis, where there were 705. In the farming and sugar-growing counties of Clarence and Rous there were 148 and 269 respectively. The Indians and Cingalese were principally hawkers, farm labourers, and lascars; mostly adults between ages 35 and 45.

*Syrians.*—Of all the coloured races the Syrians show the greatest equality of sexes, 454 males and 268 females, and unlike the other races they do not congregate much in the city. About 50 per cent. of them are hawkers, who travel all over the State; the greater part of the remainder are storekeepers and drapers in the country towns.

#### ABORIGINES.

The aborigines of Australia form a distinct race, and it may be presumed that the whole of them throughout the continent sprang from the same stock, although it is remarkable that their languages differ so greatly that tribes in close proximity are quite unable to understand each other, and almost every large community of natives has its own peculiar dialect. It is difficult to form a correct estimate of the numbers of the aborigines; but while there is reason to believe that formerly they were very numerous, there is evidence of late years that they are decreasing greatly.

Governor Phillip estimated the aboriginal population, about the year 1800, at one million, of whom about 3,000 lived between Broken Bay and Botany Bay. Although the latter estimate (3,000) was very likely correct, the quotation for the whole territory, being based on the supposition that the continent was on a par, in natural resources, with the land under his notice, was no doubt exaggerated.

The aborigines were never properly counted until the census of 1891 when they were classed as full-blood and half-caste. In 1901 only the full-blood and nomadic half-caste were counted. According to the Commonwealth Constitution Act, in reckoning the quota to determine the number of members to which the State is entitled in the House of Representatives, aboriginal natives of Australia are not counted. It has been decided that only full-bloods are aborigines within the meaning of the Act, and, consequently, in 1901 half-castes were included in the general population. In 1861 aborigines were not enumerated at all; in 1871 and 1881 the wandering tribes were passed over, and only those who were civilised or in contact with Europeans were enumerated and included in the general population. The numbers included in the population at each census were :—

Census.	Males.	Females.	Total.
1871	709	274	983
1881	938	705	1,643
1891	4,559	3,721	8,280
1901	2,451	1,836	4,287

In 1891 the number of half-castes was 1,663 males and 1,520 females. In 1901 the number of both full-bloods and half-castes was 4,093 males and 3,341 females, and of these the number of nomads was 509—259 males and 250 females.

The aboriginal race is fast disappearing, the annual rate of decrease being between two and three per cent. At the census of 1891 only 5,097 were of full blood, and this number, in 1901, had fallen to 3,778, but the half-castes had slightly increased. It is possible that some, especially those least civilised, escaped enumeration.

The number of aborigines under the control of the Aborigines Protection Board at the end of the year 1908 was 6,933, of whom 2,152 were full-blood and 4,781 half-caste. This shows a decrease on the return for the end of 1907 of 195 full-blood and an increase of 168 half-caste. The number of births reported during 1908 was 196—166 being half-caste—and the number of deaths, 170 (74 half-castes). There are nine stations under the control of managers. These establishments, when first formed, were little more than camping grounds, where the blacks worked in return for their food, and elementary instruction was imparted to the children; but now they have developed into greatly improved settlements, with adequate accommodation for teaching, duly qualified instructors having been appointed by the Department of Public Instruction. At the end of 1908 there were 291 full-blood aborigines and 1,099 half-castes living at the stations and camps under the control of Local Boards, and during the year 929 aboriginal children were receiving instruction in schools or privately. The total area of reserves from sale for the aborigines is 25,617 acres, and the annual cost for support and education is about £26,000.

#### NATURALISATION.

Until the 31st December, 1903, certificates of naturalisation were granted to aliens in accordance with the Naturalisation and Denization Act of 1898; but with the passing of the Commonwealth Naturalisation Act authority was taken away from the State, and vested exclusively in the Commonwealth Government. The Act came into operation on the 1st January, 1904.

Under the Commonwealth Act, any person is deemed to be naturalised who had, before the passing of the Act, obtained a certificate of naturalisation in any State. An applicant must make a statutory declaration giving his name, age, birth-place, occupation, residence, the length of his residence in Australia, and stating that he intends to settle in the Commonwealth; also a certificate signed by some competent person that the applicant is of good repute.

It is also enacted that any person resident in the Commonwealth, not being a British subject, and not being an aboriginal native of Asia, Africa, or the islands of the Pacific, excepting New Zealand, who intends to settle in the Commonwealth, and who has resided in Australia continuously for two years immediately preceding the application, or who has obtained a certificate of naturalisation in the United Kingdom, may apply to be naturalised.

The Governor-General may in his discretion grant or withhold a certificate, and the certificate is issued when the applicant has taken the necessary oath of allegiance.

Any person to whom a certificate of naturalisation is granted is in the same position as a natural-born British subject, provided that where, by the provisions of any State Act, a distinction is made between the rights of natural-born British subjects and those naturalised in the State, the rights conferred by the Commonwealth Act are only those to which persons

naturalised by the State Act would be entitled. Under the previously existing Act in New South Wales, aliens could hold both real and personal property, but were not eligible for any office, nor had they any rights or privileges except such as were expressly conferred upon them.

An alien woman who marries a British subject is deemed to be thereby naturalised. Any infant, not being a natural-born British subject, whose father has been naturalised, or whose mother is married to a natural-born British subject or to a naturalised person, and who has at any time resided in Australia with such father or mother, is also deemed to be naturalised.

On the whole, the conditions to be fulfilled under the Commonwealth Act do not differ greatly from those under the old State Act, but the term of residence necessary is now two years, whereas formerly it was five years. Under the Commonwealth Act, Asiatics, Africans, and Pacific Islanders are refused the rights of naturalisation: previously only the Chinese were so treated.

At the census of 1901 the number of naturalised foreigners was 3,619, viz., 3,265 males and 354 females. It is probable, however, that these numbers are under-stated. Germans have availed themselves most largely of the privileges of naturalisation, having taken out nearly one-half of the certificates granted.

The following table shows the nationalities of the persons naturalised in New South Wales during each of the last eight years:—

Nationality.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Total to end of 1908.
German ...	153	108	109	412	170	154	163	140	5,075
Scandinavian ...	163	110	89	433	113	128	105	93	2,378
Russian ...	36	37	30	148	11	18	10	40	623
Italian ...	39	31	34	116	58	44	51	38	631
Other European ...	71	53	66	239	156	83	85	77	1,675
United States ...	10	6	3	26	10	20	16	8	214
China ...	...	...	...	...	...	...	...	...	908
Others ...	35	41	69	5	26	28	28	...	560
Total ...	507	386	400	1,379	544	475	458	396	12,064

## VITAL STATISTICS.

## CONJUGAL CONDITION.

In most countries the proportion of married to the total population is somewhat in excess of one-third. In New South Wales the proportion is slightly lower, as will be seen from the following statement, giving the number and proportion of each sex of each condition at the Census of 1901 :—

Conjugal Condition.	Number.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total.
Never married ... ..	484,250	402,326	886,576	68·49	62·43	65·61
Married ... ..	202,922	206,186	409,108	28·67	32·00	30·25
Widowed ... ..	19,451	35,207	54,658	2·75	5·46	4·04
Divorced ... ..	692	708	1,400	·09	·11	·10
Not stated ... ..	2,690	414	3,104	.....	.....	.....
Total ... ..	710,005	644,841	1,354,846	100·00	100·00	100·00

There were more married women than married men in the State owing probably to the absence of the husbands, and to the fact that some women return themselves as married who are not really so. The large excess of widows over widowers is owing to the greater mortality among men, and to widowers re-marrying more often than widows. The proportion of never married is greater for males than for females.

The proportions per cent. of the never married, married, and widowed at each census from 1861 to 1901, were as shown below. The divorced are not shown on account of the smallness of the numbers, and because they were not enumerated prior to 1891 :—

Census.	Males.			Females.		
	Never Married.	Married.	Widowed.	Never Married.	Married.	Widowed.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1861 ... ..	69·34	28·23	2·43	61·09	35·14	3·77
1871 ... ..	69·96	27·59	2·45	62·89	32·82	4·29
1881 ... ..	70·64	26·93	2·43	63·52	31·75	4·73
1891 ... ..	69·78	27·41	2·78	62·87	32·11	5·00
1901 ... ..	68·49	28·67	2·75	62·43	32·00	5·46



The proportion of the never married of each sex increased at each census up to 1881, but decreased from 1881 to 1901. The married, as might be expected, showed a contrary tendency, for they decreased from 1861 to 1881; and while the males increased from 1881 to 1901, the females remained practically constant.

The average age of married people, as recorded at the census, was 43·44 years for husbands, and 39·05 years for wives, a difference of 4·39 years in favour of husbands. In 1891 the ages were respectively 41·43 and 36·96 years. The greatest number of married males at the time of the census was 34,469 at the age period 35 and under 40, whilst the greatest number of married females was 34,574 at the period 30 to 35. The following statement shows the relative ages of the husbands and wives who were together on the night of the census 1901. It appears that the number of such was 175,807. There were in addition 30,379 wives whose husbands were absent on the night of the census, and 27,115 husbands in similar circumstances as regards their wives. If these numbers be added, the totals will represent the full number of married men and women in the State :—

Ages of Husbands.	Ages of Wives.													Total Husbands.	
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70 and over.	Not stated		
Under 20 ..	61	30	1	..	..	..	..	..	..	..	..	..	..	..	92
20-24 ..	1,108	3,995	823	96	20	7	..	..	..	..	..	..	..	3	6,052
25-29 ..	727	7,518	8,725	1,535	241	34	8	2	..	..	..	..	..	2	18,792
30-34 ..	230	3,562	10,916	9,670	1,724	280	59	13	4	1	..	..	..	13	26,472
35-39 ..	72	1,239	5,411	11,534	10,136	1,843	292	62	8	1	..	..	..	15	30,613
40-44 ..	17	406	1,733	5,076	10,204	8,135	1,429	243	53	8	3	..	..	14	27,321
45-49 ..	8	114	501	1,444	4,175	7,215	5,444	1,013	200	47	12	6	..	16	20,195
50-54 ..	4	37	162	462	1,319	3,187	4,724	3,892	683	166	42	11	7	7	14,701
55-59 ..	..	7	52	171	473	1,265	2,314	3,621	2,364	558	118	22	7	7	11,472
60-64 ..	1	8	30	89	211	504	877	1,637	2,582	1,968	409	107	4	8,477	
65-69 ..	1	7	8	30	88	184	352	667	1,347	1,740	1,432	314	1	6,171	
70 and over ..	..	2	12	15	51	92	131	314	559	981	1,460	1,715	3	5,335	
Not stated ..	1	7	11	8	12	5	5	1	2	..	..	..	62	114	
<b>Total Wives ..</b>	<b>2,230</b>	<b>16,932</b>	<b>23,385</b>	<b>30,130</b>	<b>28,654</b>	<b>22,751</b>	<b>15,635</b>	<b>11,515</b>	<b>8,307</b>	<b>5,470</b>	<b>3,476</b>	<b>2,175</b>	<b>147</b>	<b>175,807</b>	

From these figures it is evident that the married females are greatly in excess of the married males at the earlier ages, but at the later ages they are considerably in the minority. The numbers of wives in the three groups between ages 25 and 40 are very nearly equal, and these groups contain 48·65 per cent. of all the married women. Of the males 47·07 per cent. are included between ages 30 and 45.

The majority of marriages were contracted between people of suitable ages, though there were, nevertheless, several anomalies. The greater number of married women were mated with husbands five years their senior, and there does not appear any decided tendency of a particular age to mate with ages showing abnormal disproportions. The husbands whose ages exceeded those of their wives by five years and under numbered 62,532, while husbands having wives of the same age-period numbered 57,162. The next group, viz., husbands having wives from five to ten years younger, contains 28,742, and there were 10,475 husbands, the ages of whose wives were higher than their own by various terms up to five years.

Of all the married couples in New South Wales, as many as 74·13 per cent. show no greater disparity than five years between the ages of husband and wife. The husbands from 10 to 15 years older than their wives numbered 9,528, and those from 15 to 20 years older, 3,227.

It is eminently undesirable in every respect that marriages should be contracted between persons of immature age. In New South Wales there is no limit fixed by law as to the marriageable age, but the Act regulating marriages provides that the guardian's consent must be obtained in the case of minors. Boys occasionally marry in New South Wales at 16, and girls at 13 or even 12, but happily such occurrences are rare, for few males contract marriage before 21, and not many females before 18. The census returns reveal the fact that the males under 21 manifest a decided preference for partners about their own period of life, whereas the wives under 18 generally marry husbands between 21 and 30. Of the husbands under 21, no less than 370 were living with their wives, and 41 of these were married to girls under 18. The total wives under 18 living with their husbands at the census were 304.

BIRTHPLACES OF HUSBANDS AND WIVES.

The following statement exhibits the number of husbands and wives of various nationalities living in the State at the census of 1901 :—

Birthplaces of Husbands.	Birthplaces of Wives.														Total Husbands.
	New South Wales.	Other Australian States.	England and Wales.	Scotland.	Ireland.	Other British Possessions.	Germany.	France.	Other European Countries.	United States of America.	Other Foreign Countries.	At Sea.	Not stated.		
New South Wales .. ..	69,115	5,670	5,265	949	2,308	148	166	24	55	134	10	173	24	84	
Other Australian States ..	7,644	7,567	1,499	325	552	53	63	12	23	43	7	46	6	17, 0	
England and Wales .. ..	15,743	4,308	16,802	1,209	2,280	170	133	59	88	106	13	119	12	41,042	
Scotland .. ..	3,160	942	1,241	3,154	627	47	31	8	10	26	4	30	1	9,281	
Ireland .. ..	4,789	977	977	284	6,959	42	30	10	12	27	1	25	8	14,141	
Other British Possessions ..	534	159	200	37	81	82	4	8	2	7	4	8	..	1,126	
Germany .. ..	1,019	350	360	59	240	8	768	4	34	9	1	7	5	2,864	
France .. ..	171	52	62	17	41	3	8	80	16	2	1	2	..	455	
Other European Countries ..	1,211	347	479	97	301	9	63	7	636	12	5	12	4	3,183	
United States of America ..	338	101	116	27	56	15	7	..	2	63	2	3	..	730	
Other Foreign Countries ..	220	67	46	7	15	1	3	3	2	2	62	..	1	429	
At Sea .. ..	320	82	73	13	43	..	4	1	1	3	2	11	..	553	
Not stated .. ..	29	6	12	1	6	..	..	..	..	..	..	1	67	122	
Total Wives .. ..	104,293	20,628	27,132	6,179	13,509	578	1,280	216	881	434	112	437	128	175,807	

The married males born in New South Wales comprised 46·83 per cent. of the total number ; and those of Australian birth generally were 57·13 per cent. Similarly, wives born in New South Wales formed 58·96 per cent. of the married females, and those of Australian birth 70·89 per cent. ; after the Australian born, the English were the most numerous, then the Irish and Scotch. Wives of foreign extraction formed only 1·70 per cent. of the married females.

The wives of Australian birth, as might be anticipated, are mostly young women. Those born outside New South Wales are older, many of them being

the survivors of those who emigrated years ago. At the census of 1901 the ages of the married women of the principal birthplaces were as follows :—

Age Group.	Birthplace.							Total.
	New South Wales.	Other Australian States.	England and Wales.	Scotland.	Ireland.	Other Countries.	Not stated.	
Under 15	2	.....	.....	.....	.....	.....	...	2
15—19 ..	2,151	255	89	23	3	38	3	2,562
20—24...	15,062	2,560	1,261	266	164	265	13	19,591
25—29...	23,395	4,796	2,604	510	708	516	19	32,548
30—34...	23,195	5,529	3,064	641	1,565	564	16	34,574
35—39...	20,029	4,994	3,930	968	2,440	696	26	33,083
40—44...	15,030	3,709	4,284	1,044	2,166	634	20	26,887
45—49...	9,161	1,627	4,729	1,045	1,520	634	19	18,735
50 and over	13,337	1,086	11,844	2,780	7,560	1,364	32	38,003
Not stated	99	22	19	7	17	3	34	201
Total	121,461	24,578	31,824	7,284	16,143	4,714	182	206,186
Per cent.	58·90	11·92	15·43	3·54	7·83	2·29	·09	100·00

From this it appears that, although wives of Australian birth comprised 71 per cent. of the whole, those aged 40 and over were less than 53 per cent. of all married women of those ages. Irishwomen were much the oldest, about 47 per cent. of them being over 50. It is therefore apparent that, unless there is a very large influx of immigrants in the near future, the mothers of Australian birth will have most influence on future generations.

#### RELIGIONS OF HUSBANDS AND WIVES.

The number of married men and women professing the principal religions, at the census of 1901, were as follows :—

Religions of Husbands.	Religions of Wives.									Total Husbands.	
	Church of England.	Roman Catholic.	Methodist.	Presbyterian.	Congregationalist.	Baptist.	Other Christian.	Jew.	Others.		Not stated.
Church of England	70,550	8,043	1,733	2,078	303	280	325	67	103	19	83,506
Roman Catholic	4,867	31,497	387	544	60	36	121	17	44	7	37,530
Methodist	1,485	548	10,556	322	62	107	126	2	25	3	19,216
Presbyterian	2,719	1,196	424	13,742	67	83	86	11	19	1	18,348
Congregationalist	393	101	83	66	2,984	44	20	1	9	..	3,701
Baptist	275	52	110	65	32	1,856	26	..	3	..	2,419
Other Christian	694	405	220	135	46	44	3,340	2	28	3	4,917
Jew	151	62	13	13	2	1	6	781	4	1	1,034
Others	1,415	780	397	230	79	92	124	8	1,781	5	4,961
Not stated	20	13	2	3	2	1	3	..	1	80	125
Total Wives	82,569	42,697	19,910	17,248	3,637	2,544	4,177	889	2,617	119	175,807

The proportions of the married belonging to the principal religions agree fairly closely with those in the general population. The Roman Catholic and "Other Christian" religions both show less proportions than in the general population, while the other religions specified show slightly higher

proportions. In considering this table it should be noted that "Other Christian" sects embrace members of the Unitarian body, and adherents of the Salvation Army, and that the last of the series covers those who did not profess attachment to any denomination, and those who objected to state the nature of their religious belief. The religion of both husband and wife was ascertained in regard to 172,931 couples, and proved to be the same in 141,918 instances—a proportion of a little over 82 per cent.

MARRIAGES.

The number of marriages celebrated in New South Wales during 1908 was 12,642 corresponding to a rate of 7·96 per 1,000 of the population. The number is the highest on record, and the rate is the highest since 1886.

The following table shows the average annual number of marriages and the rates per 1,000 of the population during each quinquennium of the last thirty-nine years:—

Period.	Average Number of Marriages.	Rate per 1,000 of Population.	Period.	Average Number of Marriages.	Rate per 1,000 of Population.
1870-74	4,091	7·77	1895-99	8,700	6·74
1875-79	4,987	7·88	1900-04	10,240	7·33
1880-84	6,738	8·39	1905	10,970	7·42
1885-89	7,679	7·67	1906	11,551	7·63
1890-94	7,954	6·80	1907	12,189	7·84
			1908	12,642	7·96

Until the year 1891 the increase in the number of marriages celebrated was remarkably steady, very few checks being experienced, but in 1892 there was a sudden decline, which continued until 1895, when the figures again took an upward movement, but the proportion married per 1,000 of the population did not reach the 1891 level until 1900. In 1901 the rate was the highest since 1886, but in the next two years it again declined largely. Since 1903, however, there has been a constant improvement.

A more exact method of stating the marriage rate is to compare the marriages with the number of marriageable males and females in the community, since the marriage rate is mainly a function of age. As stated elsewhere, however, it has not been considered advisable to make any estimates of the number living at various ages on account of the long interval since the last census.

The following statement shows the marriage rate per 1,000 of the population in each State of the Commonwealth, New Zealand, and in a number of European countries during the last six years:—

State.	1903-1907.	1908.	Country.	1902-1906.	1907.
New Zealand ...	8·44	8·82	Hungary ...	8·6	9·8
New South Wales ...	7·40	7·96	German Empire ...	8·0	8·1
South Australia ...	7·06	7·89	France ...	7·6	8·0
Tasmania ...	7·68	7·87	England and Wales ...	7·8	7·9
Western Australia ...	8·65	7·50	Italy ...	7·5	7·7
Victoria ...	7·06	7·38	Austria ...	7·8	7·6
Queensland ...	6·41	7·22	Netherlands ...	7·4	7·5
			Scotland... ..	7·0	7·0
			Norway ... ..	6·0	6·1
			Ireland ... ..	5·2	5·2

New Zealand has the highest marriage rate in Australasia, followed by New South Wales, South Australia, Tasmania, and Western Australia, in the order mentioned, with Queensland last on the list. In 1908 in all the States the rates showed a decided improvement, with the exception of Western Australia.

A comparison of the marriage-rates of various countries may be misleading, on account of the different conditions of life prevailing, and the varying number of marriageable persons therein. The figures show that in Europe, as in New South Wales, the marriage rate has been increasing. In the majority of cases the rate is equal to, or higher than that in New South Wales.

#### MARK SIGNATURES.

The number of persons signing the marriage register with marks has steadily declined for many years past. In 1870 the proportion of signatures made with marks was as high as 18·23 per cent. of the whole, while in 1908 the percentage had fallen to ·8, the decrease in illiteracy being, therefore, highly satisfactory. The amount of illiteracy, as displayed by inability to sign the marriage register in the proper manner, was for many years greater amongst females than amongst males, the returns showing that this was the case in every year from the commencement of registration to 1887. This order of things was then reversed, although in three years since there has been a slightly greater proportion of mark signatures by females. In 1870 the number of women who were unable to sign their names amounted to over one-fifth of the whole number married, but the proportion had fallen to one-hundredth in 1908. During the same period the male illiterates fell from 145 to 8 per 1,000 of the number of males married:—

Year.	Males signing with marks, per 1,000.	Females signing with marks, per 1,000.	Year.	Males signing with marks, per 1,000.	Females signing with marks, per 1,000.
1870-74	129	170	1895-99	19	17
1875-79	86	105	1900-04	12	12
1880-84	54	68	1905	11	12
1885-89	37	40	1906	10	9
1890-94	27	25	1907	10	7
			1908	8	8

#### MARRIAGES, IN RELIGIONS.

Of every hundred marriages celebrated in New South Wales, about ninety-eight are solemnised by the clergy. The actual figures for 1908 show that during that year 12,419 marriages were solemnised by clergy and 223 witnessed by registrars, giving the proportions of 98·2 per cent. and 1·8 per cent. respectively of the total number of 12,642.

The Church of England celebrates the largest number of marriages, the Roman Catholic Church coming next, followed by the Presbyterian and Methodist Churches. "Matrimonial Agencies" are institutions which have come into existence during the last ten years, and which combine the formalities of a district registrar's office with the attendance of a clergyman. As the Registrar-General two years ago refused to renew the licenses of certain clergymen, there were no marriages in these agencies in 1908, and only 92 in the previous year.

The following table shows the number and proportion per cent. of marriages registered by the several denominations during 1908, in comparison with the preceding five years :—

Denomination.	Marriages, 1903-1907.	Proportion per cent.	Marriages, 1908.	Proportion per cent.
Church of England ...	20,232	36·86	4,943	39·10
Roman Catholic ...	9,885	18·01	2,239	17·71
Presbyterian ...	7,265	13·23	1,658	13·12
Methodist ...	7,174	13·07	1,515	11·98
Congregationalist...	2,210	4·03	889	7·03
Baptist ...	1,017	1·85	209	1·65
Hebrew ...	120	0·22	32	0·25
All other Sects ...	2,742	5·00	934	7·39
Matrimonial Agencies ...	2,893	5·27	...	...
District Registrars ...	1,353	2·46	223	1·77
Total Marriages ...	54,891	100·00	12,642	100·00

In 1908 the denominations which showed an increase as compared with the previous five years were Church of England and Congregationalist. The largest increase was in the Congregationalist, followed by the group including sects not specially distinguished; the increase in this group being due to the inclusion of the "Whitefield" Congregationalists.

CONDITION BEFORE MARRIAGE.

During the year 1908, of the males married, 11,801 were bachelors, 758 were widowers, and 83 were divorced. Of the females, 11,929 were spinsters, 622 were widows, and 91 were divorced. The proportion of males re-married was 6·7 per cent., and of females 5·6 per cent.

The following table shows at quinquennial intervals since 1881 the proportion of first marriages and re-marriages per 10,000 males and females respectively :—

Period.	Bachelors.	Widowers and Divorced Men.	Spinsters.	Widows and Divorced Women.
1881	9,087	913	9,044	956
1886	9,137	863	9,156	844
1891	9,229	771	9,216	784
1896	9,184	816	9,172	828
1901	9,270	730	9,268	732
1906	9,262	738	9,352	648
1907	9,341	659	9,387	613
1908	9,335	665	9,436	564

From this it appears that the proportion of persons re-marrying has declined in both sexes by about one-third since the earliest period in the table, the tendency being for the widows' rate to decrease at a slightly greater rate. There was a rise in the proportion between 1891 and 1896, which was followed by a larger fall during the next five years, so that the proportion of remarriages was lower in 1901 than in 1891.

AGE AT MARRIAGE.

Of the 12,642 couples married in 1908, the ages of 12,638 bridegrooms and of 12,635 brides are known. An examination of the figures shows that in 73·8 per cent. of the marriages the husband was older than the wife; in 9·5 per cent. the ages of the contracting parties were the same; while in the remaining 16·7 per cent. of the unions the bride was older than the bridegroom.

The results of a tabulation of the respective ages of bridegrooms and brides in 1908 are shown in the following table:—

Ages of Bridegrooms.	Ages of Brides.											Total.	
	Under 18.	18.	19.	20.	21 — 24	25 — 29	30 — 34	35 — 39	40 — 44	45 — 49	50 and over.		Not stated
Under 18 years ..	6	2	3	..	5	..	..	..	..	..	..	..	16
18 years ..	22	9	6	4	9	2	..	..	..	..	..	..	52
19 „ ..	31	49	36	12	30	2	3	..	..	..	..	..	163
20 „ ..	46	46	54	41	87	10	4	1	..	..	..	..	289
21—24 ..	234	341	437	445	1,934	453	55	11	..	..	..	..	3,910
25—29 ..	93	160	231	317	1,851	1,324	248	41	15	4	..	1	4,285
30—34 ..	26	38	61	79	553	652	320	88	14	3	1	1	1,336
35—39 ..	12	13	26	26	224	293	207	128	37	12	4	1	983
40—44 ..	2	5	7	8	60	96	112	96	55	20	6	1	468
45—49 ..	2	4	3	2	22	44	66	79	46	26	12	..	306
50 and over ..	1	..	2	..	10	27	42	50	46	51	101	..	330
Not stated ..	..	..	..	..	..	1	..	..	..	..	..	3	4
Total ..	475	667	866	934	4,785	2,904	1,057	494	213	116	124	7	12,642

The following statement shows the average age at marriage of both bridegrooms and brides for each of the last ten years. The difference between the ages at marriage of males and females is about four years, the males being the older.

Year.	Average age of Bridegrooms.	Average age of Brides.	Year.	Average age of Bridegrooms.	Average age of Brides.
	Years.	Years.		Years.	Years.
1899	29·31	24·98	1904	29·00	24·93
1900	29·15	25·03	1905	29·13	24·96
1901	29·08	24·91	1906	29·23	25·08
1902	29·25	25·03	1907	29·20	25·20
1903	29·20	25·04	1908	29·12	25·19

The average age at marriage, both of bridegrooms and brides, has remained practically constant during the last ten years, although there has been a slight tendency to a lower average on the part of bridegrooms.

The above figures relate to all persons marrying during the year, and include those re-marrying. The average ages of those marrying for the first time during 1908 were, of bachelors 28 years, and of spinsters 24·6 years, being about twelve months lower in the case of bridegrooms and eight months lower in the case of brides.

#### MARRIAGE OF MINORS.

The number of persons under 21 years of age married during 1908 was 3,462, or 13·7 per cent. of the total. The proportion of bridegrooms who were minors was 4·1 per cent., and of brides 23·3 per cent. The proportion of bridegroom minors, although lower than the two previous years, was considerably above the average, while in the case of the brides the proportion

was slightly below the average. The figures for the last ten years are appended:—

Year.	Minors.		Percentage of—	
	Bride-grooms.	Brides.	Bride-grooms.	Brides.
1899	262	2,202	2·82	23·74
1900	294	2,297	2·94	22·98
1901	351	2,546	3·33	24·16
1902	309	2,372	2·95	22·62
1903	320	2,249	3·28	23·05
1904	395	2,506	3·79	24·05
1905	434	2,654	3·96	24·19
1906	497	2,837	4·30	24·56
1907	577	2,949	4·73	24·19
1908	520	2,942	4·11	23·27

An examination of the records for the last thirty years shows that the proportion of minors marrying is increasing among bridegrooms, and the brides show a slight tendency to decrease.

#### BIRTHS.

The number of births during 1908 was 42,525, equal to a rate of 26·77 per 1,000 of the total population. The actual number of births was the highest ever recorded, but the rate was lower than the average for the preceding ten years. The birth-rate, which fell away sharply after 1888, has been declining more or less ever since, and is now 28 per cent. below the figure for that year. The following table shows the average annual number of births and birth-rate per 1,000 of the total population in quinquennial periods since 1870:—

Year.	Births.	Birth-rate per 1,000 of Population.	Year.	Births.	Birth-rate per 1,000 of Population.
1870-74	20,733	39·36	1895-99	37,042	28·68
1875-79	24,388	38·51	1900-04	37,498	26·85
1880-84	30,417	37·89	1905	39,501	26·71
1885-89	36,877	36·85	1906	40,948	27·04
1890-94	39,550	33·80	1907	42,195	27·14
			1908	42,525	26·77

These rates are based on the total population—that is, not taking into consideration either the age or sex distribution. It is unsatisfactory, for several reasons, so to measure the birth-rate; a preferable method, and one often adopted, is to calculate the number of legitimate births per 1,000 married women of reproductive ages (from 15 to 45). Unfortunately, however, the number of persons living in various age groups is ascertained only at the census. In intervening years it is necessary to make an estimate, which becomes less reliable as the period from the census increases. Estimates of sections of the population depend on a double assumption, viz. that the proportion of that section to the total population, and also the proportion at each age, remain the same as at the census, and are therefore still less reliable. It has, therefore, been considered inadvisable to make any estimate for so late a period as 1908, which is seven years from the last census, but up to the time of that census the rates based on the number of married women show similar results to that in the above table, except that proportionately the decline since 1888 is greater than shown there.



The birth-rate per 1,000 of the population of each State of the Commonwealth, of New Zealand, and of a number of European countries, during the last six years, is given in the following table:—

State.	1903-1907.	1908.	Country.	1902-1906.	1907.
Tasmania ... ..	29·35	30·89	Hungary ... ..	36·8	36·0
Western Australia ... ..	30·02	28·90	Austria... ..	35·2	33·9
New Zealand ... ..	27·04	27·45	German Empire ... ..	33·8	32·2
<i>New South Wales</i> ... ..	<i>26·61</i>	<i>26·77</i>	Italy ... ..	32·4	31·4
Queensland ... ..	26·18	26·71	Netherlands ... ..	31·2	30·0
South Australia ... ..	23·96	24·73	Scotland ... ..	28·6	27·0
Victoria ... ..	24·85	24·51	England and Wales ... ..	27·8	26·3
			Norway ... ..	28·0	26·3
			Ireland... ..	23·3	23·2
			France ... ..	21·0	19·5

In Australasia Victoria has the lowest and Tasmania the highest rate. The comparatively high rate in the Western State is due to the larger proportion of married women of child-bearing ages in its population. Generally the decline, which has characterised the birth-rates not only of Australian but also of European countries, has continued. The birth-rate for Australia is lower than in most of the countries of the old world, but, as will be shown subsequently, this is more than counteracted by a much lower death-rate.

#### BIRTH-RATES—METROPOLIS AND COUNTRY.

Dividing the State into metropolitan and country districts, there were during 1908, in the former, 14,861 births, and in the latter 27,664, corresponding to rates of 25·42 and 27·56 per 1,000 of population respectively. The country has shown a higher rate than the metropolis since 1893, but prior to that year the converse was the case:—

Year.	Number of Births.			Births per 1,000 of Population.		
	Metropolis.	Country.	New South Wales.	Metropolis.	Country.	New South Wales.
1880-84	49,058	103,026	152,084	40·16	36·90	37·89
1885-89	65,866	118,517	184,383	41·50	34·69	36·85
1890-94	68,754	128,998	197,752	34·11	33·63	33·80
1895-99	61,224	123,986	185,210	26·73	29·75	28·68
1900-04	63,694	123,795	187,489	25·20	27·78	26·85
1905	13,769	25,732	39,501	25·95	27·14	26·71
1906	13,984	26,964	40,948	25·66	27·82	27·04
1907	14,334	27,861	42,195	25·28	28·22	27·14
1908	14,861	27,664	42,525	25·42	27·56	26·77

The highest rate exhibited for the whole of New South Wales during the last twenty-nine years was 38·65 in 1880. The maximum rate for the metropolis was reached in 1884, when the births were 43·88 per thousand of the population; and in the country districts the greatest number of births in proportion to the population occurred in 1880, when the rate was 38·73 per thousand.

The rate has been declining in both districts, but not to the same extent in the country as in the metropolis. In the metropolis there was a heavy fall from 1890 to 1894, and again from 1895 to 1899; in the country there was a corresponding fall, but it began earlier than in the metropolis. During the previous three years the rate had declined in the metropolis and increased in the country districts, but in 1908 the reverse was the case.

SEXES OF CHILDREN.

Of the 42,525 children born during the year, 21,643 were males and 20,882 were females, the proportion being 104 males to 100 females; and in no year, so far as observation extends, have the female births exceeded in number those of males, although the difference has sometimes been very slight. The preponderance of births of male children in New South Wales during a number of years will be seen from the table given below. The figures are exclusive of children stillborn, the births of which are not registered:—

Year.	Males.	Females.	Persons.	Year.	Males.	Females.	Persons.
1870-74	10,577	10,156	20,733	1895-99	18,979	18,063	37,042
1875-79	12,477	11,911	24,388	1900-04	19,134	18,364	37,498
1880-84	15,567	14,850	30,417	1905	20,206	19,295	39,501
1885-89	18,898	17,979	36,877	1906	21,066	19,882	40,948
1890-94	20,324	19,226	39,550	1907	21,616	20,579	42,195
				1908	21,643	20,882	42,525

The excess of males over females born during the past thirty-nine years has ranged from 2 per cent. in 1875, 1876, and 1901, to 8 per cent. in 1889, the average being 4.9 per cent.

The following table shows the number of males born to every 100 females, both in legitimate and illegitimate births during the last thirty-nine years:—

Year.	Legitimate Births.	Illegitimate Births.	All Births.	Year.	Legitimate Births.	Illegitimate Births.	All Births.
1870-74	104.3	101.0	104.1	1895-99	105.0	105.4	105.1
1875-79	104.6	108.8	104.8	1900-04	104.3	102.8	104.2
1880-84	104.9	103.9	104.8	1905	104.9	102.5	104.7
1885-89	105.4	98.8	105.1	1906	106.2	103.1	106.0
1890-94	105.7	105.4	105.7	1907	105.0	105.3	105.0
				1908	103.4	107.1	103.6

Generally speaking, in illegitimate births there is a greater equality of the sexes than in legitimate, and in some years they actually show a majority of female children, such instances having occurred three times during the last twenty years. It is a curious coincidence that the proportion of males born out of wedlock was abnormally low in 1886, and abnormally high in 1901, while the reverse was the case in regard to legitimate births in those years.

ILLEGITIMACY.

The number of illegitimate births in 1908 was 2,932, equal to 6.89 per cent. of the total births. A statement of the illegitimate births in New South Wales, distinguishing metropolitan and country districts since 1880, is given below, and taking the whole period over which the table extends, it will be seen that the proportion has constantly increased throughout the State, notably in the city and suburbs of Sydney:—

Year.	Number of Illegitimate Births.			Percentage of Total Births.		
	Metropolis.	Country Districts.	New South Wales.	Metropolis.	Country Districts.	New South Wales.
1880	561	665	1,226	6.72	3.36	4.35
1890	1,056	995	2,051	7.81	3.91	5.26
1900	1,222	1,383	2,605	10.08	5.53	7.01
1905	1,530	1,382	2,912	11.11	5.37	7.37
1906	1,457	1,425	2,882	10.42	5.28	7.04
1907	1,546	1,423	2,969	10.79	5.11	7.04
1908	1,545	1,387	2,932	10.40	5.01	6.89

It is possible that the smaller proportion of illegitimate births noticeable in the country districts is caused by natural gravitation of mothers to the metropolis, and the presence of maternity hospitals in the capital.

The method of stating the illegitimate as a proportion of the total births is, however, somewhat erroneous, because the illegitimate births have no necessary relation to the legitimate births, and because they are compared with a standard which has been declining for several years, and which is likely to vary under any conditions. The proportion of illegitimate to legitimate births has increased because the number of legitimate births relatively to the population has decreased largely.

A much more exact method, is the comparison of births with the number of unmarried females of the reproductive ages. As stated previously, however, it is not advisable to do this at the present time on account of the remoteness of last census period. In place of the rate based on the number of unmarried females, that based on the whole population is given in the following statement at quinquennial intervals since 1881.

Year.	Illegitimate Births per 1,000 of Population.	Year.	Illegitimate Births per 1,000 of Population.
1881	1·65	1901	1·98
1886	1·74	1905	1·96
1891	1·85	1906	1·90
1896	1·92	1907	1·91
		1908	1·85

According to these figures illegitimacy very slowly increased up to 1901, and has since declined. The impression as to increase, conveyed by the method of the preceding table of comparing the illegitimate with the total births, is thus removed.

Illegitimacy is a social evil, and the following figures show with what calamitous results it is attended. The table appended gives, for 1908, and for the five years preceding, the death-rates of illegitimate children under 1 and under 5 years of age, as compared with legitimate children of like ages:—

Age.	Legitimate.		Illegitimate.		Total.	
	Deaths.	Rate per 1,000 living.	Deaths.	Rate per 1,000 living.	Deaths.	Rate per 1,000 living.
Under 1 year—						
1902-1907	14,362	78·33	2,768	198·69	17,130	86·83
1908	2,656	67·08	567	193·38	3,223	75·78
Under 5 years—						
1902-1907	19,753	25·21	3,218	66·21	22,971	27·60
1908	3,553	20·59	658	57·49	4,211	22·89

It will be seen how unfavourable is the position, and how small is the chance of living of the illegitimate child as compared with the legitimate. At each age the death-rate of the illegitimate is more than twice that of the legitimate. In 1908 one-fifth of the illegitimate children born did not live through the first year.

An Act was passed in 1902 to legitimise children born before marriage on the subsequent marriage of their parents. Under the provisions of this Act such children are deemed to be legitimate on registration, and are entitled to the status of children born in wedlock. In all 1,188 such registrations have been made, 6 in 1902, 158 in 1903, 173 in 1904, 175 in 1905, 191 in 1906, 247 in 1907, and 238 in 1908.

## PLURAL BIRTHS.

During the year 1908 there were two cases of triplets, consisting of 3 males and 3 females, and 432 cases of twins, 426 males and 436 females—in all, 868 children, two born dead not being included. Of the 434 cases of plural births, 410 were legitimate and 24 illegitimate. The number of children born as triplets and twins formed 2·04 per cent. of the total births.

The following table shows the number of cases of twins, triplets, and quadruplets born in New South Wales during the sixteen years 1893–1908, excluding those stillborn, and distinguishing legitimate and illegitimate :—

Cases of—	Legitimate.	Illegitimate.	Total.
Twins ... ..	5,929	316	6,245
Triplets ... ..	54	4	58
Quadruplets ... ..	3	...	3

The total number of confinements recorded during the sixteen years was 610,805. It follows, therefore, that per 1,000,000 confinements there were 10,224 cases of twins, 95 cases of triplets, and 5 cases of four children at a birth. Stated in another way, there were 10·3 plural births in every 1,000 total births.

The smallest proportion of plural births is found amongst women below age 20; the proportion increases steadily with the age of the mothers until it reaches a maximum with women between the ages of 35 and 40 years, after which there is a decline, but the decline does not bring the ratio back to its starting-point, for at ages 45 to 50 the plural births are 1 to every 113 confinements recorded, whereas under 20 years the proportion is 1 to 196.

The results of the observations for the sixteen years 1893–1908 will be found in the following table; the figures refer to legitimate births only :—

Age Group of Mothers.	All Births.	Plural Births.	Plural Births per 1,000 of all Births.
Under 20 years ... ..	21,920	112	5·11
20–24 „ ... ..	128,436	820	6·38
25–29 „ ... ..	160,543	1,551	9·66
30–34 „ ... ..	129,013	1,702	13·19
35–39 „ ... ..	89,993	1,330	14·78
40–44 „ ... ..	35,291	438	12·41
45 years and over... ..	3,738	33	8·83

It is a remarkable fact that of 5,986 plural births, 3,503 occurred to mothers whose ages were 30 years or upwards; this gives a proportion of 59 per cent., whereas of all legitimate births only 45 per cent. occurred at those ages.

## NATURAL INCREASE.

The excess of births over deaths, or as it is called the “Natural Increase,” was 26,435 in 1908, and the highest yet recorded. The excess of births over deaths does not show a steady increase or decrease, but fluctuates somewhat, as might be expected. In the whole State during the twenty-nine years from 1880 to 1908, the least excess was 16,886 in 1882, and the highest 26,435 in the year 1908. In the metropolis the least excess was in 1880, viz. 3,434, and the highest in 1908, when the number reached 8,825. In the

country districts the number ranged from 12,278 in 1882 to 17,692 in 1906:—

Year.	Natural Increase.					Increase Per cent. of population at end of previous year.
	Metropolis.	Country Districts.	Whole of State.			
			Males.	Females.	Total.	
1899	6,728	13,832	9,482	11,078	20,560	1.55
1900	6,625	15,403	10,013	12,015	22,028	1.64
1901	6,404	15,450	9,822	12,032	21,854	1.60
1902	7,065	14,124	9,787	11,402	21,189	1.54
1903	6,836	12,633	8,949	10,520	19,469	1.38
1904	7,540	15,767	11,124	12,183	23,307	1.63
1905	7,999	16,524	11,497	13,026	24,523	1.68
1906	8,281	17,692	12,351	13,622	25,973	1.74
1907	8,096	17,689	12,187	13,598	25,785	1.68
1908	8,825	17,610	12,320	14,115	26,435	1.68

The natural increase is now  $1\frac{3}{4}$  per cent., as against  $2\frac{1}{4}$  per cent. twenty years ago, the falling-off being due entirely to the decline in the birth-rate, as there has been a constant improvement in the death-rate.

Although the males born are more numerous than the females, the actual increase of population from the excess of births over deaths is greatly in favour of the females. The male population exceeds the female, and there is a correspondingly larger number of deaths of males. There is also a greater mortality rate amongst male than amongst female children, and from this cause alone the natural excess of male births is almost neutralised. During the ten years which closed with 1908 the number of females added to the community by excess of births exceeded the males by 16,059, or 15 per cent.

Although the rate of natural increase in New South Wales is low as compared with that of twenty years ago, it is not exceeded by any country outside Australasia, as will be seen from the following table. The figures represent the birth and death rates, and the difference between them (the natural increase) per 1,000 of population in each country—in the Australian States and New Zealand for 1908, and in the other countries for 1907:—

Country.	Birth-rate.	Death-rate.	Natural Increase.	Country.	Birth-rate.	Death-rate.	Natural Increase.
Tasmania ...	30.9	11.7	19.2	Denmark ...	28.3	14.2	14.1
Western Australia ...	28.9	10.7	18.2	Victoria ...	24.6	12.5	12.1
New Zealand ...	27.5	9.6	17.9	England and Wales ...	26.3	15.0	11.3
New South Wales...	26.8	10.1	16.7	Austria ...	33.9	22.7	11.2
Queensland ...	26.7	10.2	16.5	Scotland ...	27.0	16.2	10.8
Russia (1901) ...	47.9	32.1	15.8	Italy ...	31.4	20.8	10.6
Netherlands ...	30.0	14.6	15.4	Switzerland ...	26.8	16.8	10.0
Roumania...	41.7	26.7	15.0	Spain ...	32.9	24.0	8.9
South Australia ...	24.6	9.8	14.8	Ireland...	23.2	17.7	5.5
German Empire ...	32.2	18.0	14.2	France ...	19.7	20.2	(-0.5)

It will be seen that the countries with the highest birth-rate have not necessarily the highest rate of natural increase. The increase in population also depends upon the death-rate, which to a considerable extent is influenced by the birth-rate. New South Wales, owing to its exceptionally favourable death-rate, stands fourth on the list, being exceeded by Tasmania, Western Australia, and New Zealand.

#### AGES OF MOTHERS.

During the sixteen years 1893-1908 the ages of the women giving birth to children ranged from 11 to 58 years. As might be expected, the majority of the very young mothers were unmarried; thus of 7,861 mothers under 18

years of age, 4,183 were unmarried. The total number of married women who gave birth to children during the sixteen years was 568,963, the ages of whom were as follow: The proportion of mothers at each age per 10,000 of all ages is also shown:—

Ages of Married Mothers.	Number of Mothers.	Number of Mothers at each age per 10,000 of total Mothers.	Ages of Married Mothers.	Number of Mothers at each age per 10,000 of total Mothers.	Number of Mothers.
Years.			Years.		
13	1	...	25	32,598	573
14	17	...	26	32,947	579
15	121	2	27	32,329	568
16	772	14	28	32,541	572
17	2,767	49	29	30,128	530
18	6,495	114	30-34	129,013	2,268
19	11,747	206	35-39	89,993	1,582
20	15,852	279	40-44	35,291	620
21	22,397	394	45 years and over	3,738	66
22	27,040	475	Not stated	29	...
23	30,752	540			
24	32,395	569	Total ...	568,963	10,000

In two cases the age of the mother is stated as 55 years; in another case as 56 years; and in another as 58. As these four cases were outside the usual experience, inquiries were made, with the result that the accuracy of the records was confirmed. It may be mentioned that in the first two cases the ages of the fathers were 45 and 55 years; in the third case, 58 years; and in the fourth case, 64 years. It is found that the ages of the mothers of one-fourth of the children born do not exceed 25 years, and that before women pass their twenty-ninth year they give birth to one-half their offspring. Twenty-three per cent. of the births occur after age 35, and less than 7 per cent. after age 40 is reached.

Similar information regarding the ages of the fathers might also be shown, but is omitted because the age of the mother is the great predominant factor in deciding the number of children who will be born.

The mothers of illegitimate children are in some cases very young, as will be seen from the following table, which shows the ages of the mothers who gave birth to illegitimate children during the sixteen years 1903-1908. The proportion of mothers at each age per 10,000 of all ages is also shown:—

Ages of Unmarried Mothers.	Number of Mothers.	Number of Mothers per 10,000.	Ages of Unmarried Mothers.	Number of Mothers.	Number of Mothers per 10,000.
Years.			Years.		
11	1	...	27	1,343	321
12	2	...	28	1,216	291
13	23	5	29	1,026	245
14	119	28	30	1,000	239
15	440	105	31	595	142
16	1,210	289	32	702	168
17	2,388	571	33	601	144
18	3,427	819	34	597	143
19	4,113	983	35	576	138
20	3,948	943	36	507	121
21	3,871	925	37	397	95
22	3,287	786	38	430	103
23	2,847	680	39	358	86
24	2,312	553	40 and over.	800	191
25	1,965	470	Not stated..	117	28
26	1,624	388	Total.....	41,842	10,000

Two-thirds of the illegitimate children are born of mothers between the ages of 15 and 25, and more than one-half to women aged from 17 to 22.

## DEATHS.

The deaths during 1908 numbered 16,090, equal to a rate of 10·13 per 1,000 of the population, which is 7·3 per cent. below the mean rate of the last ten years. This total includes 9,323 males and 6,767 females, so that amongst males the rate was 10·97, and amongst females 9·16 per 1,000, living of each sex. The average annual number of deaths of each of the sexes, with the rate per 1,000, in quinquennial periods, from 1870 is given below.

Period.	Average Annual Number of Deaths.			Death-rate per 1,000 of total Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1870-74	4,391	2,948	7,339	15·58	12·32	13·93
1875-79	6,199	4,360	10,559	17·99	15·10	16·67
1880-84	7,286	5,124	12,410	16·55	14·14	15·46
1885-89	8,461	6,043	14,504	15·43	13·36	14·49
1890-94	8,877	6,344	15,221	14·06	11·77	13·01
1895-99	9,002	6,514	15,516	13·11	10·77	12·01
1900-04	9,195	6,733	15,928	12·50	10·18	11·40
1905	8,709	6,269	14,978	11·10	9·03	10·13
1906	8,715	6,260	14,975	10·81	8·84	9·89
1907	9,429	6,981	16,410	11·35	9·64	10·55
1908	9,323	6,767	16,090	10·97	9·16	10·13

The death-rate has fallen continuously amongst both sexes, but slightly more for males than females. The death-rate for males is, however, about one-sixth higher than for females, the reason being that males are exposed to more risks than females, and that male infants are the more delicate. It will be noticed that the death-rate has declined largely since the period 1890-94, and is thus coincident with the decline in the birth-rate. The falling birth-rate has influenced the death-rate in so far as it has affected the age constitution of the population by reducing the proportion living at the first five years where the mortality is high, and at the same time increased the proportion living at ages from 5 to 20 where the mortality is low. The decline in the death-rate is also coincident with the inauguration of the metropolitan sewerage scheme, as mentioned below.

For comparative purposes a table of the death-rates per 1,000 for each of the Australian States, New Zealand, and a number of European countries during the last six years is given below:—

State.	1903-1907.	1908.	Country.	1902-1906.	1907.
Victoria ... ..	12·20	12·46	Hungary ... ..	26·1	25·2
Tasmania ... ..	11·08	11·71	Austria ... ..	23·9	22·7
Western Australia	11·63	10·74	Italy ... ..	21·7	20·8
Queensland ... ..	10·56	10·23	France ... ..	19·5	20·2
<i>New South Wales</i>	<i>10·54</i>	<i>10·13</i>	German Empire	19·4	18·0
South Australia ...	10·20	9·72	Ireland ... ..	17·4	17·7
New Zealand ... ..	9·90	9·57	Scotland... ..	16·5	16·2
			England and Wales	15·7	15·0
			Netherlands ...	15·6	14·6
			Norway ... ..	14·3	14·2

New South Wales occupies the third place on the list for 1908, more favourable rates being shown by New Zealand and South Australia.

The comparatively favourable conditions of Australasia will be manifest from an inspection of these rates.

It might have been expected that in any case the rates in the European countries would be higher than in New South Wales on account of the larger proportions of old persons in their populations, but in addition it must be remembered that some of the endemic scourges of the old world are unknown in Australia; also apart from climatic conditions, which are most favourable here, the social condition of the great body of the people is far superior to that of Europeans, and their occupations on the whole more healthful.

## DEATHS—METROPOLIS AND COUNTRY.

It is not possible to show the exact difference between urban and rural mortality in New South Wales, but an approximate idea may be obtained from considering the experience of the metropolis and the country districts, although a few large towns are contained in the latter. Separating the State, therefore, into these two broad divisions, there were, during 1908, 6,036 deaths in the metropolis and 10,054 in the country, corresponding to the rates of 10·32 and 10·01 per 1,000 living respectively. The average annual number of deaths and the rate per 1,000 in each of these divisions since 1880, in five-year periods, is given in the subjoined table:—

Period.	Metropolis.		Country Districts.		New South Wales.	
	Average Number of Deaths.	Rate per 1,000.	Average Number of Deaths.	Rate per 1,000.	Average Number of Deaths.	Rate per 1,000.
1880-84	5,033	20·60	7,377	13·21	12,410	15·46
1885-89	6,181	19·47	8,323	12·18	14,504	14·49
1890-94	5,979	14·83	9,242	12·05	15,221	13·01
1895-99	5,634	12·30	9,882	11·86	15,516	12·01
1900-04	5,845	11·57	10,083	11·31	15,928	11·40
1905	5,770	10·87	9,208	9·71	14,978	10·13
1906	5,703	10·46	9,272	9·57	14,975	9·89
1907	6,238	11·00	10,172	10·29	16,410	10·55
1908	6,036	10·32	10,054	10·01	16,090	10·13

In both metropolis and country the rate has steadily improved, but very much more in the metropolis, so that there the rate is now very little higher than in the country districts, whereas twenty years ago it was 50 per cent. higher. The fall began in the metropolis after 1889, the year when the improved sewerage system was installed, and about the same time that the Dairies Supervision Act came into operation. The decline in the rates for each division and for the State during the twenty years will be further emphasized when it is stated that the metropolitan rate fell from 19·5 to 10·3 per 1,000, or 47·2 per cent. The rate in country districts declined from 12·2 to 10·0 or 18 per cent., and for the whole State from 14·5 to 10·1 or 30·3 per cent.

## MORTALITY OF INFANTS AND YOUNG CHILDREN.

A further measure of the mortality in the metropolis and country, offering a most sensitive test is obtained by a comparison of the death-rates of infants in each district.

*Children under 1 year.*—The number of children under 1 year of age who died in 1908 was 3,223, equal to a rate of 75·8 per 1,000 births. This rate is below that of the previous year, but is slightly above that of 1906 (the lowest on record), and is 19 per cent. below the mean rate for the last ten years. Male infants died at the rate of 84·2 per 1,000 births, and female infants at the rate of 67·1 per 1,000 births. To the total the metropolis contributed 1,229 deaths, or 82·8 per 1,000 births, and the country, 1,994, or 72·1 per 1,000 births.



The next table gives the average annual number of deaths of children under 1 year, in quinquennial periods since 1880, in the metropolis and country, and the proportion per 1,000 births.

Period.	Metropolis.		Country.		New South Wales.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,707	174·0	1,956	94·9	3,663	120·4
1885-89	2,168	164·6	2,253	95·2	4,424	120·0
1890-94	1,908	138·8	2,471	95·8	4,379	110·7
1895-99	1,646	134·4	2,572	103·7	4,218	113·9
1900-04	1,416	111·2	2,399	96·9	3,815	101·7
1905	1,230	89·3	1,952	75·9	3,182	80·6
1906	1,176	84·1	1,876	69·6	3,052	74·5
1907	1,380	96·3	2,360	84·7	3,740	88·6
1908	1,229	82·8	1,994	72·1	3,223	75·8

The infantile mortality rate has improved more in the metropolis; in fact, up to 1900, in the country districts it was increasing. In the year 1904 there was a large decrease in both divisions compared with the rate for the previous five years, and this improvement continued in 1905 and 1906. In 1907 the rate took an upward movement, greater in the country than in the metropolis, but in 1908 the rate again declined. The rate in the country districts has always been more favourable than that in the metropolis, although the difference now is not nearly so great as twenty, or even ten, years ago.

Of the total number of deaths of infants under 1 year of age, more than one-fourth die within a week of birth; by the end of the first month the proportion is over one-third, and after three months it reaches three-fifths. Judging by the experience of the last five years, it may be said that 1 in every 46 children born dies within a week of birth. The following statement shows for 1908, in comparison with the average of the five preceding years, the deaths per 1,000 births during each of the first four weeks after birth, and then for each succeeding month. The experience in the metropolis is distinguished from that in the country districts, and the sexes are taken together. Also for the year 1907, illegitimate children are distinguished from legitimate for the State as a whole.

Age.	Metropolis.		Country.		New South Wales.			
	1903-07.	1908.	1903-07.	1908.	1903-07.	1908.		
						Legitimate.	Illegitimate.	Total.
Under 1 week ... ..	23·6	21·9	21·8	21·3	22·5	20·4	36·5	21·5
1 week ... ..	5·1	4·8	4·3	3·5	4·5	3·7	7·1	3·9
2 weeks ... ..	3·8	3·6	3·2	3·0	3·4	2·8	8·9	3·2
3 " ... ..	2·7	2·7	2·4	2·2	2·5	2·2	4·1	2·4
Total under 1 month	35·2	33·0	31·7	30·0	32·9	29·1	56·6	31·0
1 month ... ..	9·6	6·6	7·7	6·6	8·3	5·4	22·5	6·6
2 months ... ..	8·0	6·1	6·5	4·9	7·0	4·1	21·1	5·3
3 " ... ..	7·9	7·1	6·0	5·1	6·7	4·3	25·6	5·8
4 " ... ..	7·0	6·9	5·1	4·8	5·8	4·5	20·1	5·5
5 " ... ..	5·6	4·7	4·6	4·5	5·0	4·0	13·0	4·5
6 " ... ..	5·2	4·7	4·3	3·7	4·6	3·6	10·2	4·0
7 " ... ..	4·3	3·1	3·8	3·1	3·9	2·8	6·5	3·1
8 " ... ..	4·1	3·0	3·6	2·0	3·8	2·3	3·1	2·4
9 " ... ..	3·9	3·4	3·2	2·7	3·4	2·7	7·2	3·0
10 " ... ..	2·9	2·2	2·9	2·6	2·9	2·4	3·1	2·5
11 " ... ..	2·8	2·0	2·3	2·1	2·5	1·9	4·4	2·1
Total under 1 year ...	96·5	82·8	81·7	72·1	86·8	67·1	193·4	75·8

In the first week of life the mortality is more than five times as great as in the second, third, or fourth weeks. From the first month to the second the mortality falls rapidly, and from the second to the twelfth gradually. Comparing the mortality in the two divisions of the State—metropolitan and country—it is seen that at every stage of life children die more quickly in the metropolis. In 1908 the metropolitan rate was 82·8 and the country 72·1 per 1,000 births, the latter being 13 per cent. lower than the former. At the earlier ages the difference was least, the metropolitan rate being about one-tenth higher during the first four weeks. After the first month the difference fluctuated, but was greater in the metropolis at every age except the first, seventh, tenth, and eleventh months.

*Children under 5 years.*—Taking account of the first five years of life, it is found that there has also been a great improvement in the rates for those ages, and, at the same time, it is apparent that the excessive total death-rate in the metropolis as compared with the country districts is caused by the deaths in this group. At every period in the table the metropolitan rate is the higher—in some cases over 50 per cent., and never below 11 per cent. in excess.

The following table shows the mortality in each division, in quinquennial periods, since 1890, of children under 5 years of age:—

Period.	Metropolis.		Country.		New South Wales.	
	Number.	Rate per 1,000 living.	Number.	Rate per 1,000 living.	Number.	Rate per 1,000 living.
1890-94	13,370	48·48	17,728	31·43	31,098	37·03
1895-99	11,027	40·94	17,436	30·63	28,463	33·94
1900-04	9,233	36·02	16,049	29·41	25,282	31·52
1905	1,555	28·55	2,588	23·30	4,143	25·02
1906	1,499	26·70	2,549	22·45	4,048	23·86
1907	1,857	32·18	3,168	27·19	5,025	28·84
1908	1,548	24·71	2,663	21·95	4,211	22·89

The improvement in the metropolis has been greater than in the country; in the former the rate has decreased by 49 per cent. since 1890, and in the latter by 30 per cent. In the country the rate did not vary a great deal until 1904, when there was a large decline, which has continued. During the last eighteen years there has been a saving of the lives of 24 in every 1,000 children under 5 years of age in the metropolis and 9 in every 1,000 in the country.

INDEX OF MORTALITY.

In order to compare the death-rates of New South Wales with those of the other Australian States on a uniform basis, the death-rate of each State (index of mortality) has been calculated on the assumption that its population contained the same proportion at each of five age groups (under 1, 1 to 19, 20 to 39, 40 to 59, 60 and over) as was contained in the population of Australia as a whole at the census of 1901. Similarly in obtaining the index of mortality of each capital city, the mean population in 1901 of all the capital cities was taken as a standard.

The indexes of mortality during 1908 were found to be as follows, and for purposes of comparison the crude rates are attached:—

State.	Index of Mortality.	Crude Death-rate.	City.	Index of Mortality.	Crude Death-rate.
New South Wales ...	10·35	10·13	Sydney ...	10·58	10·32
Victoria ...	11·42	12·46	Melbourne ...	12·85	13·77
Queensland ...	11·00	10·23	Brisbane ...	10·84	10·22
South Australia ...	9·79	9·72	Adelaide ...	11·35	11·82
Western Australia ...	9·39	10·74	Perth ...	16·55	15·91
Tasmania ...	11·46	11·71	Hobart ...	13·63	15·02

Leaving out Perth and Hobart there is not a great difference between the rates of the Australian cities. Sydney has the most favourable index of mortality of all the capitals, and New South Wales is third amongst the States. In Perth the rate is high in all age-groups. South Australia has the lowest crude rate, and Victoria the highest; but the adjusted rate shows Victoria in a much better position.

#### AGES AT DEATH.

The age and sex distribution of a population are most important factors in determining the death-rate; for instance, the rates at ages 5 to 50 are lower than for the whole population, so that a country with a high proportion at those ages, as in New South Wales, might expect to have a low death-rate. Again, a country with a high proportion of females will most likely have a favourable death-rate.

It has already been pointed out that results based on estimates of the numbers living in various age groups at periods remote from a census must be used with caution. And, therefore, no rates of that description are given in this report. It has been considered advisable to wait until after the next census in 1911, when the rates may be discussed with more definiteness.

#### CAUSES OF DEATH.

One of the most important sections of vital statistics is that relating to causes of death, and in the following discussion the principal diseases in New South Wales are treated in detail.

Until 1906, the system of classifying the causes of death was that adopted by the Registrar-General, England. In 1906, however, at a conference of Australian Statisticians, it was agreed to adopt the Bertillon classification, and causes of death in New South Wales are now tabulated according to that classification. The Bertillon system differs in many cases from the old, and in some rather materially, so that a comparison of the results in 1906, 1907, and 1908 with previous years is, to some extent, impaired.

In the following table will be found the principal causes of death arranged in order of fatality, together with the average number of deaths from similar causes during the previous five years, due allowance having been made for the increase in population:—

Causes of Death.	Number, 1908.	Average Number, 1903-07.	Causes of Death.	Number, 1908.	Average Number, 1903-07.
Organic Diseases of Heart	1,432	1,172	Convulsions (under 5) ...	192	242
Endocarditis ...	152		Suicide ... ..	187	188
Diarrhoea and Enteritis (under 2) ... ..	1,144	1,233	Influenza ... ..	168	222
Diarrhoea and Enteritis (over 2) ... ..	325	326	Meningitis ... ..	151	174
Cancer ... ..	1,058	1,063	Diphtheria and Croup ...	140	156
Old Age ... ..	1,015	1,037	Intestinal Obstruction ...	138	137
Tuberculosis—Lungs ...	1,008	1,169	Diabetes ... ..	126	106
Accidents ... ..	938	903	Cirrhosis of the Liver ...	125	105
Pneumonia ... ..	835	1,009	Appendicitis ... ..	121	114
Bright's Disease ... ..	646	679	Congenital Malformations	91	107
Premature Birth ... ..	641	603	Gastritis ... ..	89	104
Congenital Debility ...	507	588	Dysentery ... ..	80	111
Hæmorrhage, &c., of the Brain ... ..	495	504	Acute Rheumatism ... ..	77	78
Bronchitis ... ..	469	618	Embolism and Thrombosis	71	61
Typhoid Fever ... ..	307	305	Epilepsy ... ..	71	69
Puerperal Condition ...	304	290	Syphilis ... ..	61	56
			Others ... ..	2,926	3,036
			All Causes ...	16,090	16,565

Of the six most numerous causes, there was an increase in diseases of the heart, which may have been caused by the changes in classification. Of other important causes pulmonary tuberculosis, pneumonia, Bright's disease, bronchitis, and hæmorrhage of the brain showed decreases.

As regards diseases ordinarily fatal to infants, there were decreases in diarrhoea and enteritis, congenital debility, convulsions, and malformations, and an increase in premature birth.

In the succeeding tables the changes in the important diseases are dealt with separately.

#### TYPHOID FEVER.

The number of deaths from typhoid fever during 1908 was 307, equivalent to 1.93 per 10,000 living, which is equal to the rate for the previous five years. As this is essentially a preventable disease, and readily yields to sanitary precautions, the rate is still high, notwithstanding the great improvement in the last seventeen years. The number of deaths and rates since 1884 have been as stated below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88 ...	1,356	5.12	1,115	5.13	2,471	5.13
1889-93 ...	959	3.11	714	2.74	1,673	2.94
1894-98 ...	1,107	3.27	731	2.46	1,838	2.89
1899-1903 ...	1,054	2.91	733	2.25	1,787	2.60
1904 ...	139	1.82	110	1.63	249	1.72
1905 ...	150	1.91	89	1.28	239	1.62
1906 ...	153	1.90	118	1.67	271	1.79
1907 ...	112	1.35	77	1.06	189	1.22
1908 ...	194	2.28	113	1.53	307	1.93

The decrease between 1888 and 1893 was very marked, and is to be traced to the influence of the Dairies Supervision Act, which began to operate in 1889. From 1889 to 1903 the rate was very even, and did not decline to any extent. During the previous four years there was a very considerable improvement, but in 1908 the rate increased and was the highest since 1903.

The next statement gives the rate in the metropolis and in the country districts during the last fifteen years, and, contrary to what might have been expected, the rate in the metropolis has been only about two-thirds of that in the remainder of the State. It would appear that the drainage of some of the country towns is very defective, and the water supply less pure than in the metropolis.

Period.	Metropolis.		Country Districts.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98 ..	507	2.26	1,331	3.24
1899-1903 ...	426	1.73	1,361	3.09
1904... ..	66	1.26	183	1.98
1905... ..	62	1.17	177	1.87
1906... ..	63	1.16	208	2.15
1907... ..	61	1.08	128	1.30
1908... ..	82	1.40	225	2.24

Most deaths occur in the summer and autumn. In 1908 there were 114 deaths in the summer months, December, January, February, and 117 in the autumn months, March, April, May.

## MEASLES.

Measles was the cause during 1908 of 32 deaths, equal to a rate of .2 per 10,000 living. The rate for males was .15, and for females .26, the female rate being the higher, which is the usual experience. The following statement shows the deaths from measles and the rate per 10,000 living, for each sex, arranged in quinquennial periods since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	166	.63	165	.76	331	.69
1889-93	393	1.28	369	1.41	762	1.34
1894-98	338	1.00	324	1.09	662	1.04
1899-1903	160	.44	219	.67	379	.55
1904	12	.16	9	.13	21	.15
1905	14	.18	15	.22	29	.20
1906	5	.06	12	.17	17	.11
1907	38	.46	52	.72	90	.58
1908	13	.15	19	.26	32	.20

Measles is a disease chiefly affecting children, and is periodically epidemic. The rates would be more accurately stated if the deaths were compared with the children living of like ages. However, taking the table as it stands, it will be seen that the disease during 1908 was much less fatal than in the preceding year, and the rate was lower than the average of the previous four years. The high rates during the second and third periods were due to severe outbreaks in 1893 and 1898.

## SCARLET FEVER.

In 1908 the number of deaths from this disease was 40, equivalent to a rate of .25 per 10,000 of the population, which is 17 per cent. lower than the rate during the previous five years. The number of deaths in the metropolis was 21, and in the remainder of the State 19, the equivalent rates being .36 and .19 respectively per 10,000 living in each, which is a slight departure from the usual experience, which discloses a rate in the metropolis about three times as large as in the country districts. Since 1884 the deaths from scarlet fever and the rates for each sex have been as follows:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	287	1.08	342	1.57	629	1.30
1889-93	185	.60	236	.90	421	.74
1894-98	162	.48	218	.73	380	.60
1899-1903	84	.23	114	.35	198	.29
1904	22	.29	28	.41	50	.35
1905	9	.11	12	.17	21	.14
1906	23	.29	19	.27	42	.28
1907	14	.17	12	.17	26	.17
1908	20	.24	20	.27	40	.25

Over the whole period the deaths from scarlet fever show a steady and most satisfactory decrease in both sexes. Generally the rate for females is higher than for males. Like measles, it is an epidemic disease chiefly affecting children.

## WHOOPING-COUGH.

Whooping-cough is another of the diseases which chiefly affect children, and is more fatal to girls than boys. During 1908 the deaths numbered 58, of which 36 were of girls, and 22 of boys. The rate was 0·37 per 10,000 living, 71 per cent. below the average of the previous five years. In 1907 whooping-cough was epidemic, and 594 cases proved fatal, the rate being the highest since 1878. The deaths and rates for each sex since 1884 have been as stated below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	327	1·24	472	2·17	799	1·66
1889-93	495	1·61	666	2·55	1,161	2·04
1894-98	343	1·01	502	1·69	845	1·33
1899-1903	573	1·58	726	2·23	1,299	1·89
1904	59	·77	88	1·29	147	1·02
1905	3	·04	2	·03	5	·03
1906	4	·05	6	·08	10	·07
1907	281	3·38	313	4·32	594	3·82
1908	22	·26	36	·49	58	·37

Taking the whole period covered by the table, this disease does not show any marked tendency to decline, the rates being maintained by epidemics, the last being, with the exception of 1878, the most severe yet experienced.

## DIPHTHERIA AND CROUP.

Diphtheria, with which is included membranous croup, was the cause of 123 deaths in 1908, while croup, so defined, was responsible for 17. The rate for 1908 was ·88 per 10,000 living, which is 10·2 per cent. below the rate for the previous five years. In the metropolis the number of deaths was 40, and in the remainder of the State 100, corresponding to rates of ·68 and 1·0 per 10,000 living in each. The following table shows the number of deaths and the rates in five-year periods since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	1,069	4·04	980	4·51	2,049	4·25
1889-93	1,433	4·65	1,399	5·36	2,832	4·98
1894-98	712	2·10	710	2·39	1,422	2·24
1899-1903	310	·86	299	·92	609	·89
1904	111	1·45	76	1·11	187	1·29
1905	56	·72	59	·85	115	·78
1906	55	·69	61	·86	116	·77
1907	68	·82	79	1·09	147	·95
1908	77	·91	63	·85	140	·88

Until 1893 the rate did not show very much diminution, but it has since declined considerably, and is now less than one-fourth of what it was twenty years ago.

## NOTIFIED DISEASES.

The following statement shows the total number of cases of notifiable diseases reported to the Board of Health, with regard to the metropolitan district during the years 1899 to 1908, together with the death-rate and the fatalities per 100 cases:—

Diseases.	Notified Cases.		Deaths.		Fatality per cent. (= Deaths per 100 cases).
	Number.	Rate per 10,000 of Population.	Number.	Rate per 10,000 of Population.	
Scarlet-fever ... ..	12,563	24.0	196	0.4	1.6
Diphtheria ... ..	5,714	10.9	413	0.8	7.2
Typhoid Fever ... ..	6,937	13.3	726	1.4	10.5

It is interesting to compare this result with the experience of London, where the fatality from scarlet-fever is 2.7 per cent. of notified cases, from diphtheria 10.7 per cent., and from enteric 16.0 per cent. These diseases are more virulent in their effects in London, in the first case being nearly twice as fatal as in Sydney, and in the other two about one and a half times.

## PHTHISIS.

Phthisis, or pulmonary tuberculosis, with 1,008 victims, caused 6.3 per cent. of the total deaths. This is equivalent to 6.35 per 10,000 living, the rate amongst males being 6.24 and amongst females 6.47 per 10,000. In 1907 the rate was lower than ever before, but in 1908 a slight rise occurred, due to the increased mortality amongst females.

The table below shows the deaths from this disease and the rates for each sex since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,132	11.83	2,022	9.30	5,154	10.69
1889-93	3,269	10.61	1,925	7.38	5,194	9.13
1894-98	3,191	9.43	1,983	6.68	5,174	8.15
1899-1903	3,322	9.18	2,304	7.09	5,626	8.19
1904	653	8.55	503	7.37	1,156	7.99
1905	638	8.13	399	5.75	1,037	7.01
1906	609	7.56	398	5.62	1,007	6.65
1907	555	6.68	406	5.61	961	6.18
1908	530	6.24	478	6.47	1,008	6.35

It will be observed that during the whole period of the table the rate declined amongst males, but after declining amongst females down to 1898 it then showed an upward tendency. Since 1904, however, there has been a marked improvement. The decrease in the number of deaths from phthisis and other forms of tuberculosis has taken place since the passing of the Dairies Supervision Act of 1886, the Diseased Animals and Meat Act of 1892, and the Public Health Act of 1896, and may be attributed to their operation. The Board of Health is empowered by these Acts to supervise dairies and the production of milk, cream, butter, and cheese, and to prevent the sale of tuberculous meat.

If the deaths be distinguished in the two divisions of the metropolis and the country districts, as in the following table, it will be seen that the rate in the former is 16 per cent. higher than in the latter :—

Period.	Metropolis.		Country Districts.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98	2,302	10·26	2,872	6·99
1899-1903	2,490	10·04	3,136	7·14
1904	498	9·49	658	7·14
1905	437	8·23	600	6·33
1906	425	7·80	582	6·00
1907	418	7·37	543	5·50
1908	406	6·94	602	6·00

The Australian climate is certainly favourable to those who suffer from pulmonary diseases, and a large number of persons suffering from phthisis visit Australia in search of relief. Many of these are in the last stages of the disease, and succumb after a short residence in the State. The figures for the year 1908 show that out of the 1,008 persons who died from phthisis, 666 were born in Australia, and of the remainder, 38 had been resident in the Commonwealth less than five years, 59 from five to twenty years, and 219 for more than twenty years; in 26 instances neither birth-place nor length of residence was stated.

Of the total persons dying from this disease 523, or 52 per cent. (253 males and 270 females), were married, the families born to some of them being rather large. The experience of the last ten years shows that the average number of children to married males who died from phthisis was 3·97, and to married females 3·83. Over 77 per cent. of the issue born to these persons survived them.

Phthisis is the most deadly of all diseases, and the following comparison of the rates in various countries is interesting. The rates are stated per 1,000 of total population, and thus do not take specifically into account either age or sex, which are rather material factors. If anything, this omission makes the comparison more favourable to New South Wales and other Australian States, where the proportion of aged persons is smaller than in the countries of the old world. There is also possibly a variation in the methods of classification of the deaths in the various countries.

Country.	Death-rate per 1,000 of Total Population.		Country.	Death-rate per 1,000 of Total Population.	
	1897-1906.	1907.		1897-1906.	1907.
Servia ... ..	2·63	.....	Italy ... ..	1·20	1·24
Ireland ... ..	2·14	2·12	Victoria ... ..	1·13	·96
Norway ... ..	2·02	.....	<i>New South Wales</i>	·86	·62
German Empire ... ..	1·97	.....	South Australia ... ..	·83	·76
Switzerland ... ..	1·88	.....	Queensland ... ..	·81	·64
Scotland ... ..	1·51	.....	New Zealand ... ..	·80	·67
Netherlands ... ..	1·45	1·30	Western Australia ... ..	·72	·78
Belgium ... ..	1·26	.....	Tasmania ... ..	·66	·63
England and Wales ... ..	1·25	1·14			



New South Wales stands sixth from the bottom of the above list. The rate in all the European countries is higher than in New South Wales, and the five with lower rates are all Australasian States. The experience of the countries in the table, with the exception of Servia, is similar to that of New South Wales, namely, that the rate is decreasing. In Servia the rate is very high, and shows no tendency to decrease.

The author has published, in a separate pamphlet, a statistical analysis of the mortality from tubercular diseases during the thirty-three years, 1876 to 1908. The experience of the whole period shows that the mortality has been heavier amongst males than females, the death-rates heavier in the metropolis than in the country, and the increase of the disease higher for females than for males up to the age of 40 years, and above that age the male incidence is the higher.

A comparison of the death-rates in individual years of the period shows that the time of the greatest absolute rate in all classes, geographical or sexual, or as to time of life, was about the year 1885, and the present-day figures show the lowest rates. An improvement is observable in every age group, but it is mainly to the infantile group that the marked decline in the death-rate must be ascribed. The country rates were uniformly less than the metropolitan, and the female less than the male. Of the different types of tuberculosis, phthisis provides the great bulk of the mortality.

#### CANCER.

There were 1,058 deaths from cancer in 1908, equal to a rate of 6.66 per 10,000 living, which is slightly below the average for the preceding five years. The deaths during the year were 537 amongst the males and 521 amongst the females, the rates being 6.32 and 7.05 per 10,000 living of each sex respectively.

It would appear that cases of cancer are increasing in New South Wales much faster than might be expected from the actual increase in population, so that during the last twenty years the rates have been doubled. It has been stated that the more skilful diagnosis of late years, especially of internal cancer, may account for part of the increase; but how far this is so it is impossible to say, and there seems to be no doubt that the spread of cancer is real. The following table shows the deaths and rates per 10,000 living for each sex since 1884:—

Period.	Males.		Females.		Deaths.	Rate per 10,000.
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.		
1884-88	859	3.25	732	3.37	1,591	3.30
1889-93	1,262	4.10	1,038	3.98	2,300	4.04
1894-98	1,719	5.09	1,387	4.68	3,106	4.89
1899-1903	2,295	6.34	1,877	5.77	4,172	6.07
1904	457	5.98	497	7.28	954	6.60
1905	525	6.69	440	6.34	965	6.53
1906	520	6.45	507	7.16	1,027	6.78
1907	632	7.61	453	6.26	1,085	6.98
1908	537	6.32	521	7.05	1,058	6.66

The rates have increased steadily, although the female rate fluctuates to some extent. Generally the male rate is the higher, which is contrary to the experience of the United Kingdom, where the female rate preponderates.

The ages of the deceased ranged from 10 months to 90 years, but cancer is essentially a disease of old age; 94 per cent. were aged 35 and over.

Of the 1,058 persons dying in 1908, 871—409 males and 462 females—were married, and of these 763 left families. From the experience of the last ten years it is found that the average family of married males who died of cancer was 5.86 children, and of married females 5.63 children, and that 76 per cent. survived their parents.

Included under the heading cancer are the deaths due to other malignant forms: Carcinoma to the number of 396; epithelioma, 74; sarcoma, 59; malignant tumour, 15; rodent ulcer, 10; scirrhus, 12; colloid, 1; and others described as malignant disease, 181; leaving 310 which were described as cancer.

The principal parts of the body affected appear to be the stomach, liver, and intestines amongst males; and the uterus, stomach, intestines, breast, and liver amongst females. The following table, showing the principal parts affected in various ages for each 10,000 deaths, is based on the experience of the last five years. In several instances more than one part was affected at the same time:—

Part affected.	AGE GROUP.						All Ages.
	Under 35.	35-44.	45-54.	55-64.	65-79.	80 & over.	
MALES.							
Head and Neck ...	37	41	109	120	221	56	584
Face and Jaw ...	26	49	120	176	378	94	843
Mouth and Throat ...	19	49	124	187	296	41	716
Tongue ...	8	37	86	169	232	11	543
Intestines ...	67	124	221	240	498	53	1,203
Liver ...	34	64	187	352	431	49	1,117
Kidney ...	34	15	52	82	259	26	468
Stomach ...	71	258	622	1,042	1,349	112	3,454
Others, and not stated ..	154	71	158	236	371	82	1,072
	450	708	1,679	2,604	4,035	524	10,000
FEMALES.							
Head and Neck ...	25	4	17	33	25	8	112
Face and Jaw ...	8	21	25	41	99	62	256
Mouth and Throat ...	12	8	25	21	41	17	124
Breast ...	50	240	368	376	347	75	1,456
Intestines ...	45	161	306	356	534	70	1,472
Liver ...	79	70	199	368	463	62	1,241
Kidney ...	25	17	16	29	25	8	120
Stomach ...	50	137	326	529	707	79	1,828
Uterus ...	124	426	778	500	467	54	2,349
Ovary ...	29	29	41	29	21	...	149
Others, and not stated...	87	128	227	199	211	41	893
	534	1,241	2,328	2,481	2,940	476	10,000

It is evident that cancer has an overwhelming tendency to invade the mammary and generative organs of females, the proportion of cases occurring in those parts being no less than 49 per cent. for all ages. The head, face, and neck, which are largely attacked amongst males, escape comparatively lightly among females.

Cancer is probably the most feared of all diseases, inasmuch as no specific remedy is known, and in all countries for which there are records the death-rate is on the increase. In the following table the rates based on the whole population are given for certain countries. The comparison, being uncorrected for age incidence, is somewhat crude, but is apparently favourable to the Australian States.

Country.	Death-rate per 1,000 of Total Population.		Country.	Death-rate per 1,000 of Total Population.	
	1897-1906.	1907.		1897-1906.	1907.
Switzerland ... ..	1·29	.....	South Australia ...	·64	·70
Netherlands ... ..	·96	1·02	<i>New South Wales</i> ...	·61	·70
Norway ... ..	·92	.....	Tasmania ... ..	·55	·62
England and Wales ...	·85	·91	Italy ... ..	·54	·61
Scotland ... ..	·83	.....	Queensland ... ..	·52	·65
German Empire ... ..	·74	.....	Western Australia ...	·43	·50
Victoria ... ..	·73	·80	Hungary ... ..	·36	·42
New Zealand ... ..	·73	·73	Servia ... ..	·09	.....
Ireland ... ..	·66	·76			

In this comparison there are six with rates lower than New South Wales of which three are outside Australia. In all the above countries the rate shows a tendency to increase.

#### HÆMORRHAGE OF THE BRAIN.

To cerebral hæmorrhage and apoplexy there were due 495 deaths, of which 272 were males and 223 females. The rate is 3·12 per 10,000 living, 3·2 for males and 3·02 for females, in each case being slightly above the average. The following table shows the rates for these diseases for each sex in quinquennial periods since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	778	2·97	467	2·15	1,245	2·58
1889-93	796	2·58	618	2·37	1,414	2·48
1894-98	943	2·79	710	2·39	1,653	2·60
1899-1903	1,050	2·90	788	2·42	1,838	2·68
1904	190	2·49	159	2·33	349	2·41
1905	268	3·42	210	3·03	478	3·23
1906	242	3·00	193	2·72	435	2·87
1907	331	3·98	254	3·51	585	3·76
1908	272	3·20	223	3·02	495	3·12

Generally the male rate is a little higher than the female. There has been slight difference in the rate for many years—it has fluctuated, first with a tendency to decrease down to 1895, and then to increase. Possibly the variations in the rate are due to some extent to differences in classification.

#### INSANITY.

Insanity is classed as a distinct disease of the nervous system, but of the total number of deaths of insane persons in 1908 only 188 deaths appear in the tables as due to insanity (including general paralysis of the insane), the remaining deaths being attributed to their immediate cause.

The death-rate of persons dying from insanity, including general paralysis of the insane, per 10,000 living, was 1·53 in the case of males, and ·47 in the case of females.

Practically all the insane persons in New South Wales are under treatment in the various Hospitals for the Insane. At the end of 1908 there were 5,673 persons under official control and receiving treatment. This is equal to 3·53 insane persons per 1,000 of population. The average number during the preceding five years was 3·51.

The percentage of deaths of insane persons in New South Wales is comparatively light. The following table has been computed on the basis of the average number of patients resident in Hospitals for the Insane :—

Period.	Males.		Females.		Persons.	
	Deaths in Hospitals for Insane.	Proportion of average number resident.	Deaths in Hospitals for Insane.	Proportion of average number resident.	Deaths in Hospitals for Insane.	Proportion of average number resident.
1894-98	782	6·86	366	5·18	1,148	6·21
1899-1903	1,021	7·77	465	5·54	1,486	6·91
1904	243	8·35	127	6·69	370	7·70
1905	222	7·40	120	6·11	342	6·89
1906	271	8·66	117	5·70	388	7·49
1907	269	8·32	113	5·32	382	7·13
1908	275	8·42	136	6·26	411	7·56

Insanity is rarely fatal before the age of puberty, and the death-rate is greater amongst males than females.

There were 248 married persons amongst the insane, viz., 152 males and 96 females, and of these 124 males and 81 females had issue. Taking the experience of the last ten years as a guide, the average number in a family of the married insane is 3·90. Of the insane who died during 1908, 124 persons, or about one-fourth of the whole, were aged 65 years and upwards.

DISEASES OF THE HEART.

Diseases of the heart, which include pericarditis, endocarditis, organic diseases, and angina pectoris, were the cause of 1,629 deaths, equivalent to a rate of 10·25 per 10,000 living. Of the total, 970 were males and 659 females, the rate 11·42 and 8·92 per 10,000 living respectively. The deaths and death-rates for each sex since 1884 are shown below :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,149	8·12	1,390	6·39	3,539	7·34
1889-93	2,250	7·30	1,357	5·20	3,607	6·34
1894-98	2,434	7·19	1,478	4·98	3,912	6·16
1899-1903	2,917	8·06	1,932	5·94	4,849	7·06
1904	661	8·65	469	6·87	1,130	7·81
1905	644	8·21	485	6·99	1,129	7·64
1906	696	8·63	507	7·16	1,203	7·94
1907	820	9·87	607	8·38	1,427	9·18
1908	970	11·42	659	8·92	1,629	10·25

This table shows that heart disease, on the whole, is on the increase, although it may be that part of the increase is due to a better acquaintance with the action of the heart, and that many deaths which were formerly attributed to old age are now referred to some form of heart disease.

The death-rate for males is higher than for females, probably due to the greater risks and shocks to which males are exposed. Among both sexes there was a large increase in the rate after 1898.

The ages of the persons who died ranged up to 109 years; and, as might be expected, the great majority of deaths occurred after middle age had been passed, 1,309 of the deaths being of persons over 45 years of age.

#### PNEUMONIA.

The total deaths from pneumonia were 835 equal to a rate of 5.26 per 10,000 living. Included in the total are 252 deaths which were ascribed to broncho-pneumonia. Among males the rate was 5.86, and among females 4.56 per 10,000 living of each sex respectively. The rate is 17 per cent. below the average of the previous five years. Pneumonia is more fatal to males than to females, as the following table, giving the rates by sexes, since 1884, shows:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,032	7.68	1,301	5.98	3,333	6.91
1889-93	2,158	7.00	1,373	5.26	3,531	6.21
1894-98	2,514	7.43	1,528	5.15	4,042	6.37
1899-1903	3,191	8.81	2,000	6.15	5,191	7.55
1904	578	7.57	393	5.76	971	6.71
1905	550	7.01	352	5.07	902	6.10
1906	557	6.91	327	4.62	884	5.84
1907	633	7.62	415	5.73	1,048	6.74
1908	498	5.86	337	4.56	835	5.26

There has been little reduction in the mortality for some years. There was a drop after 1888, but it then steadily increased, with a few fluctuations, to the highest point on record in 1902. The rates, however, for the last six years have been much below the figure for that year. Most deaths occur in the cold weather. In 1908 there were 317 deaths, or 38 per cent. in the three months June to August. Pneumonia is most destructive amongst young children and old persons.

#### DIARRHŒA AND ENTERITIS.

In 1908 there were ascribed to these two causes 1,469 deaths, or 9.25 per 10,000 living, which is 5.8 per cent. lower than the average of the preceding five years. For males the rate was 9.88 and for females 8.53 per 10,000 living of each sex. The following table gives the deaths and rates of males and females since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,412	12.89	3,048	14.02	6,460	13.40
1889-93	3,451	11.20	2,851	10.92	6,302	11.07
1894-98	4,042	11.94	3,638	12.26	7,680	12.09
1899-1903	4,422	12.22	3,901	12.00	8,323	12.11
1904	626	8.19	590	8.65	1,216	8.41
1905	663	8.45	528	7.60	1,191	8.05
1906	837	10.38	621	8.77	1,458	9.63
1907	749	9.02	631	8.72	1,380	8.88
1908	839	9.88	630	8.53	1,469	9.25

There was a large drop in the rate after 1888, probably due to the influence of the Dairies Supervision Act. During the next fifteen years there was a gradual increase, but in 1904 a very great improvement ensued, which has since been fairly maintained.

According to the Bertillon classification, deaths from these diseases are divided into two groups, one including children under 2 years of age, and the other all persons 2 years of age and over. In the first group there were 1,144 or 78 per cent. of the total, and in the second 325. Compared with the average rates of the preceding five years there was a decline in the mortality of children under 2, the rate being 14·91 as against 16·16 per 1,000 children living at those ages. Of the total deaths from these causes, 603, or 41 per cent., occurred in the three months, January, November, and December; and 541, or 37 per cent., in February, March, and April. As a rule, over 50 per cent. of the deaths occur in the summer quarter.

#### DISEASES OF DIGESTIVE SYSTEM.

The deaths referred to these diseases numbered 2,265, equivalent to 14·26 per 10,000 living, the rates for males and females being 15·10 and 13·29, as compared with 13·74 and 13·14 respectively, the rates during the preceding five years. Deaths in this system were ascribed mainly to diarrhoea and enteritis, which have already been discussed. Other principal causes were: gastritis, with 89 deaths, or 0·56 per 10,000 living, which was more fatal to males than to females; and gastric ulcer with 26, which was more fatal to females; appendicitis, with 121 deaths, or 0·76 per 10,000, which was more fatal to males, the most dangerous period being between the ages of 10 and 30; cirrhosis and other diseases of the liver, with 232 deaths, or 1·46 per 10,000 living—the majority due to cirrhosis, which is much more prevalent among males than females, and is of interest in connection with the subject of intemperance; and peritonitis, without further description, which caused 51 deaths, equivalent to 0·32 per 10,000 living.

#### BRIGHT'S DISEASE.

Of the 879 deaths due to diseases of the urinary system, 646 were caused by Bright's disease, and 49 by acute nephritis. Taking these two diseases together, the rate was 4·38 per 10,000 living, for males 5·21 and for females 3·41. In 1908 the rate was 2·6 per cent. above the quinquennial average. The changes in the rates of these two diseases, acute and chronic nephritis, will be seen below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	626	2·37	386	1·78	1,012	2·10
1889-93	907	2·94	570	2·18	1,477	2·60
1894-98	1,291	3·81	821	2·77	2,112	3·33
1899-1903	1,659	4·58	996	3·06	2,655	3·86
1904	422	5·52	236	3·46	658	4·55
1905	413	5·26	234	3·37	647	4·38
1906	389	4·83	227	3·20	616	4·07
1907	389	4·68	250	3·45	639	4·11
1908	443	5·21	252	3·41	695	4·38

During the whole period covered by the table the rate, both for males and females, has been practically doubled. The male rate is about half as high again as for females. Not many persons under 35 die from nephritis, the proportions per cent. for 1908 being: under 35, 17·1; and over 35, 82·9.

## DEATHS IN CHILD-BIRTH.

The number of deaths of women in 1908 from the diseases of child-bed was 304, corresponding to a rate of 7·1 per 1,000 births. Of these, 87 were due to puerperal septicæmia, 84 to accidents of pregnancy, and 72 to other puerperal accidents. On the whole, the deaths resulting from various diseases and casualties incident to child-birth are about 7 per 1,000 births, or 1 death to every 143 births. During the sixteen years ended 1908, the deaths were as follows:—

Cause of Death.	1893-1896.	1897-1900.	1901-1904.	1905-1908.	1893-1908.	
					Total Deaths.	Proportion due to each cause.
						per cent.
Accidents of Pregnancy ...	132	197	176	280	785	18·18
Puerperal Hæmorrhage ...	142	159	135	106	542	12·55
Puerperal Septicæmia ...	369	362	378	295	1,404	32·51
Albuminuria and Eclampsia ...	100	126	113	141	480	11·11
Phlegmasia Alba Dolens ...	7	7	1	7	22	·51
Other Casualties of Child-birth	265	272	255	294	1,086	25·14
	1,015	1,123	1,058	1,123	4,319	100·00

Owing to the changes in classification of causes of death, the figures for the last four years are not quite on the same basis as those for previous years, but the differences are only slight.

During the sixteen years, 1893-1908, of the 4,319 women who died from diseases of child-birth, 3,877 were married, and 442 single, and as there were during this period 568,963 legitimate and 41,842 illegitimate births—reckoning cases of twins and triplets as single births—it follows that amongst married women the fatal cases average 6·8 per 1,000 births, or 1 in 147, and amongst single women 10·6 per 1,000, or 1 in 95.

## VIOLENCE.

During the year 1,236 persons met with violent deaths. This corresponds to 7·68 per cent. of the total deaths, and is equal to a rate of 7·78 per 10,000 living, which is 6·7 per cent. above the mean rate for the previous five years. The mortality rate from violence amongst males is nearly three times as great as for females, since of the 1,236 deaths of this kind, 951, equal to 11·19 per 10,000 living, were of males, and 285, equal to 3·86 per 10,000, were of females.

*Accident or Negligence.*

The number of fatal accidents during the year was 938, viz., 704 of males and 234 of females, equal to rates of 8·29 and 3·17 per 10,000 living of each sex. Accidental deaths have always been very numerous in the country. Of the total number registered during 1908, 273 occurred in the metropolis and 665 in the country districts, and as a rule about three-fourths of the accidents occur in the country, which contains about two-thirds of the total population.

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

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,550	13·41	944	4·34	4,494	9·32
1889-93	3,666	11·90	966	3·70	4,632	8·14
1894-98	3,498	10·33	1,095	3·69	4,593	7·23
1899-1903	3,432	9·47	1,103	3·39	4,535	6·59
1904	545	7·13	202	2·96	747	5·16
1905	536	7·47	237	3·41	823	5·57
1906	672	8·34	177	2·50	849	5·61
1907	636	7·66	205	2·83	841	5·41
1908	704	8·29	234	3·17	938	5·90

Thus, although the accident rate is still high, it has been steadily decreasing, and among males the fall has been more rapid than amongst females. In 1908 the rate showed an increase of 6·9 per cent. as compared with the average of the previous five years. For the years prior to 1894 the rates are really slightly lower than are shown in the table, because certain causes formerly classed as accidents are now recorded elsewhere.

Experience shows that out of every 1,000 accidents 172 are due to burns or scalds, 155 to drowning, 123 to vehicles and horses, 80 to weather agencies, 67 to falls, 65 to railways and tramways, and 60 to mines and quarries. Among males the greater number are due to drowning, and among females to burns or scalds.

#### *Suicide.*

The number of deaths due to this cause during 1908 was 187, equal to a rate of 1·18 per 10,000 living, which is equal to the average of the previous five years. The number of males was 160, equal to a rate of 1·88 per 10,000 living, and of females 27, equal to 0·37 per 10,000, so that the rate for males is about five times as great as that of the females.

The tendency to suicide, as evidenced below, shows little variation.

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	428	1·62	96	·44	524	1·09
1889-93	519	1·68	110	·42	629	1·11
1894-98	679	2·01	169	·57	848	1·34
1899-1903	651	1·80	142	·44	793	1·16
1904	156	2·04	29	·42	185	1·28
1905	132	1·68	38	·55	170	1·15
1906	135	1·67	40	·56	175	1·16
1907	136	1·64	26	·36	162	1·04
1908	160	1·88	27	·37	187	1·18

The means usually adopted by men for self-destruction are shooting, poisoning, drowning, stabbing, or hanging. Amongst women, weapons are avoided, and poison has been the means most often used; the poisons selected being those which cause the maximum of pain, such as strychnine, arsenic, and phosphorus. Out of every 100 cases, during the last five years, 32 are by shooting, 26 by poisoning, 16 by hanging, 12 by stabbing, and 10 by drowning.



## VITAL STATISTICS.

Of the suicides during 1908, 85 (46 per cent.) of the males, and 13 (58 per cent.) of the females were married. The records of the last ten years show that the average number of children born to married males who took their own lives was 4.48, and to married females 3.65.

Experience shows that morbidity is largely influenced by the seasons. As regards suicides, this is most plainly seen amongst males, who are more inclined to attempt self-destruction in the last quarter of the year. For the ten years ended 1908 the proportion of male suicides per 1,000 during the first quarter of the year was 239; second, 245; third, 242; and fourth, 274. January, February, and December, the three hottest months of the year usually have the largest record of suicides, though, taking the figures year by year, this is not always the case—for instance, in 1908 the greatest number of suicides occurred in May and December, and the smallest in January.

Female suicides classified by quarters for the same period also show the highest proportion during the last quarter of the year, the figures being as follow:—First quarter, 248 per 1,000; second, 232; third, 258, and fourth, 262.

## SEASONAL PREVALENCE OF DISEASES.

The statement below shows the principal diseases, the deaths from which vary according to the seasons. The figures are based on the experience of the six years 1903–8, and represent the proportion of deaths in each month per 1,000 deaths during the year from each cause. The actual returns were adjusted on account of the unequal number of days in the various months to render the figures comparable.

Month.	Typhoid Fever.	In- fluenza.	Diph- theria and Croup.	Whoop- ing Cough	Phthisis.	Pneu- monia.	Bron- chitis.	Diarrhœa, Enteritis, and Dysentery	Bright's Disease.
January ...	139	43	42	75	79	50	46	162	79
February..	137	12	75	84	70	45	44	130	72
March ...	158	15	84	67	77	47	42	110	67
April ...	134	30	125	104	80	57	59	111	81
May ...	113	36	132	98	84	76	82	76	79
June ...	70	85	121	85	89	108	126	40	91
July ...	40	102	103	102	95	123	135	29	102
August ...	24	179	101	99	93	132	144	23	90
September.	22	196	76	86	91	124	123	24	89
October ...	22	155	43	70	90	94	80	42	84
November.	42	91	51	63	81	80	71	107	80
December..	99	56	47	67	71	64	48	146	86
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

The chief feature of the above table is the contrast between typhoid fever and diarrhœa and enteritis on the one hand, and influenza, pneumonia, and bronchitis on the other. In the first group the influence of the warm weather is the controlling factor, and in the second the cold weather. The warmest three months in the year are December, January, and February; and the coldest June, July, and August. Phthisis does not vary a great deal throughout the year, but the rates show that in the cold months the deaths are most frequent.

CAUSES OF INFANTILE MORTALITY.

The mortality of infants in New South Wales was exceptionally low during the five years 1904-08. An upward movement in 1907, when the rate was higher than in any of the three preceding years, was followed by a decline in 1908, which, with the exception of 1906, was the lowest on record. Prior to 1904 there had been practically little change in the rate for thirty years, but from 1860 to 1873 the rate was lower than in the years immediately preceding 1904. At very early ages children are most susceptible to the attacks of disease, and the rates for preventable diseases are highest. In New South Wales, out of every 10,000 children born, over 1,000 die before reaching their fifth year.

As the death-rate of infants is usually looked upon as a reliable sanitary test, and as it is of interest to know the diseases most fatal to children, the following statement has been prepared. It shows the principal causes of death of children—under 1 per 1,000 births and under 5 per 1,000 living—in 1908 and in the five years 1903-7, distinguishing deaths in the metropolis from those in the country districts.

Cause of Death.	Deaths under 1, per 1,000 births.						Deaths under 5, per 1,000 living.					
	Metropolis.		Country.		New South Wales.		Metropolis.		Country.		New South Wales.	
	1903-07.	1908.	1903-07.	1908.	1903-07.	1908.	1903-07.	1908.	1903-07.	1908.	1903-07.	1908.
Measles .. .. .	0.3	0.1	0.2	0.2	0.3	0.2	0.2	0.0	0.1	0.2	0.2	0.1
Scarlet Fever .. .	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Whooping-cough ..	2.5	0.0	3.1	1.4	2.9	0.9	1.1	0.0	1.1	0.4	1.1	0.3
Diphtheria and Croup ..	0.3	0.2	0.1	0.3	0.2	0.3	0.7	0.4	0.5	0.5	0.6	0.5
Tuberculosis—Meninges..	0.8	0.6	0.5	0.1	0.6	0.3	0.5	0.4	0.2	0.1	0.3	0.2
"    Peritoneum ..	0.7	0.6	1.0	0.7	0.9	0.7	0.3	0.2	0.3	0.2	0.3	0.2
"    Other Organs ..	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Syphilis .. .. .	2.0	1.8	0.3	0.4	0.9	0.9	0.5	0.5	0.1	0.1	0.2	0.2
Meningitis .. .. .	1.7	1.7	0.8	1.0	1.1	1.2	0.8	0.7	0.4	0.4	0.5	0.5
Convulsions .. .. .	3.1	2.3	5.5	4.8	4.7	3.6	1.0	0.8	1.6	1.2	1.4	1.1
Bronchitis .. .. .	3.8	2.2	4.0	2.8	3.9	2.6	1.1	0.7	1.2	0.8	1.2	0.8
Broncho-pneumonia .. .	5.6	2.8	4.1	2.4	4.6	2.5	2.5	0.9	1.7	0.9	2.0	0.9
Pneumonia .. .. .		1.8		1.5		1.6		0.7		0.8		0.7
Diarrhoea and Enteritis ..	30.7	28.7	19.8	18.2	23.6	21.9	9.5	8.3	6.3	5.7	7.3	6.6
Congenital Malformations	3.4	2.9	1.9	2.2	2.4	2.5	0.9	0.7	0.5	0.5	0.6	0.6
Infantile Debility .. ..	14.4	13.1	13.2	13.9	13.6	13.7	3.8	3.2	3.2	3.3	3.4	3.3
Premature Birth .. .. .	17.7	16.3	15.2	14.4	16.1	15.1	4.4	3.9	3.5	3.3	3.8	3.5
All others .. .. .	0.1	7.4	11.7	7.6	10.8	7.5	3.7	2.9	4.9	3.4	4.5	3.2
Total .. .. .	96.5	82.8	81.7	72.1	86.8	75.8	31.3	24.7	25.8	22.0	27.6	22.9

There was a considerable improvement in 1908, as compared with the preceding five years, notwithstanding they include four years of low mortality. Among children under 1 the reduction amounted to 12.7 per cent., and among children under 5, 17 per cent.

It will be seen that the high mortality of infants is due to the deaths of children who from the beginning are greatly weakened either from immaturity or debility at birth. Of children under 1, the deaths from these causes in 1908 were equal to 31.3 per 1,000 births, or 41 per cent. of the total deaths of children at that age. A previous table shows that the mortality during the first month of life is about one-third of the total mortality during the whole of the first year, and 79 per cent. of this mortality is due to deaths from congenital debility or defects. After these, in 1908, came diarrhoea and enteritis, which were responsible for deaths to the extent of 21.9 per 1,000 births. The deaths from infectious diseases amounted to 1.5 per 1,000 births, of which whooping-cough caused 0.9. Respiratory diseases are rather fatal to children, bronchitis, in 1908, accounting for 2.6, broncho-pneumonia for

2.5, and pneumonia for 1.6 per 1,000 births, the latter two causes showing a decrease in 1908. Convulsions had a death-rate of 3.6, tuberculous diseases of 1.2, and meningitis (not tuberculous) of 1.2 per 1,000 births.

It has already been pointed out that life in the metropolis is more unfavourable to children than in the country. The total excess mortality in the metropolis is 15 per cent., but the excess from diarrhoea and enteritis is 57 per cent.

Turning to the second part of the table, dealing with children under 5, it will be found that the most fatal causes are congenital debility, diarrhoea and enteritis, pneumonia, convulsions, and bronchitis in the order stated.

A further statement is given below in which the causes of death of illegitimate children are compared with those of legitimate children. The figures represent the deaths of children under 1 year per 1,000 births in the State as a whole in 1908.

Causes of Death.	Deaths under 1 per 1,000 Births.		
	Legitimate.	Illegitimate.	Total.
Measles ... ..	.1	1.4	.2
Scarlet Fever ... ..	.1	...	.1
Whooping-cough ... ..	.8	1.4	.9
Diphtheria and Croup ... ..	.3	.7	.3
Tuberculosis—Meninges ... ..	.2	1.7	.3
"    Peritoneum ... ..	.4	3.4	.7
"    Other Organs ... ..	.2	.3	.2
Syphilis ... ..	.5	6.8	.9
Meningitis ... ..	1.2	2.0	1.2
Convulsions... ..	3.5	5.8	3.6
Bronchitis ... ..	2.5	4.4	2.6
Broncho-pneumonia ... ..	2.5	3.1	2.5
Pneumonia ... ..	1.4	4.4	1.6
Diarrhoea and Enteritis ... ..	18.5	67.5	21.9
Congenital Malformations ... ..	2.4	3.8	2.5
Infantile Debility ... ..	12.0	36.5	13.7
Premature Birth ... ..	14.0	29.0	15.1
All others ... ..	6.5	21.2	7.5
Total... ..	67.1	193.4	75.8

The reasons for the greater mortality of illegitimate children are seen from this table. Excluding diseases which may be ascribed to inherent weakness, there is strong evidence of neglect or want of care as regards these unfortunates. Infantile debility showed 69.3 per 1,000 births as against the legitimate rate, 28.4. Diarrhoea and enteritis were 67.5 as compared with 18.5; respiratory diseases 11.9 as compared with 6.4; and syphilis 6.8 as compared with .5. Among the epidemic diseases there was not a great difference.

## EDUCATION.

### THE STATE SYSTEM OF EDUCATION.

THE development of the educational system of this State has been a gradual progression from desultory and unorganised methods of instruction to the sustained and systematic plan of the present day.

Until the year 1848 the schools were conducted for the most part under the auspices of the various denominations, the cost being provided by means of voluntary contributions, aided by State subventions, and the degree of education achieved depending on the relative zeal and conscientiousness of the teachers in charge. There was no inspection of the schools, in the modern sense of the term, and no co-ordination in the work of the several denominations.

The Board of National Education was incorporated in 1848, and was entrusted with a modified control of the "National" and Denominational Schools, each of which was subsidised by the State, although working in many country towns on most injurious terms of rivalry.

The Council of Education came into existence under the provisions of the Act of 1866, and was entrusted with the disposition of the monies provided by the State for primary education. Under this arrangement, the money subsidy to Denominational Schools was conditioned on the course of instruction reaching a prescribed standard, and the schools were subject to inspection by the Council's officers.

The continuance of two types of schools, each receiving aid from the State, proved most unsatisfactory, and a public agitation, extending over several years, culminated, in the year 1880, with the enactment of the present law, under which the administration of the system of public education is vested directly in a responsible Minister of State.

The Act requires that every child of the ages between six and fourteen years shall attend school for a minimum period of seventy days in each half-year, unless cause for exemption can be shown; and, as a natural corollary, the State provides schools and tuition wherever the requirements of any locality are demonstrated.

The teaching in these State schools is absolutely free of cost to the parents of the children, and, although it is permissible to send children to schools conducted by religious denominations, and by private persons, the subsidies formerly given to Denominational Schools have been abolished.

Provision is made for public schools, to afford primary instruction to all children without sectarian or class distinction; for superior public schools, in which additional lessons in the higher branches may be given; for evening public schools, with the object of instructing persons who have not received the advantages of primary education while of school age; and for high schools for boys and girls, in which the course of instruction will complete the public school curriculum and prepare students for the University. In all schools administered under the Act the teaching is strictly non-sectarian; but the words "secular instruction" are held to include general religious teaching, as distinguished from dogmatic or polemic theology. The

history of England and of Australia also forms part of the course of secular instruction.

Four hours during each school day must be devoted to secular instruction exclusively; and one hour each day may be set apart for religious instruction, to be given in a separate class-room by a clergyman or religious teacher of any persuasion to children of the same sect whose parents have no objection to such instruction. Children of different persuasions must be instructed on different days, and in the case of non-attendance of the clergyman at the time set apart, ordinary secular instruction must be given.

Special arrangements are made for the conveyance of children to school. They are allowed to travel free by rail to the nearest public or private primary school, to the nearest superior public school, provided they are sufficiently advanced to be enrolled in the fifth class, and to the High Schools. In districts remote from the railway, coaches are subsidised by the Government to convey children to and from the nearest school.

Other sections of the Act provide for the establishment of provisional schools, and the appointment of itinerant teachers in remote and thinly populated districts. The multiplication of small schools in the various districts has, however, recently fallen into disfavour, as it is recognised that one central school would offer the dual advantage of greater economy and increased efficiency. Where possible, it is intended to abolish clusters of small schools, and replace them with well-equipped central institutions, to which the children will be conveyed free of charge.

In thinly populated districts so remote from a State School that attendance is impracticable, the State grants subsidies to small private schools.

The local supervision of the public schools is placed in the hands of School Boards appointed in the various districts of the State, under the provisions of the Public Instruction Act. These Boards are supposed to exercise a general oversight in regard to the public schools in their districts. They may suspend teachers in cases of gross misconduct; endeavour to induce parents to send their children regularly to school, and report the names of parents or guardians who refuse or fail to educate their children. They may not, however, interfere with the internal discipline or management of the schools, which remain under the direct control of the Minister of Public Instruction, through the inspectors and other officers of his Department. The total number of Boards in operation at the close of 1908 was 329; but few take material interest in the welfare of the schools in their district.

With the advent of the present century, tokens became evident that, valuable as the system adopted and adjusted from time to time had proved in the educational development of the State, the necessity existed for devising plans and methods more in consonance with modern ideals as to the training of the young. Much discussion by experts, and close investigation of the systems in force in other countries, led to the assembly of a large representative Conference, convened by the Government early in the year 1904, wherein resolutions were adopted in favour of the following course of action:—

- (1.) The gradual termination of the Pupil-teacher system, and the introduction of the system of previous training.
- (2.) The establishment of a Chair of Pedagogy in connection with the Sydney University.
- (3.) The provision and equipment of a Normal School, and practising school attached.
- (4.) The organisation of local training schools in country districts to provide suitable teachers for small country schools.

- (5.) The establishment of a Kindergarten College for the training of teachers.
- (6.) The sending of students to Europe—
  - (a) To study and report on the best methods of training teachers as adopted in the most renowned normal colleges.
  - (b) To study the theory and practice of Sloyd.
- (7.) The extension of Science teaching, Nature study; and in girls' departments, domestic economy.
- (8.) The establishment of truant schools, and of schools for the feeble-minded.
- (9.) Improvements, as recommended by the Commissioners, in regard to school hygiene.
- (10.) The introduction of a monthly school paper.

With the new departure it was at once evident that to secure practical results considerable modifications were essential as to the mode of teaching, and consequently as to the methods of inspection of schools.

Steps were at once taken to secure the thorough training of teachers prior to their entry upon duty in the schools instead of the old plan under which their training as teachers was concurrent with their own duties of teachers of the school children, the term "pupil teacher" having been used in earlier years to designate teachers in the first stage of their work.

#### THE SYLLABUS.

In the year 1905 a Syllabus of Instruction, drawn up to accord with the new plans and ideals, was issued to the teachers of schools for their guidance. It was designed with the intention of giving full scope to the aim of so combining and presenting the subjects of study as to render the mental powers of the pupil a forceful aid to the efforts of the teacher, to make the school life an inherent and pleasant portion of the child's life environment, and, in fine, to lay worthy foundations of his future citizenship.

The syllabus consists of six distinct groups of subjects, the treatment of which, by a gradual progression, covers the seven periods of school life—from the simple to the more advanced stage when pupils enter upon their secondary education.

The groups are as follow :—

*English.*—Correct speech, reading, writing, spelling, composition, recitation, grammar.

*Mathematics.*—Arithmetic, mensuration, algebra, geometry.

*Nature Knowledge.*—Geography, object lessons, elementary science.

*Civics and Morals.*—History, scripture, moral duties, citizenship.

*Art Manual Work.*—Drawing, brushwork, kindergarten exercises, modeling, woodwork, needlework.

*Musical and Physical Education.*

A discussion of the technical details of the new system, briefly indicated above, is obtainable in abundant detail in the manuals issued by the Department of Public Instruction, the study and application of which afford material for profoundly interesting and valuable possibilities.

The course outlined for the guidance of the First Class Infants' Department will be completed, under ordinary conditions, at the age of eight years. Thence in point of time the work of the second, third, and fourth classes will proceed in gradations of one year each, the pupil entering the Fifth Class on attaining his eleventh birthday, and he will not be promoted to the Sixth Class until he has shown that the fifth course has been fully surmounted.

As to his further training, in the language of the syllabus :—

“ A large majority of the pupils will not reach a standard beyond that of the Fifth Class. The work of this class should therefore round-off a distinct stage in the primary course. Upon the completion of it the pupil should be able to read ordinary English intelligently, make use of his ability to read in furthering his knowledge, express himself in clear and correct language, carry out the most common calculations of trade and business, have a general knowledge of the surface of the earth, some elementary natural phenomena, and the main features of the history of England and Australia, have acquired a degree of skill of hand that will assist him in the use of tools, and a training in moral and civic duties that will form a basis for future citizenship. In girls' schools the course will have been modified to admit of the acquirement of knowledge and skill that will afterwards be of use in domestic and family pursuits.

“ Only a limited number of pupils are able to take up the work of the sixth and seventh classes, and, regarding fifth-class work as terminating the primary course, only those pupils who have satisfactorily completed it should be placed in higher classes. The head of a department in which sixth and seventh classes are in operation should therefore ascertain in the case of each individual pupil, by estimating the general character of his work in fifth class, and by individual examination tests in English and Mathematics, that the primary course has been satisfactorily completed before he is promoted to the higher classes. This condition will make it necessary for some pupils to remain longer than one year in the fifth class, while at the same time it will furnish a stimulus to industry and care on the part of the older pupils.”

The procedure as to the sixth and seventh classes is seen in a further extract from the syllabus as follows :—

“ The Higher Primary Course of Instruction is designed for those pupils who remain at school for one or two years after completing the Primary Course. As a rule it will be taken by pupils of an age from 13 to 15 years.

“ This course aims at the continuance of a broad general education, with a special direction of the knowledge and training of the pupils towards the class of employment they are likely to enter after leaving school. For some, this entails a preparation for public examination, but in order to qualify them for such examination the course of instruction should not be unduly limited. It needs to be recognised in the work of these classes that both boys and girls should acquire at school a preliminary stock of readily available information, a mental grasp, and a general intelligence beyond what mere preparation for an examination will supply.

“ The boy or girl leaving these classes should have acquired to a reasonable extent the power of self-direction in study so that the pupil of 13 may develop into the student of 15 or 16 years of age, carrying into his occupation, or into his further studies the power to direct his own efforts towards the successful accomplishment of the work which he finds he has to do. With this object in view it is necessary that self-reliant efforts on the part of the pupil should accompany the work of the teacher.

“As has been shown in the preceding notes, only those pupils should be admitted to Sixth and Seventh Classes who are qualified for taking up the work of these classes by having satisfactorily completed the Primary Course.”

“The subjects of study in the Higher Primary Course are the following :—

“English, Mathematics, Geography, History, Science, Physical Training, Music, Scripture, Drawing (and other manual work when practicable), Latin (optional), and French (optional).”

“The inclusion of Hand Work other than Drawing is contingent upon the necessary provision for it being made. Latin and French should be taken up only by pupils who are likely to remain at school long enough to reach a really useful stage in the study of these languages. The wishes of parents in this matter, and the nature of the future career of the pupils should be considered in this connection, but no pupil who is likely to spend only a few months upon these studies should waste time by entering upon them. None of the remaining subjects should be omitted at any time from the course of instruction, though the treatment of them may be modified to suit the examination or other special purpose for which preparation is being made. When a general course is followed without reference to any examination, the syllabus indicates the line of study.”

As previously remarked, the methods of inspection have been radically altered to accord with the spirit pervading the new syllabus. The detailed exhaustive examination of schools has been abandoned, a quarterly examination by the principal of the school in certain subjects having been substituted, which is tested at various points so as to bring the inspector and teacher into close and friendly contact in their co-ordinate duties.

This mode enables the inspector to devote his attention to general observation of the work of the school, inspecting minutely where signs of weakness may be apparent. In most subjects the examination will be found sufficient if the inspector, after carefully observing the teacher's methods, ascertain by questions the extent by which the pupils are benefited.

As the result of his examination, the Inspector will assess the value of the teaching, with special reference to various considerations as detailed in his official instructions.

During each year it is expected that the Inspector will meet the teachers of his district at various centres as far as practicable. The meetings will be devoted to lectures, essays, and the discussion of most educational topics.

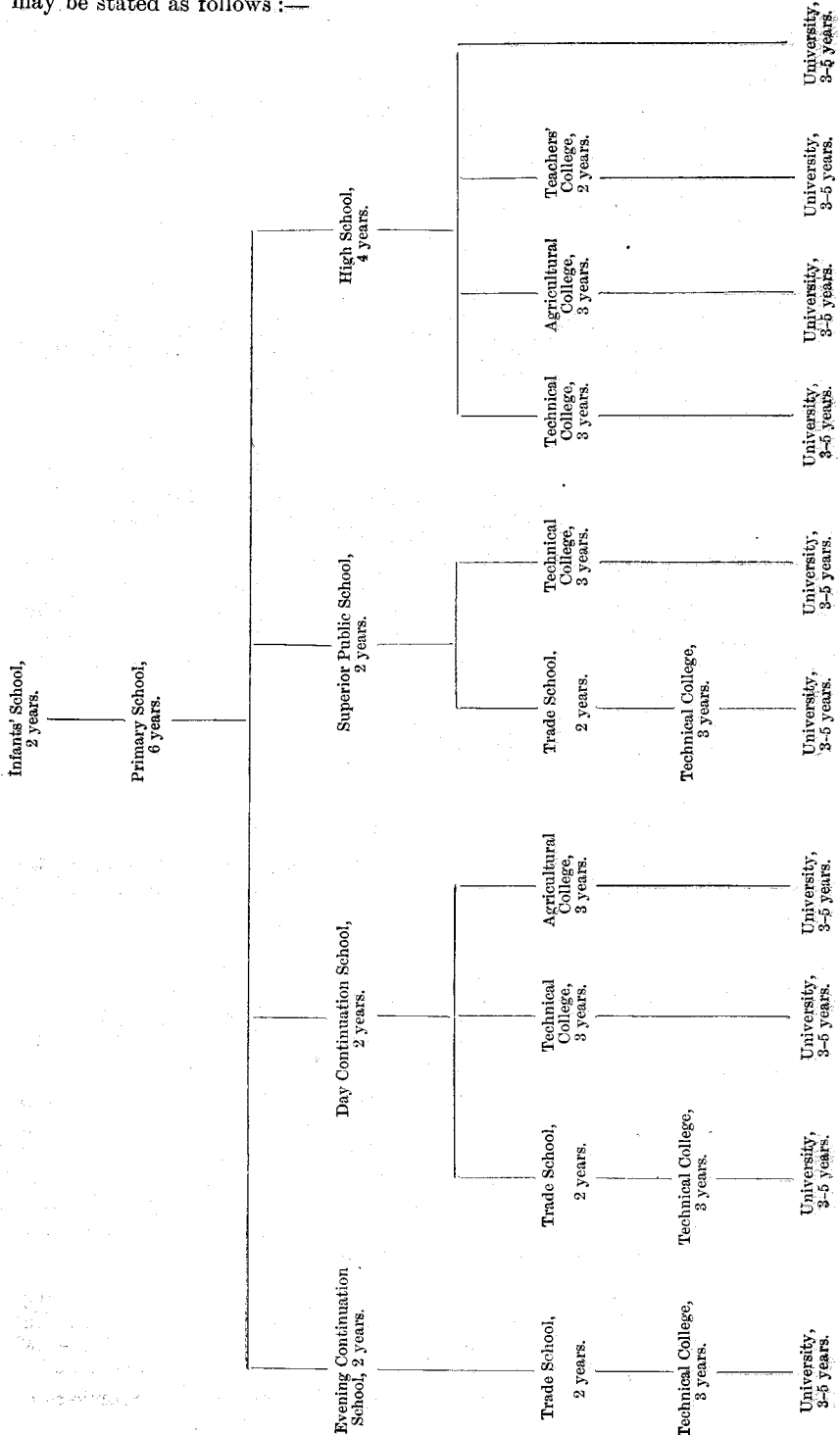
As a whole, the new plan of inspection is admirably designed to consolidate the forces, the creation of which is contemplated by the syllabus.

The most anxious consideration in connection with the reformed scheme of education is the furtherance of an economic and effective plan of higher education to follow the initial training of the Primary Schools. The main object to be sought is the establishment of defined courses of study to meet the requirements of students to fit them for the avenues of life in which they will be placed, with the very desirable ultimate aim of regarding the State University as the summit of the educational edifice.

Much discussion has been bestowed on this subject by thoughtful minds, and as the determination of the problem is still in the future, judgment is necessarily suspended as far as these pages are concerned. It will be of interest, and of advantage, to note briefly the details of the scheme recently suggested by the Director of Education (Mr. P. Board) for the organisation



of Public Education in New South Wales. The curriculum thus suggested may be stated as follows :—



From the above observations on the educational system in New South Wales, it is evident that matters are still in the tentative stage, and that earnest study and effort have been, and are being, devoted to this vital national function. The outcome will be awaited with profound interest and sympathetic regard.

DISTRIBUTION OF SCHOOL CHILDREN—CENSUS 1901.

The following table indicates the extent to which the means of education were being utilised at the date of the census of 1901, the figures comprising all children between the ages of 6 and 14 years, who, under the Public Instruction Act, are required to attend school :—

Type of School.	Children Enumerated.			
	Metropolis.	Country Municipalities.	Rural Districts.	Whole State.
State ... ..	53,876	48,631	69,845	172,352
Denominational ... ..	16,418	13,027	5,111	34,556
Other ... ..	14,772	9,307	15,358	39,437
Not receiving Instruction... ..	3,561	3,821	10,075	17,457
Total ... ..	88,627	74,786	100,389	263,802

Reducing the above figures for each portion of the State to a percentage basis we find the proportions attending each type of school in the metropolis, urban centres in the country, and in the open rural area respectively, as follows :—

Type of School.	Metropolis.	Country Municipalities.	Rural Districts.	Whole State.
State .. ...	60·8	65·0	69·6	65·3
Denominational ... ..	18·5	17·4	5·1	13·1
Other ... ..	16·7	12·5	15·3	15·0
No School ... ..	4·0	5·1	10·0	6·6
	100·0	100·0	100·0	100·0

Taking children in State schools as a datum of comparison, the following shows the number educated in the other types of schools in the several territorial subdivisions :—

Type of School.	Metropolis.	Country Municipalities.	Rural Districts.	Whole State.
State ... ..	100·0	100·0	100·0	100·0
Denominational ... ..	30·5	26·8	7·3	20·0
Other ... ..	27·4	19·1	22·0	22·9
No School ... ..	6·6	7·9	14·4	10·1
	64·5	53·8	43·7	53·0

From this dissection it appears that, at the census, for every 100 children who were receiving instruction in the State schools there were 20 in the denominational schools, 23 in private schools and at home, and 10 who were not receiving any education.

Also, regarding the subdivisions of the State, in the metropolis for every 100 State school children there were 30 in denominational schools, 27 under tuition, and nearly 7 neglected. In the country towns the

numbers were—State 100, denominational 27, other schools 19, and neglected 8. Further, in marked contrast to the numbers for metropolis and towns, we find that in the purely country areas for each 100 who were being educated under State school auspices there were only 7 in denominational schools, 22 under private tuition, and slightly more than 14 without educational advantages.

Taking the State as a whole, for every 100 children of school age, the preference of whose parents is in favour of State schools, there are 43 who are receiving instruction in other schools, and 10 receiving no education; further, that as regards the relative favour with which private tuition is regarded, it is evident that the preference is strongest in the metropolis, of an average character in country towns, and weakest by far in purely rural districts.

Taking the denominational schools in comparison with the State institutions, the ratios of the pupils for metropolis, country towns, and rural districts are respectively as 1 to 3, 1 to 4, and 1 to 14. The last quotation, showing that the denominational scholars in scattered country districts are only 7 per cent. of the State scholars, is not necessarily evidence of a preference by the parents in such districts for State schools, but certainly testifies to the naturally expected conclusion that it is only the superior resources of a State-supported system which can successfully combat the difficulties experienced in immense and sparsely populated areas.

The tables from the census figures presented above are derived from the statements contained in the census schedules, and are, of course, liable to errors committed by the householders; but they suffice to show the main features relating to school attendance in the various portions of the State.

In order to obtain a review of the distribution of school children amongst public and private schools, it is necessary to ascertain the enrolment of scholars for a given period. Such an enrolment is available only for the December quarter in each year, the figures for private schools being supplied for that quarter, and not for the whole year.

The following table shows the distribution of children in public and private schools for that quarter during each of the last eleven years:—

Year.	In Public Schools.	In Private Schools.	Total Children.	Proportion of Total Children Enrolled.	
				In Public Schools.	In Private Schools.
				per cent.	per cent.
1898 ... ..	202,048	58,179	260,227	77·6	22·4
1899 ... ..	206,516	60,159	266,675	77·4	22·6
1900 ... ..	209,704	60,327	270,031	77·7	22·3
1901 ... ..	210,588	60,282	270,870	77·7	22·3
1902 ... ..	210,726	58,939	269,665	78·1	21·9
1903 ... ..	211,558	58,258	269,816	78·2	21·8
1904 ... ..	207,860	57,811	265,671	78·2	21·8
1905 ... ..	206,010	57,854	263,864	78·1	21·9
1906 ... ..	207,298	58,707	266,005	77·9	22·1
1907 ... ..	209,229	57,440	266,669	78·2	21·8
1908 ... ..	214,495	57,111	271,606	79·0	21·0
Average for period	208,730	58,642	267,372	78·1	21·9

The figures in the column relating to total children disclose a condition of stagnation as to numerical strength which has characterised the whole period under review. This feature has been common to both types of school, as evidenced in the average figures at the foot of the table, and is to be attributed to the decline in the birth-rate of the State in recent years.

The relative enrolment of the two types of school, as shown by the percentage distribution in the last two columns, exhibits very little deviation from the average rates per cent., and the proportional figures, viz., 78 per cent. of total children for public school and 22 per cent. for private schools, may therefore be regarded as indicative of the degree of preference in each case on the part of the general public.

The following table provides a comparative view of the aggregate enrolment in all schools (public and private) for the December quarter during the last eleven years; and the figures, being on the same planes of comparison for each year, may be accepted as illustrative of the progression of each type of school during the period.

The first part of the table contains the numerical enrolment and its constituent subdivisions; and the second part supplies the ratios per cent. which such subdivisions bear to the aggregate enrolment, thus providing a ready means for comparisons.

ENROLMENT DURING DECEMBER QUARTER.  
COMPARATIVE TABLE.

Year.	Total.	Public Schools— Denomination of Children.					Private Schools— Denomination of Schools.		
		C.E.	R.C.	Pres.	Meth.	Other.	C.E.	R.C.	Other.
1893	260,227	104,679	30,015	21,781	24,689	20,884	4,330	38,463	15,386
1899	266,675	107,308	30,751	22,357	24,797	21,303	4,245	39,649	16,265
1900	270,031	109,262	31,300	22,944	24,916	21,282	4,158	40,136	16,033
1901	270,870	109,876	31,054	23,511	24,971	21,176	3,966	41,486	14,830
1902	269,665	110,615	30,957	23,586	26,201	19,367	4,263	40,868	13,808
1903	269,816	110,843	31,308	23,841	26,849	18,717	4,466	40,989	12,803
1904	265,671	109,658	30,233	23,829	28,240	15,900	4,116	41,112	12,583
1905	263,864	108,333	29,935	24,070	28,603	15,019	3,954	41,268	12,632
1906	266,005	108,497	30,636	24,207	28,866	15,092	3,922	42,106	12,679
1907	266,689	109,306	31,436	24,453	28,954	15,080	3,434	42,005	12,001
1908	271,606	112,728	32,209	24,913	29,581	15,064	3,415	42,295	11,401

PERCENTAGE OF TOTAL ENROLMENT.

	%	%	%	%	%	%	%	%	%
1898	100	40·23	11·53	8·37	9·49	8·03	1·66	14·78	5·91
1899	100	40·24	11·53	8·38	9·30	7·99	1·59	14·87	6·10
1900	100	40·46	11·59	8·50	9·23	7·88	1·54	14·86	5·94
1901	100	40·56	11·46	8·68	9·22	7·82	1·46	15·32	5·48
1902	100	41·02	11·48	8·75	9·72	7·18	1·58	15·15	5·12
1903	100	41·08	11·60	8·84	9·95	6·94	1·66	15·19	4·74
1904	100	41·28	11·38	8·97	10·63	5·98	1·55	15·47	4·74
1905	100	41·06	11·36	9·12	10·84	5·69	1·50	15·64	4·79
1906	100	40·79	11·52	9·10	10·85	5·67	1·47	15·83	4·77
1907	100	40·99	11·79	9·17	10·86	5·65	1·29	15·75	4·50
1908	100	41·50	11·86	9·17	10·89	5·55	1·26	15·57	4·20

The figures in the above tables are exclusive of the University and Affiliated Colleges, Sydney Grammar School, Business and Shorthand Schools, State Reformatory and Industrial Schools, and Schools held in connection with Public Charitable Institutions which are subsidised by the Government.

The only denominations which have maintained their own schools to any material extent are the Church of England and the Roman Catholic; and of these two the Roman Catholic unmistakably has shown the greater vigour in its educational work.

It will be noticed that in the public school figures the column headings indicate the denomination of the children, and in the private school figures the denomination of the schools. In the former case the religion of the child is clearly determined, but in the latter, the pupil, although attending a school of stated denomination, is not necessarily of that religion. It may be assumed, however, for purposes of comparison, that on the whole the religion of the child accords with that of the denomination of the school he is attending, and on this basis we obtain the following comparisons:—

As to the children of the Church of England, its constituent percentages of the total children were—

Year.	Per cent. of Total Children attending School in—		
	Public Schools.	Church of England Schools.	All Schools.
	%	%	%
1898	40·23	1·66	41·89
1899	40·24	1·59	41·83
1900	40·46	1·54	42·00
1901	40·56	1·46	42·02
1902	41·02	1·58	42·60
1903	41·08	1·66	42·74
1904	41·28	1·55	42·83
1905	41·06	1·50	42·56
1906	40·79	1·47	42·26
1907	40·99	1·29	42·28
1908	41·50	1·26	42·76

The percentage evidently has been very constant during the whole period for both classes of schools—public and private—the advance, on the whole, for the period covered by the table being approximately 1 per cent. of the total school children enrolled, and the Church of England children at present attending public schools are to those attending their own denominational schools in the ratio of approximately 97 to 3.

As to Roman Catholic children, the figures appear as follows:—

Year.	Per cent. of Total Children attending School in—		
	Public Schools.	Roman Catholic Schools.	All Schools.
	%	%	%
1898	11·53	14·78	26·31
1899	11·53	14·87	26·40
1900	11·59	14·86	26·45
1901	11·46	15·32	26·78
1902	11·48	15·15	26·63
1903	11·60	15·19	26·79
1904	11·38	15·47	26·85
1905	11·36	15·64	27·00
1906	11·52	15·83	27·35
1907	11·79	15·75	27·54
1908	11·86	15·57	27·43

Here is observed extremely slight fluctuation in the percentage attending public schools, and as to the denominational schools, a rise in the rate up to 1901, succeeded by a period of comparatively level rates. The Roman Catholic children at present attending public schools are to those attending their own denominational schools in the ratio of 43 to 57.

In both Presbyterian and Methodist denominations a gradual increase was experienced until the year 1904, since which period the percentage of their scholars to the total has been stationary.

The reduction in the proportion of scholars in the unspecified private schools from 6 per cent. in 1898 to  $4\frac{1}{4}$  per cent. of the total in 1908, indicates that less support is now given to schools conducted by private individuals acting independently of the public schools and of the recognised religious denominations.

## AVERAGE ATTENDANCE.

The following statement supplies a comparison between the mean quarterly enrolment and the average attendance for Public Schools. In this case the figures are derived from the rolls for all the quarters of the year, and not for the December quarter only:—

Year.	Mean Quarterly Enrolment.	Average Attendance during the year.	Ratio of Attendance to enrolment.
			per cent.
1898	203,910	141,723	69.5
1899	208,632	149,939	71.6
1900	212,713	153,845	72.3
1901	212,725	154,404	72.6
1902	212,848	155,916	73.3
1903	213,318	154,382	72.3
1904	211,489	153,260	72.5
1905	211,396	152,105	72.7
1906	207,741	151,261	72.8
1907	213,709	152,607	71.4
1908	216,747	156,000	71.9

The comparison of attendance to enrolment in the case of Private Schools is taken from the roll for the December quarter only (except for the last two years, when the average daily attendance during the year is taken), and is as follows:—

Year.	Scholars on Roll December Quarter.	Average Attendance.	Ratio of Attendance to enrolment.
			per cent.
1898	58,179	45,354	78.0
1899	60,159	47,560	79.1
1900	60,327	47,816	79.3
1901	60,282	48,137	79.9
1902	58,939	47,195	80.1
1903	58,258	46,982	80.6
1904	57,811	46,667	80.7
1905	57,854	46,450	80.3
1906	58,707	46,942	80.0
1907	57,440	46,697	81.3
1908	57,111	48,203	84.4

The system of gauging the attendance at school, by reference to a periodic enrolment of greater or less frequency, affords a very indifferent test of the average continuity of the education received by the pupils.

The method hitherto followed has been the adoption of the quarterly enrolment as the standard for comparison of children under tuition, and by means of the average attendance the degree of constancy in the education of children has been determined. It can be shown readily that such a mode of measuring attendance is empiric, conveying false impressions.

The yearly, quarterly, or even weekly, rolls of the pupils are in reality functions of the same variable, known as *daily attendance* (which is really a daily roll), and the longer the intervals of compiling the roll, whether for a

week, a quarter, or a year, the greater the error introduced by multiple enrolment into the basis of comparison.

For instance, it is found by the Department of Public Instruction that 13·8 per cent. of this gross yearly enrolment must be deducted to obtain the number of individual pupils enrolled. Furthermore, the effective quarterly enrolment is found to be only 93 per cent. of the yearly roll, and the weekly roll again only 90 per cent. of the quarterly.

Of all the methods hitherto utilised the weekly roll is clearly the best, inasmuch as it most nearly approaches the basis (daily) on which the average attendance is computed, but preferably the average attendance of scholars should be compared with the total children who can be regarded as in need of education. The number of such children can be ascertained very closely; certainly to a much nearer degree than exhibited by the gap between the weekly and quarterly enrolments hitherto in use.

Taking as a basis the number of children under tuition, estimated on the plan just proposed, the following table, showing the proportionate attendance, is obtained:—

Year.	Estimated children of school age. (6-14).	Other Children under and over school age on roll.	Total Children requiring education.	Average Attendance.	Proportion per cent. attending school.
1898	248,500	42,115	290,615	187,077	64·4
1899	254,800	44,311	299,111	197,499	66·0
1900	260,700	44,862	305,562	201,661	66·0
1901	264,200	44,509	308,709	202,541	65·6
1902	266,500	44,907	311,407	203,111	65·2
1903	265,400	44,682	310,082	201,364	64·9
1904	266,100	44,606	310,706	199,927	64·3
1905	264,200	40,629	304,829	198,585	65·1
1906	262,500	41,436	303,936	198,203	65·2
1907	260,800	43,111	303,911	199,304	65·6
1908	259,400	42,551	301,951	204,203	67·6

The figures in this table are exclusive of the Sydney Grammar School, Business and Shorthand Schools, State Reformatory and Industrial Schools, and schools held in connection with Public Charitable Institutions which are subsidised by the Government, as all the particulars are not available.

The ages of scholars at State Schools during the last 14 years are shown in the following table, which is an approximate statement, based on the mean quarterly enrolment:—

Year.	Under 6 years.	6 years and under 14.	14 years and over.	Total.
1895	11,701	165,405	14,969	192,075
1896	11,585	170,042	15,398	197,025
1897	11,479	174,054	16,414	201,947
1898	10,675	175,677	17,558	203,910
1899	10,590	179,186	18,856	208,632
1900	10,183	182,631	19,899	212,713
1901	10,262	182,580	19,883	212,725
1902	8,777	182,962	21,109	212,848
1903	8,413	182,421	22,484	213,318
1904	8,559	180,480	22,450	211,489
1905	7,507	184,352	19,537	211,396
1906	8,302	180,228	19,211	207,741
1907	8,762	184,858	20,089	213,709
1908	8,933	187,750	20,064	216,747

The ages of children enrolled at Private Schools during the December quarter of each year since 1895 are as follows :—

Year.	Under 6 years.	6 years and under 14.	14 years and over.	Total.
1895	6,642	39,037	5,972	51,651
1896	6,929	40,376	6,662	53,967
1897	6,581	42,890	6,672	56,143
1898	6,710	44,297	7,172	58,179
1899	6,896	45,294	7,969	60,159
1900	6,821	45,447	8,059	60,327
1901	6,019	45,918	8,345	60,282
1902	5,507	44,918	8,514	58,939
1903.	5,336	44,473	8,449	58,258
1904	5,193	44,214	8,404	57,811
1905	4,848	44,269	8,737	57,854
1906	4,972	44,784	8,951	58,707
1907	4,859	43,180	9,401	57,440
1908	4,839	43,549	8,723	57,111

SCHOOLS.

At the inception of the Public Instruction Act, in 1880, there were 1,220 schools maintained or subsidised by the State, viz. :—

Public schools	...	...	...	...	705
Provincial schools	...	...	...	...	313
Half-time	„	...	...	...	77
Denominational schools	...	...	...	...	105

1,220

The following table affords a comparison between the number of schools in operation in 1881, the first full year in which the Department was under immediate ministerial control, and the number open in the year 1908 :—

Type of School.	Schools in operation.	
	1881.	1908.
High schools	.....	5
Public	1,100	1,954
Provisional	246	428
Half-time	93	340
House-to-house	.....	10
Evening	57	38
Subsidised	.....	357
Reformatory	2	3
	1,498	3,135

It is evident that, even with the loss of the denominational schools, the number of schools had largely increased (from 1,220 to 1,498) during the first year the new Act was in force, and the number has since that time more than doubled.

In the earlier year there was accommodation in the schools for 98,721 children, and at the present time for 226,354; and comparison of the latter number with the average attendance at the present time shows that there is on the whole ample space in the school buildings to meet requirements.

The granting of subsidies for the education of children resident in places far removed from any State-aided schools has been instituted during recent years, with good effect. The conditions upon which aid is granted are that



two or more families must combine to engage a private teacher, who, after approval of the Minister as to his qualifications, will receive a subsidy at the rate of £5 per pupil per annum, the maximum amount being £50 per school. The number of such schools during the last four years has ranged between 160 and 284, and the public appreciation of their usefulness, apparently, is increasing.

In 1904 a system of consolidating small schools was brought into operation. The Department of Public Instruction undertakes to grant a subsidy for the conveyance, to one central school, of children who hitherto attended small schools in close proximity. The advantages of this system are that better buildings and equipment, as well as a larger teaching staff, can be provided, and a higher range of instruction imparted, than at several small schools.

An experiment was initiated in 1908 towards providing means of education for families so isolated that even two could not readily combine to form a subsidised school. A travelling school was established in the Narrabri district; the teacher was provided with a vehicle to carry school requisites and a tent to use as a schoolroom. He was instructed to teach a week at a time at each centre in his circuit.

Special attention has been given to the teaching of elementary principles of agriculture, and gardens and experimental plots have been established in connection with a large number of schools. In 1905 an Instructor of School Agriculture was appointed to direct the work of the teachers; his duties are to visit schools in the interests of school agriculture, and to supply the teachers with information required to direct the work of the pupils. Rural camp schools are also held from time to time where metropolitan schoolboys are accommodated for a short period while they visit dairies, farms, &c., under suitable guidance, and are instructed by direct illustration. The object of these camps is to familiarise city lads with the important rural industries of the State.

#### RELIGIOUS INSTRUCTION IN SCHOOLS.

The advantage of the provision permitting religious instruction to be given to scholars in State schools has not been used to a very great extent by the various denominations.

The total number of visits paid by clergymen and religious teachers during the year 1908 was as follows:—

Denomination.	Number of visits.
Church of England ... ..	24,701
Roman Catholic ... ..	1,032
Presbyterian ... ..	7,143
Methodist ... ..	7,604
Other Denominations ... ..	4,441
Total ... ..	44,921

Nearly 45,000 visits were paid to public schools by religious teachers during 1908, that is to say, 1,000 visits were paid each week that the schools were open. Stated thus, the result may appear satisfactory; but if the visits be compared with the number of opportunities for religious teaching available under the Act, a less favourable light is thrown upon the subject. Taking into consideration the number of schools in existence, and the time during which they were open, it is found that the visits by all the denominations taken together represented only a little more than 10 per cent. of the opportunities afforded.

There are many schools in remote country districts, among scattered populations, where it is impossible for the religious teachers to attend, and consequently the figures just quoted represent an extreme case ; but, assuming that one-half of the schools are practically inaccessible for purposes of religious instruction, thereby doubling the quoted ratio of visits, it does not appear that the visitations approach in a material degree the opportunities afforded by law.

NUMBER OF SCHOOLS.

The total number of schools in operation at the end of each of the past eleven years, inclusive of all private schools, is supplied in the following table :—

Year.	Public.	Private.	Total.
1898	2,602	956	3,558
1899	2,693	1,053	3,746
1900	2,745	912	3,657
1901	2,818	889	3,707
1902	2,846	868	3,714
1903	2,862	841	3,703
1904	2,870	852	3,722
1905	2,901	853	3,754
1906	2,885	852	3,737
1907	2,918	806	3,724
1908	3,002	792	3,794

As to numerical strength, the public schools exhibited a condition of stagnation during the middle period covered by the table, but during the last two years an advance is apparent, due mainly to the extension of small schools in scattered districts ; and presumably, as the school population for some years past has been practically stationary, and as requirements have been met in former years, not much extension was desired. The increase during the period of 10 years has been 400 schools, equivalent to about 15 per cent.

As to the private schools, there has been practically a continuous drop in their number since 1899, when there were 1,053, to 1908, when there were 792, a decrease of 261, or 25 per cent. The Roman Catholic schools show a substantial increase, in contrast to the diminution of the private schools as a class. There were 312 Roman Catholic schools in 1898 and 387 in 1908, or an advance of 24 per cent.

TEACHERS.

The teachers in the public schools of the State at the end of 1908 numbered 5,728 (3,200 males and 2,528 females), or 17 less than in the previous year. The decrease is due to the large reduction in the number of pupil teachers. The average number of pupils per teacher, on the basis of the mean quarterly enrolment was 38, and the average attendance per teacher, 27, while the average quarterly enrolment of children per school was 65. The following table shows the classification of the teaching staff at the end of 1908 :—

Grade.	Males.	Females.	Total.
Principal Teachers ... ..	2,171	326	2,497
Mistresses of Departments ... ..	...	218	218
Assistants ... ..	715	1,481	2,196
Students in Training Schools ... ..	160	154	314
Pupil-teachers ... ..	130	232	362
Work-mistresses ... ..	...	100	100
High School Teachers ... ..	24	17	41
<b>Total ... ..</b>	<b>3,200</b>	<b>2,528</b>	<b>5,728</b>

The teachers are graded and obtain promotion from class to class after passing a series of examinations, which are framed efficiently to test their progress in scholastic attainments, as well as their skill in imparting knowledge. For long and meritorious service, however, a teacher may receive promotion from one section to another in the same grade. There are seven classes of public schools. In these, the salaries paid to male married teachers range from £108 to £400, quarters valued at £20 to £72 being provided in addition. Unmarried male teachers in charge of schools receive from £84 to £400, and female teachers from £84 to £186. Teachers in half-time schools are paid at the same rates as teachers in public schools of corresponding classification. The salaries of mistresses in charge of girls' departments range from £200 to £280; and of those in charge of infants' departments, from £180 to £228.

Assistant male teachers, if classified, receive from £108 to £280, and assistant female teachers, holding a classification, from £96 to £192. Ex-students of training schools, acting as assistants, receive £96 to £168 in the case of males, and £84 to £120 in the case of females. Male ex-pupil-teachers, acting as assistants, receive £84 to £108, and females £84 to £96. The salaries of work-mistresses range from £96 to £126; of male pupil-teachers from £40 to £65; and of female pupil-teachers, from £25 to £45. Teachers in house-to-house schools receive £5 per head of average attendance; with a maximum of £96. The salaries of junior assistants range from £60 to £108 in the case of males, and £42 to £92 in the case of females. In addition to these rates special allowances are made to teachers of District Schools and to teachers of special subjects, such as Science, Manual Training, Cookery, &c. Where necessary, a sum of £10 per annum is granted as forage allowance, in addition to the ordinary remuneration. Special allowances may be granted to teachers stationed in remote localities, where the cost of living is high.

At the beginning of the year 1908 new regulations were introduced dealing with the classification of schools, and the salaries, classification, and promotion of teachers. Previously the salaries paid to classified teachers in charge of schools depended entirely on the classification of their schools as determined by the average attendance. Under the new scheme the classification is rendered more stable by restrictions upon the transference of schools from class to class, and arrangements have been made by which the teachers' promotion depends not only on the promotion of their schools but also on the improvement of their qualifications. To qualify for a higher grade the teachers must pass a series of examinations, but to obtain promotion they must show also the requisite degree of efficiency in practical work.

The following table shows the number of teachers in State and Private Schools during the last ten years:—

Year.	Teachers.		
	State Schools.	Private Schools.	Total.
1899	4,884	3,407	8,291
1900	5,063	3,352	8,415
1901	5,212	3,353	8,565
1902	5,401	3,339	8,740
1903	5,540	3,368	8,908
1904	5,581	3,396	8,977
1905	5,559	3,482	9,041
1906	5,563	3,557	9,120
1907	5,745	3,524	9,269
1908	5,728	3,501	9,229

The decrease in the number of State school teachers in 1908, as already stated, is due to the large reduction in the number of pupil teachers.

In State Schools, excluding Evening and Subsidised Schools, there was, at the end of 1908, one teacher for every 27 pupils in attendance, and in private schools 1 teacher to 14 pupils. The figures for the latter schools, however, include a number of teachers who do not devote the whole of their time to one school.

#### TEACHERS' TRAINING SCHOOL.

Until the year 1905 the teachers in New South Wales State schools, generally speaking, commenced their career between the ages of 14 and 16 years as pupil-teachers. As such they were held responsible for the instruction of a certain number of children, and in return for their services received payment, partly in the form of a small salary and partly in teaching and advice from the principals of the schools wherein they were employed. After serving four years, and passing annual examinations, the pupil-teachers underwent a course of training in the training college, if successful in passing a qualifying examination, and on emerging from this institution were called assistant teachers, and later on became masters or mistresses of schools. Pupil-teachers who did not enter the training colleges were either placed in charge of small schools or appointed as assistant teachers, and, after some lapse of time, were allowed to compete in the ordinary examinations on the same footing as the trained teachers, and, in fact, many of them found it temporarily to their advantage, from a pecuniary point of view, not to enter the training colleges. In addition, there was the considerable body of practically untrained teachers who had commenced their career in the small schools in outlying districts of the State, many of whom, by perseverance and natural aptitude for teaching, had attained positions of considerable importance under the Department.

But it has become recognised that a system wherein persons are appointed as teachers without previous training, or else allowed to teach for a period of four years prior to undergoing a course of training, is illogical, and the Department has now determined to place the course of training in its right position, *i.e.*, antecedent to employment on the regular teaching staff. Under the revised scheme, therefore, the pupil-teacher system is being abandoned gradually, and at the end of 1908 there were 362 pupil-teachers employed in the State schools. It is intended that these, and all future accessions to the ranks of the teaching service, shall undergo a course of training in a properly-appointed college, and provision has been made for a liberal scheme of scholarships in that connection.

Until 1905 the Training College for males was a non-residential institution working in connection with the Fort-street Model School, and for females accommodation and training were afforded at Hurlstone College. Both of these institutions have now been closed, and it is proposed to replace them by a well-equipped institution in connection with the University, where students of each sex can be received into residence. Pending the erection of this building, the work of training both male and female teachers is being conducted by the daily attendance of students at the Blackfriars Public School, the best available institution adjacent to the University and the Technical College.

At the Training College a two years course is provided, with opportunities of graduation at the University, and for continued study in special directions in the third year for students who show special ability. A series of scholarships have been established to assist the students in their college course and to secure the necessary influx of fresh teachers into the Service.

Arrangements have been made to award an annual travelling scholarship to ex-students of the College. During 1908 there were 314 students (162 men

and 152 women enrolled). Of this number 263 had formerly served as pupil-teachers.

An important adjunct to the College is the Practice School, which has been organised at Blackfriars, where the students are given special opportunities to observe good models in teaching and to acquire experience in practice work. The students also attend demonstration and criticism lessons, which are held in 26 school departments throughout the metropolitan district.

As already remarked, the pupil-teacher system will gradually become extinct. In order to provide a supply of teachers to take its place, a scheme has been evolved whereby young students of both sexes who wish to become teachers will be admitted after examination to a two years' course of study at District Schools. On completion of this course, pupils will be eligible to sit at the necessary examination for admission to the Training College. The minimum age for admission to probationary student classes in the District Schools is 15 years. Liberal provision has been made by the Department by means of bursaries and scholarships at the District Schools, and at the Training College.

#### HIGHER EDUCATION.

The State has made provision for higher education by the establishment of High Schools in the metropolis and in the principal centres of population. The curriculum of these schools is of a character to enable students to complete their course of instruction, and, if they so wish, to prepare themselves for the University examinations. Admission to these schools is after examination only. There were at the close of the year 1908 two High Schools for boys, two for girls, and one for boys and girls. The gross enrolment for that year was 504 boys and 465 girls, making a total of 969 pupils. The average daily attendance was 728. The expenditure amounted in 1908 to £9,777, and the fees received to £3,702, so that the net cost to the State was £6 5s. 4d. per head of the total enrolment. During 1908, 100 pupils from the High Schools passed the junior, 32 the senior, and 75 the matriculation examinations at the University, 28 of the matriculants qualifying at the junior, and 22 at the senior examinations.

Superior Public Schools are also established, in which the subjects taught embrace, in addition to the ordinary course prescribed for Public Schools, such other subjects as will enable the student to compete at the senior and junior public examinations. There were 142 of these schools in existence at the end of 1908, with an enrolment of 91,935 pupils.

The results of the University public examinations for 1908 show that 9 senior and 234 junior passes were obtained by Public School pupils. Of these the whole of the senior passes and 107 junior certificates were gained by the Fort-street Model School, being a practical result of the principle of concentration applied to the Metropolitan District, by which this school is made a centre for pupils from all suburbs, with free transport, as in the case of High Schools. Of the total passes of all candidates from New South Wales at the junior examination in 1908, nearly 47 per cent. were obtained by scholars attending the Public Schools.

In order to provide education beyond the primary course available to country children, District Schools have been established at twenty-four centres. The schools are adjuncts to the Superior Public Schools, and are designed to supply a two-years course of study as higher education for country children, and to serve as preparatory training-schools for young people who desire to enter the teaching profession.

The system of scholarships and bursaries for boys and girls at State schools in operation under the Public Instruction Act has been considerably extended. District and High School scholarships to the number of 100 are

awarded annually, and 72 bursaries. Scholarships, distinguished as District and High School, Agricultural, Junior Technical, Intermediate Technical, and Senior Technical, are open to all classes of pupils of schools within the State for competitive examination half-yearly, with the exception of scholarships for the Hawkesbury Agricultural College, which are awarded annually. Bursaries, distinguished as District and High School, Junior Technical, and Intermediate Technical, are also awarded half-yearly upon competitive examination to pupils of State Schools.

The examinations for scholarships and bursaries, tenable at District and High Schools for three years, are open to all boys and girls under 15 years of age, and entitle the holders to free tuition and text-books. In the case of a bursar who lives at home, an annual allowance not exceeding £10 is made; but when a bursar is compelled to board away from home, an allowance not exceeding £30 is granted. A very extensive application of the scholarship and bursary scheme to Agricultural and Technical Education has also been authorised.

In addition to the foregoing, 12 bursaries (6 for boys and 6 for girls), tenable at the Sydney University for three years, are open to competition annually, and are awarded in order of merit at the matriculation examinations.

During the year 1908, 183 candidates were successful at the examinations held under the scholarship and bursary scheme. Of these, 55 boys and 45 girls obtained scholarships for High Schools and Superior Schools; 32 boys and 32 girls, bursaries for High and Superior Schools; 8 boys, bursaries for Sydney Grammar School; and 6 boys and 5 girls, University bursaries.

In addition to the various classes of Public Schools already mentioned, there exist several institutions of an educational character which receive an annual subsidy from the Government. The most important of these is the Sydney Grammar School, which receives an annual endowment from the State of £1,500. In 1908 the other revenue, derived from school fees and other sources, amounted to £10,543, and the total expenditure for the year was £11,826, of which salaries and allowances absorbed £10,418. In 1908 the mean quarterly enrolment was 601, and the average attendance 574.

#### THE UNIVERSITY.

An Act incorporating the University of Sydney was passed and received the Royal assent on the 1st October, 1850.

An endowment, from the public revenue, of £5,000 per annum was given for "defraying the stipends of teachers in literature, science, and art," and for administration purposes, no provision being made for teaching any other branch. Authority was given to examine and to grant degrees in law and medicine as well as in arts. The University was to be strictly undenominational, and the Act expressly prohibited any religious test for admission to any of its privileges.

The first Senate commenced its labours at the close of the year 1850, and soon established three chairs in Classics, Mathematics, and Chemistry and Experimental Physics, sending to England for professors to fill them. On the 11th October, 1852, the University was opened with an imposing ceremony, in presence of the Governor and principal officers, and under the presidency of Sir Charles Nicholson, twenty-four matriculated students being admitted to membership.

In 1858 a Royal charter was granted, which declares that "the degrees of this University in arts, law, and medicine shall be recognised as academical distinctions of merit, and be entitled to rank, precedence, and consideration in the United Kingdom as fully as if the said degrees had been granted in any university of the United Kingdom."

Since the passing of the original Act various amendments have been made. In 1884 the Senate's powers as regards teaching and degrees were extended so as to provide instruction and to grant degrees or certificates in all branches of knowledge, with the exception of Theology or Divinity, subject to a proviso that no student should be compelled to attend lectures or to pass examinations in Ethics, Metaphysics, or Modern History; and the Act extended the benefits and advantages of the University in all respects to women equally with men.

An Act to provide for the establishment of colleges of residence in connection with religious denominations was passed in 1854, for the association of students in the cultivation of secular knowledge. The college tutors provide assistance to students in preparing for the University lectures and examinations. Under this provision three colleges have been established, namely, St. Paul's (Church of England), St. John's (Roman Catholic), and St. Andrew's (Presbyterian). Action is being taken at the present time for the foundation of a Methodist College. A college of residence for women was established in 1892, on a strictly undenominational basis.

The State endowment of the University was £5,000 per annum until 1880, when £1,000 was added for assistant lectureships; in 1882 a further sum of £5,000 was granted for the establishment of schools of Medicine and Engineering, and to assist the Faculty of Arts. Further grants were made until in 1893 the Government endowment for general purposes amounted to £13,000, and the special grants to £6,595. In 1907 the endowment was placed upon a statutory footing at £10,000 per annum, the special grants amounting to £3,750. This included a sum of £2,000 per annum as a provision for evening lectures, first granted in 1882. A Bill is now before Parliament in which it is proposed to increase the statutory endowment from £10,000 to £20,000 per annum. Of this amount £5,000 are intended to provide for schools of Veterinary Science and Agriculture, £2,500 to enable the Senate to reduce the fees, and £2,500 in lieu of the present Parliamentary vote of £1,500 for the maintenance of scientific departments.

In 1873 the portion of land previously set apart for the Wesleyan College was resumed by the Government for the erection of the Royal Prince Alfred Hospital, in connection with the establishment of a Medical School at the University. All appointments to the Medical and Surgical Staff of the Hospital are made conjointly by the Senate of the University and the Directors of the Hospital.

Many benefactions have been made to the University for helping and rewarding students. Among the first were gifts of £1,000 each from Mr. Thomas Barker, Sir Daniel Cooper, and Sir Edward Deas-Thomson, represented by lands which are now of twice that value. Many others followed, and about £60,000 has been presented up to the present date, exclusive of prizes which have been exhausted by award, and irrespective of increases in value. In addition, a sum of £30,000 was left by the late Mr. Thomas Fisher for a library, and £6,000 was given by the late Sir William Macleay for a Curatorship of the Natural History Museum, presented by him to the University, and for which the Government have erected a suitable building. There have also been bequests of other property, other than money, to the estimated value of £51,000; and the late Mr. John Henry Challis left his residuary estate to the University, subject to certain annuities. In December, 1890, the trustees handed over to the University the major part of the Australian portion of the estate, approximating to £200,000 in investments, together with a cash balance. The balance of £75,000 was transferred to the University in 1907, and under the bequest the Senate have created Chairs in Law, Modern Literature, History, Logic, and Mental Philosophy, Anatomy, Engineering, and Biology, and a Lectureship in Military Science, to which

they have given the testator's name. The Hovell and Challis bequests constituted, until the end of 1894, the only resources of the University for education other than the public endowments. During 1896 Sir Peter Nicol Russell, of London (formerly of Sydney), devoted £50,000 to the purpose of endowing a School of Engineering, and this gift was supplemented by a further grant of £50,000 in 1904.

The teaching staff of the University now consists of 15 professors, 3 assistant professors and 74 lecturers and demonstrators.

In the Faculty of Arts there are professorships in Latin, Greek, Modern Literature, Modern History, Logic and Mental Philosophy, and Mathematics, with assistant lecturers in Latin, Mathematics, English, French, and German, and a lecturer in Education. Departments of Economics and Commerce, and of Military Science were instituted in 1907.

In the Faculty of Law there are a professor of Law and four lectureships in the following subjects, viz. :—Law of Status, Civil Obligations and Crimes, Law of Procedure, Pleading and Evidence, Law of Property, and Equity, Probate, and Bankruptcy and Company Law.

The Faculty of Medicine has Professors in Physiology, Anatomy, and Pathology, with demonstrators in each of these subjects. There are also lectureships in Medicine, Surgery, Clinical Medicine, Clinical Surgery, Midwifery, Diseases of Women, Materia Medica and Therapeutics, Medical Jurisprudence and Public Health, Ophthalmic Medicine and Surgery, and Psychological Medicine. There are also 6 honorary lecturers in special subjects, 5 honorary demonstrators in Anatomy, as well as a medical tutor and surgical tutor.

The Faculty of Science has professorships in Chemistry, Physics, Geology and Physical Geography, and Biology, with lecturers in Palæontology, Embryology, and Physiography, and demonstratorships in all the professorial subjects. The Faculty of Science also includes the Department of Engineering, in which there are a Professor of Civil Engineering, separate lectureships in Mechanical Engineering, Electrical Engineering, Surveying, Mining, Metallurgy, and Architecture, with demonstratorships in the Engineering subjects, as well as a demonstrator in Metallurgy, who acts as assistant to the Professor in Chemistry.

The Professorship in Veterinary Science has been instituted recently, and that for Agriculture is in process of establishment.

From the foundation of the University to the end of 1908, 3,067 degrees of various kinds have been conferred, the highest number bestowed in any one year being 188 in 1906. Of the total number, male graduates numbered 2,654, and females 413. The degrees conferred for 1908, and for all years, are shown in the following statement :—

	1908.	Total.		1908.	Total.
M.A. ...	13	356	B.Sc. ...	11	85
B.A. ...	70	1,443	M.E. ...	...	6
LL.D. ...	...	25	B.E. ...	12	182
LL.B. ...	9	155	L.D.S. ...	...	30
M.D. ...	...	51	B.D.S. ...	6	29
M.B. ...	32	414			
Ch.M. ...	16	287	Total...	170	3,067
D.Sc. ...	1	4			



## EDUCATION.

The following statement shows the number of students attending lectures at the University at intervals since 1876 :—

Year.	Matriculated.	Unmatriculated.	Total.
1876	34	24	58
1886	122	81	203
1896	438	16	454
1906	836	218	1,054
1907	871	307	1,178
1908	875	449	1,324

The following table shows the distribution of students in attendance at lectures during 1908 :—

Department.	Matriculated.		Unmatriculated.		Total.
	Males.	Females.	Males.	Females.	
Arts—Day ... ..	134	86	11	11	242
„ Evening ... ..	93	15	40	1	149
Law ... ..	66	...	1	...	67
Medicine... ..	319	17	10	14	360
„ Dentistry ... ..	22	...	35	1	58
Science ... ..	25	9	92	15	141
„ Engineering ... ..	87	...	4	...	91
Pharmacy ... ..	...	...	109*	3	112
Military History ... ..	...	...	33*	...	33
Economics and Commerce ... ..	...	...	68*	1	69
Research Students ... ..	2	...	...	...	2
Total ... ..	748	127	403	46	1,324
	875		449		

\* Special subjects ; Matriculation not compulsory.

From these figures it is evident that matriculated students constitute 66·2 per cent. of students in attendance, and women students represent 13·1 per cent. of the total.

Below is given a statement showing the amount derived by the University from each of the principal sources of revenue, at intervals since 1876, the total expenditure during each year being also shown :—

Year.	Receipts.					Expenditure.
	Government Aid.		Lecture fees.	Other sources.	Total.	
	Endowment.	Grants for apparatus or other special purposes.				
1876	£ 5,000	£ .....	£ 403	£ 100	£ 5,503	£ 5,877
1886	12,000	5,500	2,600	323	20,423	20,765
1896	9,000	2,400	8,171	11,923	31,494	31,557
1901	9,000	800	11,619	14,347	35,766	37,130
1902	9,000	3,317	11,950	15,387	39,654	42,690
1903	10,000	5,533	13,338	16,815	45,686	44,348
1904	10,000	3,500	14,171	16,965	44,636	43,430
1905	10,000	3,250	15,309	18,524	47,083	47,599
1906	10,000	3,500	16,640	18,807	48,947	48,409
1907	10,000	3,750	17,220	16,713	47,683	50,298
1908	10,000	5,300	18,272	19,952	53,524	52,400

The University buildings consist of the main building, containing the great hall, lecture rooms, and offices, all built of Pyrmont sandstone; the Medical School, which is in the same style, and is now being enlarged; the Fisher Library, adjacent to the main building, and designed to form part of the main quadrangle; this is the latest addition to the buildings, and is of modern design, with a bookstack of steel and glass for 200,000 volumes, and with ample accommodation for students. Separate buildings are distributed over the grounds for the Departments of Chemistry, Physics, Geology, and Biology, and the Macleay Museum. The Peter Nicol Russell School of Engineering has also a separate building, recently completed at a cost of £25,000 by the State.

#### EXTENSION LECTURES.

University Extension Lectures were inaugurated in 1886, and have been conducted since that date under the direction of a Board of eighteen members appointed annually, and including at least four members of the Senate and four of the teaching staff. Courses of Lectures are given in various centres upon topics of literary, historical, and scientific interest. At the conclusion of a course, which consists of six or ten lectures, an examination may be held and a certificate awarded to successful candidates. During 1908 lectures were delivered in six Sydney and suburban centres, and in ten other centres embracing country districts in New South Wales. The Board also confers the benefits of its lectures on other States, and in 1908 an extensive series of lectures under its auspices was delivered in Western Australian towns. Assistance was also given to Queensland in the movement to establish a University, and a series of lectures delivered as in previous years, for it must be remembered that Queensland has hitherto been dependent on Sydney for University education, and Queensland candidates have always been well represented in the public examinations of Sydney University, while the Queensland lectures have formed a prominent part of the work of the Extension Board.

#### PUBLIC EXAMINATIONS.

The University conducts Public Examinations, Junior and Senior, which are open to all candidates on payment of the necessary fee, and are held annually at various centres in New South Wales and Queensland. These examinations provide an excellent test of the soundness of instruction imparted in the schools of the State, from the pupils of which the examinees are mainly drawn.

The following table shows the number of successful candidates at intervals since the year 1876 :—

Year.	Senior Passes.			Junior Passes.			Total Passes.
	Males.	Females.	Total.	Males.	Females.	Total.	
1876 ...	...	...	40	...	...	312	352
1886 ...	...	...	83	...	...	548	631
1896 ...	59	49	108	633	332	965	1,073
1906 ...	92	34	126	582	263	845	971
1907 ...	104	45	149	531	273	804	953
1908 ...	101	50	151	582	332	914	1,065

The attainment of a certain standard at the above examinations is regarded as the equivalent of matriculation, but in addition special matriculation examinations have been held in March of each year. This practice is being

discouraged, and matriculation examinations are now held concurrently with the public examinations. Examinations for the admission of articled clerks in Law have been conducted by the University since 1877 by a rule of the Supreme Court, and there were twenty-two passes in 1908. Various other public examinations are conducted by different bodies, for which the schools prepare their pupils, notably the Chamber of Commerce examinations in commercial education, established in 1900, the Institute of Bankers for admission to the Bank service, the Public Service examination for admission to the Service, instituted in 1897. The extension of the demand for boys with some commercial, as apart from academic or technical, knowledge, which led to the organisation of the Chamber of Commerce examinations, has also led the University to issue Commercial Junior certificates and to institute the Department of Economics and Commerce, for the furtherance and co-ordination of commercial education.

#### DENOMINATIONAL HIGH SCHOOLS AND COLLEGES.

The principal religious bodies provide high schools and colleges where students may be educated according to the precepts of their various beliefs, and be prepared to compete for University honors or for the various professions which they may adopt. Evidence of the progress of superior denominational education in the State may be seen in the magnificent college buildings which surround the city, among which may be cited the old-established King's School at Parramatta, Newington College, the Catholic Colleges at Hunter's Hill and Riverview, the North Sydney Church of England Grammar School, the Scots' College, the Presbyterian Ladies' College at Croydon, and many other first-class establishments conducted under the patronage of the various religious bodies.

#### TECHNICAL EDUCATION.

The foundation of the New South Wales Technical School was due in great measure to the efforts of a few enthusiasts connected with the Sydney Mechanics' School of Arts; and, as far back as 1873, it was decided to establish a Technical College, affiliated to that institution, with the object of improving the scientific knowledge of Australian artisans. In the year 1878 a sum of £2,000 was granted by Parliament towards the organisation 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 the management, and the Technical College became thereupon a State institution. Towards the end of 1899 the Board was dissolved, and the Technical College came under the direct control of the Minister of Public Instruction. The institution is now well established, and its work is already being felt and appreciated, whilst the future gives every promise of still greater usefulness. The College is housed in a fine building specially erected by the Government at Ultimo, Sydney, opened for the reception of students in January, 1892. Besides workshops containing the necessary machinery, tools, and apparatus, the College possesses an excellent museum, open to the public as well as to students.

The course of instruction of the College includes classes in agriculture, art, architecture, carpentry, &c., chemistry, cookery, dressmaking, geology, and mineralogy, iron founding, mechanical engineering, physics, printing, sanitary engineering, electrical engineering, lithography and photo-lithography, mine surveying, metalliferous mining, wood and stone carving, and wool sorting and other training in connection with sheep and wool; and these classes are subdivided as may be warranted by circumstances. At present the accommodation at the institution for some of the classes is quite inadequate, and the extension of operations is immediately necessary.

The College is open to male and female students, and in 1908 there were 790 classes in operation, of which 232 were in Sydney and suburbs, 435 in various country towns, and 123 in connection with public schools. The teaching staff consisted of 10 lecturers in charge of departments, 7 resident masters in charge of branch schools, 133 teachers, 30 assistant teachers, and 94 teachers remunerated by fees only. The enrolment of students numbered 18,490 in all, 9,664 of whom were in Sydney and suburbs, and 6,411 in the country, while 2,415 represented the enrolment of scholars from public schools. The number of individual students was 14,866, and the average weekly attendance was 10,498. Technical College buildings have been erected at Maitland, 1890; Newcastle, 1896; Bathurst, 1898; Broken Hill, 1898; Albury, 1899; and Goulburn, 1902. Apart from these country branches, Technical classes are held in over 60 centres in country and suburban districts.

During recent years efforts have been made to extend the technical education in the country districts. Classes have been formed for the teaching of Domestic Science, Agriculture and subjects relating to sheep and wool, and Veterinary Science. In order to overcome the difficulty of providing properly trained teachers arrangements were made in 1907 to train teachers of Domestic Science at the Sydney Technical College, and it is proposed to appoint itinerant teachers for the other classes.

In 1907 a scheme of continuation schools was introduced—the aim being to carry on the general education of the students and at the same time to give them a thorough grounding in the theory and practice of subjects bearing upon the staple industries of the State. Schools were opened at Ashfield and Goulburn—at the former practical instruction is given in agriculture, and at the latter in sheep and wool. It is intended to open a school of electrical engineering and coal mining at Newcastle, and a school of mines at Broken Hill. A continuation school was established in Granville in 1908.

At the Bootmaking Trades school at Erskineville every branch of the trade is taught.

In 1908 the State expenditure on technical education amounted to £51,814, including £38,497 on maintenance, of which salaries and allowances amounted to £29,188; school premises, £12,742; and other expenses, £575. This expenditure does not include the cost of the Technological Museum and branches, on which £5,196 was expended during the year.

Scholarships numbering 184 were awarded in 1908, entitling the winners to free instruction in the next year's course of the subject of their study.

#### REFORMATORIES AND INDUSTRIAL SCHOOLS.

Apart from the purely educational establishments, the State maintains several reformatories and industrial schools. For girls there is the Industrial School at Parramatta; and for boys, the Carpenterian Reformatory and the nautical schoolship "Sobraon." These institutions are under the control of the Minister of Public Instruction. At the Parramatta Industrial School the enrolment of girls during the last quarter of 1908 was 106, of whom 3 were under and 103 over 14 years of age, and the cost of maintaining the school in 1908, was £2,944.

The Carpenterian Reformatory was opened in 1895 to receive boys who have been convicted of offences, and whom it is desirable to keep apart from persons with whom they would be associated if sent to gaol. Under strict discipline, the boys are taught farming, wood-turning, carpentering, cabinet making, French polishing, boot making, tailoring, tinsmithing, painting, glazing, jam making, and fruit preserving. During the last quarter of 1908 there were 96 lads in the Reformatory, of whom 21 were under 14 years of age. The net annual State expenditure on this institution amounted to

£2,441. Since its inception the institution has dealt with 795 boys, and of the 699 discharges it is estimated that fully 97 per cent. have turned out industrious citizens.

On the "Sobraon" there were 451 boys during the year 1908. Of this number 379 received instruction, and 72 were exempt from school attendance, being employed on the tender "Dart" or engaged in carpentry. The admissions during the year numbered 100, and the discharges 152. On the 31st December, 1908, there were 300 boys remaining on board. During forty-one years the institution has dealt with nearly 5,700 boys, and the records show that about 98 per cent. of these have developed into good citizens. The net cost to the State during 1908 was £12,367, the cost per head of enrolment being £27 8s. 5d. The steam and sailing schooner "Dart" is attached to the "Sobraon," and on board this vessel the boys are taught seamanship, and are afforded opportunities of putting their knowledge into practice by an occasional trip to sea. So successful has the experiment proved that a number of boys have been shipped as sailors on deep sea vessels. The great advantage which the "Sobraon" system possesses over the ordinary penal system of the State lies in the fact that the boys who have been subjected to a course of training on board the vessel are not turned adrift on society at the expiration of their term, but are apprenticed to persons of well-known character, and thus have every opportunity of becoming respectable members of the community. The success which has attended this institution is an undoubted argument for its existence.

#### COST OF EDUCATION.

The actual expenditure by the Government on all branches of Education, including grants and subsidies to Educational and Scientific institutions, cost of industrial schools and reformatories, and expenditure on premises, equipment, and maintenance of public schools, has been steadily increasing, as the figures for the past five years will show; but relatively to the mean population the increase has been almost imperceptible until 1908, for which year there is a distinct advance, due mainly to the State's contribution for the Franco-British Exhibition.

The following is a table of the expenditure for all purposes during the last five years:—

Year ended 30th June.	Total Expenditure.	Cost per head of mean population.
	£	s. d.
1904	971,148	13 5
1905	946,298	12 10
1906	981,577	13 0
1907	1,045,382	13 5
1908	1,191,617	15 0

The results which the State will receive from this expenditure are inestimable, and will be apparent in the lives of those who have enjoyed the advantages provided thereby.

#### EXPENDITURE ON STATE SCHOOLS.

The annual expenditure on State Education in a young country is necessarily burdened by disbursements, which are really capital expenditure, in varying amounts for each calendar year according to requirements, and for which the State holds enduring assets. It is, therefore, necessary to distinguish this capital expenditure from ordinary disbursements in estimating

the relative annual cost of education. The capital expenditure of recent years covering cost of buildings, sites, additions, etc., has been as follows:—

	£
1895	102,904
1900	107,942
1905	51,175
1906	82,773
1907	93,686
1908	140,992

The manner in which the amounts vary from year to year indicates the fluctuations in the requirements in this direction.

ANNUAL COST—STATE SCHOOLS.

In the following table ordinary annual expenditure only is shown, and is related to the average attendance of children and to the mean population of the State:—

Year.	Rates.	Maintenance and Salaries.	Administration and Training.	Total.	Gross Annual Expenditure.	
					Per child in average attendance.	Per capita of mean population.
	£	£	£	£	£ s. d.	s. d.
1895	1,493	551,342	46,088	598,923	4 5 7	9 6
1900	6,337	614,843	51,094	672,274	4 7 5	9 11
1905	7,645	729,464	51,692	788,801	5 3 9	10 8
1906	7,292	737,041	54,565	798,808	5 5 7	10 7
1907	9,662	758,130	60,817	828,609	5 9 10	10 8
1908	5,723	873,748	64,557	944,028	6 1 0	11 11

For 1907 and 1908 fees were received in High Schools only, education in other schools being free. The amount of the fees received during 1908 was £3,702, a negligible quantity in comparison with the large gross expenditure. The figures given above represent the annual cost per child. To estimate the total cost of education per child would necessitate the investigation of the present capital value of buildings and equipment, the rate of depreciation to be allowed, and generally more detailed information than is now available.

The intensity of annual cost in each of the groups quoted above is indicated in the following table, in which the relative cost per school is shown for the same years:—

Year.	No. of Schools.	Per School.		
		Rates.	Maintenance and Salaries.	Administration and Training.
		£ s. d.	£ s. d.	£ s. d.
1895	2,563	0 11 8	215 2 2	17 19 7
1900	2,745	2 6 2	223 19 10	18 12 2
1905	2,901	2 12 8	251 9 0	17 16 5
1906	2,885	2 9 10	255 9 5	18 19 2
1907	2,918	3 6 3	259 16 2	20 16 10
1908	3,002	1 18 1	291 1 0	21 10 0

Of the 3,002 schools shown above, 60 per cent. were small schools averaging less than 30 in the daily attendance. Owing to the migration of families for various reasons, it is occasionally found necessary to close some of these institutions, and in such cases the regulation permitting the granting of subsidies in isolated districts has been utilised. At the close of 1908 there were 284 subsidised schools in operation, with an enrolment of 2,548 children.

## SCHOOL SAVINGS BANKS.

A system of school savings banks was initiated during 1887 in connection with the public schools of the State. At the close of 1908 there were 688 banks in operation, as compared with 681 at the close of 1907. The deposits for the year amounted to £22,340, and the sum withdrawn was £21,871. The total amount to the credit of the school banks on the 31st December, 1908, was £10,512, as compared with £10,043 at the end of 1907. Since 1887 the total sum of £325,371 has been deposited and £316,859 withdrawn. Of the latter sum an amount of £78,708 was placed to the credit of children's accounts in the Government Savings Bank. The object of these banks is to inculcate practically the principles of thrift while the minds of the children are susceptible of deep impressions.

## OBSERVATORY AND SCIENTIFIC SOCIETIES.

The Sydney Observatory is another of the institutions of a scientific and educational character which the State liberally supports. Situated in a commanding position, it is admirably fitted by natural conditions for the purpose it is intended to serve; but the growth of an immense city, radiating in every direction, has caused such adverse atmospheric conditions that another site will be essential at an early date. The present building was erected in 1856, at the instance of Sir William Denison, then Governor of the Colony, who took a great interest in scientific pursuits.

Meteorological observations, which for many years received special attention as part of the work of the Observatory, are now directed by a special Bureau, under the administration of the Commonwealth Government.

The Observatory is open to the public once a week, and during 1908 the total number of visitors was 1,079.

As far back as the year 1821 a scientific society, under the title of the Philosophical Society of Australasia, was founded in Sydney, and after many vicissitudes of fortune was merged, in 1866, into the Royal Society of New South Wales. The society is now in a flourishing condition, counting amongst its members some of the most eminent men in the State. Its objects are the advancement of science in Australia, and the encouragement of original research in all subjects of scientific, artistic, and philosophic interest, which may further the development of the resources of Australia, draw attention to its productions, or illustrate its natural history.

The study of the botany and natural history of Australia has attracted many enthusiastic students, and the Linnæan Society of New South Wales was established for the special purpose of furthering the advancement of these particular sciences. The society possesses a commodious building at Elizabeth Bay, one of the most beautiful spots near the city, attached to which are a library and museum. It was liberally endowed by Sir William Macleay, who, not content with being an indefatigable worker in the field of science, was also one of its most munificent supporters. The society's proceedings are published at regular intervals, and contain many valuable papers with excellent illustrations of natural history.

Among the other scientific societies are the New South Wales Zoological Society, inaugurated in 1879, also branches of the British Medical Association, founded in 1881; of the British Astronomical Association, whose first meeting was held in 1895; and the Anthropological Society of Australasia. The Australasian Association for the Advancement of Science, and the Royal Geographical Society of Australia, also have branches in New South Wales.

PUBLIC LIBRARIES.

The Public Library of New South Wales was established, under the designation of the Free Public Library, on the 1st October, 1869, when the building and books of the Australian Subscription Library, founded in 1826, were purchased by the Government. The books thus acquired formed the nucleus of the present library. The number of volumes originally purchased was about 16,000, and on the 31st December, 1908, they had been increased to 240,743, including those in the lending branch or lent to libraries or private students in the country. The lending branch was established in 1877 to meet a growing public want, and under the present system any person, on the recommendation of a clergyman, magistrate, or other responsible person, may obtain the loan of any of the works on the shelves, free of charge, under certain simple regulations. The scope of this institution has been further extended by the introduction of a system by which country libraries and Mechanics' Institutes may obtain on loan select works, which would be too expensive for them to purchase on account of the slender funds at their disposal. Under this system boxes are made up containing from 60 to 100 books, and forwarded to the country libraries on application, to be returned or exchanged within four months. This system was initiated in August, 1883, and has been carried on successfully ever since. In the course of the year 1908, 12,352 volumes were forwarded to 124 institutions, some of which were at considerable distances from the metropolis. Further, 1,439 volumes were sent to 16 different lighthouses, 3,451 volumes were lent to 58 different Public School Teachers' Associations, and 847 volumes were sent to 157 individual students in the country during the year. Students are expected to pay return freights on parcels, but all the other charges in connection with the despatch and return of the books are defrayed by the State.

In December, 1908, the books, fittings, &c., of the lending branch were vested by Act of Parliament in the Municipal Council of Sydney, but an agreement was made that the trustees of the Public Library continue the management until arrangements, which have now been completed, could have been made by the Council to assume control.

The reference department of the Public Library contains 201,827 volumes, and the lending branch 29,808. There are also 9,108 volumes for country libraries under the lending system. The books and pamphlets in the institution are classified as under :—

Synopsis of Classification.	Reference Department.	Lending Branch.	For Country Libraries.	Total.
Natural Philosophy, Science, and the Arts .. .. .	15,633	5,125	879	21,637
History, Chronology, Antiquities, and Mythology .. .. .	8,357	4,164	1,214	13,735
Biography and Correspondence .. .. .	6,310	4,604	1,212	12,126
Geography, Topography, Voyages and Travels, etc. .. .. .	7,741	3,825	1,023	12,594
Periodical and Serial Literature .. .. .	34,749	.. .. .	341	35,090
Jurisprudence, Political Economy, Social Science, etc. .. .. .	7,154	1,498	346	8,998
Theology, Moral and Mental Philosophy, and Education .. .. .	7,040	2,006	1,002	10,048
Poetry and the Drama .. .. .	3,750	1,062	199	5,011
General Literature, Philology, and Collected Works * .. .. .	7,393	7,524*	2,368	17,790
Works of Reference .. .. .	4,626	.. .. .	19	4,645
Duplicates .. .. .	5,155	.. .. .	.. .. .	5,155
"Mitchell" Library .. .. .	60,132	.. .. .	.. .. .	60,132
Classified according to the Dewey System—				
1. General Works .. .. .	3,773	.. .. .	.. .. .	3,773
2. Philosophy .. .. .	689	.. .. .	.. .. .	689
3. Religion .. .. .	1,270	.. .. .	.. .. .	1,270
4. Sociology .. .. .	8,694	.. .. .	.. .. .	8,694
5. Philology .. .. .	301	.. .. .	.. .. .	301
6. Natural Science .. .. .	3,291	.. .. .	.. .. .	3,291
7. Useful Arts .. .. .	5,114	.. .. .	.. .. .	5,114
8. Fine Arts .. .. .	1,959	.. .. .	.. .. .	1,959
9. Literature .. .. .	3,165	.. .. .	.. .. .	3,165
10. History (including Biography and Travel) .. .. .	5,526	.. .. .	.. .. .	5,526
Total .. .. .	201,827	29,808	9,108	240,743

\* Including 5,233 volumes of Fiction.



The popularity of the Public Library is evidenced by the number of persons availing themselves of its privileges. In 1908 the visits numbered 283,579, of which 108,776 were to the lending branch. The following table shows the number of visits paid to the Library during the last ten years:—

1899 ... ..	289,919	1904 ... ..	304,254
1900 ... ..	287,429	1905 ... ..	312,733
1901 ... ..	330,945	1906 ... ..	290,209
1902 ... ..	303,901	1907 ... ..	261,787
1903 ... ..	316,759	1908 ... ..	283,579

In addition to the 283,579 visits recorded for 1908 there were 285,855 admissions to the newspaper room. Although the lending branch contains but 29,808 volumes, the total number of issues during the year was 109,992, and of borrowers 8,253; so that the issues were nearly four times the total stock, and equal to 13·3 volumes per reader. As usual, works of fiction were extensively read, the 5,233 novels in the branch having been issued, on an average, over eleven times each during the year. The number of volumes of each class taken out was as follows:—

Synopsis of Classification.	No. of volumes used.	Per cent. of total volumes.
Natural Philosophy, Science, and the Arts ... ..	14,695	13·36
History, Chronology, Antiquities, and Mythology ... ..	7,429	6·75
Biography and Correspondence ... ..	6,616	6·02
Geography, Topography, Voyages and Travels, etc. ... ..	6,231	5·67
Jurisprudence, Political Economy, Social Science, etc. ... ..	2,829	2·57
Theology, Moral and Mental Philosophy, and Education ... ..	4,258	3·87
Poetry and the Drama ... ..	3,227	2·93
General Literature, Philology, and Collected Works ... ..	3,517	3·20
Prose Fiction ... ..	61,190	55·63
Total ... ..	109,992	100·00

During 1886 and 1887 considerable extensions were made to the premises of the Public Library, which had become much too small as to sitting and shelving accommodation. The new building was opened to the public in 1890, and is one of the most convenient in Australia. In July, 1899, it was found advisable to remove the Lending Branch to a more central position in the Queen Victoria Market buildings. In 1899 the Library was incorporated, and received a statutory endowment of £2,000 per annum for the purchase of books. It has also benefited by the munificence of Mr. D. S. Mitchell, who, in 1899, made a donation of 10,024 well-chosen volumes, together with 50 valuable pictures, and at his death bequeathed to the State the whole of his unique Australian collection. This collection will be kept separate, and be known as the "Mitchell" Library. A fine structure has been erected to accommodate it.

The cost of the Public Library to the State during 1908 was £10,369, the details of expenditure being as follows:—

Books, Periodicals, and Binding ... ..	£ 1,890
Salaries ... ..	6,618
Miscellaneous—Cleaning, Freight, Repairs, &c. ... ..	1,861
Total ... ..	£10,369

The administrative work in connection with the Board for International Exchanges is performed by the Library staff.

Small local libraries are established in the principal population centres throughout the State. These may be classed broadly under two heads—Schools of Arts, receiving an annual subvention in proportion to the

amount of monetary support accorded by the public; and Free Libraries, established in connection with municipalities. Those of the former class preponderate. Under the provisions of the Local Government Act of 1906, any shire or municipality may establish a public library, art gallery, or museum. At the end of 1908 there were 43 municipal libraries in the State, with 37,624 volumes.

The principal public libraries, with the number of volumes in each at the end of 1908, is shown in the following statement:—

Name of Library.	Number of Departments.	Total number of volumes.
Sydney University ... ..	1	86,000
Public Library and Lending Branch ... ..	2	240,743
Australian Museum ... ..	1	15,023
Botanical Museum ... ..	1	4,200
State Schools ... ..	1,187	131,000
Sydney Technical College and Branches ... ..	7	6,869
Municipal Libraries ... ..	43	37,624
Mechanics' and Other Institutes, } Schools of Arts. ... .. }	Receiving State or Municipal Aid {	
	366	528,181
Total ... ..	1,608	1,049,640

In addition to the above there are a large number of private circulating libraries, which are extensively used.

NATIONAL ART GALLERY.

The National Art Gallery contains an excellent collection of paintings and statuary, including some of the most famous works of the best modern artists, also valuable gifts from private persons. The collection of water colours is considered to be the finest out of England. It is estimated that the present value of the contents of the Gallery is at least £146,000. During 1908 the Gallery was visited by 289,107 persons, the average Sunday attendance being 2,066, and on week-days 592. Art students, under certain regulations, may copy any of the various works. In 1894 a system of loan exchanges between Sydney, Melbourne, and Adelaide was introduced. By this arrangement pictures are sent from Sydney to Melbourne and Adelaide, and others are received from those cities in exchange, with results most beneficial to the interests of art. Another excellent scheme was initiated in July, 1895, by which collections of pictures are sent to the principal country towns for temporary exhibition. At the close of 1908, the total expenditure on the National Art Gallery, inclusive of the building, amounted to £251,082, of which £102,705 had been expended on works of art. The disbursements during 1908 were:—

For works of art ... ..	£ 363
For maintenance, including freight, frames, repairs, and insurance	719
For salaries ... ..	2,032
Total cost to the State ... ..	£3,114

MUSEUMS.

The Australian Museum, the oldest institution of its kind in Australia, contains a very fine collection of specimens of the principal objects of natural history, also a representative collection of zoological specimens of distinctly Australian character. The popularity of the institution is evidenced by the increasing number of visitors, of whom there were, during 1908, 231,675, the daily average being 874 on Sundays, and 691 on other days.

The expenses in connection with the institution amounted to £7,777, of which £851 were expended on account of purchase, collection, and carriage of specimens, and purchase of books. A fine library is attached to the institution, containing many valuable publications, the total volumes numbering 15,023. The specimens acquired during 1908 numbered 25,421. Lectures and gallery demonstrations for the benefit of school teachers are given in the Museum by members of the staff.

The Technological Museum was instituted at the close of 1879 on the initiative of the Trustees of the Australian Museum ; but the whole original collection of some 9,000 specimens was totally lost in 1882 by the Garden Palace fire. Efforts were at once made to replace the lost collection, and in December, 1883, the museum was again opened to the public, and now contains a valuable series of specimens illustrative of various stages of many manufactures, and an excellent collection of natural products. The popularity of the institution may be gathered from the fact that 84,604 persons visited it during 1908. There are branch Technological Museums at Goulburn, Bathurst, West Maitland, Newcastle, and Albury, which were visited by 121,543 persons during 1908. The sum of £5,196 was expended on various institutions of this nature during 1908.

Connected with the Department of Mines and Agriculture is a Mining and Geological Museum, which is open to the public on week-days. Amongst other important work, the institution prepares collections of minerals to be used as teaching aids in the public schools. Connected with this institution is an Agricultural and Forestry collection containing 6,456 specimens.

The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, the Museum of Normal and Morbid Anatomy, attached to the Sydney University, and the National Herbarium and Botanical Museum at the Botanic Gardens, are accessible to the public free of charge.

## RELIGION.

THERE is absolute liberty of conscience in New South Wales with respect to religious belief, but during the early days of the State's history such was not the case. New South Wales was originally a Crown Colony, and the Church establishment as it is existed in England was naturally transplanted to these shores. Ecclesiastical monopoly, however, continued only for a short time, and the countenance and the support of the State were extended, during the governorship of Sir Richard Bourke, to the principal religious bodies—the Anglicans, Roman Catholics, Presbyterians, and Wesleyan Methodists. To the clergy of each of these denominations the Government granted subventions which continued long after the introduction of Responsible Government.

In 1862, however, an Act was passed limiting future payments to the clergy then actually in receipt of State aid. In the year following the passing of this Act, the claims on the Government amounted to £32,372, thus distributed :—

Church of England	... £17,967	Presbyterian	... .. £2,873
Roman Catholic	... .. 8,748	Wesleyan Methodist	... .. 2,784

Year by year the sum payable has been decreasing, owing chiefly to the deaths of clergymen in receipt of State aid, so that during the year ended June, 1909, the payment by the State was £1,475, distributed as follows :—

Church of England	... .. £864	Presbyterian	... .. £150
Roman Catholic	... .. 450	Wesleyan Methodist	... .. 11

The payments to the clergy of the several denominations are given for various periods since 1863. It will be observed that in some years the amounts paid were less than in succeeding years. This anomaly is due to the temporary stoppage of the stipends of clergymen who were absent from the State :—

Year.	Church of England.	Roman Catholic Church.	Presbyterian.	Wesleyan Methodist.	Total—All Denominations.
	£	£	£	£	£
1863	17,967	8,748	2,873	2,784	32,372
1891	5,347	2,570	702	875	9,494
1901-2	2,116	1,000	475	438	4,029
1902-3	1,552	896	281	307	3,036
1903-4	1,431	603	300	300	2,634
1904-5	1,431	575	300	300	2,606
1905-6	1,189	650	300	177	2,316
1906-7	1,036	575	193	150	1,954
1907-8	1,031	450	150	12	1,643
1908-9	864	450	150	11	1,475

The number of ministers of religion entitled to State aid during 1908 was eight—4 clergymen of the Church of England, 2 Roman Catholics, one Presbyterian, and one Wesleyan Methodist.

At the Census of 1901 the number of adherents to each of the denominations, with the clergy registered for the celebration of marriages, was as given below :—

Denomination.	Clergy.	Adherents.	Proportion of total population in each Denomination.
			per cent.
Church of England ... ..	363	623,131	46·58
Roman Catholic ... ..	299	347,286	25·96
Methodist ... ..	200	137,638	10·29
Presbyterian ... ..	182	132,617	9·91
Congregational ... ..	51	24,834	1·86
Baptist ... ..	37	16,618	1·24
Lutheran ... ..	5	7,387	·55
Salvation Army ... ..	10	9,585	·72
Christian, Other ... ..	27	13,635	1·01
Non-Christian ... ..	5	15,252	1·15
No religion ... ..	.....	9,829	·73
Unspecified ... ..	.....	17,034	.....
<b>Total... ..</b>	<b>1,179</b>	<b>1,354,846</b>	<b>100</b>

Of the 17,034 persons whose religion is unspecified, 13,068 objected to state their religious belief. Taking the whole population, there were 1,149 persons on an average to each clergyman.

Formerly, religious statistics were collected every year, but only one collection is now made, during a year half way between the Census periods, so that new figures will be available every five years. The figures given below relate to the year 1904, when the last collection was made. In that year the average number of persons of 14 years of age and over attending Divine Service on Sundays was 385,627. In view of the sparseness of the population in some parts of the country, the church attendance appears fairly satisfactory. In 1881 the Church of England had the largest attendance, but from 1884 the Roman Catholic Church has taken the lead.

The figures showing the attendance at Divine Service on Sundays for each of the principal denominations are given hereunder, but much reliance cannot be placed on the results, as it has been found difficult to secure thoroughly complete returns. It must be remembered, also, that the totals for each denomination include attendants other than actual adherents. This is especially the case as regards the Salvation Army, which showed an attendance of 16,000 persons at Sunday services, while the total members of this religious persuasion at last Census numbered only 9,585.

Denomination.	Estimated number of persons over 14 years of age attending Divine Service on Sundays.	Total number attending Divine Service on Sundays.
Church of England ... ..	94,877	116,833
Roman Catholic ... ..	104,829	136,077
Methodist ... ..	93,655	113,705
Presbyterian ... ..	50,316	62,998
Congregational ... ..	11,707	14,200
Baptist ... ..	8,470	10,183
Salvation Army ... ..	16,000	19,350
Other Denominations ... ..	5,773	7,465
<b>Total... ..</b>	<b>385,627</b>	<b>480,811</b>

The Church of England is the largest religious denomination in the State, whether regarded as to the number of professed adherents, the number of clergy, or the number of buildings used for Divine Service. In the year 1904 there were 791 churches belonging to this denomination, and 893 buildings and dwellings used for public worship, accommodating altogether 143,103 persons. The estimated number of attendants at public worship on Sunday, including children under 14 years of age, was 116,833, and, exclusive of children, 94,877, and in 1909, the number of clergy registered for the celebration of marriages was 461. The Church hierarchy consists of a Metropolitan, the Archbishop of Sydney, and five other Bishops, whose sees are Newcastle, Goulburn, Bathurst, Grafton and Armidale, and Riverina. By an Act passed in 1881 provision was made for the creation of corporate bodies of Trustees, in which property belonging to the Church of England may be vested, and trusts for various dioceses have been formed under the Act. They are entitled to hold, on behalf of the Church, all real and personal property which may be assigned to them by grant, will, or otherwise. In each diocese a Synod, consisting of clerical and lay representatives from each district, presided over by the Bishop, meets annually to make ordinances for the government of the Church. Each diocesan synod elects from its members representatives to sit at the Provincial Synod of New South Wales, which meets every three years, and to the General Synod of Australia, which meets every five years under the presidency of the Archbishop of Sydney.

The Roman Catholic Church is under the direction of the Cardinal Archbishop of Sydney, assisted by a Coadjutor-Archbishop. Under the Archbishop are the Suffragan Bishops of Maitland, Goulburn, Bathurst, Armidale, Wilcannia, and Lismore, the whole State forming an ecclesiastical province. No fewer than thirty-three religious orders are represented in the State, and in 1909 there were 373 priests licensed to celebrate marriages. The number of Roman Catholic churches in 1904 was 576; besides these, there were 709 buildings or dwellings used for Divine Service. The accommodation afforded by the churches and buildings provided for 135,063, and the attendance of adherents of 14 years of age and over was 104,829, while the total number of attendants of all ages was 136,077.

The various branches of the Presbyterian Church in the State had, during 1904, 362 churches used for public worship; there were also 705 public buildings or dwellings occasionally used for the same purpose. The accommodation provided in churches and buildings was 58,275 sittings, and the attendance of habitual adherents numbered about 50,316, and, including children, 62,998. For the purposes of this Church, the State is divided into fourteen Presbyteries, consisting of a number of separate charges, to each of which a Minister is appointed. The management of the affairs of the Church is controlled by a General Assembly, which sits annually, and consists of Ministers and Elders from the charges within the different Presbyteries. It is presided over by a Moderator, who is elected by the Presbyteries. By Act of Parliament, the Assembly has power to grant permission to trustees to mortgage Church property, and trustees are authorised to hold property for the Church generally. In July, 1901, a scheme of federal union was adopted by representatives from the various States, and the United Church is called the Presbyterian Church of Australia. The number of ministers licensed to celebrate marriages in 1909 was 220, of whom 212 were connected with the Presbyterian Church of Australia, 7 with the Presbyterian Church Synod of Eastern Australia, and 1 with the Presbyterian Church of Eastern Australia as reconstituted.

On the 1st January, 1902, the Wesleyan Methodist Church, the Primitive Methodist Church, and the United Methodist Free Churches in New South

Wales entered into organic union, with a common name, common funds, common laws, and equal rights. The name given to the United Church was "The Australasian Wesleyan Methodist Church," but it was arranged that when the union has become general throughout Australasia the Church shall be known as "The Methodist Church of Australasia."

In this State during 1904 the Methodist body used for public worship 572 churches and 548 other buildings, with sitting accommodation for 95,334 persons. The estimated attendance on Sunday was 93,655, or including children, 113,705. In 1909 the clergy licensed to celebrate marriages numbered 231.

The Congregational Church had 79 churches, as well as 49 buildings or dwellings used for worship; and the sittings provided could accommodate 21,458 persons. The attendance at Divine Service on Sundays was 11,707, or, including children, 14,200, and the clergy licensed to celebrate marriages in 1909 numbered 63.

The various Baptist Churches in the State in 1904 had 59 churches and 69 other buildings devoted to public worship; the Sunday attendance averaged 8,470, and, including children, 10,183 persons. The number of clergy licensed to celebrate marriages in 1909 was 48. The Baptist Union of New South Wales is not incorporated, and cannot legally hold property in trust for the denomination. Annual sessions, with half-yearly assemblies are held. For several sessions a draft constitution has been under the consideration of the Union, which, amongst other matters, provides that all properties which now belong or may hereafter accrue to the Union shall be held under a Model Trust Deed, by trustees to be duly appointed; but the matter of incorporation remains in abeyance.

The Salvation Army was established in Australia in 1882. Melbourne was made the chief centre for Australasia under the command of a Commissioner, and Sydney was constituted the headquarters for New South Wales, with a separate chief officer, who is termed Colonel-in-command, all officers and members bearing military titles and designations. There are also treasurers and secretaries to corps. Persons who are in sympathy with the Salvation Army, but who have not subscribed to the "Articles of War"—which combine a confession of faith and a pledge against the use of intoxicating liquors and baneful drugs—form an Auxiliary League and contribute to the funds of the Army. Persons desirous of membership are publicly received on one month's probation, and, after signing the "Articles of War," are attached to the corps nearest their place of residence. The Army had 337 buildings used for service, accommodating 45,000 persons in 1904. The number of persons attending public worship on Sundays was estimated at 16,000, or, including children, 19,350. There were 16 officers licensed to celebrate marriages in 1909.

In addition to those above enumerated, there are other distinct religious bodies, for the most part of Protestant denomination, with clergy licensed by the State to celebrate marriages. The number of clergy ministering to these in 1909 was 65; the churches and other buildings used during 1904 for Divine Service numbered 101: and the attendance was about 6,000 persons.

The number of registered ministers belonging to all faiths was 1,313, and the churches numbered 2,612, in addition to which there were 3,238 dwellings or other buildings used for public worship. Accommodation was provided for 526,897 persons. The average attendance on Sundays was about 385,627 or, including children under 14 years of age, 480,811 persons. During 1909 the ministers of all religious denominations registered for the celebration of marriages within the State numbered 1,477.

Nearly all the religious bodies maintain Sunday-schools. The attendance of children at the Sunday-schools of the leading denominations, with the number of schools and teachers during 1904, was :—

Denomination.	No. of Schools.	Teachers.			Scholars on the Roll.			Estimated Average Attendance.
		Males.	Fe- males.	Total.	Males.	Females.	Total.	
Church of England... ..	761	1,342	3,473	4,815	26,492	34,505	60,997	43,025
Roman Catholic ... ..	639	229	1,271	1,500	15,879	21,245	37,124	29,505
Methodist ... ..	489	1,522	3,173	4,695	18,819	22,881	41,700	27,697
Presbyterian ... ..	320	754	1,461	2,215	9,421	12,059	21,480	15,331
Congregational ... ..	82	357	530	887	3,675	4,844	8,519	5,987
Baptist ... ..	57	254	293	547	2,290	2,922	5,212	3,834
Salvation Army ... ..	124	179	300	479	2,500	3,000	5,500	3,980
Other Denominations ... ..	61	144	243	387	1,436	2,319	3,755	2,875
<b>Total... ..</b>	<b>2,533</b>	<b>4,781</b>	<b>10,744</b>	<b>15,525</b>	<b>80,512</b>	<b>103,775</b>	<b>184,287</b>	<b>132,234</b>

The attendance shown in the preceding table amounts to about 45 per cent. of the total children between the ages 7 and 15 years, inclusive, at which ages children generally attend Sunday-schools. The number of Sunday-schools and teachers, and the attendance at various intervals since 1891, were as follows:—

Year.	Number of schools.	Number of teachers.	Average attendance of Scholars.		
			Male.	Female.	Total.
1891	1,887	12,169	54,932	68,592	123,524
1897	2,167	13,748	55,960	72,420	128,380
1900	2,286	14,607	55,942	74,595	130,537
1904	2,533	15,525	57,320	74,914	132,234



## LAW AND CRIME.

### HIGH COURT OF AUSTRALIA.

THE High Court Procedure Act of 1903 provides that appeals to the High Court from judgments of the Supreme Court or of any other Court of any State, from which, at the establishment of the Commonwealth, an appeal lay to the Queen-in-Council, shall be instituted by notice of appeal in a certain prescribed form. The appellant may appeal from the whole or any part of a judgment, but his notice of appeal must give full particulars in this regard. Since the establishment of the Court 145 appeals have been set down for hearing and 77 have been allowed.

### THE SUPREME COURT—CIVIL JURISDICTION.

The chief legal tribunal of the State is the Supreme Court, which at present consists of a Chief Justice and six Puisne Judges. Civil actions are usually tried by a jury of four persons, but either party to the suit, on cause shown, may apply to a Judge in Chambers to have the cause tried by a jury of twelve. Twice the number of jurors required to sit on the case are chosen by lot, from a panel summoned by the Sheriff, and from that number each of the parties strikes out a fourth, the remainder thus selected by both parties constituting the jury. The jury find only as to the facts of the case, being bound to accept the dicta of the Judge on all points of law. From the Court thus constituted an appeal lies to the "Full Court," sitting *in Banco*, which is generally composed of at least three of the Judges. The Chief Justice, or in his absence the senior Puisne Judge, presides over the Full Court, which gives its decision by majority. New trials may be granted where the Judge has erroneously admitted or rejected material evidence; where he has wrongly directed the jury on a point of law; where the verdict of the jury is clearly against evidence; or where, from some other cause, there has evidently been a miscarriage of justice.

Provision is made for appeals to the Privy Council, but any suitor wishing to carry his cause before that tribunal must obtain leave so to do from the Supreme Court. The dispute must involve an amount of £500 at least, or must affect the construction of a New South Wales statute. In other cases, application for leave to appeal must be made directly to the Privy Council. The British Government has appointed Chief Justice Way, of South Australia, to a seat on the Judicial Committee of the Privy Council, so that he may bring to the deliberations of the Committee his knowledge of the laws, especially the land laws, of the States. So far as New South Wales is concerned, during the six years ended 1908, 19 applications for leave to appeal to the Privy Council in common law were granted, 9 in Equity, and one in Bankruptcy. Leave was granted in 3 cases in common law, and in one in Equity, during 1908.

The Chief Justice has an extensive jurisdiction as Commissary of the Vice-Admiralty Court, in which all cases arising out of collisions &c., in Australian waters, are determined. One of the Puisne Judges acts as his deputy; but the Supreme Court, as such, has no jurisdiction in Admiralty cases.

One of the Puisne Judges also acts as Chief Judge of the Equity Court, from whose decrees an appeal lies to the Full Court, and thence to the Privy Council.

Affairs in Bankruptcy are conducted by a Puisne Judge, assisted by the Registrar. An appeal may be made to the Full Court against the Judge's decision.

Another Puisne Judge presides over the Divorce Court, in which cases are tried usually without a jury, an appeal lying to the Supreme Court.

The Equity Judge formerly represented the ecclesiastical jurisdiction of the Supreme Court in connection with applications for the probate of wills and for letters of administration: and determined suits as to the validity, &c., of wills. By the Probate Act of 1890 this jurisdiction was vested in the Supreme Court, in its Probate Jurisdiction, and the business transferred to such Judge as might be appointed Probate Judge, in whom was vested power to direct the rehearing of any cause before the Full Court.

Upon permanent disability or infirmity, or after fifteen years' service, a Judge is entitled to retire from the Bench with a pension, the amount of which, as well as of his salary, is regulated by various Acts. He may be removed from office only upon an address to the Governor by both Houses of the Legislature.

A candidate seeking admission as a solicitor, provided he has not been admitted in England, Ireland, or Scotland, or in any State of the Commonwealth of Australia, must have been articled to some solicitor practising in New South Wales; and have served for a term of five years, or if he had taken a University degree in Arts before entering into articles, a term of three years; and must have passed the examinations of a Board, consisting of two barristers and four solicitors, appointed annually for that purpose by the Judges of the Supreme Court. The admission of a solicitor may take place only on the last day of any of the four terms into which the year is divided. A solicitor who ceases to practise for two years continuously is allowed to resume practice only under an order from the Court. A barrister who has been in practice as such for five years, having caused himself to be disbarred, may be admitted as a solicitor without examination. A solicitor has the right of audience in all Courts of New South Wales, and the Supreme Court may suspend or remove from the roll any solicitor who has been guilty of misconduct or malpractice.

The Board for admission of barristers of the Supreme Court consists of the Judges of the Supreme Court, the Attorney-General, and two elected members of the Bar. Applicants must have been students-at-law for three, or, in the case of graduates, for two years, and have passed all examinations prescribed by the Board. A solicitor who has been in practice for at least five years, and who has removed his name from the roll of solicitors, may be admitted as a barrister without examination.

During the year 1908 there were 170 persons practising as barristers of the Supreme Court; and the solicitors numbered 967, of whom 568 were in Sydney and 399 in the country.

#### COMMON LAW JURISDICTION OF SUPREME COURT.

The following table gives the number of writs issued, and the amount for which judgment was signed, in the Supreme and Circuit Courts (Common Law Jurisdiction) during the last ten years. The number of writs issued includes cases which were subsequently settled by the parties; but the total amount involved in these claims is not, of course, included in the sum for which judgment was signed. The amounts for signed judgments include taxed costs in all cases where the judgments have been completed at the end of the year. During 1908 the total bills of costs

amounted to £33,734, but from this a sum of £9,864 was taxed off, leaving the net costs at £23,870. The Court costs of taxation amounted to £484:—

Year.	Writs issued.	Judgments signed.	Year.	Writs issued.	Judgments signed.
	No.	£		No.	£
1899	3,014	309,085	1904	3,973	220,305
1900	2,983	296,841	1905	3,719	176,930
1901	2,890	309,346	1906	2,404	143,386
1902	3,533	475,161	1907	1,832	132,339
1903	4,030	285,801	1908	2,266	189,350

The number of causes set down and tried is shown below:—

Year.	Causes set down.	Not proceeded with.	Referred to Arbitration.	Causes Tried.				Total.
				Verdict for Plaintiff.	Verdict for Defendant.	Disagreement of Jury.	Non-suited.	
	No.	No.	No.	No.	No.	No.	No.	No.
1899	302	83	3	154	32	5	25	216
1900	252	89	1	117	29	3	13	162
1901	280	117	1	116	28	1	17	162
1902	264	86	...	114	40	6	18	178
1903	300	102	4	131	39	3	21	194
1904	266	87	7	119	38	3	12	172
1905	260	89	2	102	49	5	13	169
1906	235	76	2	105	34	5	13	157
1907	174	62	4	80	19	1	8	108
1908	221	91	1	86	30	1	12	129

The small number of causes set down for hearing in comparison with the number of writs issued indicates the extent to which cases are settled out of Court, and the effectiveness with which the mere issue of a writ ensures settlement.

The Commercial Causes Act, 1903, has provided an expeditious method for the trial of commercial causes, which include matters relating to the ordinary transactions of merchants and traders, the construction of mercantile documents, affreightment, insurance, banking, and mercantile usages. The parties to a Supreme Court common law action may secure the Judge's order to have it brought upon the list of Commercial Causes, and from this order there can be no appeal. To secure speedy settlement in accordance with the aim of the Act the Judge is empowered to dispense with juries, pleadings, and technical rules of evidence, and with proofs of writing and documents, and to order inspections and admissions; he may also settle the issues for trial, and state a case on points of law for the Full Court.

#### EQUITY JURISDICTION.

The Equity Act, 1901, consolidated enactments relating to the practice, procedure, and powers of the Supreme Court in matters of equity, demanding relief, including the appointment of guardians of infants and the administration of their estates. The Judge in Bankruptcy, who, exercising equitable jurisdiction, is styled the Judge in Equity, may have the assistance of two other Judges, the decision of the majority then having the effect of a Full Court decision. To assist the Court in making binding declarations of right, it may call for the assistance of merchants, engineers, actuaries, or any other persons, has power to decide legal titles, to award damages, or grant specific performance; and exercises all the powers of the Supreme Court in its Common Law Jurisdiction. The Court may also delegate investigations to

the Master in Equity. The following is a statement of the transactions in this jurisdiction during the last ten years :—

Year.	Statements of Claims.	Statements of Defence.	Petitions.	Summonses.	Motions.	Decrees and Orders.
	No.	No.	No.	No.	No.	No.
1899	268	154	59	116	243	822
1900	213	131	69	197	206	841
1901	131	87	58	167	159	668
1902	176	86	136	149	140	797
1903	163	91	117	175	135	806
1904	211	98	89	176	174	1,245
1905	180	88	60	192	164	1,050
1906	149	86	64	183	127	1,030
1907	172	88	71	195	147	1,072
1908	191	124	65	151	135	1,047

The amount of Trust Funds invested under Equity Jurisdiction for 1908 was £705,948.

#### PROBATE JURISDICTION.

The number of probates and letters of administration granted by the Supreme Court in its testamentary jurisdiction for the last ten years is shown in the following table :—

Year.	Probates granted.		Letters of Administration.		Total.	
	Number of Estates.	Value of Estates.	Number of Estates.	Value of Estates.	No. of Estates.	Value of Estates.
		£		£		£
1899	1,560	3,855,995	945	1,207,557	2,505	5,063,552
1900	1,505	3,916,020	947	815,012	2,452	4,731,032
1901	1,676	6,240,296	981	793,163	2,657	7,033,459
1902	1,729	5,188,341	1,053	619,279	2,782	5,807,620
1903	1,787	6,345,098	980	834,784	2,767	7,179,882
1904	1,854	5,536,494	996	619,469	2,850	6,155,963
1905	1,842	6,999,863	962	714,553	2,804	7,714,416
1906	1,927	6,697,600	925	831,837	2,852	7,529,437
1907	2,045	6,835,381	1,039	728,118	3,084	7,563,499
1908	2,114	7,054,170	980	784,402	3,094	7,838,572

The figures here shown do not agree with those given by the Stamp Duties Department. The Court record gives the gross values of estates, inclusive of such estates as are found not to be subject to duty, but the Stamp Duties Department returns the net values of the estates, excluding those not subject to duty. The returns shown above are also swollen to some extent by probates taken out a second time.

#### . INTESTATE ESTATES.

An officer is appointed under the Wills, Probate, and Administration Act, 1898, as Curator of Intestate Estates. Moneys not claimed within six years are paid into the Consolidated Revenue Fund, and used for the public service of the State. A rightful claimant may obtain payment, but without interest, at any subsequent period.

The number of estates opened during 1908 was 583, from which the Curator received £29,270, and paid away £10,182; in connection with estates opened during previous years £42,482 was received, and £56,890 paid away. Commission and fees to the amount of £3,272 were paid into the Consolidated Revenue during the year. The revenue also benefited to the extent of £11,289 of unclaimed moneys, and on the other hand claims amounting to £3,488 were received for moneys which had been paid into the Consolidated Revenue.

## BANKRUPTCY JURISDICTION.

The Bankruptcy law is administered by a Judge in Bankruptcy ; but certain of the powers vested in the Judge are relegated to the Registrar in Bankruptcy. In the country districts many Police Magistrates and Registrars of District Courts are appointed as District Registrars, and have the same powers and jurisdiction as the Registrar in respect to the examination of bankrupts, the issue of summonses, &c. Appeals from decisions of the Registrar, or of a District Registrar, are made to the Judge in Bankruptcy, who also deals with questions relating to priority of claims. When any person becomes unable to pay his debts he may surrender his estate for the benefit of his creditors, or the latter may, under certain specified conditions, apply for a compulsory sequestration.

An officer of the Court, termed an official assignee, is deputed by the Judge to manage the estates of insolvents. He receives  $2\frac{1}{2}$  per cent. commission on the amount realised, and  $2\frac{1}{2}$  per cent. on the amount of dividends declared. In some cases the Court may also award him special remuneration. Creditors may accept, and the Court approve, a proposal for a composition, or for a scheme of arrangement, subject to the approval of a majority representing three-fourths of the value of all approved claims. If such a proposal has been accepted, one or two trustees may be appointed in place of, or in addition to, the official assignee. After the acceptance of a composition, or the approval of a scheme of arrangement, a bankrupt may have his estate released from sequestration. He is entitled also to a release when all the creditors have been paid in full, or when they have given him a legal quittance of the debts due to them. In other cases, a bankrupt may give notice, by advertisement, three months from the time of sequestration, of his intention to apply for a certificate of discharge, whereupon the Court receives a report from the official assignee, and may either grant or refuse an absolute order of discharge, suspend the operation of the order for a certain time, or grant an order subject to conditions respecting the future earnings or income of the bankrupt. The operations in Bankruptcy are detailed in discussing this matter in the chapter relating to Private Finance.

## DIVORCE AND MATRIMONIAL CAUSES JURISDICTION.

Prior to the passing of the Matrimonial Causes Act of 1873, the Supreme Court of New South Wales had no jurisdiction in divorce. Under that Act the important grounds for divorce were adultery since marriage on the part of the wife, and adultery and cruelty on the part of the husband. The present law is contained in a Principal Act passed in 1892, and in the Amending Act of 1893, under which petitions for divorce may be granted for the following causes, in addition to those already mentioned :—

*Husband v. Wife.*—Desertion, or habitual drunkenness and neglect of domestic duties, for three years ; refusal to obey an order for restitution of conjugal rights ; imprisonment for three years and upwards ; attempt to murder or to inflict grievous bodily harm, or repeated assaults and cruel beatings during one year preceding the date of the filing of the petition.

*Wife v. Husband.*—Adultery and desertion for two years ; desertion, or habitual drunkenness, with neglect to support and cruelty, for three years ; refusal to obey an order for restitution of conjugal rights ; imprisonment for three years and upwards ; imprisonment under sentences aggregating three years, within a quinquennial period ; attempt to murder or to inflict grievous bodily harm, or repeated assaults and cruel beatings within one year of petition.

In order to obtain relief on any of these grounds, the petitioner must be domiciled in the State for three years or upwards at the time of instituting the suit.

Judicial separation may be granted for desertion without cause extending over two years, and nullity may be pronounced in cases of marriages which are void, or in which one of the parties is incapable of performing the duties of marriage, also where certain statutory requirements have not been observed.

The law provides for suits for the restitution of conjugal rights. Before such a suit may be brought, there must have been a request of a conciliatory character to the other party to return to cohabitation.

The number of divorcés granted and other particulars will be found in the chapter "Social Condition."

#### DISTRICT COURTS.

District Courts have been established for the trial of civil causes where the property involved or the amount claimed does not exceed £400, and in cases where a title to land not exceeding £200 in value is in question. The Judges of these Courts also perform the duties of Chairmen of Quarter Sessions, in which capacity they try all prisoners, except those charged with capital crimes. District Courts are held during ten months of the year in the metropolis, and twice a year in all important country towns. The Judge is not assisted ordinarily by a jury; but in cases where the amount in dispute exceeds £20, either of the parties, by giving notice to the Registrar of the Court, may have a jury consisting of four or twelve men. On questions of law, and in respect of admission or rejection of evidence, an appeal lies to the Supreme Court.

The particulars of suits brought in the District Courts of the State during the last ten years are given in the following table:—

*Year.	Total causes commenced.	Causes tried.		Causes discontinued.	Judgment for Plaintiff by default, or confession or agreement.	Causes referred to Arbitration.	Causes pending and in arrear.	Total amount of Claims.	Court Costs of Suits.
		Verdict for Plaintiff.	Verdict for Defendant (including non-suits).						
	No.	No.	No.	No.	No.	No.	No.	£	£
1899	4,949	2,339	307	1,553		3	747	135,161	10,862
1900	4,432	2,072	249	1,324		3	784	122,211	10,743
1901	4,265	1,577	217	1,743		2	726	113,392	9,020
1902	4,904	1,161	266	2,554		2	921	126,788	11,278
1903	4,673	1,064	213	2,541		2	853	121,989	9,354
1904	4,042	833	198	1,201	1,014	1	795	103,007	8,944
1905	3,687	763	186	995	999	2	742	100,362	9,227
1906	3,277	489	191	1,014	972	2	609	123,510	8,708
1907	2,971	388	156	852	903	2	670	134,991	9,470
1908	3,565	371	194	898	1,239	3	860	166,680	9,346

\* Prior to 1906, year ended on 1st March.

Of the 565 causes heard during 1908, only 70 were tried by jury. During the same period there were 15 appeals from judgments given in District Courts, of which 9 were affirmed. There were also 9 motions for new trials, of which 6 were granted. The amount of judgment for the plaintiff during the year was £46,489.

## MAGISTRATES' COURTS.—SMALL DEBTS CASES.

The jurisdiction of Magistrates' Courts since the Small Debts Recovery (Amending) Act, 1905, came into force on the 28th September of that year, is extended to include any action for the recovery of any debt or liquidated demand not exceeding £50, whether on balance of account or after admitted set-off or otherwise. The total number of small debts cases brought before Magistrates' Courts during 1908 was 30,472, in which the total amount awarded to plaintiffs by verdict of Court or judgment of Registrar was £83,372.

## LICENSING COURTS.

In the metropolitan district of the State, the Court for granting licenses to sell intoxicants consists of the Metropolitan Stipendiary Magistrates for the time being, with the addition of one or more Justices of the Peace specially appointed for the purpose, bringing the number of occupants of the Bench up to seven, three of whom form a quorum. In the country districts the local Police Magistrate and two Justices of the Peace, also specially appointed, constitute the Court. There has been an absolute decrease in the number of licensed public-houses in the metropolitan district since 1881, due to the operations of the Licensing Act, which came into force that year. In 1882 the number of licensed houses was 3,063, in 1907 it was 3,022, but in 1908 a reduction to 2,980 was effected, representing a decrease of 142, or 4·7 per cent. since the local option vote of 1907.

The Liquor Amendment Act of 1905, which is to be construed with the Liquor Act of 1898, has removed several abuses in connection with the sale of intoxicating liquor, and makes better provision for the exercise of the principle of local option.

Under this law, in addition to stringent regulations regarding the licensing and management of hotels, the registration of clubs in which liquor is sold has been made compulsory. Registration is granted only to properly-conducted associations, established for a lawful purpose, on suitable premises. The Act also provides for the local option vote at each general election of the State Parliament. The publicans' or wine licenses in any electorate must not exceed the number existent at the commencement of the Act, except where an increase is granted on account of growth of population. The clubs must not exceed the number formed before November, 1905, and registered before March, 1906.

The following propositions are submitted to the electors at each general election—

- (a) That the number of existing licenses be continued ;
- (b) That the number of existing licenses be reduced ;
- (c) That no licenses be granted in the electorate ;  
and where resolution (c) has been previously carried—
- (d) That licenses be restored.

In order to carry resolution (c) or (d) the votes in favour of such resolution must be three-fifths of the total votes given, and must represent 30 per cent. of the electors on the roll. Where resolution (c) is not carried the votes are added to those given for resolution (b).

In electorates where a majority of electors vote for reduction the licenses may be reduced by one-fourth. Where the "no license" resolution is carried, all licenses in the electorate must cease within three years, except in special cases in which the period may be extended.

At the election in 1907 it was decided in 65 electorates to reduce the number of licenses, and in 25 electorates the majority of voters favoured continuance of the existing number. The proposition that no licenses be granted was not carried in any electorate. The votes given for continuance numbered 209,384 ; for reduction 75,706 ; and for no license 178,580.

Special Courts were constituted to effect the reductions in accordance with the Act. The time at which the reduced licenses will cease varies from six months, where the licensee has been convicted for breaches of the Liquor Acts, to three years, in cases of well-conducted houses. The latter period may be extended under certain conditions.

The following table gives particulars respecting the number of public houses, and the average number of residents to each:—

Year.	Licenses Issued.	Average number of Residents to each House.
	No.	
1899	3,141	425
1900	3,163	428
1901	3,151	434
1902	3,132	445
1903	3,128	454
1904	3,098	467
1905	3,063	483
1906	3,055	496
1907	3,022	514
1908	2,980	537

The number of wine licenses current during 1908 was 595 and 76 club licenses were issued. As a result of the first local-option vote taken in 1907, 17 hotel licenses, and one wine license, have been cancelled during 1908.

#### PATENTS.—COPYRIGHT.—TRADE MARK CERTIFICATES.

The administration of the Patents, Copyright, and Trade Marks Acts has been transferred to the Federal authorities since 1st June, 1904. A patent granted under the Commonwealth Act is afforded protection in all the States, and the period for which it remains in force is limited to fourteen years. The copy-right in a book, the performing right in a dramatic or musical work, and the lecturing right in a lecture, continue for forty-two years, or for the author's life and seven years, whichever period is the longer.

The registration of a trade-mark protects it for fourteen years, and may be renewed from time to time. Under the "Commonwealth Designs Act" an industrial design may be protected for five years, provided it is used in Australia within two years of registration.

Under the various Federal acts, arrangements may be made for the protection in other countries of patents, copy-rights, trade-marks, and designs.

#### CRIMINAL STATISTICS.

Prior to the year 1891 the criminal statistics of New South Wales were compiled from the police returns, but it was found that the latter represented the total transactions of the various stations rather than the actual number of offenders. These returns were, therefore, discarded, and methods of tabulation from the Petty Sessions records adopted, which have ensured a more accurate statement of facts. Except where otherwise stated, the figures in the succeeding tables refer to persons only.

#### MAGISTRATES' COURTS.—PETTY SESSIONS.

In the Sydney, Parramatta, Newcastle, and Broken Hill districts the Courts of Petty Sessions are held by Stipendiary Magistrates, and in the country districts by Police Magistrates and Justices of the Peace, the latter being honorary officers. All persons entered in the charge-books of the police, except such as have been committed by a Supreme Court Judge or by a Coroner, must be brought up at the Petty Sessions, either to be dealt with



summarily or to be committed to a higher tribunal. The jurisdiction of magistrates is limited generally to offences involving a sentence of six months' imprisonment, but under certain Acts—sentences up to two years' imprisonment may be imposed. A magistrate is not empowered to pass cumulative sentences, but while an offender is undergoing a term of imprisonment for the committal of one offence, he may be brought up in a lower court to answer another charge, and may be sentenced to another term, to take effect from the expiry of the first sentence.

The number of offences charged at all Magistrates' Courts of Petty Sessions for 1908 is less than in the previous year, as the following table shows:—

	1907.	1908.	Decrease.
Children's Courts ... ..	2,636	2,090	per cent. 20·7
Other Magistrates' Courts . . . . .	71,668	71,074	'8
All Magistrates' Courts ... ..	74,304	73,164	15·3

The decrease is mainly in offences against the Education Act in the Children's Court which, on account of their importance, are treated in some detail later.

As regards persons charged, and where several offences were listed against one person at the same time, account is taken of the most important charge only. The persons brought before the magistrates in all Courts, exclusive of those charged as of unsound mind, numbered 66,233, of whom 1,881 were charged in the Children's Court. As compared with the total number for 1907, viz., 67,183, the decline in the number of offenders is 950. In 1903 the offenders were 43·24 per 1,000 of population; in 1908 the proportion was 41·7.

The following table summarises the operations of all Magistrates' Courts:—

Procedure.	Persons charged before Magistrates.	Summarily treated.			Committed to higher Court.
		Convicted.	Discharged.	Total.	
By arrest... ..	41,301	37,753	2,644	40,397	904
By summons ... ..	24,932	19,877	4,944	24,821	111
Total ... ..	66,233	57,630	7,588	65,218	1,015

The number 1,015 committed to higher courts represents 1·53 per cent. of the total persons charged; the remainder, representing 98·47 per cent., were summarily treated, and convictions resulted in 87 per cent. of the charges. A division of accused persons, according to sexes, shows that females number 9,050 offenders, being 13·7 per cent. of the total. The relative seriousness of offences is evident from the fact that 1·16 per cent. of females charged were committed to higher courts, as against 1·5 per cent. of males. Following are the figures:—

Sex.	Charged before Magistrates.	Summarily treated.			Committed.
		Convicted.	Discharged, etc.	Total.	
Males ... ..	57,183	49,727	6,546	56,273	910
Females ... ..	9,050	7,903	1,042	8,945	105
Total, Persons ... ..	66,233	57,630	7,588	65,218	1,015

The figures of preceding table, reduced to a population basis, show the following result :—

Sex.	Per 1,000 of Population.				
	Charged before Magistrates.	Summarily treated.			Committed.
		Convicted.	Discharged, etc.	Total.	
Males ... ..	66·92	58·19	7·66	65·85	1·07
Females ... ..	12·25	10·70	1·41	12·11	0·14
Persons ... ..	41·69	36·28	4·77	41·05	0·64

Comparing the male and female offenders with the population, it appears that 66·92 per 1,000 males and 12·25 per 1,000 females were charged with offences against the law. The summary convictions give the proportions of 58·19 per 1,000 males and 10·70 per 1,000 females. In the case of committals, however, the females emerge from the comparison not quite so favourably, the proportions per 1,000 being 1·07 males and 0·14 females.

Since the appointment of Stipendiary Magistrates in the metropolitan district, a greater proportion of cases have been summarily treated, and it is noticeable that the proportion of acquittals and discharges has diminished greatly. Prior to 1880 about 25 per cent. of the persons brought before magistrates were discharged, but in no year since 1885 was the proportion more than 16·6 per cent. until 1895, when the figures reached 20·2. Since that year the percentage has again declined, falling as low as 11·5 in 1908. The following table shows the proportion of summary convictions by magistrates, of acquittals and discharges, and the committals to higher courts :—

Year.	Summary Convictions.	Acquittals and Discharges.	Committals to Higher Courts.
	per cent.	per cent.	per cent.
1870	69·0	24·7	6·3
1880	76·9	18·4	4·7
1890	80·4	16·0	3·6
1900	83·1	14·9	2·0
1905	84·5	13·1	2·4
1906	84·1	13·9	2·0
1907	86·5	11·8	1·7
1908	87·0	11·5	1·5

An investigation into the nature of the offences, of which the 57,630 persons summarily convicted in 1908 were accused, shows that there were 1,571 persons convicted of offences against the person, 3,728 of offences against property, and 52,331 of other offences, mainly of a minor character, such as drunkenness, disorderly conduct, and bad language—also vagrancy, and breaches of various Acts. It is evident, therefore, that the somewhat large number of offenders summarily convicted consists mostly of persons who cannot be included among the criminal classes, the total number of offenders against the person and against property, being 5,299 out of a total

of 57,630, representing only 9·2 per cent. The following is a classification of the offenders summarily convicted, together with the proportions per 1,000 of population during each of the last five years :—

Year.	Against the Person.	Against Property.	Other Offences.	Total.
NUMBER OF SUMMARY CONVICTIONS.				
1904	1,432	3,311	45,359	50,102
1905	1,374	3,266	46,998	51,638
1906	1,500	3,469	49,840	54,809
1907	1,587	3,209	53,307	58,103
1908	1,571	3,728	52,331	57,630
PER 1,000 OF POPULATION.				
1904	0·99	2·29	31·36	34·64
1905	0·93	2·21	31·78	34·92
1906	0·99	2·29	32·91	36·19
1907	1·02	2·06	34·29	37·37
1908	0·99	2·35	32·94	36·28

The following table gives a classification of summary convictions of males and females during the years 1906 and 1908, excluding cases treated in Children's Courts which were established in October, 1905 :—

Offences.	Summary Convictions.					
	1906.			1908.		
	Males.	Females.	Total.	Males.	Females.	Total.
Against the person ... ..	1,265	172	1,437	1,249	160	1,409
Against property .. ...	2,323	377	2,700	2,250	336	2,586
Against good order ... ..	29,615	7,206	36,821	33,294	6,548	39,842
Not included in the preceding...	11,378	779	12,157	11,553	810	12,363
Total ... ..	44,581	8,534	53,115	48,346	7,854	56,200

In order to show the increase or decrease of offences in each group, the figures for 1908 are stated as percentages of those for 1906 :—

Offences.	Convictions for 1908, per cent of 1906.		
	Males.	Females.	Total.
Against the person... ..	98·7	93·0	98·0
Against property ... ..	96·8	89·1	95·8
Against good order ... ..	112·4	90·9	108·2
Not included in the preceding ... ..	101·5	104·0	101·7
Total ... ..	108·4	92·0	105·8

The decrease for both males and females in the more serious offences is perceptible; on the whole there has been a rise in the rate of nearly 6 per cent., caused mainly by offenders against good order.

The following table gives the total number of summary convictions of males and females in all magistrates' Courts, with the proportion per 1,000 of the population, for each year of the last quinquennial period :—

Year.	Summary Convictions.			Per 1,000 of the Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1904	41,416	8,686	50,102	54·21	12·73	34·64
1905	42,801	8,837	51,638	54·55	12·73	34·92
1906	46,211	8,598	54,809	57·33	12·14	36·19
1907	49,894	8,209	58,103	60·06	11·34	37·37
1908	49,727	7,903	57,630	58·19	10·70	36·28

The rate per 1,000 of the male population, though fluctuating during the period, on the whole increased from 54·21 in 1904 to 58·19 in 1908; the proportion of females shows a decrease.

A classification of the punishments on summary conviction in 1908 is supplied below, the figures for Children's Courts being excluded :—

Offences.	Fines Paid.	Imprisoned in default.	Imprisoned without option.	Bound over and released on probation.	Other Punishments.	Total.
Against the person ... ..	891	219	244	46	9	1,409
Against property ... ..	1,110	642	702	118	14	2,586
Against good order ... ..	20,777	16,427	805	148	1,685	39,842
Not included in the preceding	10,901	804	443	17	198	12,363
Total ... ..	33,679	18,092	2,194	329	1,906	56,200

Thus the number of convicted persons sentenced to imprisonment, without the option of a fine, was 2,194, and adding those incarcerated in default of paying the fine or of finding security, viz., 18,092, the total number imprisoned was 20,286 out of 56,200 summarily convicted by the magistrate, or 36 per cent. The number of fines paid was 33,679; but many of those who were imprisoned in default of immediately paying the fine were discharged before the term expired, the amount having been paid in the meanwhile. The total sum received by way of fines during 1908 was £40,812, of which amount £19,414 was paid into the Consolidated Revenue, £9,992 was given to the Police Reward Fund, £3,886 to municipalities, and £7,520 to informers and others.

With reference to first offenders, the Crimes Act provides that when a person who has not been previously convicted of an indictable offence is convicted of a minor offence, and is sentenced to penal servitude or imprisonment, the court may suspend the sentence upon his entering into a recognizance, with or without sureties, for his good behaviour during the period over which his sentence extends, the probationary term, however, being not less than one year. Before he is permitted to depart from custody he is examined for future identification, and during the period covered by his sentence must report himself to the police every three months. If he fail to do so, or lapse into crime, he may be arrested and imprisoned for the unexpired term of his sentence; but should his behaviour be good throughout the whole of the probationary period, he is regarded as not having been convicted; and if at any subsequent period he is arrested for another offence a previous conviction may not be urged against him. During the year 1908, 174 persons, convicted at the Magistrates' Courts, and 97 persons at the higher courts, making a total of 271, including 49 females, were released as first offenders.

## CHILDREN'S COURTS.

The first Children's Court under the Neglected Children and Juvenile Offenders' Act was opened in October, 1905, at Paddington, within the metropolitan area, under the presidency of a specially-appointed magistrate. Special courts have since been established in suburban and country districts. The main purpose of these courts is to remove juvenile offenders as much as possible from the tainted surroundings of a public court. Magistrates exercise powers in respect of children and offences committed by or against children. They also possess the authority of a Court of Petty Sessions or Justice under the Children's Protection Act and the Infant Protection Act. During the year 1908 the Children's Courts dealt with the cases of 3,548 males and 274 females, or a total of 3,822. Of these cases 1,941 were for orders such as the disposal of neglected and uncontrollable children, and the maintenance of children.

The Neglected Children's Act is designed to prevent children from associating with reputed thieves, and otherwise provides for the protection and reformation of neglected or uncontrollable children and juvenile offenders. The physical and moral interests of the children engaged in street trading are conserved, with which object, girls under 16 years of age are prohibited from trading, and only boys between the ages of 10 and 16 years are licensed, with restricted hours and under police supervision. During the year ended 31st March, 1908, licenses were issued to 880 children, of whom 676 (boys) were under age 14. The objects of the Act are so admirable that similar legislation has been passed in other States of Australia.

The following table shows a classification of offenders dealt with by the Children's Courts during 1908 :—

Offences.	Summarily treated.				Committed to higher Court.		Total.		
	Convicted.		Discharged or Withdrawn.		M.	F.	M.	F.	Total.
	M.	F.	M.	F.					
Against the person ...	74	11	50	13	37	...	161	24	185
Against property ...	663	33	244	10	1	...	908	43	951
Against good order ...	425	1	31	7	1	...	457	8	465
Other ...	219	4	54	1	...	2	273	7	280
Total ...	1,381	49	379	31	39	2	1,799	82	1,881

The figures shown above and other particulars of Children's Courts are included in the tables relating to Magistrates' Courts.

An interval of three complete years having elapsed since this Court was instituted, it is reasonable to assume that a fair basis of comparison has been established. The following figures will show the directions in which improvement has been effected, and in which increasing vigilance is necessary. The figures represent the ratio of the figures for 1907 and 1908 to the figures for 1906 taken as a basis and equivalent to 100 offences.

Offences.	Persons Treated.			Convictions.		
	1906.	1907.	1908.	1906.	1907.	1908.
Against the person ...	100	118	106	100	119	135
„ property ...	100	91	93	100	102	87
„ good order ...	100	115	83	100	122	89
Other ...	100	127	53	100	153	56
Total..	100	107	81	100	120	83

From these ratios it is apparent that there has been a decided increase since 1906 in the first group, both as to cases treated and as to convictions; it is also apparent that the rise in the ratio of convictions has been far more rapid than the rise in the ratio of cases treated. In all the other groups, and on the whole, the decrease is most marked, and the establishment of this Court has been completely justified.

## APPREHENSIONS.

In the following table are given the total number of persons apprehended by the police, and the proportion per 1,000 of the population at intervals since 1892:—

Year.	Arrests.		Year.	Arrests.	
	Number.	Per 1,000 of Population.		Number.	Per 1,000 of Population.
1892	40,445	34.4	1906	39,609	26.16
1895	36,939	29.5	1907	41,842	26.91
1900	37,462	27.7	1908	41,301	26.00
1905	38,172	25.8			

The above figures relate to the total number of arrests made by the police in each year irrespective of individuals.

## AGES OF OFFENDERS.

The numbers of distinct persons summarily convicted in all magistrates' courts after arrest for various classes of offences during the years 1907 and 1908 are given below in age groups. The most serious offences were charged against persons between the ages of 25 and 30, and the largest number of offenders is found in the age group 50 and upwards, which includes a greater proportion of population than any other group, thus extending the area, and which also covers the majority of cases of confirmed offenders.

	Offences against—									
	Person.		Property		Order.		Other.		Total.	
	1907.	1908.	1907.	1908.	1907.	1908.	1907.	1908.	1907.	1908.
Under 15 ...	14	9	415	282	11	3	13	5	453	299
15 and under 20	66	77	424	485	887	931	202	223	1,579	1,716
20 „ 25	197	143	322	346	2,260	2,317	253	241	3,132	3,047
25 „ 30	199	182	287	388	2,859	2,949	358	242	3,703	3,761
30 „ 35	111	108	206	214	2,475	2,608	214	140	3,006	3,070
35 „ 40	92	70	198	209	2,616	2,730	163	139	3,069	3,148
40 „ 45	52	67	149	154	2,671	2,644	129	112	3,001	2,977
45 „ 50	52	59	116	138	2,357	2,409	81	87	2,606	2,693
50 and over ...	78	75	193	174	4,926	4,887	131	114	5,328	5,250
Not stated ...	2	1	...	2	8	7	...	2	10	12
	863	791	2,310	2,392	21,070	21,485	1,644	1,305	25,887	25,973

To secure a clearer view of the age distribution of offences the figures for 1908 in each age group given above have been related to the total in each class of offences, giving the following percentage results :—

	Offences against —				
	Person.	Property.	Order.	Other.	Total.
Under 15 ... ..	1·1	11·8	.....	·4	1·1
15 and under 20 ...	9·7	20·3	4·3	17·1	6·6
20 „ 25 ...	18·1	14·5	10·8	18·5	11·7
25 „ 30 ...	23·0	16·2	13·7	18·5	14·5
30 „ 35 ...	13·7	8·9	12·1	10·7	11·8
35 „ 40 ...	8·8	8·7	12·7	10·7	12·1
40 „ 45 ...	8·5	6·4	12·3	8·6	11·5
45 „ 50 ...	7·5	5·8	11·2	6·7	10·4
50 and over... ..	9·5	7·3	22·6	8·7	20·2
Not stated ... ..	·1	·1	·3	·1	·1
Total ... ..	100·0	100·0	100·0	100·0	100·0

In offences of the first group, the greatest number of offenders are aged 25 to 30 years ; in offences against property the maximum number of offenders is in the group 15–20 ; followed fairly closely by the next two groups, but in offences against order the offenders are in the highest ages.

#### DRUNKENNESS.

During 1908 the convictions for drunkenness with and without disorderly conduct numbered 27,817. The following table shows the convictions during the last nine years :—

Year.	Convictions.			Per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1900	19,799	4,063	23,862	27·70	6·35	17·60
1901	19,569	4,234	23,803	27·28	6·51	17·40
1902	19,543	4,789	24,332	26·66	7·23	17·44
1903	19,788	4,810	24,598	26·46	7·16	17·33
1904	18,116	4,827	22,943	23·71	7·06	15·86
1905	18,996	5,007	24,003	24·21	7·21	16·23
1906	20,589	4,664	25,253	25·54	6·58	16·68
1907	23,573	4,536	28,109	28·38	6·26	18·08
1908	23,730	4,087	27,817	27·90	5·54	17·58

The figures quoted in the foregoing table refer to total cases.

Arrests for drunkenness are chiefly in large towns, and it is only natural to expect that, with an increase in the population of the towns, there should be an increase in the apprehensions for drunkenness.

The actual number of distinct persons convicted after arrest for drunkenness in 1908 was 18,219, viz., 16,213 males and 2,006 females. The Liquor (Amendment) Act, 1905, which came into force on the 1st January, 1906, contains some stringent clauses regarding the sale of liquor at licensed premises. Except in cases of sickness or accident, no person under the age of 18 years may be supplied with liquor, and persons under 17 years of age are not allowed in the bar of an hotel. Females under 21 years, except in the case of a wife and daughter of a publican are not permitted to serve liquor. Hotels must be closed during the time of voting for a Parliamentary election. They are closed on

Sunday, but liquor may be sold to *bond fide* travellers, lodgers, servants, or inmates, provided that in the case of a traveller the place where he lodged on the previous night is at least 20 miles distant, if in the county of Cumberland, or at least 10 miles if in the country districts; but a publican is not compelled to sell to a traveller.

The following table shows the number of convictions during the last four years for breaches of the law regarding the sale of liquor :—

Convictions for Selling—	1905.	1906.	1907.	1908.
On Sunday, and keeping premises open during that day ... ..	256	243	64	57
During prohibited hours other than upon Sunday...	74	90	66	26
Without a license ... ..	25	66	78	52

The question of the relative prevalence of drunkenness, as tested by the number of persons convicted for that offence in the different States, has received considerable attention, but, comparing the figures for various States, regard must be had to the position of the law and to the manner in which it is administered. In Victoria, for instance, a person is not convicted of drunkenness unless also guilty of disorderly conduct, and offenders are generally discharged on their first appearance, or if they have been arrested on Saturday and detained in custody till Monday. The extent of the area supervised and the density of population in large towns must also be taken into consideration, for it is evident that the law will be less strictly enforced in the sparsely-settled districts of Queensland, South Australia, and Western Australia, than in the more thickly populated parts of the Commonwealth. As a result of such widely differing conditions, it is impossible to obtain facts for the different States upon a comparable basis.

There has been a growing tendency to regard drunkenness as a disease rather than as an offence, and to advocate that the drunkard be not sent to goal but to an asylum specially provided for his reception. The system of dealing with these offenders by committing them to gaol for short sentences has proved unsatisfactory, since the same persons are constantly reappearing before magistrates. During 1908 out of a total of 18,219 distinct persons convicted of drunkenness, 4,230, or 23·2 per cent., were brought up more than once. Of these, two men and four women were convicted over 20 times in the course of the year. An examination of the criminal records of the State, over a period of years, also discloses the fact that more than 40 per cent. of the gaol population commenced their career with an imprisonment on a charge of drunkenness.

To remedy these deficiencies the Inebriates Act provides for the special treatment of inebriates. When a person has been convicted for drunkenness three times within a year he may be placed in an institution for a period not less than six nor exceeding twelve months. The period of detention may be extended from time to time. In August 1907 a portion of Darlinghurst Gaol was set apart for the reception of habitual inebriates; 17 males and 15 females remained under control on the 31 December, 1908. In all 34 males and 22 females have been received into the Inebriates Institution; and the majority of those released after treatment have conducted themselves satisfactorily.

#### INQUESTS.

In all cases of violent or unnatural death, it is the duty of the Coroner to hold an inquiry into the cause, and to commit for trial any person found guilty by the jury of the crime of manslaughter or of murder. Under the Coroner's Court Act, 1904, a Coroner is empowered to hold an inquisition,



sitting alone, but upon request of a relative, of the secretary of any society of which the deceased was a member, or on the order of the Minister of Justice, a jury of six is called. Every death which takes place in gaol or in a lock-up must be investigated, and inquests must be held on the bodies of all persons executed. Where no Coroner has been appointed, or where the officer is unable to hold the usual inquest, a magistrate may hold an inquiry; as such he is not empowered to commit a suspected person for trial, but must terminate the inquiry in all cases where facts are disclosed which point to the criminality of a person, and direct the police to prosecute at the nearest police court. Stipendiary or Police Magistrates have the powers of Coroners in all parts of the State, except in the metropolitan police district. The number of deaths during 1908, the causes of which were investigated by Coroners or Magistrates, was 995 of males and 321 of females, giving a total of 1,316 inquests and magisterial inquiries. Of the 1,316 deaths, the verdicts of the courts were that 916 were caused by violence, and of these cases 160 males and 26 females were found to have committed suicide.

The rates of suicides per 1,000 of the mean population since 1890 in quinquennial periods are as follows:—

1890 ...	...	...	...	...	...	...	1.07
1895 ...	...	...	...	...	...	...	1.29
1900 ...	...	...	...	...	...	...	1.07
1905 ...	...	...	...	...	...	...	1.15
1908 ...	...	...	...	...	...	...	1.18

It is provided that when any real or personal property has been destroyed or damaged by fire, the Coroner of the district shall hold an inquiry if he consider the case needs investigation. The procedure is similar to that followed in inquests held in connection with cases of death, and the Coroner, in accordance with the decision of his jury, may commit a person for trial on a charge of arson. Inquiries were held during 1908 into the origin of 88 fires, and the cause was ascribed to accident in 6 cases, arson in 12; in 70 instances there was insufficient evidence.

#### HIGHER COURTS—CRIMINAL JURISDICTION.

A Judge of the Supreme Court presides over the Central Criminal Court of Gaol Delivery held quarterly at Sydney, when all prisoners are tried by a jury of twelve, chosen by lot from the panel provided by the Sheriff. In capital cases the right to challenge, both by the Crown and by the accused, is limited to twenty jurors, except for cause shown, and in cases other than those in which the sentence of death may be imposed, whether felonies or misdemeanours, the number challenged may not exceed eight. Under the Criminal Law and Evidence Amendment Act of 1891, every person charged with an indictable offence, and the husband or wife of the person so charged is competent, but may not be compelled, to give evidence in every court on the hearing of such charge. Prior to the passing of this Act, such a privilege was granted only to those charged with bigamy. At the close of the case for the prosecution, an accused person may also make a statement in his defence without rendering himself liable to examination thereupon, either by Counsel for the Crown or by the Court. The "Accused Persons Evidence Act of 1898" provides that it shall not be lawful to comment at the trial of any person upon the fact that he has refrained from giving evidence on oath on his own behalf. The verdict of the jury must be unanimous, and they may be locked up until they give a verdict or are discharged by the Court. If no verdict is returned, the prisoner may be tried again before another jury.

In addition to the sittings of the Supreme Court held in Sydney, the Judges go on circuit once in each half-year, and hold Courts of Gaol delivery, called Circuit Courts, to deal with the more serious class of criminal cases, especially those in which the capital penalty is involved, and to hear civil causes at certain circuit towns; in the north, at Newcastle, Maitland, Tamworth, Armidale, Grafton, and Lismore; in the west, at Bathurst and Dubbo; and in the south, at Goulburn, Wagga Wagga, Albury, Deniliquin, and Hay.

The Courts of Quarter Sessions are held by Chairmen, who also perform the duties of Judges of the District Courts. There are seven Chairmen of Quarter Sessions; two of these preside over the Courts in the metropolitan district, and one each in the following districts:—Southern and Hunter, south-western, northern, north-western, and western. All offences, except those involving the capital penalty, are within the jurisdiction of the Court. On the trial of prisoners at Quarter Sessions, the Chairman at the request of the prisoner's counsel, must reserve questions of law for the consideration of the Supreme Court.

During the year 1908, there were 1,025 males and 109 females committed for trial to the Higher Courts of the State, of whom 1,089 were committed by magistrates in Petty Sessions, and 45 by Coroners. The number of persons committed during any one year does not necessarily coincide with the number placed on trial during the same period, as some persons committed at the end of one year are not tried until the following year. The following table shows the results in the cases of these accused persons for 1907 and 1908 in comparison:—

Sex.	1907.			1908.		
	Charged.	Convicted.	Discharged, withdrawn, &c.	Charged.	Convicted.	Discharged, withdrawn, &c.
Males ... ..	1,022	573	449	1,025	564	461
Females ... ..	117	56	61	109	50	59
Total ... ..	1,139	629	510	1,134	614	520

Classifying these accused persons according to the nature of the offences with which they were charged, it is found that, in the case both of males and females, offences against property are the most numerous, followed by offences against the person. A statement is given below of the offences of the persons convicted in higher courts during 1908:—

Offences.	Males.		Females.		Total.	
	Number.	Per cent. of total.	Number.	Per cent. of total.	Number.	Per cent. of total.
Against the person ... ..	127	22·5	17	34·0	144	23·5
Against property ... ..	363	64·4	21	42·0	384	62·5
Forgery and against the currency ... ..	52	9·2	4	8·0	56	9·1
Against good order ... ..	7	1·2	5	10·0	12	2·0
Not included in preceding ... ..	15	1·7	3	6·0	18	2·9
Total ... ..	564	100·0	50	100·0	614	100·0

The following statement shows the character of the principal offences of persons convicted in higher courts during each year since 1903, and affords distinct evidence of reduced crime :—

Offences.	1903.	1904.	1905.	1906.	1907.	1908.
Against the person ... ..	153	153	170	142	153	144
Against property ... ..	633	630	550	446	394	384
Forgery and against the currency ... ..	54	65	69	60	50	56
Against good order ... ..	28	13	6	8	8	12
Other ... ..	28	29	24	42	24	18
Total ... ..	896	890	819	698	629	614

#### GAOLS.

There are in New South Wales 52 gaols of all kinds ; of these 6 are principal, 13 minor, and 33 police gaols. The total number of cells in all gaols is 2,281. The average daily number in confinement during 1908 was 1,461.

#### *Prison Systems.*

The various gaol establishments have been graded carefully with a view to the concentration and organisation of the gaol population. As a result of this grading, various establishments are in process of being closed, their population being removed to other centres. Thus more efficient supervision is secured, under a reduced staff, ensuring economies in administration. This reorganisation is a corollary of the comprehensive endeavour of the Comptroller-General of Prisons to make the treatment of prisoners a system of education and reform, as opposed to the former conception of imprisonment as a punitive and deterrent measure merely. To this end sentences of sufficient length are arranged in three divisions, and the conduct of the prisoner regulates his passage from the penal stage to relaxed conditions, and finally his release to employment on probation.

The principle of restricted association has been in force for several years, with results which have amply justified its adoption. Previously, prisoners were classified in various groups, determined mainly by the length of sentence ; and their free association was doubtless not productive of mutual benefit or improvement. Now, however, meals are given in the cells, and association at work, religious instruction, and exercise are subject to the closest supervision. As one result of the reorganisation scheme, apart from the moral effect on the prisoners, a considerable reduction in the gaol expenditure has been effected, although cells are lighted at night to a reasonable hour, and other arrangements to carry out the system of isolation have necessitated considerable extra expenditure. All prisoners serving sentences of one month and upwards, prisoners on trial and remand, are allowed the privilege of reading selected books, and the prison libraries of the State contain 23,000 volumes.

Parramatta Gaol is reserved chiefly for confirmed offenders ; the less incorrigible are sent to Bathurst and Maitland ; Goulburn receives first-offenders ; and offenders against good order are placed at suitable smaller establishments.

The number of prisoners in confinement at the close of each year during the last decennial period will be found below. Prisoners have been classified under two heads—those under sentence, and those waiting trial.

Year.	Under sentence.		Awaiting trial.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1899	1,693	171	105	15	1,798	186	1,984
1900	1,612	179	100	6	1,712	185	1,897
1901	1,499	197	106	10	1,605	207	1,812
1902	1,516	182	130	7	1,646	189	1,835
1903	1,544	167	97	8	1,641	175	1,816
1904	1,544	175	128	30	1,672	205	1,877
1905	1,414	155	94	15	1,508	170	1,678
1906	1,281	149	76	13	1,357	162	1,519
1907	1,275	162	47	6	1,322	168	1,490
1908	1,275	174	72	11	1,347	185	1,532

The prisoners under sentence at the end of the year 1908 include 17 male and 15 female inebriates.

Particularly noticeable is the decrease both in the number of prisoners under sentence and in those awaiting trial, with a consequent decrease in the total gaol population, which, related to the increase of the general population of the State over the same period, bears striking evidence as to the restriction of the lawless element in our social system. It is noticeable also that the reduction is practically coincident with the introduction of the reformatory system of treatment. The decreasing ratio of prison population to total population is shown in the following figures:—

	Prisoners per 1,000 of total population.					
1899	...	...	...	...	...	1.476
1900	...	...	...	...	...	1.390
1901	...	...	...	...	...	1.313
1902	...	...	...	...	...	1.304
1903	...	...	...	...	...	1.268
1904	...	...	...	...	...	1.284
1905	...	...	...	...	...	1.122
1906	...	...	...	...	...	.992
1907	...	...	...	...	...	.947
1908	...	...	...	...	...	.955

A large proportion of the prisoners received into gaol on summary conviction consists of persons imprisoned in default of payment of fines. Under the Justices Act, 1902, imprisonment for non-payment of an amount adjudged to be paid on order of a Justice may be curtailed by payment of a portion of the fine, for which a proportionate part of the sentence may be remitted. The following table shows that large numbers of prisoners avail themselves of the provisions of the Act, with consequent material diminution in the term of confinement:—

	1904.	1905.	1906.	1907.	1908.
Persons committed to gaol in default of payment of fines	7,681	7,347	6,853	6,635	7,158
Prisoners subsequently released after paying portion of fines	1,287	1,247	1,327	1,510	1,538
Amount received at gaol as part-payment of fines	£2,370	£2,665	£2,387	£2,766	£3,193
Days prisoners would have served if portion of fines had not been paid	31,539	33,487	33,794	42,507	46,665
Days remitted by part-payment of fines	22,035	22,389	14,100	28,379	29,147

In the table given above the increase in the gaol committals in default of payment is noticeable, evidencing an increase in fineable offences, as well as in the tendency to impose punishment by fine. As consequences the amount received in part payment of fines and the resultant number of days' imprisonment remitted are also increasing.

The Crimes Act also provides for the payment of fines in instalments; frequent application of this principle would considerably reduce the prison population and tend to greater economy.

The Habitual Criminals Act, which came into operation in 1905, gives the judge the power of declaring the prisoner to be a habitual criminal if such prisoner has been previously convicted of a similar offence, as mentioned in the Act, on three, or in certain cases two occasions, either within or without the State. The definite sentence for the actual offence is served as an ordinary prisoner, after which the offender is detained for an indefinite term on account of his record until, in the opinion of the authorities, he is deemed fitted for freedom. During 1908 nine prisoners were dealt with under this Act, making a total of thirty-two persons since the system came into operation.

It is to the credit of this State that it is the first country in the world to bring into operation such a complete system of indeterminate sentences, upon the lines of which other States have followed. As a deterrent to professional crime this method of treatment is excellent, and its moral effect on prisoners who are not habitual criminals is undoubted; moreover the benefit to society resulting from the removal of habitual criminals, and of their influence, is material.

The question of the treatment of female offenders has received considerable attention. As a result a special establishment, the Shaftesbury Institution, on the South Head Road, has been opened, where women whose sentences are sufficiently long to allow of reformatory treatment, subject to a progressive stage system, determined by their industry and conduct, undergo the intermediate stage in their detention, by which they are trained for freedom in the same way as male prisoners. Strict discipline is maintained; the various classes of offenders are not permitted to associate; a sound and practical domestic training is imparted; and particular importance is attached to gardening and out-door work as curative influences. The institution is in an ideal situation, and the appearance of a gaol is eliminated as far as possible. The inmates do not wear prison clothing, and by means of the monetary and other privileges to which their conduct may entitle them they may purchase dress material and clothing and dietary additions, and generally improve their conditions, prior to discharge to situations which have been found for them, and in which they are supervised during their probationary freedom. Thus, New South Wales has initiated a humane system of treatment on the lines of which other States are following.

During 1909, Bileola Gaol, to which most of the female prisoners had been sent, was superseded by the Penitentiary for Women at Long Bay. This establishment has been specially designed, and is conducted in accordance with the modern scheme of prison reform, special provision having been made for the segregation of the different classes of offenders.

Under the Prisons Act, 1899, a Visiting Justice is appointed to visit each prison at least once in every week. Judges of the Supreme Court may at any time visit and examine any prison, and similar power to examine is given to all Justices of the Peace. The Visiting Justice is empowered to hear and determine all complaints which may be made against a prisoner for disobeying the rules of the gaol, or for having committed any offence, and may pass a sentence of confinement in a solitary cell for a term not exceeding seven days. In cases of persistent insubordination, a charge upheld before two or more Justices of the Peace renders the prisoner liable

to a sentence of close confinement for one month; and if the culprit is a prisoner convicted of felony, or is serving a sentence of hard labour, a punishment of personal correction may be awarded.

There were 46 persons—43 males and 3 females—imprisoned for debt during the year 1908. As the time of detention, as a rule, extends over a short period, the number of debtors in confinement at any given time is not large, and on the 31st December, 1908, there was only one male in gaol from this cause. The number of persons sent to gaol for debt during each of the last ten years is given in the following table:—

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1899	53	1	54	1904	62	7	69
1900	59	3	62	1905	63	12	75
1901	49	2	51	1906	57	14	71
1902	57	1	58	1907	42	4	46
1903	53	6	59	1908	43	3	46

The following table gives the number of the prisoners employed at the end of 1908, and their principal occupations. Suitable occupation of a profitable and useful nature is found for the major portion of the gaol population, but there are many prisoners whose services are not available for labour, such as those exempt from work on account of medical reasons or incapacity. The net value of the labour done during 1908 amounted to £24,664, but this sum is taken to refer exclusively to labour of a productive character.

Needlework and Knitting ...	160	Outdoor work ...	59
Tailoring ...	152	Carpentering ...	43
Sweeping and Cleaning ...	109	Laboring ...	38
Shoemaking ...	94	Blacksmithing and Tinsmithing ...	35
Washing and Gardening ...	67	Other ...	411
Mat making ...	62	Unemployed ...	184
Hatmaking ...	59		
Cooking ...	59	Total ...	1,532

At most of the gaols attention is paid to agriculture, the produce of vegetables and forage during the year being valued at £1,191.

Persons committed for trial are allowed to see their legal advisers and others who may visit them in reference to their case. They are allowed to wear their own clothing; and other privileges, consistent with safe custody, are granted to them. Persons under examination are not allowed to have any communication made to them while in the prison except by their legal advisers, unless such a proceeding is specially sanctioned by the Justice conducting the examination.

For good conduct and industry, prisoners may be recommended for a remission of sentence, in accordance with a classified scale. No remission is granted where the sentence is less than three months, nor in respect of any period passed in separate treatment. The remission scale does not affect sentences commuted from capital convictions, in which case as a rule the prisoner may petition for release after serving twenty years. Generally speaking, the treatment which favours the lesser offender has been adopted in other parts of gaol routine.

Under the Crimes Act a prisoner under sentence may be granted a written license to be released within specified limits during the unexpired portion of his sentence. Sureties are required, unless under exceptional circumstances, for good behaviour and observance of the conditions of the license. The liberated prisoner is required to report periodically to the police; and is liable to cancellation of license, and to recommittal during the balance of his sentence for any breach of the conditions. This system was instituted in September, 1891, and at the end of 1908 there were 24 licenses in force—those of 21 males and 3 females.

In view of the neglected state in which many of the prisoners are received, the death-rate in gaols is light, and shows signs of decrease. More especially in the country districts, persons in the last stages of disease, and aged and infirm paupers, for whom a hospital or asylum is the befitting destination, are received into gaol and an undue inflation of the death-rate necessarily ensues. Comparison between the death-rate in gaols and that of the general population is unfair, but the death-rate of all persons received into gaol is at present not greater than that of the general population of like ages, while the death-rate of habitual criminals is largely below the average. In the following table the number of deaths, exclusive of those resulting from executions, is given for 1890, and subsequent periods, together with the death-rate per 1,000 of the average number of prisoners in confinement during the year :—

Year.	Deaths.			Death-rate per 1,000 persons in confinement.
	Males.	Females.	Total.	
1890	24	2	26	11·50
1895	19	3	22	8·83
1900	15	3	18	9·02
1905	12	1	13	6·98
1906-8	28	5	33	7·12

#### POLICE.

The Police Force of New South Wales is administered by the Chief Secretary of the State and is under the immediate control of the Inspector-General.

At the end of 1908 the strength of the establishment was distributed as follows :—

Superintendents	...	13	Constables	...	2,112
Inspectors	...	13	Detectives	...	22
Sub-Inspectors	...	37	Blacktrackers	...	65
Sergeants	...	220	Female Searchers	...	5

Total 2,487

In the following table are quoted the number of police in the metropolitan and country districts at the end of each of the last ten years. It will be seen that with the growth of population the force is steadily increasing in strength, the present proportion being 1 police officer to every 645 inhabitants, as compared with 1 to every 667 persons ten years ago :—

Year.	Metropolitan.	Country.	Total.	Number of Inhabitants to each Police Officer.
1899	821	1,195	2,016	667
1900	888	1,254	2,142	637
1901	909	1,263	2,172	635
1902	950	1,272	2,222	633
1903	979	1,291	2,270	631
1904	1,006	1,304	2,310	633
1905	1,048	1,294	2,342	639
1906	1,035	1,307	2,342	654
1907	1,057	1,324	2,381	661
1908	1,054	1,433	2,487	645

The protection of life and of property are not the only duties which the police are called upon to perform. A large portion of their time is occupied in the collection of agricultural and stock schedules, the returns of works

and manufactories, and other similar duties. In many cases they act as Clerks of Petty Sessions and Warden's clerks, mining registrars, gaolers, inspectors under various Acts, collect information for electoral rolls, and fill other offices having no direct connection with police duties. A list showing the nature of all such offices held and the duties performed has been given in the annual report of the Police Department, under no less than sixty-nine headings.

To secure better provision for the regulation of traffic within the Metropolitan Police District, the Metropolitan Traffic Act was passed during the year 1900. Under this law the police generally are empowered to control the street traffic, and in 1908 there were 84 officers specially detailed for this work. The duties of the police vary so much in the different States that any comparisons which neglect to take this factor into consideration are considerably vitiated. Differences in area and physical characteristics of the country must also be regarded in dealing with the figures shown in the following table, which exhibits the strength of the police force, exclusive of trackers, in each State and New Zealand at the close of the year 1908 :—

State.	Police.	To each Police Officer.	
		Inhabitants.	Square miles.
New South Wales ... ..	2,487	645	125
Victoria ... ..	1,571	809	56
Queensland ... ..	970	569	691
South Australia ... ..	413	985	2,188
Western Australia ... ..	504	529	1,936
Tasmania ... ..	233	796	112
New Zealand ... ..	771	1,308	136

#### COST OF POLICE AND PRISON SERVICES.

The following table shows the amount expended in maintaining the police and prison services of New South Wales since 1903, and also the amount of fines paid into the Consolidated Revenue, and the net return from prison labour :—

Expenditure and Revenue.	1903.	1904.	1905.	1906.	1907.	1908.
<b>Expenditure—</b>						
Police ... ..	£ 431,631*	£ 435,974*	£ 434,684*	£ 427,285*	£ 443,172*	£ 446,747*
Penal establishments ... ..	136,800	119,874	100,947	98,893	98,440	101,668
<b>Total ... ..</b>	<b>568,431</b>	<b>555,848</b>	<b>535,631</b>	<b>526,178</b>	<b>541,612</b>	<b>548,415</b>
<b>Revenue—</b>						
Fines ... ..	14,272	15,152	16,636	17,908	19,042	20,325
Net return from prison labour	15,916	19,452	22,508	22,242	23,819	24,664
<b>Total ... ..</b>	<b>30,188</b>	<b>34,604</b>	<b>39,144</b>	<b>40,150</b>	<b>42,861</b>	<b>44,989</b>
<b>Net Expenditure ... ..</b>	<b>538,243</b>	<b>521,244</b>	<b>496,487</b>	<b>486,028</b>	<b>498,751</b>	<b>503,426</b>
<b>Per Inhabitant ... ..</b>	<b>s. d. 7 7</b>	<b>s. d. 7 2</b>	<b>s. d. 6 9</b>	<b>s. d. 6 5</b>	<b>s. d. 6 5</b>	<b>s. d. 6 4</b>

\* Financial year ending subsequent 30th June.

The value quoted above represents labour of a productive character only, and is a rapidly rising quantity. The net reduction in the cost of these services since 1903 represents 1s. 3d. per head of population.



## EXTRADITION.

The Imperial statutes in force in New South Wales for the surrender of fugitive criminals are the Extradition Acts of 1870 to 1895, and the Fugitive Offenders Act of 1881. The former provide for the surrender to foreign States of persons accused or convicted of certain crimes within the jurisdiction of such States, and for the trial of criminals surrendered to British dominions. Treaties for the extradition of fugitive criminals exist between the United Kingdom and nearly every foreign country. In proceedings taken in New South Wales under the Extradition Acts the fugitive is brought before the Stipendiary or Police or special Magistrate, authorised by the Governor-General under the Commonwealth "Extradition Act, 1903," who hears evidence on oath, and, if satisfied that the person should be extradited, makes out a warrant to that effect. At the hearing of the case, the Consul for the country of which the person charged is a subject, the Crown Solicitor, and the Inspector-General of Police are represented. If a warrant be granted, the prisoner is detained for fifteen days prior to extradition, during which interval he may apply to the Supreme Court for a writ of *habeas corpus*. During the five years ended 1908 there were altogether 5 extraditions, all to the French penal settlement of New Caledonia.

Under the Fugitive Offenders Act, 1881, provision is made for the surrender from the United Kingdom to a British possession or *vice versa*, or from one British possession to another, of fugitives charged with the perpetration of crimes which are, in the part of His Majesty's dominions where they are committed, punishable by imprisonment with hard labour for twelve months, or by some greater penalty. Persons apprehended under the Act are brought before a Magistrates' Court, and their cases are included in the figures relating to the business transacted at such courts, and not in the returns relating to the Extradition Court.

During 1908 20 fugitive offenders—of whom 18 were males and 2 females—were arrested in other parts of His Majesty's dominions, or in foreign countries, and returned to New South Wales. Of these two were summarily convicted before magistrates, and 19 were committed to higher courts, the remaining 9 cases being discharged. The value of such a system of dealing with fugitive offenders is considerable. The figures given above show that the number of offenders returned to New South Wales from other parts of the British Empire was exceeded by the number who had sought refuge in New South Wales, and who were returned to their own country for punishment. By rigorously seeking out such fugitives who are probably not first offenders, New South Wales is enabled to reduce criminal influences within her own territory and to exercise a moral influence on other States, since the greatest influx of criminals came from the nearest States, Queensland and Victoria. To deal with this matter the "Influx of Criminals Prevention Act" was passed in 1903, by which persons convicted in other States are guilty of an offence against the Act if they come into New South Wales before the lapse of three years from the termination of their imprisonment. Penalties are imposed upon all persons accessory to the importation of criminals, and the offenders themselves are liable to deportation or other punishment. Twenty-eight fugitive offenders from other portions of His Majesty's dominions were arrested in New South Wales, and brought before Magistrates' Courts during the year. Of these, 9 were remanded to Victoria, 10 to Queensland, 4 to New Zealand, 1 to South Australia, 2 to Tasmania, and 1 to South Africa, while one was discharged.

## DECREASE IN CRIME.

Two ways are available for testing the comparative intensity of crime. A comparison of the number of arrests with the whole population of the country, supplies a general test as to lawlessness, and a comparison of the

persons committed for trial by jury with the whole population evidences the prevalence of serious crime, as all serious offenders are so tried. In making comparisons it is necessary to remember that as new laws are continually being enacted, to a large proportion of which attaches the penalty of fine or imprisonment, the number of offences for which a person is liable to be apprehended has been constantly extending; and there is a general tendency for magistrates to deal summarily with a large proportion of the cases submitted to them. Hence it is quite possible that the returns may show both an increase of apprehensions and a decrease of committals. On the other hand legislative enactments have been made which tend to decrease the prison population, as noted in dealing with gaols. Prominent in this connection are the Influx of Criminals Prevention Act, and the "first offenders" portion of the Crimes Act, in addition to the Habitual Criminals and the Inebriates Acts. The tables given hereunder indicate the extent to which crime has decreased. The first table shows, in quinquennial periods, the mean population, the average number of apprehensions, and the proportion of these to the general population:—

Period.	Mean Population.	Apprehensions.	
		Annual Average.	Per 1,000 of Population.
1870-74	526,733	19,422	36.87
1875-79	633,255	28,837	45.54
1880-84	802,712	41,262	51.40
1885-89	1,000,744	39,406	39.38
1890-94	1,174,963	37,854	32.22
1895-99	1,291,563	36,145	27.99
1900-04	1,396,751	38,779	27.76
1905-08*	1,534,109	40,231	26.22

\* Four years.

An average of 26.22 apprehensions per 1,000 of population is a marked improvement on the rates of previous years. The comparison made above has reference to the whole population; but as few persons under 15 years of age commit serious offences, children under that age have been excluded from the following statement, which relates to the periods 1879-82, 1889-92, and 1899-1902, these periods being selected because the number in each age-group is accurately determinable from the results of the last three Census enumerations. The following figures relate to males:—

Age Group.	Average Annual Arrests.			Per 1,000 of Population.		
	1879-82.	1889-92.	1899-1902.	1879-82.	1889-92.	1899-1902.
15-19 years	1,734	1,882	1,727	45.43	34.68	24.49
20-29 "	8,884	9,939	6,500	118.29	84.33	54.65
30-39 "	8,141	8,848	6,462	143.58	95.65	61.49
40-49 "	5,945	5,803	5,097	136.14	99.20	64.99
50 years and over...	5,061	5,045	4,304	113.47	73.15	46.30

In every age-group there has been a decided fall in the proportion of arrests, but the improvement is most marked in the higher age-groups, because the generations which produce the old persons are progressively improving. The decline in the proportion of females arrested is even more

noticeable than among the males. The following figures, relating to females, are on the same basis as those in the preceding table :—

Age Group.	Average Annual Arrests.			Per 1,000 of Population.		
	1879-82.	1889-92.	1899-1902.	1879-82.	1889-92.	1899-1902.
15-19 years ... ..	484	463	247	12·88	8·50	3·49
20-29 „ ... ..	1,813	1,814	1,081	30·23	18·07	8·93
30-39 „ ... ..	2,018	1,600	749	50·02	25·00	8·47
40-49 „ ... ..	1,471	1,035	604	54·10	25·31	10·49
50 years and over... ..	1,118	740	449	41·22	16·37	6·62

In considering the figures in this and the preceding table, the fact must be noted that the arrests relate to distinct persons for the period 1899-1902 only, whereas in the earlier years they relate to all arrests; but even when due allowance has been made, it will be found that the decline is notable.

Turning to the committals to the higher courts, and to the consequent convictions, a more decided decline is noticeable; and as the committals represent the more serious types of offences, the decline must be regarded as specially satisfactory :—

Period.	Committals.		Convictions.	
	Annual Average.	Per 1,000 of Population.	Annual Average.	Per 1,000 of Population.
1870-74	1,134	2·15	644	1·22
1875-79	1,506	2·38	881	1·39
1880-84	1,693	2·11	1,044	1·30
1885-89	1,539	1·54	885	0·88
1890-94	1,479	1·26	916	0·78
1895-99	1,393	1·08	829	0·64
1900-04	1,356	0·97	809	0·58
1905-08*	1,252	0·82	640	0·42

\* Four years.

The fall in the rates has been continuous practically over the whole period, convictions for serious offences being proportionately much less than they were thirty-eight years ago. There has been a great decrease in crime during the period named, and the reform has been due, probably, to the spread of education and to the consequent advance in the ethical standards of the community.

The figures for the Higher Courts have been given in detail for the last six years on a previous page in dealing with those Courts, and the record is worth dissection. Following are the figures and ratio of the years 1906-8 to the facts for 1903-5, the first three years, which are taken as equivalent to 100 in each group :—

Offences.	Convictions in Higher Courts.		
	1903-5.	1906-8.	Ratio of 1906-8 to 1903-5.
Against person ... ..	476	439	92·2
„ property ... ..	1,813	1,224	67·5
Forgery and against currency	188	166	88·3
Against order ... ..	47	28	59·6
Other ... ..	81	84	103·7
Total ... ..	2,605	1,941	74·5

Thus the convictions for the last three years represent rather less than three-quarters of the totals for the previous three years, and the decrease in each group and on the whole is gratifying.

The Prisoners' Aid Association does good work in the direction of finding employment for prisoners on the completion of their sentences, in taking charge of gratuities earned by them in gaol, and in various other ways. During the seven years in which the Association has been in existence, of the prisoners who have been assisted, only 10 per cent. have been reconvicted. During 1908 the Association found work for 128 discharged prisoners who, on the whole, gave complete satisfaction to their employers. The reconvictions of those assisted during the year, either with boots, food, money, clothing or lodging, numbered only eight. The formal applications for assistance in various directions numbered 380 of which only eighteen were refused. The Association also assists persons charged for the first time before the courts, by interviewing them prior to trial, explaining the privileges granted under the Justices Act, and helping them to obtain sureties; the total number interviewed for the year was 3,848. In 606 cases the Association's agents collected the moneys for fines which had been imposed, and in 279 instances procured bail. The Salvation Army organisation also possesses several excellent institutions where friendless persons of this class are received and encouraged

## LAND LEGISLATION AND SETTLEMENT.

### AREA OF STATE.

THE area comprised within the limits of New South Wales is estimated at 310,367 square miles, or 198,635,000 acres, being a little over two-and-a-half times that of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, the area would be 195,669,000 acres, or about 305,733 square miles. Lord Howe Island, a dependency of New South Wales, situated about 300 miles east of Port Macquarie has an area of 5 square miles.

The length of the State, from Point Danger on the north to Cape Howe on the south, is 683 miles. From east to west, along the 29th parallel, the breadth is 756 miles, while diagonally from the south-west corner, where the Murray passes into South Australia, to Point Danger the length reaches 984 miles.

### EARLY SETTLEMENT.

From the early days of settlement until the year 1861 the Crown disposed of lands under prescribed conditions, by grants, and by sales, so that by the end of 1861 an area of 7,146,579 acres had been alienated, as shown in the statement below :—

	acres.
1. By grants, and sales by private tender to close of 1831 ... ..	3,906,327
2. „ „ in virtue of promises of early Governors made prior to 1831, from 1832-40 inclusive ... ..	171,071
3. „ sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive ... ..	1,450,508
4. „ „ „ „ 12s. and upwards per acre, at Governor's discretion, from 1839-41 inclusive ... ..	371,447
5. „ „ „ „ 20s. per acre, from 1842-46 inclusive ... ..	20,250
6. „ „ „ „ and by purchases in virtue of pre-emptive rights, from 1847-61 inclusive ... ..	1,219,375
7. „ grants for public purposes, grants in virtue of promise of Governor made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive ... ..	7,601
Total alienated on 31st December, 1861 ... ..	7,146,579

In dealing with the constitution of rural property, it is necessary to mention that certain grants were made under special enactments. Under instructions issued by the Imperial authorities to Sir Thomas Brisbane, the Governor was directed to reserve one-seventh of the Crown lands in each county for the purpose of Church and School establishments, but these instructions were not fully carried out, as the reservations did not amount to the proportional area specified.

The reserves were stated at 443,486 acres, which subsequent surveys show to be actually 454,050 acres. These lands were administered by the Clergy and School Land Corporation until the abolition of that body by Order of Council of the 4th February, 1833; the lands reverted to the Crown, and an agent was appointed to determine the claims of purchasers, to whom deeds of grant were made, which were confirmed by a subsequent Act of Council dated the 5th August, 1834.

Of the area mentioned above, 171,746 acres were alienated up to the year 1880, when, by the Church and School Lands Dedication Act of that year, the balance of 282,304 acres came under the control of the State legislature

to be administered for the purpose of Public Instruction. The Church and School Lands Act of 1897, however, vested these lands in the Crown, free from all trusts and conditions, but subject to the provisions of the Crown Lands Act of 1884 and any subsequent amending Acts, thus determining the land as Crown land. Until a notification classifying any area of Church and School Lands has been published in accordance with the Crown Lands Act of 1895, such area may be dealt with only by reservation, dedication, license, or held under special or annual lease.

The Australian Agricultural Company was incorporated by an Act of the Imperial Parliament, dated the 21st June, 1824, and a promise of a grant of 1,000,000 acres made to this Company was fulfilled in the following year. Originally a grant containing 1,048,960 acres was selected in the country surrounding Port Stephens, but in 1832 the Company was authorised to exchange a portion of this grant, containing 600,000 acres, for two areas situated on the Peel River and on the Liverpool Plains, respectively. These three grants are of the following extent :—

	acres.
Port Stephens Estate, County of Gloucester ... ..	464,640
Peel River Estate, County of Parry ... ..	249,600
Warrah Estate, Liverpool Plains, County of Buckland...	313,298
Total ... ..	1,027,538

In addition to this land, the Company obtained from the Crown the promise of a lease of the coal-fields at Port Hunter (Newcastle) for thirty-one years. This, however, was exchanged for a grant of 500 acres, an area which was increased in 1828 to 2,000 acres of coal land, upon which the Company's collieries are now situated.

#### OCCUPATION OF PASTORAL LANDS.

The pastoral lands of New South Wales have been occupied under various systems. Land was held for grazing in the early days by virtue of tickets of occupation, the issue of which was stopped in 1827, when holders of such lands were required to pay a quit-rent of 20s. per 100 acres per annum, and to vacate the land at six months' notice. The requirements of the settlers for depasturing their increasing stock induced them to occupy Crown lands without any right except that of first discovery, and as they extended their operations inland the Legislature found itself compelled, in 1833, to pass an Act protecting Crown lands from intrusion and trespass; and commissioners were appointed for the purpose of safeguarding the interests of the State.

The discovery of new country soon attracted pioneer squatters beyond the limits of settlement as proclaimed on the 14th October, 1829; and, without authority or license, large tracts of Crown lands were occupied. Fresh regulations, in which severe penalties were enacted, were issued on the 29th July, 1836, with the view of restraining this unauthorised occupation. These regulations being in many cases disregarded, an Act was passed in 1839, to further restrain; and for the purposes of administration a yearly assessment was levied upon stock at the following rates:—½d. for every sheep; 1½d. per head of cattle; and 3d. for every horse.

Under an Act passed in 1847 a new system was introduced relating to pastoral lands. Previously the tenure had been annual, and the fee was based on the area of land occupied by the squatter. Under the new plan fixity of tenure of lease was substituted, and the license fee calculated upon the stock-carrying capacity of the run; the term of the pastoral leases in the unsettled districts was fixed at fourteen years, in the intermediate division eight years, and in the settled districts the yearly tenure was retained. The licensing fee under the altered conditions was charged at the rate of £10 for 4,000 sheep, or a proportional number of cattle—which was the minimum at which the

stock-carrying capabilities of a run could be assessed—and £2 10s. for every additional 1,000 sheep, or proportionate number of cattle. In the settled districts lands were let for pastoral purposes only, in sections of not less than one square mile in area, the annual rental for each section being fixed at 10s. The holders of alienated lands were permitted to depasture their stock upon Crown lands adjoining their holdings free of charge; this permission, however, constituted only a commonage right.

The Occupation Act of 1861 created a new system, limiting the tenure of pastoral leases to five years in the unsettled, and intermediate or second-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. The evils resulting from this system led Parliament to adopt in 1884, 1889, 1895, and finally in 1905, the measures at present in force, the provisions of which are described below.

#### CROWN LANDS ACT OF 1861.

The conditions of colonisation altered greatly under the powerful attraction of the gold-fields, and, after the first excitement of the rush for gold had died out, the question of land settlement had to be discussed in an entirely new spirit, to meet the wants of a class of immigrants of a different type from those contemplated by former enactments, the result being the passing of the Crown Lands Act of 1861, by Sir John Robertson. Before this Act became law, the conditions of settlement rendered it difficult for men of small means to establish themselves with a fair chance of success. The new measures aimed at facilitating the settlement of an industrial agricultural population side by side with the pastoral tenants; and, with this in view, the Act introduced a principle entirely new to the land legislation of the State, namely, that of free selection, in limited areas, *before survey*. The Act provided for the conditional purchase of areas from 40 to 320 acres in extent at £1 per acre—25 per cent. of the purchase money to be deposited with the application. At the expiration of three years the purchaser was required to pay the balance, and to furnish a certificate showing that he had resided on the land, and made the necessary improvements. Provision was made to defer the payment of the balance of the purchase money on the payment of 5 per cent. interest.

These provisions, however, were modified by the Amending Act of 1875, under which annual instalments were payable, and the option was given to any conditional purchaser of land to avail himself of the change in the method of payment. The system of unconditional sales was, however, continued under the Act of 1861; and during the twenty-three years the Act was in operation 23,470,140 acres were sold conditionally, and 15,572,001 acres by auction, by improvement purchase, by virtue of pre-emptive right, or otherwise without conditions, the total area alienated being 39,042,141 acres. In a very large number of cases the land selected, or purchased, reverted to the State, so that the absolute area sold or in process of sale when the Act of 1884 came into force amounted to only 32,819,023 acres, besides 7,146,579 acres alienated prior to 1861.

#### THE CROWN LANDS ACTS OF 1884 AND 1889.

After many amendments the Act of 1861 was superseded by that of 1884, with the supplementary enactment of 1889. Though differing widely from the old Act in many important particulars, these measures maintained the principle of free selection before survey, but with one essential difference. Under the original Act the whole area of the Crown lands was thrown open to free selection, including the lands held under pastoral lease. The Acts of 1884 and 1889 were devised to give fixity of tenure to the pastoral lessee and to obtain a larger rental from the public lands, at the same time restricting the area sold unconditionally.

Consequently existing holders of pastoral leases under the old Act were required to surrender one-half of their leases, which were resumed by the Crown for subsequent alienation, leasehold, or reserve; the other half in each case was leased to the pastoralist under fixity of tenure for a term of years. On the 31st December, 1884, when this division was made, there were 4,313 leased runs, yielding an annual rental of £268,500, and forming about 1,600 "stations," estimated to contain the bulk of the unalienated public estate, after allowing for reserves, &c. An increase in the revenue from pastoral occupation, one of the principal objects of the Act of 1884, has been realised, as evidenced by the total revenue received from the pastoral occupation of Crown lands, which increased from £329,356 in the year 1884 to £604,707 in the year 1908-9.

#### THE CROWN LANDS ACTS OF 1895 AND 1903.

The Act of 1861 conspicuously failed to encourage *bona-fide* settlement; and the same must be said of the legislation of 1884 and 1889, since the accumulation of land in large estates continued, while settlement proceeded very slowly. Expert opinion strongly pointed to the necessity of introducing entirely new principles, and this was done in the Crown Lands Acts of 1895 and 1903, which, while placing land within easy reach of all, supply the means of securing permanent settlers through the new system of tenure—homestead selections and settlement leases.

The State is divided into three territorial divisions, Eastern, Central, and Western; the boundary lines running approximately north and south. The control of the lands within the Western Division is vested in the Western Lands Board, consisting of three commissioners. The Eastern and Central divisions are subdivided into Land Districts, in each of which is stationed a Crown Land Agent, whose duty is to receive applications and furnish information regarding land. Groups of these districts are arranged in larger areas, under the control of Land Boards, whose decisions are subject to review by the Land Court.

The Land Court is composed of a President and two commissioners, whose decisions in matters of administration have the force of judgments of the Supreme Court; but whenever questions of law arise, a case may be submitted to the Supreme Court, either at the written request of the parties interested, or by the Land Appeal Court. The conditions of alienation and pastoral occupation of Crown Lands differ in each of the three divisions of the State.

The Eastern Division has an area of 61,260,326 acres, and includes a broad belt of land between the sea-coast and a line nearly parallel thereto. This line starts from a point midway between the small settlements at Bonshaw and Bengalla on the Dumaresq River, and terminates at Howlong, on the River Murray, thus embracing the coastal districts of the State, as well as the northern and southern tablelands. In this division is to be found excellent agricultural land, and here lie all the original centres of settlement, the markets of the State being readily accessible. For these reasons, the conditions for the purchase and occupation of the Crown lands in the Eastern Division are more restricted than is the case in the Central and Western Divisions.

The Central Division embraces an area of 57,055,846 acres, extending from north to south between the western limit of the Eastern Division and a line starting from a point on the Macintyre River, where it is crossed by the 149th meridian of east longitude, and following this river and the Darling to the junction of Marra Creek; thence along that creek to the Bogan River, and across to the River Lachlan, between the townships of Euabalong and Condobolin, along the Lachlan to Balranald, and thence



to the junction of the Edward River with the Murray. The area thus defined contains the upper basin of the Darling River in the northern part of the State, and portions of those of the Lachlan, the Murrumbidgee, and other affluents of the Murray in the south. The land in this division is devoted mainly to pastoral pursuits; but experience having proved that it is suitable for agriculture, the cultivated area has increased considerably.

The Western Division is situated between the western limit of the Central Division and the South Australian border. It contains an area of 80,318,708 acres, watered by the Darling River and its tributaries, and is devoted to pastoral pursuits. Water conservation and irrigation may in time counteract climatic conditions and irregular rainfall, and make agriculture possible over this large area, as its soil is adapted to the growth of any kind of crop; but legislation in regard to the occupation of the lands of the district is based upon the assumption that for many years to come there will be little inducement for agricultural settlement.

Under the Acts at present in force, land may be acquired by the following methods:—

- (1) Conditional and additional conditional purchase with residence;
- (2) Conditional purchase without residence;
- (3) Classified conditional purchase;
- (4) The preferent right of purchase attached to conditional leases;
- (5) Improvement purchases on gold-fields;
- (6) Auction sales;
- (7) After-auction sales;
- (8) Special sales without competition;
- (9) Exchange;
- (10) Volunteer land orders;
- (11) Homestead selection.

Crown lands may be occupied under the following systems of lease, viz.:—

- (1) Annual;
- (2) Conditional purchase;
- (3) Conditional;
- (4) Inferior lands;
- (5) Occupation license;
- (6) Pastoral;
- (7) Scrub;
- (8) Special;
- (9) Residential on gold and mineral fields;
- (10) Improvement;
- (11) Settlement;
- (12) Snow-lands;
- (13) Working men's blocks.

The maximum area which may be conditionally purchased differs in the Eastern and Central Divisions. In the Western Division land can be occupied only under lease, or alienated by auction.

#### *Conditional Purchases.*

Any unreserved Crown lands in the Eastern and Central Divisions not held under pastoral or other lease are available for conditional purchase, and lands held under annual lease or occupation license may also be acquired in this way. Land under conditional lease in any division may be conditionally purchased, but only by the leaseholder. Lands within suburban boundaries or within population areas may be proclaimed as special areas, and are open to conditional purchase under the special conditions prescribed. The value of any improvements on a conditional purchase must be paid by the applicant.

Any person may take up a residential conditional purchase except those under the age of 16 years and married women who are living apart from their husbands and have not obtained orders of judicial separation, but no one under the age of 21 years may select a non-residential conditional purchase. Every conditional purchase must be made solely in the interest of the applicant. Minors who become conditional purchasers have the rights and liberties of persons of full age in connection with their land.

The minimum and maximum areas allowed for each class of conditional purchase are as follows :—

Class.	Division.	Minimum Area.	Maximum Area.
		acres.	acres.
Residential	Eastern	40	640
"	Central	40	2,560
Non-residential	Eastern	40	320
"	Central	40	320
Special area	Eastern	.....	320
"	Central	.....	640

With regard to special areas, both the minimum and maximum areas are subject to proclamation in the *Government Gazette*, and, are, therefore, liable to limitation. It is open to any conditional purchaser to take up the maximum area at once, or by a series of purchases at convenient intervals. With the exception of non-residential purchases, provision is made in the Crown Lands Amendment Act, 1908, that the specified maximum areas may be exceeded by means of additional holdings, the area of which, together with all other lands held, other than on annual tenure, must not exceed a home maintenance area. For the purposes of the Act a home maintenance area means an area which, used for the purpose for which it is reasonably fitted, would be sufficient for the maintenance in average seasons and circumstances of an average family. The additional holdings need not necessarily adjoin the original holdings, but must be situated within a reasonable working distance.

Under the Crown Lands Act Amendment Act of 1905 areas may be set apart for original holdings, or for additional holdings ; but no area may be selected under both classes of holdings. Original holdings include (a) original conditional purchases and (b) original conditional purchases and conditional leases taken up in respect of, and at the same time as, the original conditional purchase within the area. Additional holdings include (a) additional conditional purchases and (b) conditional leases other than those previously mentioned. Values and rentals are specified in the official notices under this Act. Lands may be classified and set apart, by notification, at specified prices.

An application for a conditional purchase, or for an additional conditional purchase, must be lodged with the Crown Lands Agent of the district in which the land is situated, and a deposit and survey fee paid at the same time. The deposit on residential purchases is at the rate of 5 per cent. of the price of the land, and 4s. per acre on non-residential purchases of ordinary land ; but on special areas, and on lands within classified areas, it varies according to the prices fixed for the land. Under ordinary conditions the balance of purchase money, with interest at 4 per cent. per annum, is cleared off by thirty annual payments of 1s. per acre. The first instalment is due at the expiration of three years from the date of the contract. In the case of holdings brought under the Conditional Purchasers' Relief Act of 1896, the instalments may be reduced to 9d. per acre, and in some instances to 6d. per acre, thereby extending the total period of repayment to sixty-six years, provided the holders of the conditional purchases remain in residence. By the Crown Lands Act Amendment Act of 1903, the rate of interest on the

balance of purchase money has been reduced to  $2\frac{1}{2}$  per cent. per annum for any conditional purchase after the passing of that Act, and in certain cases, in respect of conditional purchases made before the passing of that Act. Upon the receipt of an application for a conditional purchase the Land Board may cause the land to be surveyed and reported upon by a surveyor, and may either confirm or disallow the application. In the case of confirmation a certificate is issued to the applicant.

The original conditional purchase must be occupied continuously by the selector for a period of ten years, and residence must be commenced within three months after the application has been confirmed by the Land Board, who may grant leave of absence under special circumstances. Each additional conditional purchase or conditional lease is subject to the condition of residence indicated, but the place of residence may be on any block of the series, and the term may be reduced by the applicant's previous residence on the series, up to, but not exceeding, five years.

The selector must enclose his land, within three years after confirmation, with such a fence as the Land Board may prescribe; but he may substitute improvements in lieu of fencing. In such a case, permanent improvements, of the value of 6s. per acre, but not exceeding £384, are required within three years, and these improvements must be brought up to the value of 10s. per acre, but not exceeding £640, within five years from the date of confirmation. In the case of non-residential purchases, the land must be fenced within one year after date of confirmation, and within five years other improvements to the value of £1 per acre must be effected. Under the Crown Lands Amendment Act, 1908, an original non-residential conditional purchase may be converted, with any non-residential conditional purchase made in virtue of it, into an original conditional purchase, provided that the ten years residence commences from the date of application for such conversion. This term of residence is subject to reduction, and all moneys previously paid are credited towards payment of the converted conditional purchase.

Any conditional purchases, or conditional leases of the same series, may be converted into a homestead selection, if the holder has been in *bona fide* residence for at least six months, in which case all moneys paid as interest or rent are deemed to have been paid for the use of the land, and all moneys paid off the purchase money are credited towards future rent of the selection.

#### *Auction Sales, and After-auction Purchases.*

Crown lands are submitted to auction sale under two systems. Under the ordinary system the balance of purchase money is payable, without interest, within three months of the day of sale, while, under the deferred payment system, the balance is payable by instalments, with 5 per cent. interest, distributed over a period not exceeding five years; in either case, 25 per cent. of the purchase money must be deposited at the time of sale. Auction sales are permitted to the extent of 200,000 acres in any one year. Town lands may not be sold in blocks exceeding half an acre, nor at a lower upset price than £8 per acre; and suburban lands must not exceed 20 acres in one block, the minimum upset price being £2 10s per acre. Country lands may be submitted in areas not exceeding 640 acres, the upset price being not less than 15s. per acre. The value of improvements on the land may be added to the upset price.

#### *Improvement Purchases.*

The holders of miners' rights or of business licenses on a gold-field in authorised occupation of land containing improvements, may purchase such land without competition. These improvements must include a residence or place of business, and be of the value of £8 per acre on town land, and £2 10s. on any other land.

*Special Purchases.*

Any unnecessary road which bounds or intersects freehold land, may be closed and sold to the freeholder at a price determined by the Land Board, and any unnecessary road which passes through land held under conditional purchase may be closed and added to the area.

Many Crown grants of land having water frontage contain reservations usually 100 feet from high-water mark, but the Crown may rescind the reservation, and convey the land to the holder of the adjoining land, at a price to be determined by the Land Board.

The owner in fee-simple of land having frontage to the sea, or to any tidal water or lake, who desires to reclaim and purchase any adjoining land lying below high-water mark, may apply to the Minister for Lands to do so, except in the case of Port Jackson, the control of which is vested in the Sydney Harbour Trust Commissioners. Reclamations are not authorised which might interrupt or interfere with navigation.

Land encroached upon by buildings erected on granted land, or land situated between granted land and a street or road, which forms, or should form, the way of approach to the granted land, or land to which no way of access is attainable, or land which is insufficient in area for conditional purchase, may be purchased by the owner in fee-simple of the adjoining land, at a price determined by the Board.

*Volunteer Land Orders.*

Holders of certificates issued to volunteers who have served under the provisions of the Volunteer Force Regulation Act of 1867, are entitled to a free grant of 50 acres of land. These certificates entitle the holder to 50 acres of such land as may be open to conditional purchase, other than lands within a proclaimed special area. Claims to these grants will not be entertained unless lodged within three years after the commencement of the Crown Lands (Amendment) Act, 1908.

*Exchanges of Land.*

Before the granting of fixity of tenure in connection with pastoral leases, the lessees had made it a practice to secure portions of their runs by conditional purchases and purchases in fee-simple. The practice was disadvantageous to the public estate, since Crown lands were left in detached blocks severed by lessees' freehold properties, and the lessees realised that it would be convenient to them to gather their freeholds together in one or more consolidated blocks. This may be secured by means of a surrender of the private lands in exchange for Crown lands elsewhere.

*Homestead Selections.*

The appropriation of areas for homestead selection is a prominent feature of the Act of 1905, the land chosen for subdivision being good agricultural land. Where suitable lands are situated within easy access of towns, small blocks are set apart to meet the requirements of business people, the lands being available after particulars relating to area, capital value, &c., have been published in the *Gazette*. The maximum area that may be selected is 1,280 acres, but the selector is limited to a block as granted; the tenure is freehold, subject to perpetual residence and perpetual rent; the selector is required to deposit one-half years' rent and one-tenth of the survey fee with his application, and to pay for any improvements already on the land. The rent until the expiration of the first six years of the selection, if the grant is not previously issued, is  $1\frac{1}{4}$  per cent. of the capital value of the block. An appraisalment of the capital value of the land may be obtained under certain conditions. Additional land may be acquired to make up an area which, with all other lands held by the applicant other than under annual

tenure, would not be more than sufficient for the maintenance of the applicant's home in average seasons and circumstances. The additional holding need not adjoin the original holding, but must be situated within a reasonable working distance. Any person who is eligible to take up a conditional purchase may apply for a homestead selection. After the issue of the grant the rent is  $2\frac{1}{2}$  per cent. on the improved capital value of the land, which is appraised every ten years. The only expenditure required in improvements is £20 for a dwelling-house within the first eighteen months, and the condition of residence is a perpetual obligation, but after issue of the grant, may be restricted to seven months in each year. The land may not be transferred during the first five years, and each successive transferee is required to live on the land while he holds it. Tenant-right in improvements is allowed, and the holding is so protected that it cannot, by any legal procedure, except by levy or sale for taxes, be taken from the owner while he resides on it. Under the Crown Lands (Amendment) Act, 1908, a homestead selection or grant may be converted into either a conditional purchase lease, a conditional purchase, or a conditional purchase and conditional lease, provided the area contained in such lease does not exceed three times the area in the conditional purchase. Holders of conditional purchases may convert their holdings into homestead selections.

#### *Working Men's Blocks.*

This tenure has been created by the Blockholders' Act of 1901, under which workmen may secure a lease of a block, not exceeding 10 acres, for a period of ninety-nine years. An applicant must be not less than 18 years of age, and gain his livelihood by his own labour; and the rent is not more than 5 per cent. on the capital value of the land. The lessee and his family must reside on the land for at least nine months in every year, pay the rent annually, and all rates, taxes, and value of improvements, and must fence the land within two years. A blockholder may have his block protected from seizure for debt, except for rates and taxes.

#### *Conditional Purchase Leases.*

Areas set apart for disposal by way of conditional purchase lease are subdivided into such areas as the Minister for Lands may determine. The lease is for forty years, at a rental of  $2\frac{1}{2}$  per cent. per annum on the capital value. The value of existing improvements is appraised by the Land Board, and special conditions may be imposed regarding improvements, cultivation, preservation, or planting of timber, etc.

Any male above the age of 18 years, and any female above 21 years, who is not disqualified under the provisions of the Land Act, may apply for a conditional purchase lease. A female applicant must be unmarried, or widowed, or living apart from her husband under a decree of judicial separation.

Residence on the lease must be continuous for ten years, and must commence within twelve months from the date of confirmation, but the commencement of residence may be postponed to any date within five years of confirmation. At any time after the confirmation of an application, the holder may convert the area into a conditional purchase by payment of a deposit of 5 per cent. on the capital value of the land, provided that the proper conditions have been observed, and subject to all the unperformed conditions of the lease, except payment of rent. The balance of purchase money is payable by equal annual instalments at the rate of 5 per cent. of the price, consisting of principal and interest at the rate of  $2\frac{1}{2}$  per cent. on the unpaid balance, the first instalment being due twelve months after the date of application for conversion. Under the "Crown Lands Act," 1908, land may be set apart for disposal as special conditional purchase lease, provided that for six months the land has been available for some class of residential holding. The areas must be not less than 20, nor more than 320 acres. There are no

conditions of residence, but substantial improvements of value not less than 10s. per acre must be completed within three years. Any holder of a conditional purchase lease may acquire additional conditional purchase leases, but in no case may the total area of the lands held by him under any tenure, except annual, exceed a home maintenance area.

#### *Conditional Leases.*

A conditional lease may be obtained by any holder of a conditional purchase (other than non-residential), or a conditional purchase within a special area in the Eastern Division. Lands available for conditional purchase are also available for conditional lease, with the exception of lands in the Western Division, or within a special area or a reserve. Applications must be accompanied by a provisional rent of 2d. per acre and a survey fee. The area which an applicant may obtain as conditional purchases and conditional leases is restricted to 1,280 acres in the Eastern Division, and 2,560 acres in the Central Division; but the Land Board may specifically permit larger areas. The lease is for a period of forty years, at a rent determined by the Land Board, payable yearly in advance. The conditions of fencing, or substitution of improvements in lieu of fencing, which attach to a residential conditional purchase, apply equally to a conditional lease, and residence is required as in the case of an additional conditional purchase.

#### *Settlement Leases.*

Under this tenure, farms gazetted as available for settlement lease are obtainable on application, accompanied by a deposit consisting of six months' rent and the full amount of survey fee. The maximum area of agricultural land which may be taken up is 1,280 acres; but where the settler must combine agriculture with grazing, the farms may contain any area not exceeding 10,240 acres. These areas may, however, be exceeded by means of additional holdings, and the additional holding need not necessarily adjoin the original holding, but must be situated within a reasonable working distance thereof. The lease is issued for a term of forty years, divided into four periods. The annual rent for the first period is that notified before the land is made available for lease; but the lessee may require that the rent be determined by the Land Board, and the annual rent for each succeeding period may be separately determined in like manner. Residence is compulsory throughout the whole term; and the land must be fenced within the first five years, and noxious weeds and animals on the land destroyed within eleven years. The lessee may apply at any time after the first five years of the lease for an area not exceeding 1,280 acres, on which his house is situated, as a homestead grant. Under the Crown Lands Act, 1908, the holder of a settlement lease may convert such lease into a conditional purchase, or into a conditional purchase and conditional lease under certain provisions, but in no case may the unimproved value of the land to be converted exceed £3,000.

#### *Improvement Leases.*

Improvement leases may consist of any scrub or inferior land not suitable for settlement in the Eastern or Central Divisions, and be obtained only by auction or tender. The rent is payable annually, and the lease is for a period of twenty-eight years, with an area not exceeding 20,480 acres. Upon the expiration of the lease the last holder will have tenant-right in improvements. During the last year of the lease the lessee may apply for a homestead grant of 640 acres, on which his dwelling-house is erected. Should the Advisory Board, constituted under the Closer Settlement Act, 1907, report that land comprised in an improvement lease or scrub lease is suitable for closer settlement, the Minister may require the surrender of the lease to the Crown, and the owner will be compensated.

*Leases of Scrub and Inferior Lands.*

Scrub leases may be obtained on application, or by auction or tender, but inferior-lands leases may be acquired by auction or tender only. There is no limitation as to area, and in the case of a lease obtained by application the rent is appraised by the Local Land Board. The initial rent of an inferior-lands lease prevails throughout the whole term; but the terms of a scrub lease may be divided into periods, the rent for each period being determined by reappraisal. The term of each class of lease may not exceed twenty-eight years. The holder of a scrub lease must take such steps as the Land Board may direct for the purpose of destroying the scrub, and keep the land clear afterwards. During the last year of any of the leases application may be made for a homestead grant of 640 acres.

*Pastoral Leases.*

Under the Crown Lands Amendment Act of 1903, the registered holder of any pastoral lease, preferential occupation license, or occupation license, may apply for a lease, for not more than twenty-eight years, of an area not exceeding one-third of the total area of the land comprised within the lease or license, subject to such rent, conditions of improvement, and withdrawal for settlement as may be determined.

*Occupation Licenses.*

There are two forms of occupation licenses, viz., preferential occupation licenses, consisting of the area within the expired pastoral leases, and ordinary occupation licenses, which relate to the parts of the holdings formerly known as resumed areas. Occupation licenses extend from January to December, but may be renewed annually at a rent determined by the Land Board.

*Annual Leases.*

Unoccupied lands not reserved from lease may be obtained for pastoral purposes as annual leases on application, or they may be offered by auction or tender. No conditions of residence or improvement are attached to annual leases, there is no security of tenure, and the land may be alienated by conditional purchase, auction sale, &c. The area is restricted to 1,920 acres in any one lease.

*Special Leases.*

Special leases are issued chiefly to meet cases where land is required for some industrial or business purpose, and may be obtained by auction or otherwise, and the term of the lease may not exceed twenty-eight years. The conditions attached are suitable to the circumstances of each case, and these, together with the rent, are determined by the Land Board. The Crown Land Act, 1908, provides under certain conditions for the conversion of special leases, and of church and school lands leases, into conditional purchase leases or additional conditional purchase leases; or conditional purchases or additional conditional purchases; or homestead selections or additional homestead selections; or settlement leases or additional settlement leases; or conditional leases.

*Residential Leases.*

The holder of a "miner's right" or "mineral license" within a gold or mineral field may obtain a residential lease. A provisional rent of 1s. per acre is charged, the maximum area is 20 acres, and the longest term of the lease twenty-eight years. The annual rent is appraised by the Land Board. The principal conditions of the lease are residence during its currency, and

the erection within twelve months of necessary buildings and fences. Tenant-right in improvements is conferred upon the lessee. The holder of any residential lease may apply after the first five years of his lease to purchase the land.

#### *Snow Leases.*

Any vacant Crown lands which for a portion of each year are usually covered with snow, and, thereby unfit for continuous use or occupation, may be leased as snow leases. Not more than two snow leases may be held by the same person. The minimum area is 1,280 acres, and the maximum 10,240 acres. The term of the lease is seven years, but may be extended for three years.

#### WESTERN DIVISION.

The administration of the Western Division under the "Western Lands Act of 1901" is vested in a Board of three Commissioners, entitled "The Western Land Board of New South Wales." The Commissioners, sitting in open Court, exercise all the powers conferred upon Local Land Boards by the Crown Lands Acts.

Subject to existing rights and the extension of tenure granted under certain conditions, all forms of alienation, other than by auction and leases, prescribed by the Crown Lands Act, ceased to operate within the Western Land Division from the 1st January, 1902.

Before any Crown lands become available for lease, the Commissioners must recommend the areas and boundaries and the rent to be charged, and, should there be any improvements on the land, determine the value. When such lands are declared open for lease, applications must be made to the Commissioners, who may recommend the applicant they consider most entitled to it.

The registered holder of a pastoral, homestead, improvement, scrub, or inferior lease or occupation license, of land in the Western Division, could apply before the 30th June, 1902, to bring his lease or license under the provisions of the "Western Lands Act of 1901." In cases where no application has been made, such lease or license is treated as if the Act had not been passed.

All leases issued or brought under the provisions of the "Western Lands Act of 1901" expire on the 30th June, 1943, except in cases where a withdrawal is made for the purpose of sale by auction or to provide small holdings, when, as compensation, the lease may be extended for a term not exceeding six years.

The rent on all leases current after the commencement of the Act is determined by the Commissioners for the unexpired portion. No rent or license fee may be less than 2s. 6d. per square mile or part thereof, and in no case may the rent or license fee be fixed at a higher rate than 7d. per sheep on the carrying capacity determined by the Commissioners.

#### LABOUR SETTLEMENTS.

Under the Labour Settlements Act, land may be set apart for lease for the purpose of labour settlements. A settlement is placed under the control of a Board, which enrolls such persons as it may approve; makes regulations concerning the work to be done; apportions the work among the members; and equitably distributes wages, profits, and emoluments after providing for the cost of the maintenance of the members. Any trade or industry may be established by the Board, and the profits apportioned among the enrolled members. The land is leased to the Board, in trust for the members of the settlement, for a period of twenty-eight years, with right of renewal for a like term.



When a Board has enrolled such a number of persons as the Minister for Lands may approve, it may apply for monetary assistance on behalf of the members of the settlement. The Minister may grant an amount not exceeding £25 for each enrolled member who is the head of a family dependent upon him; £20 for each married person without a family; and £15 for each unmarried person. On the expiration of four years from the commencement of the lease, and at the end of each year following, 8 per cent. of the total sum paid to the Board becomes a charge on its revenue, until the total amount advanced, with interest at the rate of 4 per cent. per annum, has been repaid.

On the 30th June, 1909, the only settlements in existence were those at Bega and Wilberforce. At Bega an area of 1,360 acres was attached to the settlement, and on the date specified there were 25 men enrolled, and a total population of 142. A sum of £2,421 has been lent by the Government and the value of improvements, exclusive of crops, is £2,373. At Wilberforce, an area of 409 acres has been granted for settlement. On the 30th June, 1909, there were eleven men enrolled, the total population being 55. The loans from the Government amount to £2,515, and the value of improvements, exclusive of crops, is £2,360.

#### CLOSER SETTLEMENT.

Under the "Closer Settlement Act, 1901," provision was made for the acquisition of private lands, or of lands leased from the Crown, for the purposes of closer settlement. Lands so acquired may be divided into farms and leased for a term of ninety-nine years, at an annual rental not exceeding 5 per cent. of the capital value of the land. No power of compulsory resumption was conferred, and, consequently, the Act was practically inoperative.

Under the "Closer Settlement Act, 1904," which repealed the 1901 enactment, provision was made for compulsory resumption of private land, for purposes of closer settlement, where the value exceeds £20,000, exclusive of improvements. The owners of private lands may also offer to surrender the same in consideration of a price to be specifically set out, and such offer is binding on the part of the owner for a period of nine months.

The Closer Settlement Amendment Act, 1907, constituted three Advisory Boards. These Boards report whether any land of value not less than £10,000, exclusive of improvements, is suitable for closer settlement, and furnish such particulars as the Minister requires. The State may purchase the land by agreement with the owner; or acquire by resumption where the value, without improvements, exceeds £20,000. Within six months after the passing of an Act sanctioning the construction of a line of railway, the Governor may purchase or resume for purposes of closer settlement land, the property of one owner and exceeding £10,000 in value, on either side of the proposed railway.

Before the land acquired is available for settlement, a plan of the designed subdivision, showing areas and values per acre of the proposed settlement purchases, must be approved by the Minister. The design plan includes not only land acquired under the Act but also any adjacent Crown lands set apart for the purpose. Settlement areas are notified for disposal in three classes, viz., agricultural lands, grazing lands, and township settlement allotments.

Any male above the age of 18 years, and any female over 21 years, who is not the holder of land exceeding 40 acres, or of land held under lease, as provided in the Closer Settlement Act, or of a township allotment thereunder, or of land held as a tenant from a private holder, may apply for land under the Act; but if any person holding more than 40 acres divests

himself thereof, in order to apply for a settlement purchase, his application will be disallowed. A female applying must be unmarried or widowed; or, if married, be living apart from her husband under an order of judicial separation. Applications are lodged with the Crown Lands Agent, accompanied by a deposit of 5 per cent. of the notified capital value of the settlement purchase sought. Residence for a period of ten years is required, and commences at any time within twelve months after the decision of the Land Board allowing the purchase; but the term may be extended to any date within five years of the allowance of purchase; and on such terms and conditions, as to improvements and cultivation, as may be arranged between the applicant and the Land Board. Residence implies continuous and *bona-fide* living upon the area allotted. Subject to the approval of the Land Board, the residence condition may be performed in any adjacent town or village; and, by permission, may be suspended, either conditionally or otherwise. Where the land is unimproved, the purchaser is required to effect substantial and permanent improvements to the value of 10 per cent. of the capital value within two years from the date of application, with an additional 5 per cent. within five years, and a further 10 per cent. within ten years from the same date. Existing improvements on the land are regarded as the equivalent of this condition. Every purchaser is subject to conditions as to mining, cultivation, destruction of vermin and noxious weeds, etc. The purchase money, including interest at 4 per cent., is paid in thirty-eight annual instalments at the rate of 5 per cent. of the capital value of the land.

The land may be leased in areas not exceeding 320 acres. Leases so granted are subject to the following conditions:—Improvements are not to be effected without the written consent of the Minister or Chairman of the Land Board; leases expire on the 31st December, but may be renewed on payment of yearly rent in advance not later than 10th December; the rent is to be appraised by the Land Board, and the granting of a lease does not exempt the land from settlement purchase; the Minister may at any time cancel the lease after three months' notice.

The three Advisory Boards constituted under the Closer Settlement Act have inspected and reported upon many estates well suited for closer settlement. During the year ended 30th June, 1909, seven estates were acquired, and proclamations of intended acquisition of eighteen estates, covering an area of 394,127 acres, were gazetted. The following table contains information regarding areas administered under the Act as at 30th June, 1909:—

Name of Settlement Purchase Area.	Lands comprised in Settlement Areas.			Capital Value.		
	Acquired land.	Adjoining Crown land.	Total.	Acquired land.	Crown land.	Total.
	acres.	acres.	acres.	£	£	£
Myall Creek, Inverell ... ..	53,929	20,571	74,500	137,746	24,573	162,319
Gobbagombalin, Wagga Wagga	61,866	4,344	66,210	225,635	10,542	236,177
Marrar, Wagga Wagga... ..	26,608	797	27,405	75,134	2,039	77,173
Walla Walla, Albury ... ..	50,155	1,580	51,735	255,000	3,847	258,847
Sunny Ridge, Cowra ... ..	12,031	416	12,447	50,306	1,232	51,538
Boree Creek, Urana ... ..	17,002	242	17,244	71,083	519	71,602
Peel River, Tamworth ... ..	99,618	114	99,732	431,604	126	431,730
Total... ..	321,209	28,064	349,273	1,246,508	42,878	1,289,386

Of the total area, 15,335 acres have been reserved, and 333,938 acres divided into farms, as shown in the following table. The farms which have not yet been selected are let under permissive occupancy, and remain available for settlement purchase application.

Name of Settlement Purchase Area.	No. of Farms.	Farms made available to 30th June, 1909.	Farms allotted to applicants to 30th June, 1909.	Area allotted.	Capital Value of Farms allotted.	Number of Original Holdings.
				acres.	£	
Myall Creek, Inverell .. .. .	134	134	134	66,602	162,319	134
Gobgombalin, Wagga Wagga	141	141	141	64,018	236,177	141
Marrar, Wagga Wagga ... ..	46	46	46	27,048	77,173	46
Walla Walla, Albury ... ..	109	107	106	46,853	233,957	106
Sunny Ridge, Cowra ... ..	24	24	20	8,960	41,130	20
Boree Creek, Urana ... ..	30	30	4	2,258	9,797	4
Peel River, Tamworth ... ..	232	232	232	96,336	431,730	232
Total ... .. .	716	714	683	312,075	1,192,263	683

The average value of the area allotted is £3 16s. 5d. per acre.

The Government township of Delungra, situated on the railway line and within the Myall Creek settlement area, has become an important business and residential centre.

The following statement shows the particulars of estates acquired, or in the process of acquisition, and not yet available for settlement. The acquisition of North Logan and Everton is subject to the approval of Parliament.

Name of Estate.	Area Acquired	Cost per acre.	Area, including adjoining Crown lands.	Farms.	
				Total No.	Average area.
	acres.	£ s. d.	acres.		acres.
Mungery, Parkes ... .. .	55,170	2 2 0	97,068	64	1,516
Brookong, Urana ... .. .	11,996	3 10 3	12,005	20	600
Coreen and Back Paddock, Corowa	37,781	3 14 1	33,351	63	608
Crowther, Young ... .. .	10,521	4 15 0	...	20	526
Larras Lake, Molong ... ..	11,546	4 10 0	...	30	384
Piallaway and Walhallow, Curra- bubula .. .. .	12,403	5 0 0	...	38	326
North Logan, Cowra ... ..	11,511	4 7 11	...	32	360
Everton, Gilgandra ... ..	6,475	3 0 0	...	18	684

Coreen and Back Paddock became available on 16th November, 1909, and the Mungery estate will be open to settlement on the 10th January, 1910. The other estates have not yet been surveyed for subdivision.

In addition to the land acquired by the State for closer settlement a number of estates have been subdivided for that purpose by private owners. The particulars of 104 estates, covering an area of 1,736,710 acres, have been taken

from reports of the various District Surveyors, and are shown in the following table. The figures are exclusive of 12 estates—10 in the Maitland district, 1 in Armidale, and 1 in Wagga Wagga—for which the information is not available.

Land Board District.	Estates.		Area Sold.	Average price per acre.	Approximate number of individual purchasers.
	No.	Area.			
Armidale ... ..	15	acres. 218,848	acres. 157,983	£ s. d. 4 7 9	266
Dubbo ... ..	2	54,289	28,222	3 2 0	34
Forbes ... ..	4	60,371	58,804	4 12 8	39
Goulburn ... ..	15	198,772	159,243	3 5 6	169
Grafton ... ..	7	171,695	110,480	4 13 6	324
Hay ... ..	2	78,000	42,057	3 14 3	16
Maitland ... ..	14	294,425	236,346	1 14 4	342
Moree ... ..	4	34,205	25,770	2 12 11	27
Orange ... ..	10	107,824	73,788	4 4 10	112
Tamworth ... ..	11	189,604	172,665	4 12 5	212
Wagga Wagga ... ..	20	328,677	192,760	4 15 6	237
Total ... ..	104	1,736,710	1,258,118	3 2 11	1,778

In the Maitland district the average prices per acre ranged from 12s. 6d. to £20, the sale of a large area at the former price causing the low average of the district.

An Act to amend the Closer Settlement Acts was passed by Parliament during the session of 1909. It provides that at any time after a proclamation of intended acquisition of an estate, if an agreement be made that the land shall be subdivided for closer settlement by the owner, the power of resumption may be suspended for a term not exceeding two years. Any sale or lease made under such agreement must be submitted to the Minister, and if it be found that the owner has failed to fulfil the conditions the suspension of the power of resumption shall cease.

PROGRESS OF ALIENATION.

The figures relating to land alienation under the legislation of 1861, and to its subsequent amendments, show that up to the 30th June, 1909, there were 14,889,219 acres sold by auction and other forms of sale.

As regards conditional sales, the following applications have been made under the various Acts:—

	Applications.	
	No.	acres.
Under the Crown Lands Act of 1861—		
To May 24, 1880 ... ..	136,389	14,982,120
Under the Crown Lands Act of 1880 ... ..	55,084	8,488,020
Total to December 31, 1884 ... ..	191,473	23,470,140
Under the Crown Lands Acts of 1884, 1889, 1895, and amending Acts ... ..	89,175	16,281,251
Grand total to 30th June, 1909 ... ..	280,648	39,751,391

The number of selections cancelled, forfeited, lapsed, declared void, and converted into homestead selections, together with the balance of such voidances, etc., and that of increased over decreased areas, amounted to 84,526 conditional purchases, covering 12,417,672 acres, thus reducing to 196,122 lots and 27,333,719 acres, the number and area of selections which remained in existence at the 30th June, 1909. Deeds have now been issued upon 99,161 completed purchases, covering 12,848,166 acres; so that the number of purchases still in force, but upon which the conditions have not been fulfilled, is 96,961, covering an area of 14,475,553 acres.

Under the Crown Lands Act of 1895, 8,791 applications for homestead selections were received to the 30th June, 1909, the aggregate area of such being 3,502,347 acres. Of the applications lodged, 6,794, amounting to 2,479,802 acres, were confirmed. Homestead grants to the number of 3,751, with an area of 1,501,738 acres, were issued to the 30th June, 1909. The area held under homestead selection on the 30th June, 1909, exclusive of homestead grants issued, was 742,338 acres.

The total area alienated by volunteer land orders to 30th June, 1909, amounted to 169,764 acres. Only a few orders are now outstanding, and doubtless these will be used soon, as no person has a right to a free grant of land in virtue of a volunteer land order unless application be made within three years from the commencement of the Crown Lands Act, 1908.

From 1862 to the 30th June, 1909, the Crown has dedicated 228,275 acres for public and religious purposes. During 1909 there were 1,967 acres so alienated.

The operations of the various Orders, Regulations, and Acts of Council and of Parliament for the disposal of the public lands, since the foundation of the State, have produced the following results:—

Area granted and sold by private tender and public auction at prices ranging from 5s. to 20s. per acre, prior to the year 1862 ... ..	acres.	7,146,579
Area sold by auction and other forms of sale, 1862 to 30th June, 1909, inclusive ... ..		14,889,219
Area sold under system of conditional purchase for which deeds issued, 1862 to 30th June, 1909, inclusive ... ..		12,848,166
Area granted under Volunteer Land Regulations of 1867 to 30th June, 1909		169,764
Area dedicated for public and religious purposes, less resumptions, 1862 to 30th June, 1909... ..		228,275
Homestead grants issued to 30th June, 1909 ... ..		1,501,738
<b>Total area alienated to 30th June, 1909</b> ... ..		<b>36,783,741</b>

Area in process of alienation under system of conditional purchase standing good on 30th June, 1909 ... ..		14,475,553
Area in process of alienation under system of homestead selection, including conditional purchases and conditional leases converted, exclusive of grants issued ... ..		742,338

Total alienated and in process of alienation on 30th June, 1909 52,001,632

It has been found impracticable to separate the area alienated by grant from that sold by private tender, as the records of early years are incomplete upon this point.

The following statement shows the amount paid for lands purchased from the State from the year 1821 to the end of June, 1909:—

Period.	Amount received.
	£
1821-1861 ... ..	3,785,002
1862-1871 ... ..	2,359,548
1872-1881 ... ..	17,015,358
1882-1891 ... ..	13,917,457
1892-1901* ... ..	11,995,452
1902-1906* ... ..	4,027,877
1907-1909* ... ..	2,974,900
<b>Total received</b> ... ..	<b>56,075,594</b>
<b>Less refunds</b> ... ..	<b>1,646,027</b>
<b>Net amount received</b> ... ..	<b>£ 54,429,567</b>

\* To 30th June.

This sum includes £32,446,932 paid on account of conditional purchases. The amount outstanding on conditional purchases at the 31st December, 1908, was £7,950,374, making a total amount paid and owing on all lands sold £62,380,441.

The area leased to pastoral tenants and others at the end of June, 1909, amounted to 128,390,868 acres (including leases to miners under the Mining Act), and was subdivided as follows:—

Type of Lease.	acres.
Pastoral	1,196,715
To outgoing Pastoral Lessees	1,142,409
Occupation Licenses	11,277,246
Conditional	16,296,455
Conditional Purchase	534,499
Homestead	807,206
Annual	5,885,768
Settlement	6,671,742
Improvement	6,676,655
Scrub	2,233,952
Snow Land	76,930
Special	419,469
Inferior Land	106,090
Artesian Well	102,400
Western Lands	73,711,644
Under the Mining Act	211,741
Other	1,019,947
Total	128,390,868

The total available area of the State is 198,634,880 acres, and deducting the area sold and otherwise alienated, 52,001,632 acres, and the area leased, 128,390,868 acres, making a total of 180,392,500 acres, there remained a balance of 18,242,380 acres, representing the area of country neither alienated nor leased, including roads, unoccupied reserves, land unsuitable for settlement, and water.

#### AREA AVAILABLE FOR SETTLEMENT.

In 1895 attention was directed to the question of land legislation, as it was contended that the Lands Acts of 1884 and 1889 had failed to prevent the accumulation of extensive landed estates in the hands of a very limited number of proprietors.

Although it may be said, in defence of the policy pursued by this class of landowners, that in many cases it was forced upon them by the defective nature of legislation which failed to discriminate between the very different interests of the pastoralists and of the agricultural settlers, it must nevertheless have been patent to everybody that these immense alienations of the public estate were not conducive to healthy settlement. The Acts mentioned have, however, been superseded by the Crown Lands Act of 1895. Many radical changes in land legislation have been effected by this Act; but immediate remedial action can be taken only in connection with Crown lands which have not been alienated or leased to Crown tenants for a definite period of years. Leases granted under certain conditions, such as those attached to conditional leases, which carry with them the right of purchase at any time during their currency, may be considered as a form of alienation, because only a comparatively small portion of these areas is ever likely to return to the public estate. Lands under homestead leases in the Western Division not

brought under the Western Lands Act, scrub lands, snow-covered areas, inferior lands, settlement leases, improvement leases, leases to outgoing pastoral lessees, leases for long periods of fixed tenure, and under the Western Lands Act for long terms, form another category of lands concerning which past legislation prevents immediate action.

The lands which can be affected beneficially by the Act of 1895 are, therefore, limited to the area which is unalienated, or for which contracts have not been made, further reduced by reserves for public purposes, for gold-fields and other forms of mining enterprise, and for railway and other purposes. At the end of June, 1909, there were, 36,783,741 acres absolutely alienated; 14,475,553 acres conditionally sold, the conditions of purchase not being complete; 742,338 acres alienated, and in process of alienation, under the system of homestead selection, subject to the payment of rent in perpetuity; and 23,964,452 acres leased with the right to convert into freehold; in all 75,966,084 acres which have been placed practically beyond the scope of present or of future legislation.

The following statement shows the tenure under which the 23,964,452 acres leased with right to convert into freehold, under the Crown Lands (Amendment) Act of 1908, are held :—

	acres.
Conditional Leases ... ..	16,296,455
Conditional Purchase Leases ... ..	534,499
Settlement Leases ... ..	6,671,742
Special Leases ... ..	419,469
Residential Leases ... ..	12,640
Church and School Land Leases ... ..	29,647
Total ... ..	23,964,452

The areas under long contracts of lease, in some cases with right of renewal, which no legislation can affect until the expiration of the fixed period of the tenure, are given below :—

	acres.
Pastoral Leases, Western Division ... ..	1,196,715
Leases to Outgoing Pastoral Lessees ... ..	1,142,409
Homestead Leases ... ..	807,206
Scrub Leases ... ..	2,253,952
Artesian Well Leases ... ..	102,400
Snow-land Leases ... ..	76,930
Leases of inferior lands... ..	106,090
Improvement Leases ... ..	6,676,655
Leases under Western Lands Act ... ..	61,879,773
Other Leases ... ..	273,880
Total ... ..	74,516,010

The entire area affected by contracts existing at the end of June, 1909, amounted, therefore, to 150,482,094 acres, and these figures show how greatly the extent of territory has diminished to which remedial legislation is applicable. Of the balance, amounting to 48,152,786 acres, a large portion consists of reserves of various kinds; and if allowance be made for mountainous and other sterile lands, it will probably be found that the area suitable for occupation which the State has to offer to intending settlers is about 41,000,000 acres.

The progress of alienation and of conditional settlement by purchase and lease at various periods from 1861 to 1901, and annually since the last-mentioned year, is shown in the following table:—

At end of year.	Area Alienated for which deeds have issued.	Area Conditionally Purchased, standing good at end of year.	Area Conditionally Leased at end of year.	Area under Homestead Selection, exclusive of Homestead Grants.	Area under Homestead Grant.
	acres.	acres.	acres.	acres.	acres.
1861	7,146,579	.....	.....	.....	.....
1871	8,630,604	2,280,000	.....	.....	.....
1881	22,406,746	12,886,879	.....	.....	.....
1891	23,775,410	19,793,321	11,234,131	.....	.....
1901	26,408,169	20,044,703	13,980,942	1,491,073	35,385
1902	27,464,199	19,369,027	14,339,481	1,479,751	194,702
1903	28,292,915	18,823,660	14,750,348	1,262,774	472,175
1904	29,968,317	18,100,517	14,252,412	1,195,970	662,833
1905*	30,721,430	17,672,150	14,064,451	1,125,271	808,672
1906†	32,486,086	16,499,823	15,807,249	984,426	1,087,065
1907†	33,921,508	15,691,906	15,383,502	873,319	1,247,919
1908†	35,467,021	14,868,166	16,667,124	771,561	1,385,415
1909†	36,783,741	14,475,553	16,830,954	742,338	1,501,738

\* Half-year ended 30th June.

† Year ended 30th June.

As already stated, the land held under conditional lease is virtually alienated, since the holder has the right of converting his lease into a freehold at any time during its currency.

EFFECTS OF LAND LEGISLATION.

When the agitation was in progress, which culminated in the framing of the Crown Lands Act of 1861, it was contended that the Orders-in-Council then in force favoured the occupation of the country lands by the wealthier classes; and the principles of free selection before survey and of deferred payments were introduced in the new legislation, with the object of facilitating the settlement of an agricultural population side by side with the great pastoral tenants of the Crown. The statistical records for the year 1861 show that at the close of that year, and just before the new legislation had come into force, there were 21,175 holders of rural lands, of whom 17,654 were in the old settled districts, in twenty counties, grouped around three principal centres—the metropolis and the county of Cumberland, the Hunter River Valley, and that portion of the central tableland of which Goulburn, Bathurst, and Mudgee were the first towns; while the remaining 3,521 settlers were scattered over the pastoral districts. The figures showing the area held by these settlers do not discriminate between the land alienated and that occupied under lease from the Crown; but they show that in the old settled districts there were 254,347 acres under cultivation—or an average of 14 acres per holding—and 8,522,420 acres used for stock; whilst in the pastoral districts 43,228 acres were cultivated, and 54,716,463 acres were occupied for grazing; so that, at that time, 63,536,458 acres, representing about one-third of the territory of the State, were in the occupation of the settlers.

In addition to the clauses inserted in the Act of 1861, in the interests of men of small means, certain provisions are retained which secured the accrued interests of the pastoralists under former legislation, of which they availed themselves to the utmost. By means of auction sales of country lands at the upset price of 20s. per acre, of unconditional selections of lots not sold at



auction, of purchases made in virtue of improvements, and of the right of pre-emption to certain lands under the old Acts of Council, the accumulation of immense estates was greatly facilitated. The sales of lands subject to conditions of residence and improvements, though ostensibly made to foster the settlement of a numerous class of small farmers, were also utilised in the interests of station owners, to whom the purchases were transferred in great numbers immediately upon completion of the conditions of residence and improvements required under the Act.

The evils resulting from the antagonistic interests of these two classes of settlers were partly checked by the amended law of 1884, which stopped the wholesale alienation of land by auction, unconditional selection after auction, and sales in respect of pre-emptive rights. The clause relating to improvement purchases was also modified, and made applicable only to small areas in gold-fields which might be purchased by resident miners in view of certain improvements; and the area to be offered at auction sales was restricted to a maximum of 200,000 acres yearly; but conditional settlement was favoured by largely increasing the maximum area allowable to free selectors; by raising the term of residence from three to five years; and by means of more stringent conditions as to fencing and improvements.

This policy, however, did not fulfil the expectation of the legislators, as the figures relating to transfers of conditional purchases show that, when other means of increasing the area of individual estates failed, the traffic in transfers of conditionally purchased lands, with increased areas, supplied the deficiency. The radical change introduced by the Land Act of 1895, necessitating continuous residence for a period of ten years in respect of original conditional purchases, and a further term of not less than five years in connection with additional purchases, had the effect of considerably reducing the number of applications lodged, but during the last ten years the number has steadily increased. The following table shows the transactions under each class of conditional purchase during the last ten years:—

Year.	Original Conditional Purchases.		Additional Conditional Purchases.		Non-residential Purchases.		Conditional Purchase Leases — application to convert into C.P. received.		Total.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres		acres.
1900	1,100	144,241	1,122	288,177	31	2,698	...	...	2,253	435,116
1901	1,036	145,990	1,216	401,625	25	2,283	...	...	2,277	549,898
1902	1,048	128,649	1,231	267,006	61	5,055	...	...	2,340	400,710
1903	980	117,538	1,073	209,122	60	6,237	...	...	2,113	332,897
1904	1,132	161,127	1,760	363,491	30	3,484	...	...	2,922	528,102
1905*	657	99,601	776	143,936	23	1,931	...	...	1,456	245,468
1906†	1,438	212,744	1,647	280,386	38	3,651	...	...	3,123	496,781
1907†	1,535	200,852	2,122	476,345	52	5,956	14	2,642	3,723	685,795
1908†	1,618	229,044	2,108	486,491	113	16,370	11	2,220	3,850	784,725
1909†	1,641	285,616	2,767	797,666	121	18,791	12	3,234	4,541	1,105,807

\* Half-year ended 30th June.

† Year-ended 30th June.

The experience of the past ten years indicates that the new features introduced by the Land Act of 1895 are much appreciated by those desirous of acquiring a holding for themselves, although the residence involved is

continuous and for a lengthy period. The following table indicates the operations in respect of homestead selections and settlement leases since 1900 :—

Year.	Homestead Selections.		Settlement Leases.	
	No.	Area.	No.	Area.
		acres.		acres.
1900	609	260,568	189	480,846
1901	524	203,309	289	866,151
1902	387	145,836	109	371,726
1903	240	96,715	105	352,707
1904	1,040	618,675	494	1,214,993
1905*	263	104,860	148	412,245
1906†	383	158,739	271	967,838
1907†	291	89,426	215	680,187
1908†	408	103,412	170	613,934
1909†	445	137,292	278	823,208

\* Half-year ended 30th June.

† Year ended 30th June.

The principal element which contributed to the aggregation of great landed estates was that of auction sales of country lands, which were measured in vast areas upon the application of the run-holders, who bought them up generally at the upset price—at first a minimum of £1 per acre, raised in 1878 to £1 5s. per acre.

Particulars of the auction sales of country lands from the year 1862 to the 30th June, 1909, inclusive, are given hereunder :—

Year.	Lots.	Total Area.	Amount realised.	Average Price per Acre.
	No.	acres.	£	£ s. d.
1862-1872	9,228	582,479	616,399	1 1 2
1873-1883	43,465	7,963,093	8,640,098	1 1 8
1884-1894	8,631	645,770	1,222,271	1 17 10
1895-1904	5,553	397,386	675,178	1 14 0
1905*	269	20,152	28,829	1 8 7
1906†	496	18,119	32,877	1 16 3
1907†	484	20,094	32,009	1 11 10
1908†	416	9,000	19,368	2 3 0
1909†	527	8,045	20,018	2 9 9
Total ...	69,069	9,664,138	11,287,047	1 3 4

\* Half year ended 30th June.

† Year ended 30th June.

These figures show that the struggle between selector and squatter did not begin in earnest until about the year 1873, when the effects of the legislation of 1861 were felt in an acute form ; but during the ten years that followed this process of defence was applied in a wholesale manner by the pastoral tenants to save their possessions from encroachment through the operations of the selectors. The system was modified by the legislation of 1884, the object of auction sales of country lands now being to obtain revenue by the sale of select parcels of land at a higher average price, and in much smaller average areas. Since the year mentioned, this system of alienation has ceased to be of use in consolidating large pastoral estates.

Among other means offered for the unconditional purchase of Crown lands, that of indiscriminate selection at the upset price of lots not sold at auction also disappeared with the passing of the Act of 1884. During the period 1862 to 1883 when this system of purchase was in operation, 15,750 lots of a total area of 1,716,976 acres were selected.

The Crown Lands Act of 1861, in exempting from sale certain leased lands, provided that a lessee should be permitted to exercise a pre-emptive right of purchase over one portion of 640 acres out of each block of 25 square miles.

The lands claimed in virtue of pre-emptive right, a form of alienation which was also abolished by the Crown Lands Act of 1884, added 2,114 lots, representing 560,825 acres, to the areas bought in the interests of the pastoralists.

The consolidation of pastoral estates did not suffer a serious check when the clauses of the Act of 1861, above cited, ceased to operate, as the transfer of conditional purchases supplied fresh means by the gradual absorption of a very large number of selections, principally in the Central and Western Divisions. Some of these transfers were made by way of mortgage, and therefore it is not possible to ascertain the area absolutely transferred by the original selectors; but the fact that 22,075,268 acres out of the total area alienated should be contained in 718 holdings, giving to each one an average domain of 30,745 acres, is certainly not conducive to healthy settlement. The number of holdings, however, does not represent the number of owners interested, as, in some cases, these large estates are held in partnership by three or four persons, or by companies and financial corporations.

## RURAL SETTLEMENT.

EXCLUDING from consideration land held by the tenants of the Crown, there were in the State of New South Wales at the end of March, 1909, 83,045 holdings of one acre and upwards in extent. These holdings consist of land acquired from the Crown by grant or purchase. Twenty years previously the number of such holdings was 46,197, and in 1899 the number was 66,286, representing an increase from 1889-1899 of 43·5 per cent., from 1899-1909 of 25·3 per cent., and over the twenty-year period an increase of 80 per cent. approximately.

The area comprised in the holdings advanced during the twenty years from 36,729,679 acres to 50,509,842 acres, the increase representing 37·5 per cent.

The average area of alienated holdings gradually rose to a maximum of 795 acres in 1889; but since that year there has been a continuous fall in the average to 608 acres in 1909. This decline is due to the increase in the number of small holdings, the advance in this respect having been pronounced since 1890. The following table shows the annual averages at intervals since 1880:—

Year ended 31st March.	Average size of Holding.	Year ended 31st March.	Average size of Holding.
	acres.		acres.
1880	569	1903	654
1885	762	1904	641
1890	787	1905	635
1895	707	1906	632
1900	662	1907	625
1901	663	1908	611
1902	658	1909	608

To present a comprehensive view of the extent to which the land area of New South Wales is being brought into use, the following figures have been prepared, which show the area of land alienated and the extent of cultivation for each Division of the State:—

Division.	Total Land Area.	Area Alienated.	Area Cultivated.	Area Alienated. Per cent. of Total Area.	Area Cultivated.	
					Per cent. of Total Area.	Per cent. of Area Alienated.
	acres.	acres.	acres.	per cent.	per cent.	per cent.
Coastal ... ..	22,355,401	8,064,504	294,454	36·07	1·32	3·65
Tableland ... ..	25,831,246	10,132,434	323,321	39·23	1·25	3·19
Western Slopes ... ..	24,251,881	11,859,460	1,073,908	48·90	4·43	9·05
Western Plains and Riverina ... ..	45,827,854	18,831,428	812,128	41·09	1·77	4·31
Western ... ..	80,368,498	1,622,016	5,540	2·02	·69	3·41
The State ... ..	198,634,880	50,509,842	2,509,351	25·44	1·26	4·97

As indicative of the relative proportion of the alienated and cultivated areas, the percentages of each class are quoted, from which it appears that barely 5 per cent. of the total alienated area is under cultivation. The figures given above show that practically one-quarter of the total land area

of the State has been alienated, and the 5 per cent. which is cultivated represents little more than one-hundredth of the State. But in addition to the cultivation of alienated land, an area of 204,620 acres of Crown Lands has been put under cultivation, thus raising the total cultivated area to 1·4 per cent. of the State, as is shown in the section on Agriculture, where the value of the produce from this land is also shown.

It is interesting to note that the Western Slopes Division shows by far the highest percentage of alienation and of cultivation, while the Coastal and Tableland Divisions, which should be well adapted for cultivation, are used only to the same extent practically as the Western Division.

With a mean population of 1,588,550 for 1908, the acreage alienated per capita is 32 acres approximately, and the area cultivated is 1·7 acres, including Crown Lands, or 1·6 acres of alienated land per capita.

The subjoined table shows the number of holdings in different classes in various years of the period from 1880 to 1909 :—

Area.	Year ended 31st March.						
	1880.	1885.	1890.	1895.	1900.	1905.	1909.
	No.	No.	No.	No.	No.	No.	No.
Under 16 acres...	4,974	5,409	7,290	12,301	16,631	20,584	24,133
16 to 200 acres...	21,302	20,998	22,048	25,707	28,971	30,261	31,014
201 to 400 acres...	6,199	6,363	6,774	8,299	8,780	9,582	10,632
401 to 1,000 acres...	4,964	6,497	6,849	7,569	8,132	9,011	10,061
1,001 to 2,000 acres...	1,212	1,886	2,191	2,475	2,728	3,161	3,782
2,001 to 10,000 acres...	940	1,413	3,910	2,013	2,162	2,351	2,705
10,001 acres and upwards	327	513	658	656	694	722	718
Total...	39,918	43,079	49,720	59,020	68,098	75,672	83,045

The holdings under 16 acres in extent are, generally speaking, in the vicinity of towns, and consist mainly of gardens or orchards, and the large increase in their number is naturally to be expected from the growing demand for market-garden produce by a large urban population. The least satisfactory feature in the table is the fact that the number of holdings of moderate size does not greatly increase. In 1880 the holdings having an area of from 16 to 400 acres numbered 27,501, while in 1909 they numbered 41,646 showing an advance of only 51 per cent. On the other hand, the larger holdings have increased at more than twice that rate; for the year ended 31st March, 1909, there were 17,266 holdings of 401 acres and upwards in extent, compared with 7,443 in 1880, or an increase of 132 per cent. during this period. The area of holdings, as returned by occupiers, in quinquennial periods since 1880, is given below :—

Year ended 31st March.	Total Area of Holdings.	Year ended 31st March.	Total Area of Holdings.
	acres.		acres.
1880	22,721,603	1905	48,081,314
1885	32,843,317	1906	48,728,542
1890	37,497,889	1907	49,415,883
1895	41,736,073	1908	49,901,837
1900	45,086,209	1909	50,509,842



The Riverina District has been selected for comparison, because it is the centre of the largest holdings of the State, and it is also, on the whole, admirably adapted for mixed farming. The figures show in contrast with 1904, the year before Closer Settlement, the following variations expressed as per cent, of the total alienated area :—

Area.	Riverina.	The State.
1-400 ...	...Decrease 1·19 ...	... Increase 2·27
401-1,000 ...	...Increase 1·06 ...	... ,, 86
1,001-10,000 ...	... ,, 3·51 ...	... ,, 3·08
10,001+...	...Decrease 4·38 ...	... Decrease 4·21

From this it is gathered that though the decrease in the holdings over 10,000 acres was 4·38 per cent. in Riverina as compared with 4·21 for the State as a whole, this acreage has only been transferred to swell the holdings between 400-10,000 acres, and there has actually been an appreciable decrease in that Division of the State in the holdings of 1-400 acres, the class which really calls for increase.

The area of unenclosed land in 1880 amounted to rather more than one-fifth of the total extent of the holdings; but in the beginning of 1909 the area unenclosed was only 1,125,348 acres, being 2·5 per cent. of the total area occupied. This result is due partly to the operation of legislation, and partly to the saving of labour which fencing enables occupiers to effect, particularly in respect to rabbit destruction.

For the purpose of an examination of the statistics showing the present state of the settlement of alienated land in New South Wales, it is found convenient to extend the inquiry successively to the various parts of the State in the order in which they were opened up, following the march of settlement in each of the zones into which the country may be geographically divided, viz., the Coast, the Tableland, the Western slope of the Great Dividing Range, the Western Plains and Riverina, and the Western Division. Each zone, having its own special character, offers to the settler different natural resources according to its climatic conditions. Proceeding from the metropolis as a centre, settlement extended first along the coast, then to the central and more readily accessible parts of the tableland, following afterwards the course of the great inland rivers towards the southern and western parts of the State; thence to the great plains of the west, spreading slowly across the river Darling to the confines of the territory.

From the tables which follow it will be seen that the holdings are distributed into series of various areas, comprising four distinct classes of holders of alienated land, viz :—(1) Persons who occupy their own freeholds; (2) persons occupying holdings which they rent from the freeholders; (3) owners of land who rent from other private owners land which they work in addition to their own freeholds; (4) persons who, in addition to alienated land, either freehold or rented from private owners, rent from the Crown areas which are generally devoted to the depasturing of stock. In some districts the system of working on shares is in vogue—the owner finding the land and capital to work the farms, and the other party the labour. The system is extending, but has not yet attained significant proportions, for of 2½ million acres under cultivation, only 12·2 per cent., i.e., 307,750 acres, are tilled on shares, of which 111,077 acres are in the Riverina district.

#### COASTAL DIVISION.

That part of the County of Cumberland which embraces the metropolis and its suburbs is outside the limits of this examination, as it is not intended to inquire into the present condition of urban settlement; inasmuch as in the subdivisions and the distribution of landed property in

the city and suburbs of Sydney there is now little difference between this and much older communities. The figures given below refer only to rural settlement in the remaining portion of this county.

From the County of Cumberland settlement advanced westward, and after the alluvial lands of the Hawkesbury and Nepean valleys had been occupied, the lower portion of the valley of the river Hunter, abounding with natural resources, agricultural as well as mineral, soon attracted settlers, and at the present time more population is concentrated in this district than in any other part of New South Wales outside the metropolitan area. Settlement gradually extended to the whole of the watershed of the Hunter and Manning Rivers.

The North Coast district, which is occupied by an industrious farming population, exhibits the best and most satisfactory results as regards settlement, which has extended very rapidly during recent years along the banks of the rivers.

In the earlier portion of last century settlement took a southerly direction from the metropolis, and extended rapidly along the lower valleys of the rivers of the South Coast, where the best lands were alienated in grants of large areas to a few families. Later on, however, the nature of the country and a more intelligent conception of the principles which should guide settlement brought about the subdivision of these large estates into numerous small holdings, which are at present cultivated by a fairly prosperous tenantry.

The following table shows the occupation of alienated holdings in the Coastal Division:—

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
Metropolitan—County of Cumberland.	10,063	2,769	528	14	13,374	375,926	164,102	540,028
Hunter and Manning—								
Macquarie .. .. .	1,216	513	146	446	2,321	346,727	80,978	427,705
Gloucester .. .. .	1,049	244	84	419	1,796	702,384	90,835	793,269
Northumberland .. .. .	2,764	1,119	268	149	4,298	423,700	179,733	603,433
Hawes .. .. .	9	1		105	115	136,526	1,195	137,721
Durham .. .. .	827	611	189	260	1,887	724,112	194,193	918,305
Hunter .. .. .	154	56	25	103	338	126,607	52,683	179,270
Brisbane .. .. .	475	122	74	259	930	855,274	76,201	931,475
Total .. .. .	6,494	2,666	784	1,741	11,685	3,315,330	675,898	3,991,228
North Coast—								
Rous .. .. .	2,660	1,347	177	221	4,405	573,648	178,166	751,814
Richmond .. .. .	544	113	35	163	860	270,957	23,657	294,614
Clarence .. .. .	1,017	488	165	254	1,924	224,622	65,773	290,395
Fitzroy .. .. .	513	60	6	226	805	177,213	12,646	189,864
Raleigh .. .. .	650	130	43	267	1,095	143,608	19,951	163,559
Dudley .. .. .	292	236	90	115	740	126,647	36,105	162,752
Total .. .. .	5,683	2,374	521	1,251	9,829	1,516,700	336,298	1,852,998
South Coast—								
Camden .. .. .	2,103	1,242	468	134	3,947	425,269	254,857	680,126
St. Vincent .. .. .	773	287	156	291	1,487	302,626	98,787	401,413
Dampier .. .. .	347	138	81	117	663	174,413	43,396	217,809
Auckland .. .. .	562	177	136	179	1,054	307,519	73,383	380,902
Total .. .. .	3,785	1,824	841	721	7,171	1,209,827	470,423	1,680,250
Total, Coastal Division	26,025	9,633	2,674	3,727	42,059	6,417,783	1,646,721	8,064,504



The total area of this division is 22,355,401 acres, of which 8,064,504 acres, or 36.07 per cent., are alienated. There are 26,025 occupiers of their own freeholds, 9,633 tenants of private rented land, 2,674 persons occupying both their own and private rented land, and 3,727 holders of alienated and Crown lands. The area of alienated land enclosed is 7,248,128 acres.

There are also 5,115,922 acres of Crown lands held under various forms of lease, making the total under occupation 13,180,426 acres. The area of Crown land enclosed is 1,971,275 acres. The number of lessees occupying Crown lands only is 781.

Outside the County of Cumberland, the largest amount of settlement has taken place in Counties Rous, Northumberland, and Camden.

From the foregoing a fairly clear idea may be obtained of the present state of rural settlement in the valleys of the northern coastal rivers, and in the country extending from the sea to the first slopes of the Great Dividing Range. Geographical features and climate are the main elements in determining the use to which the land shall be put, irrespective of administrative boundaries. In this part of the State the settlement of the public lands has proceeded in a way very different from that of the tableland, which extends from north to south, and divides the rich agricultural valleys of the coastal rivers and their broken mountainous watershed from the immense plains of the western district.

#### TABLELAND DIVISION.

After the difficulty of surmounting the precipitous ranges had been overcome, the pioneers of settlement penetrated to the central tableland, thence to the south and north, and afterwards gradually spread over the whole of the west. At first they followed the courses of the great rivers, and occupied little by little all the available land, until at the present time only a small proportion of such country remains untenanted.

In the northern tableland the disproportion between freeholders and tenants is strongly marked, the latter forming a very small minority of the occupiers of alienated land.

The following statement shows the actual state of rural settlement in the tablelands:—

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
Northern Tableland—								
Buller .. .. .	62	1	..	187	250	98,096	1,210	99,306
Drake .. .. .	15	14	..	57	86	146,600	5,568	152,168
Gresham .. .. .	17	1	3	16	37	22,885	695	23,580
Clarke .. .. .	42	10	..	213	265	207,284	9,672	216,956
Vernon .. .. .	124	19	8	187	338	377,290	1,825	379,115
Clive .. .. .	277	37	27	316	657	177,907	4,308	182,215
Gough .. .. .	587	149	53	372	1,161	575,230	28,349	603,579
Hardinge .. .. .	153	27	6	295	481	371,843	17,222	389,065
Sandon .. .. .	650	130	47	189	1,016	579,223	19,412	598,635
Total .. .. .	1,927	338	144	1,832	4,291	2,556,358	88,261	2,644,619

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
<b>Central Tableland—</b>								
Cook .. .. .	1,405	198	128	68	1,799	163,329	38,076	201,405
Westmoreland .. .	253	65	35	300	653	214,948	46,740	261,688
Bligh .. .. .	173	22	16	232	493	579,434	46,347	625,781
Phillip .. .. .	381	88	34	308	811	326,477	30,721	357,198
Roxburgh .. .. .	394	131	54	298	877	272,031	51,503	323,534
Georgiana .. .. .	227	50	21	467	765	377,978	33,291	411,269
Wellington .. .. .	611	209	76	404	1,300	497,448	45,400	542,848
Bathurst .. .. .	1,011	462	177	221	1,871	721,710	151,358	873,068
<b>Total .. .. .</b>	<b>4,455</b>	<b>1,225</b>	<b>541</b>	<b>2,348</b>	<b>8,569</b>	<b>3,158,355</b>	<b>443,436</b>	<b>3,596,791</b>
<b>Southern Tableland—</b>								
Argyle .. .. .	672	200	109	322	1,303	582,280	161,912	744,192
Murray .. .. .	400	129	90	333	952	777,783	89,661	867,344
Beresford .. .. .	197	41	12	236	486	368,793	8,383	377,176
Wellesley .. .. .	309	82	38	189	618	570,966	32,019	602,985
King .. .. .	512	159	75	428	1,174	633,442	60,245	693,687
Cowley .. .. .	23	4	3	111	141	138,155	14,377	152,532
Wallace .. .. .	175	18	13	300	506	438,436	14,672	453,108
<b>Total .. .. .</b>	<b>2,288</b>	<b>633</b>	<b>340</b>	<b>1,919</b>	<b>5,180</b>	<b>3,509,855</b>	<b>381,169</b>	<b>3,891,024</b>
<b>Total, Tableland Division ..</b>	<b>8,670</b>	<b>2,246</b>	<b>1,025</b>	<b>6,099</b>	<b>18,040</b>	<b>9,219,568</b>	<b>912,866</b>	<b>10,132,434</b>

The alienated area represents 39.22 per cent. of the total area, 25,831,246 acres, of this division. The extent of freehold land is 9,219,568 acres, or 90.99 per cent. of the alienated area. The total number of occupiers of alienated holdings is 18,040, of whom 8,670 occupy their own land, 2,246 are private tenants, 1,025 occupy both descriptions of alienated lands, and 6,099 occupy areas of Crown land in addition to alienated. The persons who lease only Crown land number 778. There are 10,377,540 acres of Crown land occupied in this division—7,737,798 acres enclosed, and 2,639,742 acres unenclosed.

The counties showing most settlement are Bathurst, Cook, and Wellington in the centre; Gough in the north; and Argyle and King in the south.

#### WESTERN SLOPES.

The districts situated on the Western slope of the Great Dividing Range mark the transition between the agricultural settlements of the west and tableland, and the purely pastoral settlements of the Great Western plains. The extent of arable land in the divisions comprised in the Western slopes is very considerable, but in proportion to the total area of holdings, little is devoted to cultivation, as it is more advantageous at present to use the land for grazing purposes, distance from the markets being the principal obstacle to a rapid extension of agriculture. A considerable impetus has been given to agriculture during the last ten years.

The proportion of land alienated diminishes considerably as the districts on the Western slope are reached, except in those parts where the excellence of the land for grazing purposes, and even for agriculture, impelled the pastoral tenants of the Crown some years ago to secure their holdings from the free selectors—whom the Act favoured—by means of purchases under the auction sale and improvement clauses of the Land Act of 1861. In the North-western districts the freehold estates are neither so numerous nor of such enormous extent as those in the south.

In the South-western slope, which is traversed by the principal permanent rivers of western New South Wales, the land has been alienated to

a large extent, and immense areas of freehold land are in the hands of a small number of landholders. The state of settlement in the counties situated on the Western slopes of the Great Dividing Range may be gathered from the following table:—

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
<b>North-western Slope—</b>								
Arrawatta .. .. .	161	14	4	213	392	316,936	8,469	325,345
Darling .. .. .	193	28	14	213	448	404,272	32,651	436,923
Inglis .. .. .	219	45	13	170	447	215,281	10,041	225,322
Parry .. .. .	325	79	24	166	594	533,859	18,847	552,706
Buckland .. .. .	361	59	35	93	548	742,235	10,764	752,999
Burnett .. .. .	129	10	3	132	274	436,411	3,177	439,588
Murchison .. .. .	299	18	13	187	517	304,898	17,544	322,437
Nandewar .. .. .	198	20	6	153	377	325,468	11,972	337,440
Pottinger .. .. .	448	31	12	167	652	1,071,627	10,477	1,082,104
<b>Total .. .. .</b>	<b>2,333</b>	<b>304</b>	<b>124</b>	<b>1,494</b>	<b>4,255</b>	<b>4,350,982</b>	<b>123,882</b>	<b>4,474,864</b>
<b>Central-western Slope—</b>								
Napier .. .. .	45	12	2	42	101	178,911	6,848	185,759
Gowen .. .. .	123	27	9	198	357	262,374	9,059	271,433
Lincoln .. .. .	281	57	26	281	645	345,404	18,446	363,850
Gordon .. .. .	210	44	12	172	438	356,880	16,732	373,612
Ashburnham .. .. .	1,085	141	59	389	1,674	727,810	61,971	789,781
Forges .. .. .	352	37	19	172	580	544,109	20,816	564,925
<b>Total .. .. .</b>	<b>2,096</b>	<b>318</b>	<b>127</b>	<b>1,254</b>	<b>3,795</b>	<b>2,415,488</b>	<b>133,872</b>	<b>2,549,360</b>
<b>South-western Slope—</b>								
Monteagle .. .. .	702	67	31	148	948	547,236	26,368	573,604
Harden .. .. .	673	110	63	163	1,014	877,190	52,508	929,698
Buccleuch .. .. .	121	76	18	145	360	209,987	25,400	235,387
Selwyn .. .. .	146	13	5	101	265	241,732	11,122	252,854
Bland .. .. .	546	34	24	285	889	876,082	30,221	906,303
Clarendon .. .. .	481	92	52	58	683	582,881	46,536	629,417
Wynyard .. .. .	655	175	55	225	1,110	614,420	43,645	658,065
Goulburn .. .. .	507	97	63	91	758	576,966	72,912	649,878
<b>Total .. .. .</b>	<b>3,831</b>	<b>664</b>	<b>316</b>	<b>1,216</b>	<b>6,027</b>	<b>4,526,524</b>	<b>308,712</b>	<b>4,835,236</b>
<b>Total, Western Slopes Division ..</b>	<b>8,260</b>	<b>1,286</b>	<b>567</b>	<b>3,964</b>	<b>14,077</b>	<b>11,292,994</b>	<b>566,466</b>	<b>11,859,460</b>

The total area in this division is 24,251,881 acres, of which 11,859,460 acres, or 48·90 per cent., are alienated. The percentage of land held by tenants is very small, being only 4·78. The holder of rural lands number 14,077, of whom 8,260 occupy their own freeholds. Only 1,286 are private tenants, 567 rent private lands in addition to their own, and 3,964 occupy areas of Crown land, generally for pastoral purposes, in addition to alienated land. There are also 1,115 persons who occupy Crown land only.

Practically the whole of the alienated area in this division is enclosed, only 57,477 acres remaining unfenced. The area of Crown land occupied is 8,799,243 acres, of which 7,856,803 acres are enclosed. The total area of alienated and Crown land occupied is 20,658,703 acres—1,170,489 acres are cultivated, and 19,488,214 acres are used for pastoral and dairying purposes.

#### WESTERN PLAINS AND RIVERINA.

The Riverina may be considered as the most important agricultural division of the State, not only on account of the aggregate area alienated, but also from the fact that it contains a considerably larger area under cultivation than any other division; at the same time the average size of the holdings is extremely large. In Urana and Cadell the proportion of alienated area is nearly 94 per cent. of the area of the counties. The

occupation of alienated land in the Western Plains and Riverina is shown in the following table :—

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
<b>North-western Plain—</b>								
Stapylton .. .. .	41	1	1	59	102	291,431	4,657	296,088
Courallie .. .. .	94	20	5	106	225	690,145	7,097	697,242
Jamison .. .. .	38	2	..	109	149	510,572	11,986	522,558
White .. .. .	113	13	6	36	168	72,613	2,876	75,489
Benarba .. .. .	26	4	..	87	117	394,603	2,632	397,235
Denham .. .. .	6	2	..	36	44	220,156	15,300	235,456
Baradine .. .. .	64	17	3	95	179	165,808	2,535	167,843
<b>Total .. .. .</b>	<b>382</b>	<b>59</b>	<b>15</b>	<b>528</b>	<b>984</b>	<b>2,344,828</b>	<b>47,033</b>	<b>2,391,911</b>
<b>Central-western Plain—</b>								
Leichhardt .. .. .	81	17	3	160	261	712,242	7,036	719,278
Ewenmar .. .. .	91	9	1	163	264	475,704	8,585	484,289
Narromine .. .. .	308	19	7	139	473	394,245	9,565	403,810
Kennedy .. .. .	36	..	..	102	138	210,315	859	211,174
Cunningham .. .. .	150	0	5	173	337	401,682	13,972	415,654
Gipps .. .. .	32	3	..	170	205	512,766	50,294	563,060
Clyde ( <i>Central portion</i> ) .. .. .	8	..	..	16	24	49,681	640	50,321
Gregory ( <i>Central portion</i> ) .. .. .	17	8	..	96	121	617,325	9,111	626,436
Oxley .. .. .	107	13	1	63	184	288,706	2,801	291,507
Canbelego ( <i>Central portion</i> ) .. .. .	12	..	..	31	43	33,558	..	33,558
Flinders .. .. .	10	1	1	35	47	84,110	96	84,206
<b>Total .. .. .</b>	<b>852</b>	<b>79</b>	<b>18</b>	<b>1,148</b>	<b>2,097</b>	<b>3,780,334</b>	<b>102,959</b>	<b>3,883,293</b>
<b>Total, Western Plains .. .. .</b>	<b>1,234</b>	<b>138</b>	<b>33</b>	<b>1,676</b>	<b>3,081</b>	<b>6,125,162</b>	<b>150,042</b>	<b>6,275,204</b>
<b>Riverina—</b>								
Bourke .. .. .	683	48	15	150	896	851,690	31,593	883,283
Mitchell .. .. .	361	36	19	59	475	711,150	49,216	760,366
Hume .. .. .	550	86	41	32	709	757,657	66,774	824,431
Dowling .. .. .	14	..	..	53	67	124,315	1,972	126,287
Cooper .. .. .	145	16	2	94	257	802,587	13,900	816,487
Urana .. .. .	477	16	31	53	577	1,826,239	28,236	1,854,525
Denison .. .. .	375	43	23	21	462	537,295	54,616	641,911
Nicholson .. .. .	75	6	1	70	152	343,407	22,858	366,265
Sturt .. .. .	5	2	..	35	42	572,049	12,727	584,776
Boyd .. .. .	67	4	3	16	90	819,739	8,027	827,766
Townsend .. .. .	195	27	13	79	314	1,803,340	21,892	1,825,232
Cadell .. .. .	170	21	7	24	232	501,504	27,381	528,885
Waradgery .. .. .	84	5	7	63	159	965,613	14,647	980,260
Wakool .. .. .	53	4	6	108	171	1,213,404	58,000	1,271,404
Caira ( <i>Central portion</i> ) .. .. .	6	..	..	11	17	263,706	640	264,346
<b>Total .. .. .</b>	<b>3,260</b>	<b>314</b>	<b>178</b>	<b>868</b>	<b>4,620</b>	<b>12,143,695</b>	<b>412,529</b>	<b>12,556,224</b>
<b>Total, Western Plains and Riverina Division .. .. .</b>	<b>4,494</b>	<b>452</b>	<b>211</b>	<b>2,544</b>	<b>7,701</b>	<b>18,268,857</b>	<b>562,571</b>	<b>18,831,428</b>

The area alienated is 18,831,428 acres, or 41.09 per cent. of the total of the division. The greater portion of this land is enclosed, only 93,483 acres being open. The number of holders occupying their own land is 4,494, out of a total of 7,701 occupiers. In addition there are 1,680 persons who lease Crown lands only. In this division there are under lease 21,720,141 acres of Crown land, of which 20,740,326 acres are enclosed.

THE WESTERN DIVISION.

In the extreme west of the State settlement is making but slow progress. With the exception of the great mining centre of Broken Hill, situated on the boundary of the neighbouring State of South Australia, around which a large population has settled, the whole of this vast portion of the domain of New South Wales is given up to the depasturing of stock. Owing to the closer settlement of the country to the east of the Darling, and the

more favourable climatic conditions, the counties in this district have been shown separately from those west of the Darling, where the general character of the country militates against agricultural production and the successful rearing of cattle, sheep-breeding being practically the only industry. The present state of settlement on the Western Plains is illustrated by the figures given below:—

Counties.	Occupiers of—					Area Alienated.		
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Holdings of Alienated and Crown Lands.	Total.	Freehold.	Private Rented.	Total.
	No.	No.	No.	No.	No.	acres.	acres.	acres.
<b>East of Darling—</b>								
Clyde (part of)	19	..	..	16	35	96,420	3,082	99,452
Gregory (part of)	..	..	..	3	3	40,674	..	40,674
Cowper	28	6	1	28	63	53,436	210	53,646
Canbelego (part of)	8	..	..	3	11	2,303	..	2,303
Robinson	46	1	1	15	63	13,750	641	14,391
Mouramba	37	3	..	12	52	11,483	62	11,545
Blaxland	24	1	..	24	49	75,883	204	76,087
Mossgiel	4	..	1	13	18	37,756	150	37,906
Franklin	1	5	..	25	31	188,611	7,600	196,211
Waljeers	18	2	2	13	35	244,136	2,305	246,441
Caira (part of)	48	1	6	18	73	131,055	4,076	135,131
Yanda	5	1	1	9	16	12,617	42	12,659
Booroodarra	2	..	..	7	9	6,650	..	6,650
Rankin	..	1	..	4	5	3,269	173	3,442
Woore	2	..	..	7	9	6,905	120	7,025
Werunda	3	..	..	4	7	2,829	..	2,829
Manara	1	..	..	5	6	30,810	..	30,810
Kilfera	2	..	1	4	7	13,053	60	13,113
Tailla	15	..	..	10	25	23,181	103	23,284
Livingstone	8	..	..	9	17	14,228	..	14,228
Perry	3	1	..	11	15	26,171	16,368	42,539
Wentworth	29	4	..	24	57	67,595	466	68,061
<b>Total</b>	<b>303</b>	<b>26</b>	<b>13</b>	<b>264</b>	<b>606</b>	<b>1,102,815</b>	<b>35,612</b>	<b>1,138,427</b>
<b>West of Darling—</b>								
Finch	14	4	..	32	50	127,627	2,750	130,377
Narran	12	3	1	20	36	69,148	2,512	71,660
Gunderbooka	17	1	..	16	34	38,615	360	38,975
Landsborough	2	..	..	3	5	6,999	..	6,999
Killara	1	1	1	2	5	6,883	1,014	7,897
Young	30	2	..	18	50	22,463	2,564	25,027
Tandora	..	..	..	7	7	2,900	..	2,900
Menindie	11	..	..	6	17	13,645	..	13,645
Windeyer	..	1	..	6	7	26,994	2	26,996
Tara	2	1	..	16	19	40,638	4,280	44,918
Culgoa	17	2	..	8	27	23,258	643	23,901
Irrara	8	..	..	8	16	12,102	..	12,102
Barrona	1	..	..	..	1	1	..	1
Fitzgerald	..	..	..	3	3	960	..	960
Yungnulgra	37	5	..	12	54	18,329	596	18,925
Mootwingee	..	1	..	6	7	6,381	81	6,462
Yancowinna	156	5	..	16	177	11,846	73	11,919
Thoulcanna	1	..	..	3	4	3,860	..	3,860
Ularara	2	1	..	4	7	5,777	35	5,812
Yantara	1	1	..	4	6	4,297	40	4,337
Farnell	11	..	..	2	13	3,191	..	3,191
Delalah	1	..	..	..	1	360	..	360
Tongwoko	..	1	..	4	5	1,921	40	1,961
Evelyn	4	1	..	5	10	20,264	320	20,584
Poole	..	..	..	1	1	120	..	120
<b>Total</b>	<b>328</b>	<b>30</b>	<b>2</b>	<b>202</b>	<b>562</b>	<b>468,279</b>	<b>15,310</b>	<b>483,589</b>
<b>Total—Western Division</b>	<b>631</b>	<b>56</b>	<b>15</b>	<b>466</b>	<b>1,168</b>	<b>1,571,094</b>	<b>50,922</b>	<b>1,622,016</b>

The proportion of land alienated is only 2.02 per cent. of the total area of this division, being an aggregate of 1,622,016 acres out of 80,368,498 acres which the division is estimated to contain. The total number of holdings is 1,168, of which 631 are freehold, 56 private rented properties, 15 partly freehold and partly private leasehold, and 466 partly alienated and partly Crown land. The land is used for purely pastoral purposes, except in

the vicinity of townships, where market-gardens and fruit orchards are found. The area of alienated lands enclosed is 1,582,170 acres.

The area of Crown lands occupied in this division is very large, there being no less than 75,096,271 acres under various forms of lease. The number of lessees of Crown lands is 1,400, of whom 466 occupy Crown lands in addition to their alienated holdings, while 934 occupy Crown lands only.

The total area of alienated lands and Crown lands occupied is 76,718,287 acres.

#### AREA OF HOLDINGS.

The average area of alienated holdings in the divisions of the State varies enormously, as the following figures show :—

	Average Holding.
	acres.
Coastal Division ... ..	192
Tableland ... ..	562
Western Slopes ... ..	842
Western Plains and Riverina ... ..	2,445
Western Division ... ..	1,389
The State ... ..	608

The area cultivated in each division is shown in the following tables :—

#### Coastal Division.

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area alienated in District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	18,302	139,120	1·74	29,505	21·21
31 to 400 acres ... ..	20,144	2,787,666	34·56	196,964	7·06
401 to 1,000 acres ... ..	2,517	1,535,628	19·04	38,478	2·51
1,001 to 10,000 acres ... ..	1,045	2,388,401	29·61	23,780	0·99
10,001 acres and upwards ... ..	51	1,213,689	15·05	5,727	0·47
Total ... ..	42,059	8,064,504	100·00	294,454	3·65

There were also 2,782 acres of Crown land under cultivation.

#### Tableland Division.

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area alienated in District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	4,754	32,945	0·32	7,632	23·16
31 to 400 acres ... ..	9,240	1,480,966	14·62	151,024	10·20
401 to 1,000 acres ... ..	2,339	1,467,857	14·49	76,623	5·22
1,001 to 10,000 acres ... ..	1,551	4,039,953	39·87	67,513	1·90
10,001 acres and upwards ... ..	156	3,110,713	30·70	20,528	0·66
Total ... ..	18,040	10,132,434	100·00	323,320	3·19

The land is used both for pastoral and agricultural purposes, and these industries are generally carried on conjointly. The area of Crown lands cultivated is 4,761.

*Western Slopes.*

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area alienated in District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	3,621	27,322	0·23	6,287	23·01
31 to 400 acres ... ..	5,756	1,036,153	8·74	245,536	23·70
401 to 1,000 acres ... ..	2,722	1,725,713	14·55	345,317	20·01
1,001 to 10,000 acres ... ..	1,794	4,524,596	38·15	378,166	8·36
10,001 acres and upwards ... ..	184	4,545,676	38·33	98,602	2·17
Total ... ..	14,077	11,859,460	100·00	1,073,908	9·05

The average area of the holdings in this division is 842 acres. In addition to 1,073,908 acres of alienated land under cultivation, there were 96,581 acres of Crown land.

*Western Plains and Riverina Division.*

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area alienated in District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	1,232	8,416	0·04	1,162	13·81
31 to 400 acres ... ..	1,929	380,149	2·02	92,847	24·42
401 to 1,000 acres ... ..	2,336	1,531,183	8·13	274,473	17·93
1,001 to 10,000 acres ... ..	1,912	4,622,102	24·55	326,632	7·07
10,001 acres and upwards ... ..	292	12,289,578	65·26	117,014	0·95
Total ... ..	7,701	18,831,428	100·00	812,128	4·31

The average area of holdings in this division is high, as a previous table shows, especially in the Riverina, where the estates over 10,000 acres average nearly 50,000 acres in extent. There were 93,704 acres of Crown land under cultivation.

*Western Division.*

Size of Holdings.	Alienated Holdings.	Area of Holdings.		Area in Cultivation.	
		Total.	Proportion to Total Area alienated in District.	Total.	Proportion to Area of Holdings.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	483	2,169	0·13	149	6·87
31 to 400 acres ... ..	318	43,641	2·69	934	2·14
401 to 1,000 acres ... ..	147	96,943	5·98	1,353	1·40
1,001 to 10,000 acres ... ..	185	563,651	34·75	2,228	0·39
10,001 acres and upwards ... ..	35	915,612	56·45	876	0·09
Total ... ..	1,168	1,622,016	100·00	5,540	0·03

The area of Crown lands cultivated in this division is 6,791 acres.

Two facts will be gathered from an analysis of the figures which have been given (*a*) that although land has been alienated to a large number of original selectors, the tendency of settlement has been towards concentration of these selections amongst comparatively few persons; and (*b*) that in the great majority of cases the owner of the land is also the occupier. Tenancy, as understood in older settled communities, has made comparatively little progress, 92·6 per cent. of the land alienated, or an area of 46,770,296 acres, being in the occupancy of the proprietors themselves; whilst only 3,739,546 acres, or 7·4 per cent., are held under lease from the freeholders.

Below will be found the number of holdings of various sizes throughout the State, distinguishing freehold from rented land. It is to be understood that here, as elsewhere in this chapter, though reference is made to holders who occupy Crown lands in addition to alienated lands, the area of such Crown lands is not considered in treating of the size of the holdings:—

Size of Holdings.	Number of Holdings.				Total.
	Freehold.	Private Rented.	Partly Freehold and partly Private Rented.	Partly Alienated and partly Crown Lands.	
1 to 30 acres ... ..	20,223	6,447	1,184	538	28,392
31 to 400 acres ... ..	20,058	6,344	2,220	8,765	37,387
401 to 1,000 acres ... ..	5,058	654	654	3,695	10,061
1,001 to 10,000 acres ... ..	2,612	221	416	3,238	6,487
10,001 acres and upwards ... ..	129	7	18	564	718
Total ... ..	48,080	13,673	4,492	16,800	83,045

The area of the alienated holdings referred to in the table just given, whether freehold or rented, will be found in the figures subjoined, which also show the percentage of alienated land to be found in the holdings of



each specified size, as well as the proportion each size of holding, whether freehold or rented, bears to the total area alienated :—

## THE STATE.

Size of Holdings.	Area of Holdings.			Proportion of Total Alienated Area of the State, excluding holdings under 1 acre.		
	Freehold.	Rented.	Total.	Freehold.	Rented.	Total.
	acres.	acres.	acres.	per cent.	per cent.	per cent.
1 to 30 acres ... ..	151,647	58,325	209,972	0·30	0·11	0·41
31 to 400 acres ... ..	4,631,457	1,097,118	5,728,575	9·17	2·17	11·34
401 to 1,000 acres... ..	5,676,931	680,393	6,357,324	11·24	1·35	12·59
1,001 to 10,000 acres ...	14,742,134	1,396,569	16,138,703	29·19	2·77	31·96
10,001 acres and upwards	21,568,127	507,141	22,075,268	42·70	1·00	43·70
Total ... ..	46,770,296	3,739,546	50,509,842	92·60	7·40	100·00

## SETTLEMENT AND AGRICULTURE.

Some sidelights as to the relative condition of agriculture and of settlement on the alienated rural lands of the State will be of interest, especially when read in conjunction with the preceding figures. The following table deals with this aspect, and the figures carry with them their own explanation :—

## THE STATE.

Size of Holdings.	Alienated Holdings.	Area Alienated.		Area Cultivated.	
		Total.	Proportion to Total Alienated Area.	Total.	Proportion to Total Area Alienated.
	No.	acres.	per cent.	acres.	per cent.
1 to 30 acres ... ..	28,392	209,972	0·41	44,736	21·30
31 to 40 acres ... ..	37,387	5,728,575	11·34	687,305	12·00
401 to 1,000 acres ... ..	10,061	6,357,324	12·59	736,244	11·58
1,001 to 10,000 acres ...	6,487	16,138,703	31·96	798,337	4·95
10,001 acres and upwards ...	718	22,075,268	43·70	242,729	1·10
Total ... ..	83,045	50,509,842	100·00	2,509,351	4·97

Although the highest proportion of land cultivated in any of these series, when compared with the total area alienated in this State, is found in holdings from 1,001 to 10,000 acres in extent, yet when compared with the aggregate area alienated in the series itself it represents only 4·95 per cent. of it; whilst on the smaller holdings, less than 31 acres in extent, as much as 21·30 per cent. of the area alienated is under cultivation. The proportion considerably decreases as the higher areas are reached, being reduced to 1·10 per cent. in those over 10,000 acres.

From a table given previously some interesting information may be gleaned with regard to the proportion of the number of owners of land who still occupy their freeholds, those who reside on rented lands, and those who occupy, in addition to their freeholds, lands rented either from private owners or from the Crown; but a more comprehensive view of these two phases of settlement may be obtained by an examination of the following table, in which the holdings are divided into a greater number of categories according to their sizes:—

Size of Holdings.	Holdings consisting of—				Total.
	Freehold Land.	Private Rented Land.	Partly Freehold and partly Private Rented Land.	Partly Alienated and partly Crown Land.	
	No.	No.	No.	No.	No.
1 to 5 acres ... ..	12,183	3,726	446	297	16,652
6 to 15 acres ... ..	5,234	1,686	428	133	7,481
16 to 30 acres ... ..	2,806	1,035	310	108	4,259
31 to 50 acres ... ..	4,174	1,282	277	1,220	6,953
51 to 100 acres ... ..	5,019	1,938	485	1,663	9,105
101 to 200 acres... ..	5,619	1,877	723	2,478	10,697
201 to 300 acres... ..	2,960	809	444	1,572	5,785
301 to 400 acres... ..	2,286	438	291	1,832	4,847
401 to 500 acres... ..	1,476	231	211	822	2,740
501 to 600 acres... ..	1,057	130	146	647	1,980
601 to 700 acres... ..	1,084	153	109	1,135	2,481
701 to 800 acres... ..	581	59	80	442	1,162
801 to 900 acres... ..	439	39	56	321	855
901 to 1,000 acres ... ..	421	42	52	228	843
1,001 to 1,500 acres ... ..	1,275	103	177	1,116	2,671
1,501 to 2,000 acres ... ..	435	40	67	569	1,111
2,001 to 3,000 acres ... ..	416	44	77	614	1,151
3,001 to 4,000 acres ... ..	202	15	37	304	558
4,001 to 5,000 acres ... ..	86	8	24	187	305
5,001 to 7,500 acres ... ..	135	4	27	292	458
7,501 to 10,000 acres ... ..	63	7	7	156	233
10,001 to 15,000 acres ... ..	54	1	10	158	223
15,001 to 20,000 acres ... ..	27	5	3	100	135
20,001 to 30,000 acres ... ..	25	1	4	131	161
30,001 to 40,000 acres ... ..	9	.....	.....	50	59
40,001 to 50,000 acres ... ..	5	.....	.....	32	37
50,001 acres and upwards ... ..	9	.....	1	93	103
Total ... ..	48,080	13,673	4,492	16,800	83,045

From the above it will be seen that the total number of occupiers of freeholds only is 48,080, the proportion to the total number of occupiers being fairly constant in each size of holdings. Absolute tenants of private lands, who number 13,673, are far more numerous in the smaller classes of holdings, and rapidly diminish both in number and in proportion as the estates become larger. The same is the case with regard to holders of freehold and private

rented land, who number only 4,492. The persons who occupy alienated areas with Crown lands attached number 16,800, and 52·7 per cent. of the holdings over 1,000 acres in extent are in this category.

The following table shows the alienated area classified according to the size of the private holdings :—

Size of Holdings.	Holdings.		Area Alienated.	
	Number.	Percentage of total Holdings.	Acres.	Percentage of total Alienated Area.
1 to 5 acres...	16,652	20·05	42,074	0·08
6 to 15 acres ...	7,481	9·01	71,921	0·14
16 to 30 acres ...	4,259	5·13	95,977	0·19
31 to 50 acres ...	6,953	8·37	287,940	0·57
51 to 100 acres ...	9,105	10·96	718,443	1·42
101 to 200 acres ...	10,697	12·88	1,615,478	3·20
201 to 300 acres ...	5,785	6·97	1,437,536	2·85
301 to 400 acres ...	4,847	5·84	1,669,178	3·31
401 to 500 acres ...	2,740	3·30	1,245,888	2·47
501 to 600 acres ...	1,980	2·38	1,093,768	2·16
601 to 700 acres ...	2,481	2·99	1,605,361	3·18
701 to 800 acres ...	1,162	1·40	875,561	1·73
801 to 900 acres ...	855	1·03	729,822	1·44
901 to 1,000 acres ...	843	1·02	806,924	1·60
1,001 to 1,500 acres ...	2,671	3·22	3,278,834	6·49
1,501 to 2,000 acres ...	1,111	1·34	1,937,043	3·84
2,001 to 3,000 acres ...	1,151	1·39	2,837,408	5·62
3,001 to 4,000 acres ...	558	0·67	1,929,734	3·82
4,001 to 5,000 acres ...	305	0·37	1,363,295	2·70
5,001 to 7,500 acres ...	458	0·55	2,775,574	5·49
7,501 to 10,000 acres ...	233	0·28	2,016,815	3·99
10,001 to 15,000 acres ...	223	0·27	2,716,508	5·38
15,001 to 20,000 acres ...	135	0·16	2,344,446	4·64
20,001 to 30,000 acres ...	161	0·19	3,907,661	7·74
30,001 to 40,000 acres ...	59	0·07	2,049,666	4·06
40,001 to 50,000 acres ...	37	0·04	1,645,748	3·26
51,000 acres and upwards ...	103	0·12	9,411,239	18·63
Total ...	83,045	100·00	50,509,842	100·00

Compared with the previous year's figures, there are increases of 1,313 and 608,005 respectively in the number and acreage of the holdings, which are here shown in comparison for 1908 and 1909. The largest increase has, of course, been in the number of small holdings.

Size of Holdings.	Holdings.		Area.	
	1908.	1909.	1908.	1909.
acres.	No.	No.	acres.	acres.
1 to 15...	23,591	24,133	111,710	113,995
16-200 ...	30,908	31,014	2,690,880	2,717,838
201-400 ...	10,451	10,632	3,058,278	3,106,714
401-1,000 ...	9,874	10,061	6,259,558	6,357,324
1,001-2,000 ...	3,587	3,782	4,965,374	5,215,877
2,001-10,000 ...	2,593	2,705	10,463,912	10,922,826
Over 10,000 ...	728	718	22,352,125	22,075,268
Total ...	81,732	83,045	49,901,837	50,509,842
Average Holding ...			611	608

Although the aggregate area of holdings exceeding 10,000 acres shows a decrease of 276,857 acres, as compared with the previous year, the area embraced in holdings within this category amounts to no less than 22,075,268 acres.

It is one of the features of the table, that whilst the owners of this class of holding constitute but 0·86 per cent. of the total occupiers, the land held represents 43·7 per cent. of the total area. This is still more accentuated in the case of 103 holdings of 50,001 acres and upwards, which represent only 0·12 per cent. of the total number of holdings, but embrace 18·63 per cent. of the land.

There are 5,288 occupiers of Crown lands only, not connected with alienated holdings. The area of alienated holdings over 1 acre in extent in the State is 50,509,842 acres, and of the Crown lands occupied 121,109,117 acres, making a total of 171,618,959 acres. Of this area, 168,904,988 acres are used for grazing and dairying, and 2,713,971 acres for agriculture.

The figures in regard to holdings represent rural settlement only, and account for 50,509,842 acres out of a total of 52,001,632 acres that have been alienated. The balance of 1,491,790 acres represents lands in cities and towns, and lands dedicated for public purposes.

## RAILWAYS AND TRAMWAYS.

### CONTROL OF STATE RAILWAYS.

UNTIL October, 1888, the control of the railways was vested in the Minister for Works, the direct management being undertaken by an officer under the title of Commissioner. But it was recognised that political influence entered unduly into the management of this large public asset, and, as a consequence, the "Government Railways Act of 1888" was passed, afterwards consolidated as the "Government Railways Act, 1901," with the object of removing the management of the railways from political control, and vesting it in three railway Commissioners, who report annually to Parliament, and pay net earnings into the Public Revenue. Under the Railway Commissioners Appointment Act of 1906, the management of the railways and tramways was placed in the hands of a Chief Commissioner; and two assistant Commissioners were appointed, one to assist in the management of the railways, and the other in that of the tramways.

While the avowed object of State railway construction has been to promote settlement, apart from consideration of the profitable working of the lines, the principle has nevertheless been kept in view that in the main the railways should be self-supporting.

### RAILWAY CONSTRUCTION.

On the 26th September, 1855, the first railway-line (from Sydney to Parramatta), 14 miles in length, was opened for traffic, and communication was established between Newcastle and East Maitland by the 11th April, 1857.

During the twenty years which followed the opening of the first line, railway construction progressed at a very slow rate, for in 1875 the lines in operation had reached a length of only 435 miles, an average of  $21\frac{3}{4}$  miles per year; and during four years of the period, viz., 1859, 1865, 1866, and 1874, no fresh extensions were opened. From 1876 to 1889 greater activity was manifested, 1,748 miles being constructed during the period, a yearly average of 125 miles. This rate of increase was not sustained, only 14 miles being opened in the next three years. During the year ended June, 1893, 154 miles were opened; 150 miles in the succeeding year; and 30 miles in the year ended June, 1895. In the following year no new lines were opened; but during the year ended June, 1897, 108 miles were added, and in the course of the next twelve months, 52 miles. During the eleven years ended June, 1909, a further length of 917 miles was brought into use.

From the 7th September, 1899, the private line from Broken Hill to Tarrawingee, 40 miles 7 chains in length, also became the property of the State. Under an agreement between the Railway Commissioners and the Silverton Tramway Company, the Company works this line in conjunction with its own. The Government increased the mileage opened during 1901 by the purchase from private owners of a short line, 4 miles 41 chains in length, between Clyde and Carlingford.

The progress in construction of the State railways of New South Wales may be traced in the statement given below. Included in the mileage are the Campbelltown-Camden, and Yass tramways, which are worked with the railways:—

Period.	Opened during the period.	Total opened at end of period.	Year.	Opened during the year.	Total opened.
	miles.	miles.		miles.	miles.
1855-9	55	55	+1900	105	2,811
1860-4	88	143	+1901	34	2,845
1865-9	175	318	+1902	181	3,026
1870-4	85	403	+1903	112	3,138
1875-9	331	734	+1904	143	3,281
1880-4	884	1,618	+1905	nil.	3,281
+1885-9	553	2,171	+1906	109	3,390
+1890-4	330	2,501	+1907	63	3,453
+1895-9	205	2,706	+1908	19	3,472
			+1909	151	3,623

† Year ended June.

Of the 3,623 miles in operation on the 30th June, 1909, there were 3,393½ miles of single line, 221 miles of double line, and 8½ miles of line with four tracks; in addition, there were 530½ miles of sidings and crossovers.

#### RAILWAY SYSTEMS.

The railways of the State are divided into three branches, each representing a system of its own.

The Southern system has several offshoots serving the richest and most thickly-populated districts, and places Sydney, Melbourne, and Adelaide in direct communication. From Culcairn there are two branch lines, one connecting with Corowa on the Murray River, and the other with Germanton; from The Rock a line extends to Lockhart; from Junee a branch extends to the town of Hay in one direction, and to Finley in another, and places the important district of Riverina in direct communication with Sydney. From Cootamundra a southerly branch carries the line to Tumut, and another in a north-westerly direction through Temora to Wyalong. During the year 1908-9 the extension from Temora to Aria Park was carried 41 miles further, to Barellan. From Murrumburrah a branch has been constructed to Blayney, on the western line, thus connecting the southern and western systems of the State, and from Koorawatha, on this connecting line, a branch has been laid down to join Grenfell with the railway system. Nearer the metropolis, the important town of Cooma is connected with Goulburn, bringing the rich pastoral district of Monaro into direct communication with Sydney. From Goulburn a branch line has also been opened to Crookwell. A small offshoot from the main southern line joins Campbelltown with Camden. Another line forming part of the southern system has been constructed to Nowra, connecting the metropolis with the coastal district of Illawarra, which is rich in coal and in the produce of agriculture. From the Illawarra line a branch extends between Sydenham and Bankstown with Liverpool as the ultimate objective.

The Western system of railways extends from Sydney over the Blue Mountains, and has its terminus at Bourke, a distance of 508 miles from the metropolis. Leaving the mountains, the western line, after throwing out a branch from Wallerawang to Mudgee and Gulgong, enters the Bathurst Plains, and connects with the metropolis the rich agricultural lands of the Bathurst, Orange, and Wellington districts. Beyond Dubbo it enters the pastoral country. At Blayney, as before stated, the western line is joined with the southern system by a branch line to Murrumburrah; at Orange a

branch connects that town with Forbes on the Lachlan River, and from Parkes, one of the stations on this branch line, an extension to Condobolin on the Lachlan River has been constructed. At Bogan Gate a branch line has been under construction to Tullamore, a section as far as Trundle having been opened in August, 1907, and the remaining section, Trundle to Tullamore, was completed during 1908-9. Further west branch lines extend from Dubbo to Coonamble, from Nevertire to Warren, and from Nyngan to the important mining district of Cobar. From Byrock a line branches off to Brewarrina. The western system also includes a short line from Blacktown to Richmond on the Hawkesbury River.

The Northern system originally commenced at Newcastle, but a connecting line has been constructed, making Sydney the centre of the whole of the railway systems of the State, and thus affording direct communication between Adelaide, Melbourne, Sydney, and Brisbane, a distance of 1,808 miles. The northern system has a branch from Werris Creek, *via* Narrabri and Moree, to Inverell, placing the Namoi and Gwydir districts in direct communication with the ports of Newcastle and Sydney. There is also a branch line from Narrabri to Walgett, with a further branch at Burren Junction to Collarenebri, and the Tamworth-Manilla branch has been extended to Barraba. A portion of the North Coast railway has been constructed from Murwillumbah, on the Tweed River, to Grafton, on the Clarence River, having a length of 149 miles, and a section is under construction from Maitland, on the main northern line, to Dungog, a distance of nearly 33 miles. A short line, 13 miles in length, branches off the main northern line at Hornsby, and connects with the north shore of Port Jackson at Milson's Point.

#### COMPARISON OF RAILWAY FACILITIES.

The progress of the State railways can be fairly gauged by comparing the population and area of territory to each mile of line open for traffic at different periods. Thus, in 1860 there were 4,979 persons to each mile of line, but by the end of the year 1880 the work of construction had proceeded at a rate so much faster than the increase in population that the average number of persons per mile had fallen to 881, the facilities afforded by the railways being more than five times as great as in the earlier year. In 1909 the average population per mile of line was 448. The decrease in the area of territory to each mile of line open has been very rapid, ranging from 4,434 square miles in 1860 to 86 square miles in 1909. The following statement shows the extension of railway facilities since 1860:—

Year.	Population to each Mile of Line open.	Area to each Mile of Line open.	Year.	Population to each Mile of Line open.	Area to each Mile of Line open.
	No.	sq. miles.		No.	sq. miles.
1860	4,979	4,433·89	1901	466	109·09
1865	2,861	2,170·43	1902	461	102·57
1870	1,471	915·55	1903	452	98·91
1875	1,360	710·23	1904	441	94·60
1880	881	365·57	1905	451	94·60
1885	548	179·20	1906	447	91·56
1890	523	142·24	1907	450	89·88
1895	501	122·63	1908	456	89·39
1900	464	110·41	1909	448	85·67

#### GRADIENTS.

The railways of the State have been constructed with a large proportion of steep gradients, but much has been done during the last few years to remove this drawback. By reducing some of the gradients, and introducing

locomotives of greater power than were employed formerly, considerable economy in working, and expedition in traffic, have been effected. Much remains to be accomplished in this respect, as will be seen on reference to the following table, which shows the number of miles on different gradients in June, 1909:—

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	miles.	miles.	miles.	miles.
18 to 30	3½	1¾	.....	5½
31 „ 40	58	65½	33	156½
41 „ 50	64¾	50½	76½	191¾
51 „ 60	47	57	51¾	155¾
61 „ 70	53½	55½	35¾	144½
71 „ 80	88½	73½	85¾	247¾
81 „ 90	37½	37	34¾	109¼
91 „ 100	73½	93½	66	232½
101 „ 150	117½	124½	109	350¾
151 „ 200	75¾	67½	64½	207½
201 „ 250	43½	28½	28	99¾
251 „ 300	56	50½	48½	154½
301 „ level	530	507	489½	1,526½
Total ..	1,248½	1,210¾	1,122½	3,581¾

The above table is exclusive of the lines from Broken Hill to Tarrawingee, from Wollongong to Harbour, and from Liverpool to sidings, Collingwood, &c., of a total length of 41½ miles.

#### COST OF CONSTRUCTION.

The average cost of the whole of the lines has been £10,652 per mile, including all charges, except those for rolling-stock, machinery, furniture, and workshops—an amount which is by no means high, considering the character of some parts of the country through which the lines have been carried, and the cost of labour, which is greater in Australia than in most other countries. In considering in detail the figures given, it is interesting to note the comparatively low cost per mile of some of the extensions through pastoral country. These are known as the “pioneer” class, and are of a light and cheap kind, on which the produce of the settlers may be conveyed to the trunk lines at a reasonable speed, and at a cheaper rate than carriage by road. The average for the line from Parkes to Condobolin was £2,081 per mile; Jerilderie to Berrigan, £2,167 per mile; from Dubbo to Coonamble, £2,452 per mile; from Narrabri to Moree, £2,653 per mile; from Berrigan to Finley, £2,619 per mile; and from Byrock to Brewarrina, £2,683 per mile. The lines of the “pioneer” class, in a special manner, show that in certain districts of the State, railways capable of carrying the traffic can be constructed at an average cost far below that of the initial lines, since twenty-three lines, with a total length of 926½ miles, have been constructed at an average cost of £3,086 per mile. The cost of construction of the various branches of the railway systems to the 30th June, 1909, is set forth in the following table:—

Lines opened for Traffic.	Length.	Total Cost.	Cost per Mile.
Darling Harbour Branch, Sydney ... ..	m. ch. 1 42½	£ 902,152	£ 589,160
MAIN SOUTHERN LINE.			
Sydney to Granville ... ..	16 45¾	2,716,074	163,987
Granville to Goulburn ... ..	123 27½	2,559,123	20,748
Goulburn to Wagga ... ..	178 59½	1,634,835	9,146
Wagga to Wodonga ... ..	79 17¾	915,889	11,561



Lines opened for Traffic.	Length.	Total Cost.	Cost per Mile.
<b>MAIN SOUTHERN LINE—continued.</b>			
<b>BRANCH LINES.</b>			
Campbelltown to Camden ... ..	m. ch.	£	£
Yass Tramway ... ..	7 66½	45,533	5,814
Goulburn to Crookwell ... ..	2 73	29,230	10,036
Goulburn to Cooma ... ..	36 36	159,009	4,408
Murrumburrah to Blayney, on Western Line ... ..	130 43¾	1,382,679	10,591
Koorawatha to Grenfell ... ..	110 30	1,090,703	9,882
Cootamundra to Gundagai ... ..	32 13½	110,177	3,425
Gundagai to Tumut ... ..	33 55½	323,941	9,614
Cootamundra to Temora ... ..	31 34½	204,522	6,507
Temora to Wyalong ... ..	38 28¾	183,594	4,787
Temora to Ariah Park—Barellan ... ..	41 26½	120,036	2,904
Junee to Hay ... ..	61 41¾	186,796	3,036
Narrandera to Jerilderie ... ..	168 19½	983,228	5,844
Jerilderie to Berrigan ... ..	65 14	408,699	6,271
Berrigan to Finley ... ..	21 66	47,290	2,167
The Rock to Lockhart ... ..	14 4	36,800	2,619
Culcairn to Germantown ... ..	24 52½	77,407	3,139
Culcairn to Corowa ... ..	16 61	59,216	3,533
	47 72¾	218,759	4,566
<b>MAIN WESTERN LINE.</b>			
Granville to Penrith ... ..	19 67	609,132	30,706
Penrith to Bathurst ... ..	112 11	2,790,269	24,883
Bathurst to Dubbo ... ..	137 67	1,335,642	9,690
Dubbo to Bourke ... ..	225 51½	1,361,201	6,033
<b>BRANCH LINES.</b>			
Clyde to Carlingford ... ..	4 39½	33,470	7,453
Blacktown to Richmond ... ..	16 19½	177,668	10,938
Wallerawang to Mudgee ... ..	85 17½	978,854	11,486
Blayney to Murrumburrah (see Southern Line) ... ..	...	...	...
Orange to Molong ... ..	23 26	269,277	11,545
Molong to Forbes ... ..	72 76¾	380,658	5,217
Parke to Condobolin ... ..	62 65	130,749	2,081
Bogan Gate to Trundle—Tullamore ... ..	37 66½	121,109	3,201
Dubbo to Coonamble ... ..	95 69	235,064	2,452
Nevertire to Warren ... ..	12 54½	40,986	3,233
Nyngan to Cobarr—The Peak ... ..	85 3½	319,621	3,758
Byrock to Brewarrina ... ..	58 34	156,783	2,683
Mudgee—Gulgong ... ..	20 17½	80,128	3,963
<b>MAIN NORTHERN LINE.</b>			
Homebush (Sydney) to Waratah ... ..	95 39	2,969,048	31,094
Newcastle to Wallangarra ... ..	393 57½	5,128,248	13,025
<b>BRANCH LINES.</b>			
Hornsby to Milson's Point (Sydney) ... ..	13 28½	696,691	52,174
Bullock Island Branch ... ..	3 32½	584,112	171,640
Morpeth Branch ... ..	3 38½	61,482	17,661
Werris Creek to Narrabri ... ..	99 6½	592,136	5,976
Narrabri to Moree ... ..	60 00	159,205	2,653
Moree to Inverell ... ..	95 65½	316,486	3,303
Narrabri West to Burren Junction—Walgett ... ..	106 58	322,258	3,020
Burren Junction to Collarenebri East ... ..	41 77	100,977	2,406
Tamworth to Manilla ... ..	29 72¾	86,638	2,897
Manilla—Barraba ... ..	31 79	153,600	4,802
<b>NORTH COAST LINE.</b>			
Lismore to Murwillumbah ... ..	63 59	911,440	14,300
Lismore to Casino ... ..	18 14¾	131,191	7,214
Grafton to Casino ... ..	67 15½	295,103	4,392
<b>SOUTH COAST (ILLAWARRA) LINE.</b>			
Sydney to Kiama ... ..	72 48½	2,029,316	27,951
Kiama to Nowra ... ..	22 46¾	361,655	16,013
<b>BRANCH LINE.</b>			
Sydenham to Bankstown ... ..	9 18½	249,653	27,044
<b>BROKEN HILL LINE.</b>			
Broken Hill to Tarrawingee ... ..	40 7	32,387	808
Total all Lines ... ..	3,623 30	38,597,929	10,652

The amount expended on rolling-stock to the 30th June, 1909, was £9,014,737, viz.:—Rolling-stock, £7,273,732; machinery, £403,215; work-shops, £677,754; furniture, £10,036; stores advanced, £650,000. This makes the total cost of all lines open for traffic, £47,612,666, or an average of £13,140 per mile. The growth of the capital expenditure on lines open may be seen in the following table:—

Year.	Capital expended during period.	Total capital expended on lines open.	Year.	Capital expended during period.	Total capital expended on lines open.
	£	£		£	£
1855-9	1,278,416	1,278,416	1895-9	2,137,005	37,992,276
1860-4	1,353,374	2,631,790	1900-4	4,296,241	42,288,517
1865-9	2,049,539	4,681,329	1905	4,585,281	43,062,550
1870-4	2,163,217	6,844,546	1906	563,513	43,626,063
1875-9	3,561,949	10,406,495	1907	1,074,167	44,700,230
1880-4	9,673,643	20,080,138	1908	983,254	45,683,484
1885-9	9,759,029	29,839,167	1909	1,929,182	47,612,666
1890-4	6,016,104	35,855,271			

Of the £47,612,666 expended on lines open for traffic on the 30th June, 1909, an amount of £512,154 has been provided from the Consolidated Revenue of the State, leaving a balance of £47,100,512, which has been raised by the issue of debentures and other stock. The net revenue for the year ended 30th June, 1909, after paying working expenses, was £2,075,626, which gave a return of 4·36 per cent. upon the total capital expenditure on the lines open for traffic, and 4·41 per cent. upon the gross loan capital involved.

#### REVENUE RETURNS AND WORKING EXPENSES.

A statement of the working expenses and earnings of the railways during the year ended 30th June, 1909, is shown below:—

Working Expenses.		Earnings.	
	£		£
Maintenance of Way, Works, and Buildings.	628,246	Passengers ... ..	1,720,892
Locomotive Power ... ..	1,163,272	Parcels, Horses, &c., and Mails	287,169
Carriage and Waggon Repairs and Renewals.	246,226	Total Coaching... ..	2,008,061
Traffic Expenses ... ..	805,452	Goods—	
Compensation ... ..	16,726	Merchandise ... ..	1,589,174
General Charges ... ..	80,432	Live Stock ... ..	528,715
Gratuities ... ..	10,780	Wool ... ..	344,531
Fire Insurance Fund ... ..	1,690	Minerals ... ..	502,258
	2,952,824	Total Goods ... ..	2,964,678
Balance, Net Earnings ... ..	2,075,626	Rents ... ..	43,383
		Miscellaneous ... ..	12,328
Total ... ..	5,028,450	Total... ..	5,028,450

The expenditure on locomotive power amounted to 39·4 per cent. of the total; traffic expenses to 27·3 per cent.; and maintenance of ways, works, and buildings to 21·3 per cent. Of the earnings 34·2 per cent. was derived from the carriage of passengers, 5·7 per cent. from parcels, &c., and 59·0 per cent. from the conveyance of goods of all kinds.

The contrast between the present condition of the railways of New South Wales and that which prevailed at their humble beginning in 1855 is remarkable. For the first ten years of the period under review the larger part of the railway earnings was obtained from the passenger traffic, no doubt owing to the fact that the first railways were entirely suburban. It was not until the line crossed the mountains and opened up the interior that the proportions changed, and the goods traffic became the principal source of revenue. This change began to take place in 1867.

A comparison between the earnings of the period prior to 1871—when the net result every year represented only a small proportion of the interest due on the capital expended in the construction of the lines—and of the subsequent period, affords matter for satisfaction. The following table shows the gross earnings, working expenses, and the proportion of the expenditure to receipts, in various periods from 1855 up to the 30th June, 1909. Since the year 1887 the railway accounts have been made up to the 30th June in each year:—

Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.	Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.
	£	£	per cent.		£	£	per cent.
1855	9,249	5,959	64·4	1895	2,878,204	1,567,589	54·5
1860	62,269	50,427	81·0	1900	3,163,572	1,769,520	55·9
1865	166,032	108,926	65·6	1905	3,684,016	2,192,147	59·5
1870	307,142	206,003	67·1	1906	4,234,791	2,308,384	54·5
1875	614,648	296,174	48·2	1907	4,709,406	2,499,741	53·1
1880	1,161,017	647,719	55·8	1908	4,944,134	2,714,839	54·9
1885	2,174,368	1,458,153	67·1	1909	5,028,450	2,952,824	58·7
1890	2,633,086	1,665,835	63·3				

With the exception of the years 1902, 1903, which were drought years, and 1904, when the quantity of wool and live stock carried was low on account of the preceding year's drought, the proportion of working expenses to gross earnings was considerably less than for the period anterior to the vesting of the railways in the Commissioners. The fact that the lines as a whole have not in the past always returned a profit should occasion no surprise, as the statistics of railways in all parts of the world show that few lines, except perhaps suburban, return a profit during the first few years after their opening.

During the period from 1870 to 1875, when the length of new lines yearly constructed was very small, the railway profits steadily increased. During 1877 and 1878, 180 miles of railway were constructed, and the profits immediately declined. From 1880 to 1884 the railways were extended, chiefly to centres already populous and prosperous, viz., Riverina and New England, and the central districts of Wellington and Dubbo; and as these were years of remarkable prosperity, the railway profits suffered less than usual from the considerable extension, which included the construction of the expensive connecting link joining the New South Wales railways with those of Victoria, at the River Murray. Since 1885 the extensions on the main lines have been mainly through pastoral country; as examples, the continuation of the Western line to Bourke, the Northern line to Jennings, and the further extensions of the lines on the Goulburn district to the rich pastoral lands of Monaro. Also branch lines have been constructed tapping important agricultural, dairy-farming, and pastoral districts.

Expensive new lines result in an increase in the percentage of working expenses to the gross earnings, as these lines have to be kept in full repair whilst actually returning in gross earnings little more than the cost of maintenance. The small returns on expensive incompleting branches further tend to diminish greatly the profits of the railway system taken as a whole; but such is the history of railway construction in all parts of the world, and New South Wales is no exception to the general rule. The financial depression of 1893, which brought about a great change in the character of the coaching traffic, and the continued unfavourable character of the seasons, adversely affected the earnings of several years. The increased cost of fuel and liberal advances granted to the wages staff materially augmented the working expenses, while the loss of revenue by the carriage of fodder and transfer of live-stock during drought years, at rates that were almost unremunerative, contributed greatly towards an increase in the proportion of working expenses to gross earnings.

The following table gives the percentage of earnings from the two sources of railway revenue:—

Year.	Percentage of Earnings.		Year.	Percentage of Earnings.	
	Coaching Traffic to Total.	Goods Traffic to Total.		Coaching Traffic to Total.	Goods Traffic to Total.
1860	73·0	27·0	1901	38·6	61·4
1865	56·0	44·0	1902	38·3	61·7
1870	38·4	61·6	1903	42·4	57·6
1875	33·5	66·5	1904	42·0	58·0
1880	33·6	66·4	1905	39·9	60·1
1885	38·2	61·8	1906	37·9	62·1
1890	40·2	59·8	1907	37·9	62·1
1895	35·1	64·9	1908	38·4	61·6
1900	38·2	61·8	1909	39·9	60·1

It will be observed that in the year 1860 the earnings from passenger traffic largely exceeded those from goods, but after that year the proportion derived from coaching traffic declined, reaching the minimum in 1875. This falling-off was due almost entirely to the considerable extension of the main lines through pastoral country, thinly populated, but well stocked with sheep and cattle, and consequently furnishing the railways with large quantities of produce for carriage to the sea-board. From 1880 to 1889, however, the percentage of receipts from coaching traffic steadily advanced, the proportion in the year last named being as high as 40·4 per cent. of the total revenue. A marked increase is exhibited in the figures for the years 1903, 1904, and 1905, followed by a falling off in the two subsequent years. The proportion for 1907-8 increased, and was equal to that in 1902, the intermediate years showing slight variations. The results for 1908-9 are practically identical with the figures for 1905.

#### NET EARNINGS AND INTEREST ON CAPITAL.

The net revenue for the year ended 30th June, 1909, was £2,075,626; while the capital expended on lines open for traffic to that date was £47,612,666. The amount thus available, to meet the interest charges on the capital expended, represents a return of 4·36 per cent., which is 0·71 per cent. in excess of the interest payable on the public debt. In the discussion of the financial results of the working of the lines, it is the practice of railway authorities to compare the net returns with the nominal rate of interest payable on the

railway loans or on the public debt of the State. An accurate comparison, however, can be made only by taking the average rate of interest payable on the actual sum obtained by the State for its outstanding loans, inasmuch as many loans were floated below par. On this basis, the lines of the State have met the interest on construction and equipment during nine years only, viz., 1881-83, 1889, 1901, 1906-09. The following table shows the net earnings and the interest returned on the total capital expended on railways, including the cost of both construction and equipment for the year 1855 and subsequent periods:—

Year.	Net Earnings.	Interest on Capital.	Year.	Net Earnings.	Interest on Capital.
	£	per cent.		£	per cent.
1855	3,290	0·63	1901	1,530,578	3·94
1860	11,842	0·83	1902	1,401,317	3·48
1865	57,106	2·07	1903	1,048,594	2·53
1870	101,139	1·81	1904	1,177,473	2·80
1875	318,474	4·39	1905	1,491,869	3·46
1880	513,298	4·35	1906	1,926,407	4·42
1885	716,215	3·37	1907	2,209,665	4·96
1890	967,251	3·17	1908	2,229,295	4·88
1895	1,310,615	3·60	1909	2,075,626	4·36
1900	1,394,052	3·63			

The table below shows the rate of interest returned on the capital expenditure for each of the last ten years, with the sum by which such return falls short of or exceeds the actual rate of interest payable on the cost of construction. The rate of return on capital represents the interest on the gross cost of the lines. The nominal amount of outstanding debentures and funded stock is less than the actual expenditure on construction and equipment, owing to the fact, as previously stated, that some loans have been redeemed; but as the redemption has been effected by means of fresh loans charged to general services, or by payments from the general revenue, and not out of railway earnings, no allowance on this account can reasonably be claimed:—

Year.	Interest returned on Capital.	Actual rate of Interest payable on Outstanding Loans.	Average Gain (+) or Loss (-).
	per cent.	per cent.	per cent.
1900	3·63	3·76	-0·13
1901	3·94	3·74	+0·20
1902	3·48	3·68	-0·20
1903	2·53	3·67	-1·14
1904	2·80	3·68	-0·88
1905	3·46	3·69	-0·23
1906	4·42	3·68	+0·74
1907	4·96	3·63	+1·33
1908	4·88	3·65	+1·23
1909	4·36	3·65	+0·71

As pointed out previously, the extension of the lines in sparsely populated districts was responsible for a considerable falling-off in profits for some years; but, generally speaking, the above returns give evidence of considerable improvement during the period; and this satisfactory state of affairs has been attained by careful and economical management. The falling-off noticeable in 1903 was due, in a great measure, to the disastrous drought which affected a great portion of the State. During that year not only was there a much smaller volume of traffic than usual, but the Commissioners carried starving stock and fodder at rates barely sufficient to cover working expenses. In 1904 the effects of the drought were still felt, as there was a decrease in the carriage of wool and live stock.

The railways being owned by the State, public opinion at once demands a reduction in freights and rates, when the net earnings are much in excess of the interest requirements.

## EARNINGS AND EXPENSES PER MILE.

Two important facts which demonstrate the financial position of the railways and the character of the management are the earnings per train mile and per average mile open. Although the returns now being realised cannot be compared with those of 1875, when the net earnings per train mile were a little short of 52d., and £777 per mile open, the earnings, with the exception of those for the years 1902, 1903, and 1904, are in every way encouraging. The transactions of the year 1908-9 show a falling-off in the net earnings per train mile of 4-55d. from those of the previous year. This result is attributable principally to a large reduction in the rates and fares made early in 1907, and also to a decrease in the tonnage of grain and flour and wool carried. The gross earnings, expenditure, and net earnings per train mile and per average mile open since 1860 are set forth in the following table:—

Year.	Per train mile.			Per average mile open.			Year.	Per train mile.			Per average mile open.		
	Gross Earnings.	Expenditure.	Net Earnings.	Gross Earnings.	Expenditure.	Net Earnings.		Gross Earnings.	Expenditure.	Net Earnings.	Gross Earnings.	Expenditure.	Net Earnings.
	d.	d.	d.	£	£	£		d.	d.	d.	£	£	£
1860	84-37	67-52	15-85	889	720	169	1901	79-68	45-56	34-12	1,286	735	551
1865	82-42	54-07	28-35	1,161	762	399	1902	75-58	46-71	28-87	1,259	778	481
1870	81-81	54-86	26-95	907	608	299	1903	68-89	47-10	21-79	1,093	747	346
1875	100-20	48-28	51-92	1,499	722	777	1904	79-30	52-13	27-17	1,079	709	370
1880	86-02	47-99	38-03	1,475	823	652	1905	84-46	50-26	34-20	1,123	668	455
1885	78-61	53-72	25-89	1,307	877	430	1906	85-67	46-70	38-97	1,258	686	572
1890	78-90	49-91	28-99	1,209	765	444	1907	87-28	46-33	40-95	1,374	729	645
1895	90-66	49-54	41-12	1,144	623	521	1908	83-26	45-72	37-54	1,425	783	642
1900	85-26	47-75	37-61	1,153	645	508	1909	80-00	47-01	32-99	1,412	829	583

In many cases the railways of the State pass through heavy and mountainous country, involving steep gradients, some of the worst of which are situated on the trunk lines. For the more expeditious and economical working of the traffic, important deviations have been made and are being carried out to secure better grades and to ease the curves, notably the Lithgow Zig-zag Deviation. In the Southern system, the line at Cooma reaches an altitude of 2,662 feet above the sea-level; in the Western, at Clarence Station, Blue Mountains, a height of 3,658 feet is attained; and on the Northern line the highest point, 4,473 feet, is reached at Ben Lomond.

## COACHING AND GOODS TRAFFIC.

*Passenger Traffic.*

The following table shows the number of passengers carried on the lines of the State, together with the receipts derived from the traffic, and the average receipts per journey since 1855 :—

Year.	Passenger Journeys.	Receipts from Coaching Traffic.	Average Receipts per Journey.
	No.	£	d.
1855	98,846	9,093	22·08
1860	551,044	45,428	19·79
1865	751,587	92,984	29·69
1870	776,707	117,854	36·42
1875	1,288,225	205,941	33·37
1880	5,440,138	390,149	17·21
1885	13,506,346	830,904	14·76
1890	17,071,945	1,059,791	14·90
1895	19,725,418	1,022,901	12·45
1900	26,486,873	1,227,355	11·12
1905	35,158,150	1,469,018	10·03
1906	37,500,531	1,604,349	10·27
1907	41,413,084	1,782,907	10·33
1908	47,487,030	1,896,720	9·59
1909	52,051,556	2,008,061	9·14

There has been a gradual decline in the receipts per journey, due no doubt to the large increase in suburban traffic, the reduction of season ticket fares, and the more general use of second-class carriages by all kinds of travellers.

The number of journeys made by each person in the State now averages 32·4 per annum, as against 7·5 in 1880, and 1·6 in 1870. The increase has been exceedingly rapid, as will be seen from the following table :—

Year.	Number of Journeys.	Year.	Number of Journeys.
1855	0·4	1895	15·9
1860	1·6	1900	19·7
1865	1·9	1905	24·1
1870	1·6	1906	24·8
1875	2·3	1907	26·6
1880	7·5	1908	30·0
1885	14·6	1909	32·4
1890	15·8		

The average receipts from passenger traffic per head of population advanced very rapidly until 1890, when the amount stood at 16s. 5d., against 9s. 4d. in 1880. This was due not so much to the increased distance travelled by passengers as to the fact that the railway mileage increased at a greater rate than the population, enabling the public to indulge in a larger measure of railway travelling, in accordance with the well established rule that the more facilities for travelling are extended the greater will be the traffic. Subsequently to 1891 the average lessened for a period, but in recent years a further rise is evident, and the amount per capita is now 21s. 5d. In this connection it is interesting to note that the fares charged on the suburban lines, over which the majority of passengers travel, are very much less for both classes of travellers than the English rates, although

the cost of working is considerably higher. The receipts from passenger traffic per head of the population will be found in the following figures:—

Year.	Amount per Capita.	Year.	Amount per Capita.
	£ s. d.		£ s. d.
1875	0 3 0	1900	0 15 1
1880	0 9 4	1905	0 15 4
1885	0 15 4	1908	1 0 1
1890	0 16 5	1909	1 1 5
1895	0 13 8		

### Goods Traffic.

The following figures, extending as far back as the opening of the lines, show how greatly the goods traffic has expanded, especially in recent years:—

Year.	Tonnage of Goods and Live Stock.	Tonnage per head of Population	Earnings.	Year.	Tonnage of Goods and Live Stock.	Tonnage per head of Population	Earnings.
			£				£
1855	140	...	156	1895	4,075,093	3 3	1,855,303
1860	55,394	0·2	16,841	1900	5,531,511	4·1	1,936,217
1865	416,707	1·2	73,048	1905	6,724,215	4·6	2,214,998
1870	766,523	1·6	189,288	1906	7,629,492	5·1	2,630,442
1875	1,171,354	2·2	408,707	1907	8,793,832	5·7	2,926,499
1880	1,712,971	2·4	770,868	1908	10,175,389	6·5	3,047,414
1885	3,273,004	3·5	1,343,464	1909	9,298,928	5·8	2,969,400
1890	3,788,950	3·5	1,573,295				

The weight of goods and live stock carried per head of population in New South Wales compares favourably with that of many countries where railways have long been established, as may be seen from the figures given later for other countries.

The accompanying statement shows the receipts for carrying goods one mile along the lines of the State. The information relates back to 1872, when the charge was 3·6 pence, and after an interval of thirty-seven years it has fallen to 1·0. The decrease, however, is to some extent only apparent, inasmuch as it represents a more extensive development of the mineral trade than of the carriage of general merchandise; but when due allowance has been made, it will be found that the benefit to the general producer and consumer has been very substantial, especially in regard to agricultural produce and live stock:—

1872	...	3·6d.	1891	...	1·9d.	1906	...	1·3d.
1875	...	3·1d.	1895	...	1·6d.	1907	...	1·3d.
1880	...	2·3d.	1900	...	1·5d.	1908	...	1·2d.
1885	...	1·9d.	1905	...	1·2d.	1909	...	1·0d.

The revenue from goods and live stock traffic per head of population rose rapidly from the opening of the lines until the year 1883, when it stood at 30s. 4d. Bad seasons in subsequent years caused a falling-off, so that by 1888 the average was only 27s. per inhabitant. For a number of years afterwards there was a steady increase, and in 1892 the average stood at 33s.; in 1894 this was decreased to 29s. 1d.; but in 1895 there was a rise to 29s. 11d. In 1896, owing chiefly to the diminished wool traffic, and partly also to the Newcastle strike, the figures dropped to 28s. 1d.; in 1897, there was a rise to 29s. 11d., but the effect of the drought was noticeable in 1898, when the average per head dropped to 29s. 2d. An improvement was, however, presented in 1899, 1901, 1902, and in each year from 1905 to 1908, when the



average per head rose to 38s. 9d. The results achieved must be regarded as very satisfactory, especially in the face of the recent general reduction in the freights:—

Year.	Goods revenue per head of Population.	Year.	Goods revenue per head of Population.
	£ s. d.		£ s. d.
1860	0 0 11·8	1895	1 9 11·3
1865	0 3 7·8	1900	1 8 9·7
1870	0 7 8·7	1905	1 10 3·7
1875	0 13 11·8	1906	1 15 2·0
1880	1 1 1·9	1907	1 18 2·3
1885	1 8 11·7	1908	1 18 8·9
1890	1 9 1·0	1909	1 17 0·0

#### Rolling-stock.

The rolling-stock of New South Wales Railways, on the 30th June, 1909, reached a total of 17,445, viz., engines, 798; tenders, 655; coaching stock, 1,325; goods vehicles, 13,649; departmental stock, 1,018. These figures represent an increase on the figures of the previous year of 1,360, viz., engines, 102; tenders, 88; coaching stock, 66; goods vehicles, 1,109; departmental stock (reduction), 5. The number of engine miles run was 19,308,621, while the train miles numbered 15,074,144. The fitting of the goods stock with the Westinghouse quick-acting freight brake appliances was completed in 1898-9, and much progress has been made with the work of interlocking of points and signals—Sykes' system of lock and block being introduced on the busy suburban sections.

#### Railway Accidents.

The railways of New South Wales have been as free from accidents of a serious character as the lines of most other countries. It is difficult to obtain a common basis of comparison; but the available figures are shown in the following table, which exhibits the number of passengers killed and injured per million persons carried. The figures are calculated over a period of five years and brought down to the latest available dates:—

Countries.	Accidents per million passengers carried.		Countries.	Accidents per million passengers carried.	
	Killed.	Injured.		Killed.	Injured.
Germany ... ..	0·09	0·41	Russia ... ..	1·06	6·00
Austria-Hungary ...	0·09	1·16	United Kingdom ...	0·24	0·47
Belgium ... ..	0·05	2·15	Spain ... ..	0·70	2·75
Sweden ... ..	0·17	0·29	<i>New South Wales</i> ...	0·09	2·09
France ... ..	0·07	0·78	Victoria ... ..	0·20	4·14
Norway ... ..	0·12	0·08	South Australia ...	0·27	2·06
Netherlands ... ..	0·09	0·56	New Zealand ... ..	0·93	1·59
Switzerland ... ..	0·15	1·08	United States ... ..	0·60	13·51

The above comparison is by no means convincing, as the question of the distance travelled by each passenger is an important element of the risk run, and is omitted from consideration. If this were made a factor, it would probably be found that the risk of each traveller by rail would show less variation in the different countries than appears to be the case from the figures quoted.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, employees, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the persons injured, and those due to misconduct or want of caution.

The accidents may be further subdivided into those connected with the movement of railway vehicles and those apart from such movement. Adopting such classifications, the returns for the quinquennial period terminating on the 30th June, 1909, show that only 1 passenger in over 213 million persons carried was killed during the five years under review, and 0.89 passengers per million carried were injured through causes beyond their own control in accidents connected with the movement of railway vehicles. In fact, only one member of the travelling public was fatally injured owing to accidents to passenger trains during the last eight years; while owing to misconduct or want of caution the rates of passengers killed and injured per million carried were 0.11 and 1.65 respectively. Further, 0.019 passengers per million carried were injured in accidents apart from the movement of railway vehicles in consequence of their own misconduct or want of caution.

In the following statement, particulars regarding accidents on the Government Railways of New South Wales are given for four years:—

Classification.	Accidents connected with the Movement of Railway Vehicles.				Accidents not connected with the Movement of Railway Vehicles.			
	1905-6.	1906-7.	1907-8.	1908-9.	1905-6.	1906-7.	1907-8.	1908-9.
Passengers—								
Causes beyond their own control—								
Killed	...	...	1	...	...	...	...	...
Injured	13	32	87	2	...	...	...	1
Their own misconduct, or want of caution—								
Killed	3	3	5	6	...	...	...	...
Injured	33	49	51	48	10	19	23	38
Servants of the Department—								
Causes beyond their own control—								
Killed	1	...	...	1	...	...	...	...
Injured	10	14	17	13	11	14	22	27
Their own misconduct, or want of caution—								
Killed	8	8	24	13	...	...	1	1
Injured	107	154	174	140	518	714	1,055	1,366
Trespassers and others—								
Killed	24	17	14	23	2	1	2	...
Injured	23	38	26	46	50	70	71	62
Total { Killed	36	28	44	43	2	1	3	1
Injured	186	287	355	249	589	817	1,171	1,494

The returns are compiled on lines similar to those adopted by the Board of Trade in England, and all accidents are reported which occur in the working of the railways, or on railway premises, to persons other than servants of the Department, however slight the injuries may be. In the case of servants of the Department, only those accidents are reported which prevent the servant working for five hours on any one of the three working days next after the occurrence of the accident.

The amount of compensation, paid during the twelve months ended 30th June, 1909, in connection with accidents on railways, was £16,726, of which £11,063 was paid in respect of passengers, and £5,663 with regard to goods.

*New South Wales and Other Countries.*

The position of the railways of New South Wales in relation to other important countries of the world is shown in the following table; but it is necessary to remember that there are important differences which really invalidate any effective comparison, as, for instance, differences in population, in class of goods carried, and in the competition or assistance which railways encounter from river or sea carriage. These are all factors in development quite apart from questions of control, of gauge, or of construction.

Country.	Length of Railway.	Per Mile of Line Open.			Tonnage Per Capita.
		Population.	Area.	Cost.	
	miles.	No.	sq. miles.	£	tons.
<i>New South Wales</i> ...	3,623	448	85·7	10,652	5·8
United Kingdom ...	23,205	1,920	5·2	56,476	11·4
United States ...	224,363	375	13·2	13,529	19·4
Canada ...	23,267	264	161·0	11,069	10·4
Germany ...	35,235	1,721	6·0	20,979	6·9
Russia ...	41,176	3,621	199·2	14,196	1·1
Japan ...	5,069	9,405	29·1	9,069	0·5
Cape Colony ...	3,254	771	68·0	9,693	0·6
Argentina ...	12,826	398	87·1	10,842	5·3
Victoria ...	3,415	373	25·7	12,458	3·0
South Australia ...	2,033	200	444·5	7,544	5·3
Queensland ...	3,795	147	176·1	6,301	4·4
West Australia ...	2,300	118	424·3	4,790	8·1
New Zealand ...	2,471	399	42·3	1,861	4·9

## PRIVATE RAILWAY LINES.

In New South Wales the established policy has been to keep the railways under State management and control, and at the present time there are only four private lines in operation, with the exception of short lines to connect coal-mines with the main railways, on a few of which provision has been made for the carriage of passengers and goods.

In 1874 Parliament granted permission to a company to construct a line from Deniliquin, in the centre of the Riverina district, to Moama, on the Murray, where it meets the railway system of Victoria. The line, which was opened in the year 1876, is 45 miles in length, and a considerable proportion of the wool and other produce of Riverina reaches the Melbourne market by this route. During the year 1888 a line, 35 miles 54 chains in length, was laid down from the Barrier Silver-mines, Silverton, and Broken Hill, to the South Australian border, and has conducted a flourishing business. A short line connects Liverpool with the Warwick Farm Race-course; also the line of the Commonwealth Oil Corporation extends from Newnes, on the Western line, to the Wolgan Valley. The following table shows the operations of these lines during the year 1908:—

Name.	Line.			Total Capital Expended.	Reserve Fund.	Debentures Outstanding.	Passengers Carried.	Goods Carried.	Live Stock Carried.	Train Miles Run.
	Length.	Gauge.								
	m.	ch.	ft. in.	£	£	£	No.	tons.	No.	No.
Deniliquin & Moama	45	0	5 3	162,672	14,010	23,500	14,428	19,165	323,020	37,360
Silverton ...	35	54	3 6	405,365	72,882	...	49,340	880,806	12,534	154,915
Warwick Farm ...	0	66	4 8½	5,700	...	...	16,242	...	453	38
Commonwealth Oil Corporation.	32	8	4 8½	149,780	...	...	..	...	...	...

The Deniliquin and Moama Company possesses 4 locomotives, 6 passenger carriages, and 53 goods carriages and vans; and the Silverton Company has 16 locomotives, 17 passenger carriages, and 650 goods vehicles. On the Warwick Farm line Government rolling-stock is used. The Commonwealth Oil Corporation has 4 locomotives and 2 carriages, but otherwise Government rolling-stock is used.

In addition to the lines shown in the above table, there are several branches, connected principally with coal-mines; a summary of them is given below:—

		District.			Length. m. ch.	Gauge. ft. in.
52 lines connected with	Northern Line	...	...	117	54	4 8½
12 "	" "	" Western "	...	6	31	4 8½
1 "	" "	" Southern "	...	4	0	4 8½
1 }	" "	" South Coast "	...	3	40	3 6
14 }	" "	" South Coast "	...	29	76	4 8½

## TRAMWAYS.

The tramways are chiefly the property of the State Government, and are under the control of the Railway Commissioners. There were, in June, 1909, nine distinct systems of tramways in operation, viz., City and Suburban electric, 88 miles 50 chains; North Shore electric, 15 miles 1 chain; Ashfield, Mortlake, and Cabarita steam, 8 miles 36 chains; Kogarah-Sans Souci steam, 4 miles 45 chains; Newcastle-Plattsburg steam, 17 miles 11 chains, Broken Hill steam, 6 miles 56 chains; Parramatta-Baulkham Hills steam, 4 miles 37 chains; Manly steam, 1 mile 23 chains; East and West Maitland steam, 4 miles 5 chains; total, 150 miles 24 chains.

The electric system was introduced into the city at the close of 1899, and the conversion of the whole of the steam tramways in the metropolitan district into an electrical system has now been completed with the exception of the Ashfield to Mortlake and Cabarita line and Manly, provision for the electrical power required having been made at the works at Ultimo.

The following table gives some interesting particulars respecting the metropolitan tramways, including the North Shore line, but excluding the Ashfield to Mortlake and Cabarita line. In the year 1879, the tramways were open for only three and a half months, and for part of that time were worked by horse-power. The accounts since 1887 have been made up to the 30th June in each year:—

Year.	Length of Line.	Total Earnings.	Working Expenses.	Proportion of working cost to gross earnings.	Net Earnings.	Capital Cost.	Interest on Capital.
	miles.						
1879	1½	4,416	2,278	51·59	2,138	22,269	33·00
1880	4	18,980	13,444	70·83	5,536	60,218	12·34
1885	27½	223,340	207,995	93·13	15,345	708,109	2·17
1890	32	258,991	215,856	83·34	43,135	864,367	4·99
1895	44½	242,991	196,436	80·84	46,555	1,103,362	4·22
1900	54½	342,024	288,845	84·45	53,179	1,560,539	3·41
1905	85½	747,717	623,371	83·37	124,346	3,229,080	3·85
1906	85½	782,617	597,953	76·40	184,664	3,259,936	5·66
1907	87½	832,202	662,187	79·57	170,015	3,247,817	5·23
1908	89½	925,224	735,442	79·40	189,782	3,288,450	5·77
1909	103½	1,009,498	785,404	77·80	224,094	3,756,198	5·97

The undermentioned figures show the expansion of the tram mileage in the metropolis, including North Sydney, and the earnings and working cost per tram mile up to the 30th June, 1909.

Year.	Tram Mileage.	Earnings per Tram Mile.		Working cost per Tram Mile.	
		s.	d.	s.	d.
1879	13,270	6	7·9	3	5·2
1880	84,074	4	6·2	3	2·4
1885	1,220,500	3	7·9	3	4·9
1890	1,540,833	3	4·3	2	9·6
1895	1,854,595	2	7·4	2	1·4
1900	3,412,445	2	0·6	1	8·3
1905	15,488,016	0	11·6	0	9·7
1906	15,365,478	1	0·2	0	9·3
1907	15,655,953	1	0·8	0	10·2
1908	16,517,552	1	1·4	0	10·7
1909	17,813,394	1	1·6	0	10·6

The tramways have for eighteen out of the last twenty years yielded more than the cost of working and interest. It must, however, be remembered that the State does not set apart any portion of the earnings for renewals, which may hereafter prove a considerable item, as a large part of the rolling-stock is new.

The fares charged on the tramways are on the average about 0·61d. per mile, the lines being divided into penny sections of about  $1\frac{3}{4}$  mile. For the Metropolitan area the average length of the sections is about  $1\frac{1}{2}$  mile, and the fare per mile 0·55d.

The following statement shows the working of the various tramways in sections for the year ended 30th June, 1909. Although seven sections experienced a loss during the period, the total net revenue on all lines, amounting to £79,174, returns a profit of 1·86 per cent. after allowing for interest on capital invested:—

Line.	Cost of Construction and Equipment.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest on Capital.	Profit + Loss —
City and Suburban—Electric .. ..	3,401,667	161,289,058	941,612	732,080	113,616	+95,916
North Shore—Electric .. ..	354,531	12,444,075	67,886	53,324	11,987	+2,575
Ashfield to Mortlake and Cabarita—Steam .. ..	55,046	1,228,027	7,373	8,888	2,009	-3,024
Kogarah and Sans Souci—Steam .. ..	25,318	388,309	3,501	4,369	869	-1,737
Manly—Steam .. ..	17,734	449,891	1,575	2,234	648	-1,007
Parramatta to Baulkham Hills—Steam .. ..	30,080	413,816	3,132	3,991	1,093	-1,957
Newcastle Suburban—Steam .. ..	254,148	7,783,043	54,881	51,613	9,231	-5,968
Broken Hill—Steam .. ..	80,378	2,034,876	14,956	17,428	2,889	-5,361
East and West Maitland—Steam .. ..	33,829	287,643	1,849	1,628	484	-263
Total, all lines .. ..	4,262,731	186,318,738	1,097,565	£75,560	142,831	+79,174

In the following table are given details of revenue and expenditure, and capital invested for all State tramways, since their inception in 1879. The net earnings of the tramways for the last quinquennial period amounted to 4·95 per cent. on cost of construction and equipment, which compares favourably with 3·65 per cent., the actual interest on the public debt, taking into

consideration the actual sum obtained by the State for its loans, many of which were floated below par:—

Year.	Total Length of Lines.	Capital Expended on Lines open for Traffic.	Gross Revenue.	Working Expenses.	Net Earnings.
	Miles.	£	£	£	£
1879	1½	22,061	4,416	2,278	2,138
1880	4½	60,218	18,980	13,444	5,536
1885	35	748,506	227,144	207,898	19,246
1890	39½	933,614	268,962	224,073	44,889
1895	61	1,428,518	282,316	230,993	51,323
1900	71½	1,924,720	409,724	341,127	68,597
1905	125½	3,637,922	813,569	685,682	127,887
1906	126	3,669,096	851,483	665,083	186,400
1907	128½	3,669,524	908,701	727,947	180,754
1908	132½	3,732,991	1,011,994	809,065	202,929
1909	151½	4,252,731	1,097,565	875,560	222,005

The tramway rolling-stock, on the 30th June, 1909, consisted of 21 steam motors, 76 steam cars, 820 motors and 45 trail cars for electric lines, and 52 service vehicles, making a total of 1,014. The tram mileage during the year was 18,853,621, being an increase of 1,332,211 miles on that of the preceding year.

## TRAMWAY ACCIDENTS.

The method of recording accidents on tramways has been satisfactory only since 1903, and the accidents which occurred during the last four years are classified in the subjoined table, having been tabulated on similar lines to those relating to the railways:—

Classification.	Accidents connected with the Movement of Tramway Vehicles.				Accidents not connected with the Movement of Tramway Vehicles.			
	1905-6.	1906-7.	1907-8.	1908-9.	1905-6.	1906-7.	1907-8.	1908-9.
<b>Passengers—</b>								
Causes beyond their own control—								
Killed ... ..	...	1	...	...	...	...	...	...
Injured ... ..	41	50	97	64	...	3	1	...
Their own misconduct, or want of caution—								
Killed ... ..	9	5	8	6	...	...	...	...
Injured ... ..	106	186	227	206	6	2	7	10
<b>Servants of the Department—</b>								
Causes beyond their own control—								
Killed ... ..	...	1	2	...	...	...	...	...
Injured ... ..	4	10	9	20	3	10	8	21
Their own misconduct, or want of caution—								
Killed ... ..	1	1	1	1	...	1	...	...
Injured ... ..	109	120	135	167	124	153	246	360
<b>Others—</b>								
Killed ... ..	8	7	15	12	...	...	...	...
Injured ... ..	120	155	179	183	3	6	11	5
<b>Total</b> { Killed ... ..	18	15	26	19	...	1	...	...
{ Injured ... ..	380	521	647	640	136	174	273	396

The number of passengers carried on the tramways during the year ended 30th June, 1909, was 186,318,738, which would give the rate of fatal accidents to passengers as 0·032 per million. All these accidents, as in 1907-8, were due entirely to misconduct or want of caution on the part of passengers. As the tramways for a great part of their course traverse crowded streets, the number of fatal and non-fatal accidents must be considered very small.

The amount of compensation paid during the twelve months ended 30th June, 1909, in respect of accidents on the tramways was £15,625, as compared with £13,091 for the preceding year.

#### EMPLOYMENT AND WAGES.

The account of wages paid, together with the staff employed on the railways and tramways during the financial year 1908-9, is shown in the following statement, in comparison with the previous year:—

Particulars.	Year ended 30th June, 1909.			Year ended 30th June, 1908.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
	No.	No.	No.	No.	No.	No.
Persons employed—						
Salaried staff ...	2,163	284	2,447	1,985	234	2,219
Wages „ ...	17,295	5,603	22,898	15,939	4,813	20,752
Total ...	19,458	5,887	25,345	17,924	5,047	22,971
Wages paid—	£	£	£	£	£	£
Maintenance Branch	763,619	116,614	880,233	577,800	88,772	666,572
Locomotive „	904,985	.....	904,985	825,418	.....	825,418
Electric „	.....	173,523	173,523	.....	150,162	150,162
Traffic „	422,711	338,622	761,333	397,426	296,079	693,505
Total ...	2,091,315	628,759	2,720,074	1,800,644	535,013	2,335,657

The total staff employed during 1908-9 exceeded that of the previous years by 2,374, and the amount of wages paid increased by £384,417. The wages per employee on the wages staff—railways and tramways—averaged £118 15s. for the twelve months.

#### PRIVATE TRAMWAYS.

There are three tramways under private control within the State. One of these branches from the Illawarra line at Rockdale, in the Metropolitan area, and runs to Brighton-le-Sands, a distance of 1 mile. The line was constructed in 1885, and the original motive power was steam, subsequently converted into electric; the line is chiefly used by excursionists visiting the shores of Botany Bay. The remaining two are steam tramways; one passes through the township of Parramatta, commencing at the Park and continuing as far as the Newington Wharf at Duck River, a distance of 3 miles, where it connects with the Parramatta River steamers conveying passengers and goods to and from Sydney. The line was opened in 1883. The second steam line is that from Fassifern to Toronto, on Lake Macquarie, a distance of 2½ miles, which was opened in 1891.

## POSTS AND TELEGRAPHS.

UNDER the provisions of clause 51 of the Commonwealth of Australia Constitution Act, the control of the Post and Telegraph services became vested in the Commonwealth, and by proclamation these services were taken over on the 1st March, 1901. The system of administration and the rates levied in each State at the date of the union were, however, continued in force until the Commonwealth Postal Act was brought into operation on the 1st November, 1902, this measure securing uniformity in all the States, except that the postage rates within each State were still continued as previously.

Although the Post Office is now exclusively controlled by the Commonwealth, it is apparent that in any statistical account of New South Wales special reference should be made to a service which is intimately associated with the commercial and social life of the State.

Taking into consideration the large area of the State, New South Wales possesses an excellent system of postal and telegraphic communication. The interstate system is fairly perfect, and New South Wales is in direct communication with Europe and the rest of the world by means of the cables connecting with the various Asiatic, continental, and the Canadian and South African telegraph lines. The State is also connected with New Zealand by a submarine cable.

The history of the Postal Department is most interesting, since it affords a striking illustration of small beginnings leading to great results. No means of postal communication existed in New South Wales until 1810, when the first post office was established in Sydney. This establishment appears to have been merely a distributing office for letters and parcels arriving in Sydney; the conveyance of inland mails depended on constables and private individuals, no arrangements having been made for the despatch of ship letters. The postmaster was empowered to charge on delivery to the addressee 8d. for every English or foreign letter of whatever weight, and for every parcel weighing not more than 20 lb., 1s. 6d., and exceeding that weight 3s. The charge on colonial letters was 4d., irrespective of weight; and soldiers' letters were charged 1d.

No measures towards additional postal communication were taken till 1825, when an Act was passed to regulate the postage, and a proclamation was issued fixing the postage rates and salaries of postmasters, and inviting tenders for the conveyance of mails. The provisions of the Act, however, were not observed until 1828. In that year there were in the Sydney establishment one principal postmaster, one clerk, and one letter-carrier, in addition to eight country postmasters and a carrier at Parramatta. In 1837 a fortnightly mail was established between Sydney and Melbourne. Stamps were introduced in the same year in the form of stamped covers or envelopes, which are believed to have been the first postage stamps ever issued.

In the year 1838 there were fifteen officers in the Sydney establishment. Within the borders of New South Wales, which at that time included Victoria and Queensland, there were forty post offices, the revenue of the Department for the year being £8,390, and the expenditure £10,357. The



New South Wales Government also made payments to the post office at Kororareka, in New Zealand, which was not created a separate colony until 1841. Mail communication between Sydney and Adelaide was established in 1847, and the rate of postage on a single letter was fixed at 1s. 6d. An amendment of the Postal Act was made in 1849, when the postage on town letters was fixed at 1d., and on inland letters at 2d., while the postage on ship letters was 3d., in addition to the inland rate, and authority was given for the use of postage stamps in their present form.

The first annual report of the Department was laid before Parliament in the year 1855, and at that time there were 155 post offices in the State. The head office was in George-street, occupying the same site as the present edifice, but the building was small and inconvenient. There were no electric telegraphs in the State, and the Observatory, by means of flags and semaphores, signalled the arrival of vessels at the Heads. Prior to the opening of the first railway, in September, 1855, the Southern and Western mails were despatched from the General Post Office in old-fashioned mail-coaches every evening. During that year the total distance travelled by the postal contractors, by coach and on horseback, was 1,023,255 miles. The number of letters passing through the post office was 2,114,179, of which 617,041 were addressed to places beyond the State. The number of newspapers was 2,100,989, of which 1,281,613 were inland, and 819,376 were "foreign." Book parcels and packets were not reckoned separately, but were counted as letters. The revenue of the Department for the year was £24,902, and the expenditure was £60,221. The staff numbered 223 officers, of whom fifty-six were connected with the office in Sydney. The annual report also indicates that communication with Victoria was effected three times a week.

In the year 1856 the first iron pillar letter-receivers were erected in Sydney, and 22 miles of railway were utilised for postal purposes, 16½ miles being added in the following year.

In 1863 it was resolved to build a new General Post Office at Sydney, and the construction of the present building was commenced. It was not opened till 1874. The headquarters of the Electric Telegraph Department, the Central Telephone Exchange and the Money Order and Postal Note Office are in the same building.

In 1855 there were only 155 post offices within the area now comprised in New South Wales and Queensland; at the close of 1908 there were within this State alone 1,966 post offices, besides 526 receiving offices—a truly marvellous development. The number of miles travelled by the mail in the former year was 1,023,255, while the distance covered in 1908 extended to 12,073,724 miles. The number of letters passing through the Post Office during the same period had increased nearly 64 times, and the number of newspapers 24 times. Packets and book parcels were first enumerated separately in 1858, during which year 68,564 passed through the post; in 1908 the number was 36,918,822. Postcards were first introduced in 1875, when the number sent was 128,786; and in 1908 no less than 14,969,312 passed through the Post Office, of which 9,177,483 were posted within the State.

Double cards, which are designated letter-cards and closed against inspection, were introduced for public use on the 1st July, 1894. These cards may be transmitted within the Commonwealth, as well as to New Zealand, Fiji, and Papua.

A parcels post for inland and interstate transmission was inaugurated on the 1st October, 1893, the maximum weight being fixed at 3 lb. and 11 lb., according to mode of conveyance. The number of parcels carried under this system up to the close of the year was 44,265, and 349,218 were carried

during 1895. Under the foreign system, which has been in force since August, 1886, 19,437 parcels were carried in 1893, and in the following year 18,672. In 1908 the total number of parcels carried was 1,411,489, of which 1,162,256 were inland, 180,675 interstate, and 68,558 foreign.

The table given below shows the number of post offices, employees, income and expenditure in five-year periods from 1855 to 1908. For 1885 and succeeding years the number of persons employed and the income and expenditure to the Department as a whole; prior to that year the figures are for Post Office only. Also, from 1885, the income is exclusive of interest on Savings Bank balances in the Treasury; and the expenditure is exclusive of interest allowed to Savings Bank depositors:—

Year.	Post Offices.	Receiving Offices.	Persons employed in the Department.	Income.	Approximate Expenditure.
	No.	No.	No.	£	£
1855	155	8	223	24,902	60,221
1860	289	*	289	45,613	71,391
1865	435	*	513	70,985	83,659
1870	562	*	690	84,441	86,722
1875	752	7	967	107,761	196,368
1880	927	119	1,536	194,084	268,128
1885	1,115	202	3,205	485,489	573,617
1890	1,338	325	3,821	637,975	677,216
1895	1,470	502	5,063	648,852	763,259
1900	1,668	521	5,516	831,340	764,227
1905	1,744	522	5,890	1,022,330	970,808
1906	1,769	519	5,943	1,134,248	966,498
1907	1,809	510	+6,964	1,237,389	1,067,232
1908	1,966	526	+7,343	1,278,106	1,157,976

\* Not recorded. † Including temporary employees.

Exclusive of 1,305 mail contractors, 7,343 persons were employed by the Department in 1908.

The following statement shows the revenue and expenditure of the Department for the year 1908:—

Revenue.		Expenditure.	
	£		£
Postage...	834,915	Salaries ...	520,098
Electric Telegraphs ...	206,685	Contingencies ...	195,486
Telephones ...	161,016	Conveyance of mails...	273,217
Commission on Money		Cable subsidies ...	8,112
Orders and poundage		Telegraph & telephone	
on Postal Notes ...	39,008	works ...	118,150
Private boxes and bags	6,561	Other expenditure ...	42,913
Other receipts...	29,921		
<b>Total ...</b>	<b>£1,278,106</b>	<b>Total ...</b>	<b>£1,157,976</b>

In the expenditure shown in the table, interest on the outlay on post office buildings and telegraph lines, and maintenance of buildings, are not taken into account. If allowances be made for these, a deficiency in the finances of the Department would be disclosed.

Until 1897 the Postal Department was conducted at a considerable annual loss to the State. This was due in a measure to the wide area over which the population of the country was scattered, with consequent large expenditure for the carriage of mails, also to the fact that the newspapers, which form a large proportion of the mail matter, were then carried free. But obviously, whilst the State is in the formative stage of its history, it is not only necessary, but advantageous, to conduct the developmental services, such as the postal, at bare cost.

The extent of postal lines, the distance travelled, and cost of conveyance of mails, is shown below :—

Year.	Extent of Postal Lines.	Distance actually travelled.	Cost of conveyance of Mails, Foreign and Inland.
	miles.	miles.	£
1855	*	1,023,255	45,412
1860	8,231	1,461,518	44,303
1865	11,992	2,521,212	49,840
1870	14,242	3,062,458	48,649
1875	17,671	3,787,757	138,912
1880	22,427	5,246,373	174,238
1885	26,683	6,621,996	226,105
1890	29,594	7,463,000	231,467
1895	33,693	9,338,000	210,354
1900	36,294	11,925,600	213,924
1905	36,480	11,989,968	261,424
1906	40,178	12,112,219	258,306
1907	40,181	12,389,729	252,682
1908	40,168	12,073,724	273,217

\* Not recorded.

The following return will give an idea of the magnitude of the work done by the Post Office of New South Wales :—

Year.	Letters.	Post-cards.	Newspapers.	Packets and Book Parcels.	Parcels.
	No.	No.	No.	No.	No.
1855	2,114,179	.....	2,100,939	*.....	.....
1860	4,230,761	.....	3,668,783	83,736	.....
1865	6,328,353	.....	4,689,858	249,904	.....
1870	7,083,500	.....	3,814,700	157,700	.....
1875	13,717,900	128,786	6,262,600	357,000	.....
1880	21,732,500	153,560	13,791,000	711,600	.....
1885	39,351,200	341,000	25,567,400	3,446,800	.....
1890	63,017,700	677,400	40,597,200	8,939,600	21,300
1895	68,416,308	957,400	44,902,900	11,259,200	422,800
1900	78,129,284	1,473,410	51,500,920	13,846,700	711,700
1905	103,576,306	8,382,282	44,599,104	22,083,000	994,100
1906	115,062,748	12,621,096	47,144,094	24,038,946	1,162,185
1907	122,130,948	15,097,710	48,340,646	35,816,853	1,374,701
1908	134,684,520	14,969,312	50,461,252	36,918,822	1,411,489

\* Included with letters.

The progress exhibited by the table just given is astonishing. In 1855 the total number of letters and newspapers, inland and foreign, was slightly over 2 millions each, whereas in 1908 the number of letters and post-cards had grown to over 149 millions, and newspapers to over 50 millions, without reckoning nearly 37 million packets and book parcels which in the year earlier were included with the letters. The enormous increase in the number of post-cards carried during recent years is due mainly to the introduction of the pictorial post-card.

The charge on letters between the State and the United Kingdom, which had for a long period been at the rate of 6d. per half ounce *via* Italy, and 4d. by the long sea route, was reduced in 1891 to 2½d., and a further reduction was made in 1905 to 2d. for a letter sent to the United Kingdom, but the anomaly exists that, conversely, a letter sent from the United Kingdom to the State, may be carried for one penny. By an arrangement made at the

Postal Congress held in Vienna in 1891, New South Wales, as well as the other States of Australasia, entered the Universal Postal Union on the 1st October, 1891. The effect has been the extension of the reduced rate to all countries embraced in the Union.

In the year 1908, 4,076,773, letters and post-cards, 2,251,340 newspapers, and 1,021,210 packets and parcels, were posted in New South Wales for countries outside Australia.

By an Act passed in 1893, it is required that newspapers be registered at the General Post Office, and both newspapers and supplements must be printed in New South Wales, from type set up therein, to secure transmission as newspapers. This provision is continued under the Post and Telegraph Act, 1901, passed by the Commonwealth Legislature.

Newspapers are transmitted to any place within the Commonwealth, Papua, New Zealand, and Fiji, at the rate of  $\frac{1}{2}$ d. for every 10 oz or fraction thereof, and to all other places at the rate of 1d. for each newspaper not exceeding 4 oz. in weight, with  $\frac{1}{2}$ d. for every additional 2 oz. or fraction thereof.

The following table shows the number of registered letters during the last ten years in the State:—

Year.	Number.	Year.	Number.
1899	1,038,768	1904	901,235
1900	1,023,974	1905	964,294
1901	1,213,277	1906	925,726
1902	1,095,095	1907	839,407
1903	928,521	1908	892,742

Of the registered letters in 1908 there were 230,146 from and to places beyond the State, and 662,596 inland.

Regular steam communication with England was established in 1852. The steamers were withdrawn two years later on the outbreak of the Crimean war, but in 1856 they were again started, and the service was performed by the Peninsular and Oriental and the Royal Mail Companies.

As this service proved unsatisfactory, a line was started in 1866 to carry mails from Sydney, *via* Panama, but it was terminated two years later by the failure of the company. On the completion of the railway across America in 1869, a monthly service, *via* San Francisco, was inaugurated, under subsidy by the Governments of New South Wales and New Zealand. This line ceased running in 1907, and, after an interval of some months, another monthly service was started by a British firm.

A service was established between Sydney and Vancouver in 1893, under subsidy from the New South Wales Government.

Since the establishment of a mail route, *via* America, there has been a great improvement in the service *via* Suez. The Peninsular and Oriental Company continues to carry mails from the Australian States; also the Orient Pacific Company, which commenced in 1878. More recently French and German steamers have entered the service between Europe and Australia.

Contracts with the Peninsular and Oriental and the Orient Pacific Companies for a weekly service subsidised by the Imperial and Australian Governments, expired in 1905, and since that date mails from Australia are carried by the former Company at poundage rates. The Federal Government concluded another agreement with the Orient Company which has been extended to 1910. A contract with Sir James Laing and Sons (Ltd.), in 1905 for the conveyance of Australian mails lapsed, and a new agreement was made with the Orient Pacific Company which will commence in 1910 and last for ten years.

The progress made in regard to the means of postal communication with the United Kingdom and the continent of Europe and America is marvellous.

Instead of the unsatisfactory ocean mail service of 1857, which nominally brought monthly mails, with news 58 days old, there are now four great lines of ocean steamships, which bring mails *via* the Suez Canal at least once a week, the time occupied in the conveyance of the mails being on the average 33 days. In addition, there is a monthly service *via* Vancouver, by which mails are sent from Sydney to London in 38 days, and a line of steamers despatched every month carry mails *via* San Francisco. There was also a steam service with London *via* Torres Straits, and advantage was taken at one time to send mail matter by these vessels. The following table shows, as far as possible, the average time and quickest time occupied in the transmission of letters by various routes between London and Sydney during 1908:—

Service.	London to Sydney.		Sydney to London.	
	Average Time.	Quickest Time.	Average Time.	Quickest Time.
	days.	days.	days.	days.
Per Peninsular and Oriental S. N. Co., <i>via</i> Colombo and Brindisi ... ..	31 $\frac{3}{8}$	31	31 $\frac{7}{8}$	31
„ Orient-Pacific S. N. Co., <i>via</i> Suez and Naples... ..	33 $\frac{3}{4}$	33	33 $\frac{1}{8}$	33
„ Canadian-Australian, <i>via</i> Vancouver ... ..	37 $\frac{3}{8}$	37	35 $\frac{1}{8}$	34
„ Messageries Maritimes, <i>via</i> Marseilles ... ..	...	...	34 $\frac{1}{8}$	33
„ Nord-Deutscher Lloyd, <i>via</i> Genoa ... ..	...	...	34 $\frac{1}{8}$	32

There are regular mail services, subsidised by the New South Wales Government, to New Guinea, New Hebrides, and other Pacific islands.

#### TELEGRAPHS.

The electric telegraph was first used by the public of New South Wales on the 26th January, 1858, when the line from Sydney to Liverpool, 22 miles in length, was brought into operation. From this small beginning the system has increased until in 1908 there were 1,290 stations, and 16,338 miles of lines open, carrying 93,755 miles of wire in actual use. The following table gives a view of the business of the Telegraph Branch of the Post Office from 1865 to 1908:—

Year.	Telegraph Stations.	Telegrams transmitted, delivered, and in transit.	Actual Revenue received.	Lines.	Wires.	Cost of construction, including Telephone installation.
	No.	No.	£	miles.	miles.	£
1865	55	*138,785	29,769	.....	2,989	145,446
1870	86	*173,812	28,550	.....	5,247	195,545
1875	137	*719,745	48,657	.....	8,012	253,391
1880	289	1,319,537	84,110	.....	13,188	462,226
1885	404	2,625,992	155,073	.....	19,864	641,669
1890	628	4,101,449	193,707	11,231	23,598	743,698
1895	834	2,635,456	145,901	12,316	23,799	840,380
1900	961	3,219,907	174,895	14,065	41,494	1,132,626
1905	1,069	3,837,962	156,956	14,827	71,086	1,434,017
1906	1,122	4,452,506	191,665	15,417	74,754	1,469,429
1907	1,278	4,894,283	207,525	15,910	82,249	+922,119
1908	1,290	5,149,763	222,801	16,338	93,755	+939,764

\* Number despatched only.

† Exclusive of cost of telephone construction.

The number of telegrams received and despatched during the year, inland telegrams being counted once only, amounted to 4,784,338, or 3.01 per head of population.

## TELEGRAPH RATES.

The rates for the transmission of telegrams within New South Wales and to the other States of the Commonwealth were determined by the Post and Telegraph Rates Act, 1902, and came into force on the 1st November, 1902. For ordinary telegrams not exceeding sixteen words, including the address and signature, the charges are 6d. in town and suburban districts within prescribed limits or within 15 miles of the sending station; 9d. to other places within the State; and 1s. for messages sent to any other State of the Commonwealth; in each case an extra charge of 1d. is made for each additional word. Double rates are imposed for the transmission of telegrams on Sunday, Christmas Day, and Good Friday, and between the hours of 8 p.m. and 9 a.m., and for urgent telegrams.

## CABLE SERVICES.

Cable communication with Europe was opened in 1872 by means of a submarine cable from Singapore to Port Darwin, whence messages were transmitted by the overland telegraph to Port Augusta in South Australia. In 1879 the company controlling the cable duplicated the line, and was paid an annual subsidy by New South Wales, Victoria, South Australia, Western Australia, and Tasmania. In 1891 the Government of New South Wales, in conjunction with other Australian Governments, undertook to pay the company an annual amount equal to half the loss it might sustain by a reduction in the schedule of cable charges. In the following year the contracting Governments agreed to contribute towards the amount required to bring the South Australian revenue, on international telegrams, up to £37,552.

A cable, laid in 1876, connecting New Zealand with New South Wales was subsidised for ten years after its opening.

In 1893 a cable from New Caledonia to Queensland was opened by a French company, to whom New South Wales and Queensland agreed to pay an annual subsidy for thirty years.

In 1899 it was decided by the Governments of the United Kingdom, Canada, and Australasia to construct a Pacific cable touching only British territory on its way from Australia to America. This line, which was completed in 1902, connects Southport, in Queensland, with Vancouver *via* Norfolk Island, Fiji, and Fanning Island. There is also a branch from Norfolk Island to New Zealand.

The direct Cape cable, from Durban to Fremantle, which provides an alternative all-British route to that of the Pacific, was completed in 1901.

The contributions which New South Wales was called upon to pay to cable companies during the year 1908, were—Queensland-New Caledonian Guarantee, £2,000; Pacific Cable, £6,112; total, £8,112. The other guarantees and subsidies have now lapsed.

The following table shows the amount of outward business transacted by New South Wales, with Europe and the East, during the last ten years:—

Year.	Cable Messages sent from New South Wales.	Amount received.	Year.	Cable Messages sent from New South Wales.	Amount received.
	No.	£		No.	£
1899	31,720	83,365	1904	76,713	78,406
1900	35,740	97,888	1905	82,519	89,254
1901	43,005	90,716	1906	96,478	101,302
1902	79,805	84,368	1907	106,830	106,502
1903	78,795	78,197	1908	108,634	104,705

The number of messages sent in 1908 was more than three times the number in 1899, and the revenue shows an increase of 25 per cent.

Tenders were invited during 1907 for the installation of wireless telegraphy at various stations on the Australian coast.

#### TELEPHONES.

Telephone exchanges have been established in Sydney and other important centres of population. A long-distance service between Sydney and Newcastle was inaugurated in 1898, and since that year several towns have been connected with the metropolis. A telephone line from Sydney to Melbourne was opened in 1907.

Since 1897 a reduction in the charges has resulted in a considerable increase in the number of subscribers. The following table shows the growth of the service during the last ten years :—

Year.	Exchanges	Connections.			Cost of construction (including expenditure on tunnels).	Rental received.
		Sydney and Suburbs.	Country.	Total.		
	No.	No.	No.	No.	£	£
1899	38	6,694	862	7,556	55,555	60,429
1900	45	7,502	1,253	8,755	69,687	70,877
1901	48	8,398	1,466	9,864	44,051	81,852
1902	51	9,401	1,678	11,079	21,684	96,200
1903	57	10,193	1,898	12,091	19,687	105,002
1904	61	11,046	2,092	13,138	14,001	116,328
1905	64	11,909	2,315	14,224	18,988	127,514
1906	76	12,670	2,783	15,453	26,055	144,933
1907	96	14,634	4,355	18,989	86,139	154,151
1908	113	15,392	6,022	21,414	102,759	161,016

There are also telephone stations in the country used in conjunction with the Telegraph service.

## SHIPPING.

FROM the year 1860 up to the present time, the trade and shipping returns of the State show a remarkable expansion. The rate of increase in shipping has been much faster than that of the population, despite the checks occasioned by unfavourable seasons, and the low prices ruling for staple products in the European markets.

The following table shows the number and tonnage of vessels arriving in and departing from New South Wales, at intervals of five years since 1860, together with the average tonnage per vessel at each period:—

Year.	Entered.		Cleared.		Average Tonnage per Vessel.
	Vessels.	Tonnage.	Vessels.	Tonnage.	
1860	1,424	427,835	1,438	431,484	300
1865	1,912	635,888	2,120	690,294	329
1870	1,858	689,820	2,066	771,942	373
1875	2,376	1,109,086	2,294	1,059,101	464
1880	2,108	1,242,458	2,043	1,190,321	586
1885	2,601	2,088,307	2,583	2,044,770	797
1890	2,326	2,340,470	2,317	2,294,911	998
1895	2,390	2,851,546	2,405	2,854,705	1,190
1900	2,784	4,014,755	2,714	3,855,748	1,432
1905	2,725	4,697,511	2,694	4,684,108	1,731
1908	3,196	6,298,784	3,219	6,303,125	1,964

In the shipping records of New South Wales the total voyages of vessels are included, but no account is taken of ships of war, cable-laying vessels, and yachts, nor of vessels trading between ports in New South Wales. The tonnage quoted is net.

In 1860 the number of vessels required to conduct the trade of New South Wales was 1,424, while in 1908 the total had increased to 3,196. A more definite idea of the growth of trade is obtained, however, when it is stated that in 1860 the tonnage of the vessels that entered the ports of the State was 427,835, while in 1908 the tonnage was 6,298,784, or nearly fifteen times as large. During this period the size of vessels has been constantly increasing. In the first year the average capacity of each vessel was 300 tons. In 1908 the figure was 1,964 tons, and vessels over 10,000 tons now enter the port of Sydney frequently.

The tonnage fluctuated from year to year, but with a constant tendency to increase, until in 1908 it reached the highest figure on record. Compared



with other Australian States the shipping tonnage of New South Wales is the greatest, as it comprises considerably more than one-third of the total. Victoria comes next with nearly one-fourth.

The striking feature of the above table is the enormous expansion which has marked the years subsequent to the federation of the Australian States. In the interval—1900-08—the tonnage of the inward shipping increased 57 per cent., and of the outward 63 per cent.

#### NATIONALITY OF VESSELS.

The trade of the State is, to a very great extent, under the British flag, the deep-sea trade with the mother country and British possessions being in the hands of the shipowners of the United Kingdom, and the coasting trade chiefly in local hands. Since 1881 there has been a notable increase in foreign shipping, and at the present day the greater portion of the direct trade transacted with foreign ports is carried in vessels which are not British. This has been due to the appearance in the Australian trade of the steamers of the Messageries Maritimes in 1883, of those of the two German lines some time later, and more recently the vessels of the American, Japanese, and Dutch companies. From the table-given below, showing the expansion in British and foreign shipping during the last forty-eight years, it will be seen that the British tonnage entered and cleared in 1860 was 689,251, or 80·2 per cent. of the total of 859,319 tons; while in 1880 the proportion was as high as 92·9, British vessels representing 2,259,924 tons out of a total of 2,432,779. In 1908, however, the British shipping had fallen to 84 per cent., the foreign tonnage having increased from 172,855 to 2,018,474 during the twenty-eight years which have elapsed since 1880:—

Year.	British.		Foreign.		Total.
	tons.	per cent.	tons.	per cent.	
1860	689,251	80·21	170,068	19·79	859,319
1865	1,248,249	94·12	77,933	5·88	1,326,182
1870	1,333,410	91·22	128,352	8·78	1,461,762
1875	2,001,641	92·32	166,546	7·68	2,168,187
1880	2,259,924	92·89	172,855	7·11	2,432,779
1885	3,615,582	87·48	517,495	12·52	4,133,077
1890	4,030,472	86·95	604,909	13·05	4,635,381
1895	5,061,387	88·70	644,864	11·30	5,706,251
1900	6,702,106	85·15	1,168,397	14·85	7,870,503
1905	8,033,943	85·63	1,347,676	14·37	9,381,619
1908	10,583,435	83·98	2,018,474	16·02	12,601,909

Of the tonnage set down as British, the larger portion is owned or registered in Australia and New Zealand. Prior to 1891 the returns did not discriminate between Australasian shipping and that belonging to other British colonies, and it is only after 1900 that Australian vessels can be separated from those of New Zealand; but in 1870, out of 1,333,410 tons of shipping entered and cleared under the British flag, 964,718 tons, or 72·3 per cent., belonged to

British possessions, the great bulk being Australasian; in 1880, out of 2,259,924 tons of British shipping entered and cleared, 1,499,236 tons, or 66·3 per cent., belonged to British colonies; in 1900 the shipping from and to British possessions amounted to 6,702,106 tons (of which 3,590,284 tons, or 53·6 per cent., were Australasian) out of a total of 7,870,503 tons; while in 1908 out of a total of 12,601,909 tons, 4,567,615, or 36·2 per cent., were Australian.

The tonnage of the foreign vessels trading with New South Wales exhibits a great advance during the last fifteen years, from 11 per cent. of the total up to 16 per cent. Taking the year 1908, for which the total tonnage of the principal nationalities is given below, Germany stands first with 7 per cent. of the total, then Scandinavia with 3·1 per cent., and France with 2·2 per cent. The only other nations whose carrying trade with the State is important are the United States, Japan, and Italy, with approximately 1 per cent. each.

The statement below shows the total shipping of the principal nationalities that entered and cleared the ports of New South Wales in 1890, 1900, and 1908, as well as the proportions per cent. In 1890 and 1900 New Zealand vessels are included with the Australian, and cannot be separated:—

Nationality.	Total Shipping Entered and Cleared New South Wales.						Percentage of each Nationality.		
	1890.		1900.		1908.		1890.	1900.	1903.
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.			
Australian ..	3,223	2,453,300	3,305	3,590,284	3,088	4,567,615	52·93	45·62	36·25
New Zealand ..					641	916,801			
British .. ..	965	1,577,172	1,439	3,111,822	1,711	5,099,019	34·02	39·54	40·46
French .. ..	76	137,466	159	249,302	133	278,406	2·97	3·17	2·21
German .. ..	152	229,413	144	351,064	332	885,387	4·95	4·46	7·02
Scandinavian ..	29	22,027	111	103,749	245	389,444	·47	1·33	3·09
Italian .. ..	4	4,780	54	71,903	51	85,598	·10	·91	·68
Japanese .. ..	.....	.....	48	120,208	54	157,756	.....	1·53	1·25
United States ..	161	173,770	165	193,849	90	109,474	3·75	2·46	·87
Other Nationalities ..	33	37,453	43	73,322	70	112,409	·81	·93	·89
<b>Total ..</b>	<b>4,643</b>	<b>4,635,381</b>	<b>5,498</b>	<b>7,870,503</b>	<b>6,415</b>	<b>12,601,909</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>

TRADE WITH VARIOUS COUNTRIES.

Of the tonnage engaged during 1908 in the outward trade of New South Wales, 15·8 per cent. went to the United Kingdom. The tonnage of vessels to Victoria and the other Australasian provinces, including New Zealand, amounted to 51·7 per cent. of the whole. As regards the remainder, 8·8 per cent. went to other British possessions, and 23·7 per cent. to foreign countries. The following table shows the tonnage entered from and cleared for the United Kingdom, the British colonies, and some of the principal foreign countries, but it must be borne in mind that the figures represent the nominal tonnage or cargo space of the vessels carrying the goods, and not the actual weight of the goods carried, which latter information it is impossible to obtain.

A distribution of the traffic among the leading divisions of the British Empire and the principal foreign countries with which the State of New South Wales has commercial relations will be found below:—

Country.	Entered from and cleared for various Countries.					
	1890.		1900.		1908.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
British Empire—						
Australian States ... ..	2,974	2,544,905	3,082	3,861,154	3,449	5,850,108
United Kingdom ... ..	318	651,133	341	954,232	468	1,772,563
New Zealand ... ..	460	332,793	540	598,710	681	1,108,653
India and Ceylon ... ..	33	61,820	57	138,993	73	219,042
Hong Kong ... ..	64	92,523	68	121,933	72	149,043
Canada ... ..	4	5,103	41	76,477	47	129,434
Cape Colony ... ..	12	18,744	152	240,755	19	41,715
Natal ... ..	...	.....	40	60,701	14	35,752
Fiji ... ..	66	68,003	65	64,125	85	117,748
Straits Settlements ... ..	24	33,994	19	31,212	86	196,823
Other British Possessions ... ..	13	9,079	60	58,101	49	69,344
Total, British ... ..	3,968	3,818,097	4,465	6,206,393	5,043	9,690,225
Foreign Countries—						
France ... ..	25	57,096	44	100,793	32	90,930
Germany ... ..	69	133,368	70	234,817	125	422,582
Netherlands ... ..	4	4,622	3	5,062	...	.....
Belgium ... ..	10	14,426	13	28,129	10	25,941
United States ... ..	154	222,483	157	303,187	184	418,203
China ... ..	8	10,365	19	41,161	8	19,923
Japan ... ..	4	5,150	34	83,179	102	261,462
New Caledonia ... ..	100	97,823	118	143,867	67	119,609
Java ... ..	20	26,837	45	89,129	28	69,539
Philippine Islands ... ..	14	19,323	31	44,825	133	334,414
Hawaiian Islands ... ..	...	.....	94	107,248	29	57,727
Peru ... ..	15	17,676	28	37,411	76	104,859
Chile ... ..	100	115,222	211	295,829	343	666,145
Other Foreign Countries ... ..	152	92,893	166	149,473	235	320,350
Total, Foreign ... ..	675	817,284	1,033	1,664,110	1,372	2,911,684
All Tonnage ... ..	4,643	4,635,381	5,498	7,870,503	6,415	12,601,909

It will be seen from the above figures that out of a total tonnage amounting to 12,601,909 in 1908, vessels from other Australian States provided 5,850,108, or 46·4 per cent. of the whole. The United Kingdom furnished the next largest tonnage with 1,772,563 tons, or 14 per cent., followed by New Zealand with 1,108,653 tons, equal to 8·8 per cent.; Chile with 666,145 tons, or 5·2 per cent.; Germany with 422,582 tons, or 3·4 per cent. of the total; and United States with 418,203 tons, or 3·3 per cent.

During the eighteen years—1890-1908—the tonnage of the United Kingdom increased by 1,121,430 tons, or more than 172 per cent., while British tonnage as a whole increased by 5,872,128, or nearly 154 per cent.; the Chilean tonnage by 550,923 tons, or 478 per cent.; United States tonnage by 195,720 tons, or nearly 88 per cent.; and the German tonnage by 289,214 tons, or nearly 217 per cent. There was a large decrease in the tonnage of the United States in 1908 due to the fact that a line of mail steamers which traded direct between San Francisco and Sydney discontinued running in 1907.

The tonnage for Chile shows a marvellous increase, but the vessels arriving from this country, and from most South American ports, are almost wholly in ballast.

The great increase in German tonnage is due principally to the fact that Germans are amongst our largest wool buyers. Wool purchased by them at the Sydney wool sales is now sent by German steamers direct to Germany, instead of being transhipped at London as formerly.

In connection with the subject of increased shipping tonnage, attention might be drawn to the fact that some of the steamship companies trading to New South Wales are subsidised by various governments for carrying mails between Australia and their respective countries. The Norddeutscher Lloyd, for example, receives an annual subsidy of £82,884, or 4s. 9d. per nautical mile for the mail service between Australia and Germany. The Japanese Government subsidises its steamers trading to Australia to the extent of £47,300 per annum, and the Messageries Maritimes receives a subsidy of 8s. 4d. per mile.

Of the British lines the Peninsular and Oriental Steam Navigation Company is in receipt of one subsidy from the Imperial Government for the conveyance of mails to East India, China, and Australia. The Orient Steam Navigation Company, Limited, at present receives a mail subsidy of £120,000 annually from the Government of the Commonwealth of Australia, and an additional £4,880 per annum if the mail steamers continue to call at Brisbane. For ten years from the 1st February, 1910, the Commonwealth has agreed to pay this company a subsidy of £170,000 per annum, provided that each mailship is at least 11,000 tons gross registered tonnage, and capable of steaming at least 17 knots. The trips are to be once a fortnight. Space for certain cargo is to be provided, and the steamers fitted with wireless telegraphy installation when a station has been established on the Australian coast. The Commonwealth flag is to be flown, and only white labour employed on these vessels.

The Canadian-Australian Steamship Company is also subsidised for carrying the mails to and from Australia.

#### STEAM AND SAILING VESSELS.

The records prior to the year 1876 do not distinguish the steamers from the sailing vessels; but the modern tendency to supersede sailing vessels by steam has been abundantly apparent in the thirty-two years which have since elapsed. In 1876 the steam tonnage was 912,554, as compared with 1,215,171 tons of sailing vessels, being 42·9 per cent. and 57·1 per cent. respectively. The relative positions have long since been transposed, for the tonnage of sailing ships in 1908 was lower than the figures of 1876, being 1,042,102 tons, or 8·3 per cent. of the total shipping, as compared with 11,559,807 tons of steam, or 91·7 per cent. of the whole. The steam tonnage in 1908 was, therefore, nearly thirteen times as great as in 1876. The progress of the tonnage of each class will be seen from the following table:—

Year.	Steam.		Sailing.		Proportion of Steam to Total Tonnage.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.	per cent.	per cent.
1876	473,821	438,733	600,604	614,567	44·10	41·65
1880	803,935	746,437	438,523	443,884	64·71	62·71
1885	1,413,551	1,378,292	674,756	666,478	67·69	67·41
1890	1,759,475	1,768,848	580,995	526,063	75·18	77·08
1895	2,132,753	2,161,176	718,793	693,529	74·79	75·71
1900	3,206,657	3,140,449	808,098	715,299	79·87	81·45
1905	4,051,884	4,042,703	645,627	641,405	86·26	86·31
1908	5,822,060	5,737,747	476,724	565,378	92·43	91·03

The advantage offered by the New South Wales trade to shipowners is illustrated by the rather peculiar feature of the large amount of tonnage coming to the State in ballast, and the small amount leaving without cargo. Many vessels arriving in ballast come from the ports of the neighbouring States, where they have delivered a general cargo, and, having been unable to obtain return freight, have cleared for Newcastle to load coal. The largest amount of tonnage entered in ballast in any one year since 1876 was in 1907, when it reached 1,980,322 tons. In 1908 the tonnage entered in ballast amounted to 1,659,784 tons. The tonnage entered and cleared in ballast for the years shown was:—

Year.	Steam (Ballast).		Sailing (Ballast).		Proportion of Ballast to Total Tonnage.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.	per cent.	per cent.
1876	16,709	4,022	246,244	13,834	24·47	1·70
1880	73,006	3,015	144,757	13,204	17·53	1·36
1885	146,501	11,181	198,865	42,200	16·54	2·61
1890	309,780	3,767	228,699	18,620	23·01	·98
1895	375,589	26,802	466,401	6,630	29·53	1·17
1900	791,803	133,159	505,030	1,644	32·30	3·50
1905	882,539	127,268	466,774	16,956	23·72	3·08
1908	1,320,012	211,895	339,772	16,973	26·35	3·63

Although the proportion of tonnage entered in ballast fluctuated between 16·5 per cent. in 1885 and 32·3 per cent. in 1900, the tendency is for the figure to stand at about one-quarter of the whole. The tonnage cleared in ballast is very small; up to 1900 it was under 2 per cent., and is now 3½ per cent. The reason why so small a proportion of Australian shipping clears in ballast is principally to be found in the great and varied resources of the country; for when the staple produce—wool—is not available, cargoes of wheat, coal, silver, copper, live-stock, frozen meat, butter, fruit, tallow, leather, skins and hides, and other commodities may generally be obtained, and owing to the great distance of the ports of the Commonwealth from the commercial centres of the old world, vessels are not usually sent out without at least some prospect of securing a return cargo.

#### PORTS.

No other seaport of the State can be compared with either Sydney or Newcastle, though Wollongong now maintains a trade of some consequence, especially in coal; and of late years the importance of Eden (Twofold Bay), has increased.

The progress of the shipping trade of Sydney has been very uniform, the increase from the year 1860 being at an average rate of about 5·7 per cent. per annum, and from 1890 at the rate of 5·6 per cent. per annum. The vessels registered as entered at Sydney considerably exceed in tonnage those

cleared. To account for this it is only necessary to state that vessels leaving Sydney for Newcastle for the purpose of shipping coal are reckoned as departures from Newcastle, and not from Sydney. For this reason the clearances of Newcastle uniformly exceed the arrivals, as will be noticed in the following statement, which shows the shipping entered and cleared at both Sydney and Newcastle for quinquennial periods from 1860 to 1905, and for the year 1908:—

Year.	Sydney.		Newcastle.	
	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.
1860	292,213	275,630	111,274	134,480
1865	423,570	421,049	189,620	248,769
1870	385,616	364,758	283,091	383,242
1875	590,700	468,423	510,902	573,626
1880	827,738	641,996	400,598	516,480
1885	1,608,169	1,283,888	452,946	722,865
1890	1,644,589	1,356,632	625,398	842,180
1895	2,027,951	1,669,654	727,834	1,048,400
1900	2,716,651	2,109,739	1,160,758	1,523,976
1905	3,401,013	2,922,461	1,182,267	1,586,134
1908	4,409,021	3,642,793	1,746,070	2,408,946

The total tonnage of Sydney increased by 902,000 tons between 1860 and 1880, and by 3,357,000 tons between 1880 and 1900, while during the last three years the increase has amounted to 1,728,340 tons.

The returns for Newcastle also show a great advance, the tonnage entering having considerably more than doubled since 1895. As might, perhaps, be anticipated from the nature of the trade of the two ports, a large number of sailing vessels visit Newcastle, the proportion of tonnage being over 18 per cent. In Sydney the proportion is slightly over 3 per cent.

The other ports of the State are of minor importance compared with Sydney and Newcastle, the total tonnage of all of them amounting only to 143,693 entered and 251,386 cleared, or about 3.1 per cent. of the whole. In 1908 the tonnage of vessels which entered Wollongong direct from places outside the State totalled 58,910 tons; while at Eden the shipping entered amounted to 54,908 tons. The shipping cleared at Wollongong had an aggregate tonnage of 154,111, and at Eden (Twofold Bay) 51,235. The bulk of the trade of Twofold Bay is with Tasmania.

During recent years a fairly large trade has sprung up between Brisbane and the northern rivers—Clarence, Richmond, and Tweed. In 1908 the total tonnage of vessels entered at these rivers from places beyond the State was 5,913, and of vessels cleared 9,124. The remaining ports at which shipping was recorded, and the tonnage of vessels cleared thereat, were—Bellambi, 35,374; Port Stephens, 1,278; Port Macquarie and Bellinger River, 132 each.

That Sydney is one of the chief ports of the world is evident from a comparison with the returns of other ports, as shown by the following table. The figures quoted relate to the latest years available, all being subsequent to 1906:—

Port.	Tonnage Entered.	Port.	Tonnage Entered.
<i>Sydney</i> ... ..	4,409,021	Bombay ... ..	1,763,286
Melbourne ... ..	4,382,426	Singapore ... ..	6,795,647
Brisbane ... ..	1,316,652	Hong Kong ... ..	10,190,418
Port Adelaide ... ..	2,404,860	Capetown ... ..	1,693,710
Fremantle ... ..	1,072,501	Montreal ... ..	1,363,972
Hobart ... ..	736,732	Halifax ... ..	1,076,424
Auckland ... ..	597,707	Victoria (B.C.) ... ..	1,377,808
London ... ..	11,160,367	Hamburg ... ..	9,989,694
Liverpool ... ..	8,167,419	Marseilles ... ..	6,398,998
Cardiff ... ..	5,734,755	Havre ... ..	3,152,370
Tyne Ports ... ..	5,205,621	Antwerp ... ..	10,816,099
Hull ... ..	3,698,317	Rotterdam ... ..	8,624,066
Southampton ... ..	3,777,301	Copenhagen ... ..	3,006,301
Manchester ... ..	1,286,141	New York ... ..	10,476,993
Swansea ... ..	992,489	Boston ... ..	2,958,155
Glasgow ... ..	1,918,923	Buenos Ayres ... ..	6,119,291
Leith ... ..	1,333,599	Shanghai ... ..	4,332,018
Calcutta ... ..	1,645,010	Monte Video ... ..	7,725,534

It will be seen from the above list that Sydney stands fourteenth in importance. The figures for Singapore, Hong Kong, and Shanghai are large on account of their extensive distributing trade, and because they are situated on the route to many trading centres.

#### SHIPPING REGISTERED.

At the end of the year 1908 there were 1,000 steamers and sailing vessels, representing 118,497 tons net, registered as belonging to the port of Sydney. Of these, 582 were steamers, collectively of 73,022 tons net. There were 55 steamers of 5,071 net tons, and 48 sailing vessels on the register at Newcastle, their net tonnage being 7,840. The total tonnage registered in the State was 131,408, of which 78,093 was steam tonnage. These figures are exclusive of lighters, of which there were 230, of a total tonnage of 10,235, registered at Sydney; and 52, of an aggregate tonnage of 5,390, at Newcastle.

The total new tonnage registered in New South Wales during the last ten years was:—

Year.	Steamers.		Sailing Vessels.		Total.	
	No.	Tons.	No.	Tons.	Vessels.	Tons.
1899	18	2,909	56	6,364	74	9,273
1900	23	10,445	31	4,289	54	14,734
1901	20	7,063	28	5,166	48	12,229
1902	38	6,020	25	1,995	63	8,015
1903	42	6,424	28	1,742	70	8,166
1904	23	6,082	20	716	43	6,798
1905	37	3,018	11	1,103	48	4,121
1906	40	11,249	14	3,243	54	14,492
1907	35	7,664	15	3,294	50	10,958
1908	42	4,660	14	4,798	56	9,458

During the year 1908 one vessel was sold to a foreign buyer, and in consequence was removed from the register of the State. Sales were also made to British subjects of 91 vessels, with a total tonnage of 9,709, which remained on the registers at Sydney and Newcastle.

The only ports at which vessels are registered are Sydney and Newcastle, and the following statement shows the number of steam and sailing vessels registered at each port on the 31st December, 1908, classified according to their tonnage:—

Tonnage.	Sydney.				Newcastle.			
	Steam.		Sailing.		Steam.		Sailing.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Under 50 ... ..	329	6,619	260	3,885	41	940	21	566
50 and under 100 ...	105	7,508	83	6,328	9	602	13	926
100 ,, 200 ...	67	9,409	24	3,436	2	217	2	244
200 ,, 300 ..	21	5,284	14	3,600	...	.....	2	510
300 ,, 400 ...	19	6,436	14	4,874	...	.....	4	1,393
400 ,, 500 ...	8	3,499	2	896	...	.....	3	1,312
500 ,, 600 ...	11	6,113	2	1,108	1	552	...	.....
600 ,, 1,000 ...	8	6,191	9	7,578	...	.....	2	1,436
1,000 ,, 1,400 ...	5	6,032	7	8,305	2	2,760	...	.....
1,400 ,, 1,800 ...	6	9,502	1	1,466	...	.....	1	1,453
1,800 and over... ..	3	6,429	2	3,999	...	.....	...	.....
Total ... ..	582	73,022	418	45,475	55	5,071	48	7,840



## CONSTRUCTION OF VESSELS.

The years 1883 and 1884 were marked by great activity in the construction both of sailing and steam vessels, 50 sailing and 52 steam vessels having been built in 1883, and 39 sailing vessels and 64 steamers were built in the subsequent year. Trade then became less active, and the industry showed a tendency to die out. In 1890 it had fallen lower than in any of the preceding years, and there has been little improvement since, the tonnage of sailing vessels built during 1908 being only 146, and of steamers 943.

Schooners and ketches are the principal classes of sailing vessels built in the State, the average tonnage of each class being considerably under 100 tons burden. The tendency to supplant sailing vessels by steamers, and the substitution of iron for wood for the frames and hulls of vessels, have given a check to the wooden ship-building industry, which at one time promised to grow to important dimensions.

Up to 1905 no reliable data were procurable as to the number and tonnage of vessels built abroad for the New South Wales local trade. In 1908, however, the Customs returns show that 17 vessels valued at £189,540 were imported from abroad. A further idea of the large number added to the New South Wales register from ports other than Australian may be gathered from the registration of vessels constructed abroad. During the last five years there have been 41 steam vessels of 27,062 total tonnage, and 27 sailing vessels of 11,450 total tonnage registered, which were not built in the State.

## THE NAVIGATION DEPARTMENT.

The Navigation Act, 1901, invests the Superintendent of the Department of Navigation with power to carry out the provisions of the Act relating to steam navigation. The Superintendent has the general superintendence of all matters within the jurisdiction of the State relating to the issue, suspension, and cancellation of certificates of competency and of service; the preservation of ports, harbours, rivers, &c.; the licensing, appointment, and removal of pilots; the regulation of light-houses, lights, &c.; the placing or removing of moorings; the granting and regulation of licenses to ballast lighters; the licensing and regulation of watermen, boatmen, and boats plying for hire; steam and other ferry boats; harbour and river steamers safety and prevention of accidents; unseaworthy ships; life-saving appliances, lights, fog-signals, and sailing rules; and the accommodation for seamen.

Courts of Marine Inquiry appointed under the Navigation Act conduct inquiries as to shipwrecks and other casualties affecting ships, or as to charges of incompetency or misconduct on the part of the masters, mates, or engineers of ships, either in the case of British ships on or near the coast of New South Wales, or on a ship registered in New South Wales, or in the course of a voyage to New South Wales. Appeals and references under the Act are also heard and determined. One or more District Court Judges constitute the Court, assisted by Assessors who have the power to advise, but not to adjudicate, on any matter before the Court.

The pilots of New South Wales are Government officers in the receipt of a fixed salary. During the year 1908 there were 24 pilot vessels with 32 pilots; 3,355 vessels were piloted in and out of port, and harbour removals of 641 vessels were made. The Department of Navigation also subsidises tugs for the purpose of towing vessels in and out of ports other than Sydney and Newcastle. In 1908 nine tugs, receiving subsidies amounting to £7,677, towed 832 vessels in, and 921 vessels out of these ports.

The certificates issued by the Navigation Department to marine officers in 1908 were as follows:—Master, 55; Mate, 63; Engineer, 132; Marine Surveyor, 3; and Pilotage Exemption, 65.

#### THE SYDNEY HARBOUR TRUST.

The Sydney Harbour Trust Act, which came into force on the 1st November, 1900, was passed in order to make better provision for the management of the port of Sydney, to establish a board of commissioners, and to confer on such body certain powers in relation to the port, including power to levy and collect certain dues and charges, and to purchase and resume lands; to vest certain property in the commissioners; and for various other purposes. The three commissioners were created a body corporate, each member of the board being entitled to hold office for seven years. They have control of the port and shipping, beacons, buoys, wharves, docks, &c., and the preservation and improvement of the port generally is vested in them. The returns of the Sydney Harbour Trust show that 6,469 vessels engaged in coastal, interstate and oversea trade entered the Port of Sydney during 1908, the total tonnage was 7,107,574 tons.

#### QUARANTINE.

Since the 1st July, 1909, the administration of all matters relating to quarantine has been under the control of the Federal Minister for Trade and Customs. The Quarantine Act, 1908, defines the vessels which shall be subject to quarantine, and provides for the exclusion, detention, observation, segregation, isolation, protection, and disinfection of vessels, persons, goods, animals, or plants. The stringent clauses of the Act should prevent the introduction or spread of diseases or pests in the Commonwealth. The particulars of vessels examined by the Government Health Officers at Sydney and Newcastle, during the last ten years, are shown in the following table:—

Year.	Vessels.		Persons.		
	Total.	De ained for special action.	Passengers.	Crews.	Total.
1899	561	184	4,317	22,082	26,399
1900	783	265	7,406	31,657	39,063
1901	883	304	13,648	43,141	56,789
1902	804	144	17,449	44,542	61,991
1903	762	153	8,602	34,723	43,325
1904	655	159	8,700	29,737	38,437
1905	756	146	8,060	31,603	39,663
1906	871	141	12,016	42,376	54,392
1907	969	160	9,656	39,298	48,954
1908	740	44	7,300	31,477	38,777

## IMPERIAL NAVAL DEPÔT.

Garden Island, situated in Port Jackson, is the Imperial Naval Depôt for the Australian Squadron. It was transferred to the Imperial authorities for this purpose, and buildings were erected thereon by the New South Wales Government under an agreement by which Sydney was made the headquarters of the Australian fleet, and the Imperial authorities relinquished all claim to certain property owned by them.

## DOCKS AND WHARVES.

Adequate accommodation is provided both by the Government and by private enterprise for fitting and repairing ships in the State. At Sydney there are four graving docks, five floating docks, and three patent slips. At Newcastle there are three patent slips; besides which there are other docking and building yards in different parts of the State for the convenience of coasters and small craft.

The Sutherland Graving Dock at Cockatoo Island, Sydney, the property of the Government, is one of the largest single docks in the world; it is 608 feet long and 84 feet broad, and is capable of receiving vessels drawing 32 feet of water. The Fitzroy, another large Government graving dock on Cockatoo Island, is capable of receiving vessels drawing 21 feet 6 inches of water. The gross tonnage of vessels docked at the two Government docks during the year 1908 amounted to 103,026 tons. The Government dock receipts for the year ended 30th June, 1909, amounted to £1,250. In addition the Morts' Dock and Engineering Company own two large graving docks, one at Balmain and the other at Woolwich, the latter being 675 feet long, and 75 feet on floor, and capable of receiving vessels with a draught of 28 feet 9 inches.

For natural facilities for shipping Sydney stands unrivalled. The water deepens abruptly from the shores, so that the largest vessels may be berthed alongside the wharves and quays. At low tide the depth of water ranges between 12 and 30 feet. Practically the whole of the wharfage at Port Jackson is now under the control of the Sydney Harbour Trust. Along the shores of Sydney Cove magnificent wharves have been constructed, which are capable of berthing vessels of 14,000 tons register. The total length of berths in Sydney Harbour is 37,829 feet.

At Pyrmont, Darling Harbour, Miller's Point, and Woolloomooloo Bay the wharves are fitted with steam cranes and other appliances for the speedy discharge of the largest ships constructed, and at Pyrmont the railway line is laid down and elevators have been erected to facilitate the loading of wheat. Powerful shipping appliances and roomy stores, as well as electric lighting, are to be found on all the important wharves, which are extended and improved in order to keep pace with the increase in the shipping of the port.

Newcastle is also a well-equipped port, where vessels of 8,000 tons can be safely berthed; and every modern steam and hydraulic appliance for loading coal is found on its wharves. The Government owns nearly all the wharfage.

At the harbour of Wollongong vessels drawing 11 feet 6 inches of water can be berthed, and a large cargo shed, coal shoots, cranes, and derrick are available for the use of shipping. Staiths, cranes, and other coal-shipping appliances have been erected at Bulli, and other places. Private as well as Government wharves are found at all the chief centres of population along the rivers of the State, and all ports with a trade of any importance have their jetties and shipping facilities, including six Government docks.

LIGHTHOUSES.

The coast of New South Wales, which is about 700 miles in length, is well provided with lighthouses, the number at the end of 1908 being 26, as shown below:—

Name.	South Latitude.	Fixed, Flashing, or Revolving.	Colour of Light.	Distance visible (See note)
<i>From South to North.</i>				
Green Cape ... ..	37 16	Revolving—Flash 50 sec.	White ... ..	19
Twofold Bay (Eden) (Look-out Point).	37 4	Fixed ... ..	Red ... ..	7
Montagu Island—Summit ...	36 15	Fixed and Flashing—Fixed 33 sec., eclipse 16 sec., flash 5 sec., eclipse 16 sec.	White ... ..	22
Ulladulla (Warden Head) ...	35 22	Fixed ... ..	„ ... ..	12
Jervis Bay (Point Perpendicular).	35 5	Group Flashing—Flash $\frac{3}{4}$ sec., eclipse 2 sec., flash $1\frac{1}{4}$ sec., eclipse 2 sec., flash $\frac{3}{4}$ sec., eclipse $13\frac{1}{4}$ sec.	„ ... ..	24
Crookhaven River ... ..	34 54	Fixed ... ..	Red ... ..	7
Kiama ... ..	34 40	„ ... ..	Green (gas) ... ..	9
Wollongong ... ..	34 26	„ ... ..	White (gas) ... ..	10
Cook River (Botany Bay) ...	33 57	„ ... ..	White ... ..	„
Port Jackson, Sydney—Macquarie (Outer South Head).	33 51	Revolving—Flash every min.	White (electric) ...	26
Hornby (Inner South Head).	33 50	Fixed ... ..	White (gas) ... ..	15
Broken Bay (Barrenjoey) ...	33 35	„ ... ..	Red ... ..	15
Norah Head ... ..	33 17	Flashing—Flash $\frac{1}{2}$ sec. duration, eclipse $4\frac{1}{2}$ sec.	White ... ..	18
Port Hunter, Newcastle—Nobby's Head (Summit).	32 55	Fixed ... ..	„ ... ..	17
Port Stephens—Stephens Point.	32 45	Revolving—Red & white light alternately, short eclipse between the two colours.	Red and White alternately.	W. 17 R. 12
Nelson Head (Summit) ...	„	Fixed ... ..	White and Red*	8
Sugarloaf Point (Seal Rocks)	32 26	Revolving—Flash every $\frac{1}{2}$ min.	White (Incandescent petroleum)	23
Crowdy Head (Summit) ...	31 51	Fixed ... ..	White and Red†	12
Tacking Point ... ..	31 29	„ ... ..	White ... ..	12
Smoky Cape ... ..	30 56	Group Flashing—Flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 20 sec.; triple flash every 30 sec.	„ ... ..	28
Lagger's Point, Trial Bay ...	30 53	Fixed ... ..	„ ... ..	5
South Solitary Island (Summit).	30 12	Revolving—Flash every $\frac{1}{2}$ min.	White (Incandescent petroleum)	20
Clarence River ... ..	29 25	Fixed ... ..	White ... ..	12
Richmond River (2) ... ..	28 51	„ ... ..	„ ... ..	12
Cape Byron ... ..	28 37	Flashing—Flash $\frac{1}{2}$ sec. duration, eclipse $4\frac{1}{2}$ sec. duration.	„ ... ..	10
Tweed River (Fingal Head)	28 11	Fixed ... ..	White ... ..	26
				12

\* The light shows white to seaward, and over Entrance Shoal, red within the shoal, and up the Channel as far as Nelson Head, white up the Harbour.

† Showing red over Mermaid Reef, and from reef to land.

Distance visible.—The distance is calculated visible to an observer whose eye is elevated 15 feet from the sea level.

There are also numerous lighted beacons and leading lights in the ports of Sydney, Newcastle, Ulladulla, Clarence River, and Wollongong, for the safety of harbour navigation. The Smoky Cape group-flashing light (visible 28 miles at sea), the Macquarie revolving electric light, on the South Head of Port Jackson, and the Cape Byron group-flashing light, each visible 26 miles, are amongst the most powerful lights in the world. In addition, the light on Point Perpendicular is visible 24 miles; at Seal Rocks, visible 23 miles; and at Montagu Island, visible 22 miles.

#### SHIPWRECKS.

The State seaboard is particularly free of danger to vessels, and where reasonable precautions were taken wrecks have been very rare. There are two lifeboat stations on the coast, one at the Sydney Heads, and the other at Newcastle; and the whale-boats at the various pilot stations have been suitably fitted for service, if required. The steam tugs subsidised for the towing of ships in and out of port, are also available for the purpose of rendering assistance to vessels in distress; and life-saving appliances are kept at certain places along the coast.

The wrecks reported in 1908 numbered 14, and of the persons comprising the crew and passengers, ten lives were lost. Twelve of the wrecked vessels were British merchant vessels and two foreign. Of the British shipping nine were steam and three sailing; one foreign was steam and one sailing. The total tonnage of British vessels was 5,898, and the value, including cargoes, £139,082. The tonnage of the foreign vessels was 3,605, and the value unknown.

During the last five years there have been 51 British and foreign vessels wrecked on the shores of New South Wales, or otherwise within the jurisdiction of the State. Of these 29 were steam and 22 sailing vessels, the total tonnage represented being 29,163. The number of lives lost was 64, the highest number in any year being 36 in 1904.

#### WAGES OF SEAMEN.

The following table shows the average wages, per calendar month, in 1908, paid to white crews of British ocean-going steamers trading with New South Wales, and also the rates for white crews of steamers engaged in the Interstate trade. The rates have been obtained from the ship's articles:—

Capacity.	Average monthly wages. White crews.	
	Ocean-going steamers.	Interstate steamers.
Navigation—	£	£
Officers, chief ... ..	10½ to 17	12 to 17
„ second ... ..	7 to 14	12 to 14
„ third ... ..	6¾ to 11	10 to 11
„ fourth ... ..	4½ to 8	8
Seamen ... ..	3½ to 7	7
Engineer's Department—		
Engineers, chief ... ..	15 to 27½	16 to 28½
„ second ... ..	11 to 19	14 to 20
„ third ... ..	8 to 15	14 to 16
„ fourth ... ..	6½ to 12	12 to 13
Firemen ... ..	4 to 9	9
Trimmers ... ..	3½ to 7	7
Cooking and Attendance—		
Cooks ... ..	5½ to 12	8 to 13½
Stewards, chief ... ..	6 to 14	8 to 14
„ assistant ... ..	2 to 7½	2 to 7
Stewardesses ... ..	3 to 5	2 to 5

The figures quoted in this table are average rates, but the wages paid on the ocean-going passenger steamers are in nearly every case higher than on the cargo steamers which also carry passengers. The top rates shown are the highest paid on the passenger steamers, while the bottom rates are a fair average on the cargo steamers.

The crews of some of the British steamers trading to the State are composed partly of coloured seamen, chiefly Lascars and Chinese. In the following table will be found the average rates of wages paid to the various employees in this class:—

Capacity.	Average monthly wages.		Capacity.	Average monthly wages.	
	Lascars.	Chinese.		Lascars.	Chinese.
Navigation—	shillings.	shillings.	Cooking and Providoring:	shillings.	shillings.
Boatswain ... ..	49	47-56	Cook ... ..	40	28-65
Boatswain's mate ... ..	32-40	...	Sailor's cook ... ..	27-33	23-28
Carpenter ... ..	58	47-56	Firemen's cook ... ..	27-33	23
Painter ... ..	...	43	Baker ... ..	17-40	47
Lampman ... ..	26	28	Storekeeper ... ..	30	39-47
Winchman ... ..	30	...	Pantryman ... ..	25	19-30
Quartermaster ... ..	37	45	Butcher ... ..	47	23
A. B. ... ..	...	28	Water turncock ... ..	30	...
Ordinary seaman ... ..	...	24	Iceman ... ..	19	...
Lascar (not otherwise described).	33	...	Knifeman ... ..	17	...
Engineer's Department—			Scullion ... ..	17	15
Electrician ... ..	...	51	Attendance—		
Fitter ... ..	...	51	Chief steward ... ..	...	56
Machinist ... ..	...	47	Second steward ... ..	...	32
Donkeyman ... ..	...	30-39	Waiter ... ..	29	23-41
No. 1 fireman ... ..	36	45-49	Cabin boy ... ..	10	23
Fireman ... ..	20-24	26-37	Officer's boy ... ..	...	15-24
No. 1 trimmer ... ..	...	45	Messroom boy... ..	...	23-28
Trimmer ... ..	17	26-32	Bath boy ... ..	...	19
Greaser... ..	33	37	Sweeper ... ..	16	19-23

## COMMERCE.

THE trade of New South Wales is the largest of all the States of the Australian Commonwealth, and, relatively to population, compares most favourably with that of any other country in the world. The growth of the trade of the State during the last forty-nine years will be seen from the table appended, the figures in which represent the values as furnished by the Customs Department.

As regards imports, the value quoted is the amount on which duty is payable or would be payable if the duty were *ad valorem*. The value of goods subject to duty is taken to be the fair market value in the principal markets of the country whence the same were exported, with an addition of 10 per cent. This addition of 10 per cent. is supposed to cover the cost of packing, insurance, freight, and all other charges. The value of goods exported is the value in the principal markets of the State in the ordinary commercial acceptance of the term. These values are verified by the customs officers with the prices ruling from day to day in the local markets:—

Period.	Imports (Average Annual Value).	Exports (Average Annual Value).	Total Trade.	
			Value.	Per Inhabitant.
1860-64	£ 8,778,305	£ 7,780,512	£ 16,558,817	£ s. d. 45 12 6
1865-69	8,936,766	9,473,835	18,410,601	42 3 9
1870-74	10,191,726	10,999,660	21,191,386	40 4 8
1875-79	14,399,377	13,316,609	27,715,986	43 15 4
1880-84	19,582,946	17,701,505	37,284,451	46 9 0
1885-89	21,662,848	19,040,971	40,703,819	40 13 6
1890-94	20,536,781	22,692,220	43,229,001	36 18 10
1895-99	21,669,230	24,957,958	46,627,188	36 2 0
1900-04	26,903,925	27,776,457	54,680,382	39 3 0
1905	29,424,008	36,782,006	66,206,014	44 15 6
1906	34,665,363	45,638,044	80,303,407	53 0 7
1907	39,456,195	43,774,978	83,231,173	56 14 11
1908	37,642,746	40,985,759	78,628,505	49 9 11

The trade has grown steadily in volume throughout the whole period. From 1904 it advanced by considerable annual increases, until in 1907 it reached the record of over £88,200,000. In 1908 the trade was worth £49 9s. 11d. per head, and, although this value is less than in the preceding two years, it exceeds the values in the sixties, when the population was small and prices were high, and in the eighties, which were years of heavy borrowing.

The value of the exports from year to year forms the surest index of the progress of a country like New South Wales, and the result of a rise or fall in the value of the staple commodities, or of a depression in production, may be readily traced in the corresponding rise or fall in the export values. The imports must be considered in connection with loans raised outside the State by the State and by local governing bodies, as these loans reach the State in the shape of goods which are shown in the import returns. Thus 1881 to 1891, and 1899 to 1902, were years of large borrowing. In the years 1900 and 1901 also the imports underwent abnormal expansion on account of the loading-up by merchants in anticipation of the Federal tariff. Bearing these facts in mind it will be seen that the volume of trade has increased by over 70 per cent. during the last ten years.

Of the total trade shown in the above table about 40 per cent. is carried on with the other Australian States, the remaining 60 per cent. representing the direct oversea trade with countries outside Australia. For reasons stated below, the returns of interstate trade are rather misleading. It has, however, been customary for years to make up these returns, and, as the information is required by the States, the figures must be taken into account. Distinguishing the imports according as they were interstate or directly oversea, the following are the annual values for the period 1885 to 1908:—

Period.	Imports (Average Annual Value).			Per head of Population.	
	Interstate.	Oversea.	Total.	Oversea.	Total.
	£	£	£	£ s. d.	£ s. d.
1885-89	8,148,314	13,514,534	21,662,848	13 10 2	21 12 11
1890-94	8,847,672	11,689,109	20,536,781	9 19 9	17 11 0
1895-99	9,435,784	12,233,446	21,669,230	9 9 5	16 15 7
1900-04	11,485,186	15,418,739	26,903,925	11 0 9	19 5 3
1905	14,938,885	14,485,123	29,424,008	9 15 11	19 18 0
1906	17,061,860	17,603,503	34,665,363	11 12 6	22 17 10
1907	18,595,804	20,860,391	39,456,195	13 8 4	25 7 6
1908	17,814,260	19,828,486	37,642,746	12 9 8	23 13 11

The figures shown in this table for 1904 and subsequent years are not quite on the same basis as for the previous years, the oversea imports for which should be increased, and the interstate imports decreased by a corresponding amount, on account of transshipments. Until September, 1903, it was the practice of the Customs office to ignore transshipments, so that goods which arrived from a country outside Australia at any Australian port, and were thence transhipped to New South Wales, were recorded as an import from the State where they were transhipped, and not as they ought to have been, as an oversea import. It is impossible now to ascertain the value of these transhipped goods, but it is believed to have ranged each year between £500,000 and £1,000,000.

Another alteration in its methods was made by the Customs Department in 1904, so that goods of Australian produce sent from another State to New South Wales for transhipment abroad were recorded first as an interstate import, and next, as an oversea export. Previously they were not recorded at all. The greater part of such produce came from Queensland and Tasmania, and it is not possible to estimate its value; but it was considerable, inasmuch as in 1904 it amounted to £2,652,285, and in 1908 to £3,176,109. It is therefore apparent that, in comparing with previous years, the two factors just mentioned should be taken into consideration. However, taking the figures in the table as they stand, it will be seen that the later eighties, so far as the oversea imports are concerned, exhibit a high value per head. Heavy imports were to be expected owing to the large State loans obtained from abroad during these years.

In 1891 the imports averaged £22 4s. 6d. per head; but from that year the values per head of population steadily declined until 1895, when they touched the lowest point on record, viz., £12 15s. 9d. per head. The falling-off was due mainly to two causes—first, to the large diminution in public and private borrowings; and, second, to the fall in prices, which extended to nearly all the commodities that the State imports. In 1896 the value rose to £16 3s. 8d. per head, and the improvement continued until 1900, after which it declined down to 1904. From that year a steady improvement set in, and in 1908 the value was £23 13s. 11d. per head.



The next statement shows the average annual exports in the same years as in the preceding table, also distinguishing the interstate and oversea movements:—

Period.	Exports (Average Annual Value).			Per head of Population.	
	Interstate.	Oversea.	Total.	Oversea.	Total.
	£	£	£	£ s. d.	£ s. d.
1885-89	8,416,618	10,624,323	19,040,971	10 12 4	18 16 6
1890-94	9,553,336	13,138,884	22,692,220	11 4 7	19 7 10
1895-99	7,972,150	16,985,808	24,957,958	13 3 0	19 6 6
1900-04	8,896,716	18,879,740	27,776,456	13 10 4	19 17 9
1905	12,263,472	24,518,534	36,782,006	16 11 7	24 17 6
1906	14,651,156	30,936,888	45,638,044	20 9 3	30 2 9
1907	15,880,905	32,894,073	48,774,978	21 3 2	31 7 5
1908	14,105,050	26,880,709	40,985,759	16 18 5	25 16 0

It will be understood from what has been stated that the exports prior to 1904, to be strictly comparable with those of that year, should have the oversea movement increased by the value of goods sent from other States to New South Wales for transshipment abroad. On the other hand, such goods sent from New South Wales to other States were formerly reckoned among the oversea exports, but are now included with the interstate. The present practice of counting such goods as exported from the place where they are actually placed on board oversea vessels has been in force since the 1st September, 1903, and was adopted to avoid the confusion that might arise from a continuance of the former practice, and the possibility of transshipments being treated as oversea exports both at the place of production and at the place of final export.

From the above table it appears that the exports in 1908 were the highest for the whole period, both absolutely and relatively, with the exception of the exports for the years 1906 and 1907. In 1891 the figures were high, but the returns were increased on account of large shipments of wool which were held over from the preceding year on account of maritime strikes. The years showing out most unfavourably were 1886, 1894, and 1902, which were influenced by adverse seasons or falling prices.

Judged by the volume of its exports per inhabitant, New South Wales compares favourably with any country whose commerce is at all considerable, as an export of from £19 to £31 can be shown only by a few countries, such as Belgium, whose trade is largely made up of re-exports.

The following table affords a comparison of the trade of New South Wales (imports and exports combined) with that of the other Australian States and the principal British possessions and foreign countries. The figures represent the average annual value during the last three years:—

Country.	Total Trade.	Value per Inhabitant.	Country.	Total Trade.	Value per Inhabitant.
	£	£ s. d.		£	£ s. d.
<i>New South Wales</i>	<i>82,387,695</i>	<i>53 1 10</i>	Cape Colony ...	57,527,351	23 5 5
Victoria ...	55,159,851	44 5 1	Canada ...	112,831,334	18 19 10
Queensland ...	22,948,536	42 5 1	German Empire ...	780,517,000	12 14 7
South Australia ...	24,221,359	62 14 2	Belgium ...	417,991,300	58 10 4
Western Australia ...	16,259,018	61 11 10	France ...	596,269,000	15 3 9
Tasmania ...	7,164,824	39 15 1	Switzerland ...	156,336,000	45 4 2
New Zealand ...	34,822,379	37 17 1	United States of America	670,490,000	7 18 10
United Kingdom	1,068,322,624	24 9 2	Argentina ...	111,486,000	20 17 3
			Japan ...	95,499,000	1 19 6

Western Australia and South Australia have a greater trade per capita than that of New South Wales, which might be expected since Western Australia is a large gold-producing State with a small population, and South Australia has a large re-export trade in the products from the Broken Hill silver mines. The trade of New South Wales per inhabitant exceeds that of all British possessions, and of foreign countries, except Belgium, which has a large re-export and transit business. In all the above countries the re-export trade is included, and if the re-exports be excluded in the case of Belgium and Switzerland, the values per head will be reduced by about £15 in each case.

BALANCE OF TRADE.

New South Wales is a debtor country, and its trade is affected by the imports of capital and the corresponding payments of interest. In former years the annual imports of capital, both on public and private account, were large, and exceeded the necessary payments of interest, so that the balance of trade showed an excess of imports. Of late years capital has still been imported, but in smaller amounts not equal to the interest payments, so that the exports since about 1892 have been the greater.

The following is a statement of the balance of trade for each of the last twenty years:—

Year.	Excess of Exports or Excess of Imports (—).	Year.	Excess of Exports or Excess of Imports (—).
	£		£
1889	431,877	1899	2,851,151
1890	(—) 569,067	1900	603,445
1891	560,623	1901	422,906
1892	1,195,721	1902	(—) 2,430,159
1893	4,814,188	1903	47,890
1894	4,775,732	1904	5,718,574
1895	5,942,370	1905	7,357,998
1896	2,448,839	1906	10,972,681
1897	2,006,722	1907	9,318,783
1898	3,194,557	1908	3,343,013

During the last twenty years the balance of trade has been against the State twice (in 1890 and 1902). In the latter year there was heavy borrowing by the Government. The years 1900 and 1901 were affected by the large imports in anticipation of the Federal tariff. In 1908 the excess of exports amounted to over 3½ millions sterling.

ARTICLES OF IMPORT.

In order to show as clearly and concisely as possible the nature of the goods imported into New South Wales, those brought into the State during 1908 have been classified under certain leading heads, as shown in the table

below. A distinction has been made between produce of any of the Australian States, and produce of British and foreign manufacture:—

Articles of Import.	Australian Produce.	British and Foreign Produce.	Total Imports.
<b>Food, Drink, Narcotics, and Stimulants—</b>	£	£	£
Animal food ... ..	509,831	382,283	892,114
Vegetable food ... ..	3,287,379	987,749	4,275,628
Drinks—alcoholic ... ..	125,766	723,990	849,756
„ non-alcoholic ... ..	14,849	7,562	22,411
Tobacco and other narcotics ... ..	127,303	412,751	540,054
Other stimulants and condiments ... ..	112,573	753,575	866,148
	4,178,201	3,267,910	7,446,111
<b>Live Animals and Plants—</b>			
Animals of all kinds ... ..	2,558,985	67,128	2,626,113
Plants ... ..	17,022	34,241	51,263
	2,576,007	101,369	2,677,376
<b>Textile Fabrics, Dress, and Manufactured</b>			
<b>Fibrous Materials—</b>			
Silk manufactures ... ..	.....	359,700	359,700
Woolen manufactures ... ..	118,836	1,103,936	1,222,772
Cotton and flax manufactures ... ..	2,348	1,366,042	1,368,390
Manufactures of mixed materials ... ..	41,453	1,134,828	1,176,281
Dress ... ..	686,377	1,520,707	2,207,084
Manufactures of fibrous materials ... ..	6,515	393,258	399,773
	855,529	5,878,471	6,734,000
<b>Products of Arts and Manufactures, n.e.i.—</b>			
Books and stationery and paper ... ..	91,477	895,775	987,252
Musical instruments ... ..	4,418	268,879	273,297
Works of art and art materials ... ..	18,829	41,800	60,629
Fancy goods ... ..	10,508	297,662	308,170
Timepieces, jewellery, and plated ware ... ..	134,688	421,264	555,952
Surgical and scientific instruments ... ..	1,438	137,101	138,539
Metal manufactures, including machinery ... ..	313,919	3,762,999	4,076,918
Harness, vehicles, and equipment ... ..	40,986	375,962	416,948
Ships, boats, and equipment ... ..	1,670	192,389	194,059
Building materials ... ..	42,575	191,226	233,801
Furniture ... ..	76,427	119,441	195,868
Arms and explosives ... ..	19,074	248,319	267,393
Drugs, chemicals, and by-products ... ..	72,414	470,289	542,703
Glass and earthenware manufactures ... ..	14,800	294,802	309,602
Soap, candles, and paint ... ..	91,977	287,532	379,509
Other manufactures, n.e.i. ... ..	134,441	602,113	736,554
	1,069,641	8,607,553	9,677,194
<b>Staple Animal and Vegetable Substances, including Mineral Oils—</b>			
Animal substances ... ..	1,910,490	358,854	2,269,344
Vegetable substances ... ..	157,286	997,874	1,155,160
Oils ... ..	14,250	419,950	434,200
	2,082,026	1,776,678	3,858,704
<b>Staple Minerals and Metals, including Specie and Bullion—</b>			
Specie and bullion ... ..	2,331,402	699,498	3,030,900
Iron and steel ... ..	4,496	806,399	810,895
Other metals ... ..	1,924,666	295,512	2,220,178
Coal and shale ... ..	3,322	1,350	4,672
Stone, clay, and other minerals ... ..	877,866	69,285	947,151
	5,141,752	1,872,044	7,013,796
<b>Indefinite articles ... ..</b>	22,483	213,082	235,565
<b>Total Imports ... ..</b>	15,925,639	21,717,107	37,642,746

From this table it will be seen that about two-fifths of the imports are the produce of other Australian States. The whole of this, however, is not for local consumption; gold bullion is imported for purposes of coinage, and is then re-exported; merchandise to the value of £3,176,109, mostly

in the shape of staple products, was in transit to be transhipped to countries beyond the Commonwealth; while other raw staple products, especially animal and vegetable substances and minerals after being slightly prepared, were eventually re-exported abroad. Goods of British and foreign production to the value of £1,901,221 were re-imported from other Australian States.

The principal articles retained for local consumption were those in the class comprising the products of arts and manufactures. By far the largest item in this class is metal manufactures, which includes machines and machinery; then follow books, stationery, and paper; timepieces and jewellery; drugs and chemicals; harness, vehicles, and equipment; and soap, candles, and paint.

The class including articles of food and drink came second, the largest item being vegetable food, which was followed by animal food, then tea and other stimulants and condiments. The class containing staple minerals and metals was third, but this, as well as that comprising staple animal, and vegetable substances, included many articles mostly intended for re-export. The next in importance was the class including textile fabrics and dress, in which the most important items were those of dress, cotton, woollen, and mixed manufactures.

EXPORTS OF DOMESTIC PRODUCE.

The exports from New South Wales consist chiefly of goods produced or manufactured in the State, the re-exports being comparatively small.

Under the present conditions of development in the State, the export of domestic produce is a very fair indication of its progress in productive pursuits. The value of the domestic exports in 1908 was twice as great as in 1888; and, speaking generally, the expansion during the intervening period of twenty years has been of a steady character. Wool constitutes the largest item of domestic export, and any fluctuation in the production or market value of the staple is plainly marked in the whole trade.

In 1885 there was a sharp fall in the price of wool and staples generally, to the extent of about 12 per cent., while there were further losses due to a succession of dry seasons. The exports of produce other than that of the State also show a decline about this period, due partly to the causes which affected the general exports, and partly to the establishment of direct communication between Great Britain and Queensland and Tasmania; but the lost ground has been more than recovered:—

Period.	Domestic Produce exported.			Other produce Re-exported, including Gold.
	Gold.	Commodities.	Total.	
	£	£	£	£
1860-64	8,275,407	20,785,535	29,060,942	9,841,618
1865-69	4,011,327	31,841,272	35,852,599	11,596,579
1870-74	3,492,628	37,919,502	41,412,130	13,586,172
1875-79	2,276,585	46,452,700	48,729,285	17,853,760
1880-84	1,853,038	65,491,703	67,344,741	21,162,787
1885-89	617,912	70,647,694	71,265,606	23,939,252
1890-94	1,795,935	87,228,778	89,024,713	24,436,387
1895-99	7,541,459	79,643,906	87,185,365	37,604,424
1900-04	3,824,785	93,655,603	97,480,388	41,401,896
1905	762,058	27,302,612	28,064,670	8,717,336
1906	757,064	31,480,900	32,237,964	13,400,080
1907	731,094	36,993,743	37,724,837	11,050,141
1908	748,577	31,671,489	32,420,066	8,565,693

The value of export of domestic produce in 1904 and subsequent years depends upon an estimate. Owing to the manner in which the Customs Department now records the Interstate movements of goods, it is not possible to ascertain the value of any State's own produce exported to the other States—it is all combined as Australian produce. It has, therefore, been necessary to estimate the Interstate export of New South Wales produce, but it is believed that the figure quoted is substantially correct, as the bulk of such goods is produced in the exporting State.

The value of New South Wales produce exported in 1907 was the highest on record, both absolutely and relatively, this satisfactory result being due to increased production and high prices. The decrease in 1908 is due mainly to the fall in the prices of wool and metal, and the adverse wheat season. There was a notable rise in the value of domestic produce exported during 1889, which was well sustained until 1893. This may be attributed in the first place to a fortunate succession of good seasons, and in the second to the production of silver, which became an important article of export in the year named.

The large decrease in 1894 was caused by the fall in prices, the depression preventing such increased production as would have had the effect of sustaining the total export value. In 1895 and 1896 there was a further slight fall, although the average price of the commodities produced in the State was higher than in 1894. In 1897 the prices were not so good as in 1896, but the value of the domestic exports was greater, both in the total amount and in the average per head of population. The recovery in prices from 1898 onwards has enabled the exports of domestic produce to show a decided increase on the values of the previous years, although 1902 and 1903 were affected by decreased production on account of adverse seasons.

In the presentation of these figures the value of commodities has been separated from that of gold, although in dealing with the exports of the Australian States, gold should be reckoned a commodity as much as wool, wheat, or any other article.

Below will be found the value of the trade per inhabitant, the subdivision being the same as that adopted in the previous table:—

Period.	Domestic Produce Exported.			Other Produce Re-exported, including Gold.
	Gold.	Commodities.	Total.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1860-64	4 11 2	11 9 1	16 0 3	5 8 6
1865-69	1 16 9	14 11 10	16 8 7	5 6 4
1870-74	1 6 6	14 8 0	15 14 6	5 3 0
1875-79	0 14 5	14 13 5	15 7 10	5 12 9
1880-84	0 9 3	16 6 4	16 15 7	5 5 5
1885-89	0 2 3	14 2 5	14 4 5	4 15 8
1890-94	0 6 2	14 18 2	15 4 4	4 3 6
1895-99	1 3 4	12 6 8	13 10 0	5 16 5
1900-04	0 11 0	13 8 2	13 19 2	5 18 7
1905	0 10 4	18 9 3	18 19 7	5 17 11
1906	0 10 0	20 15 9	21 5 9	8 17 0
1907	0 9 5	23 15 10	24 5 3	7 2 2
1908	0 9 5	19 18 9	20 8 2	5 7 10

From these figures, it appears that in spite of the large and increasing amount which the State owes to its outside creditors, and the great fall in prices previously noticed, the export of domestic produce available to pay for imports shows very little diminution.

As a country manufacturing for export New South Wales has not yet achieved a high position. So many other channels have been presented for the successful employment of capital that little attention has been bestowed upon the possibility of New South Wales supplying other countries with its own manufactures; but as these outlets of capital are closed, the vast possibilities of the country in other directions will doubtless be recognised. The following table shows the nature of the domestic exports from New South Wales during 1908, the classification being similar to that adopted for the imports. The exports are divided into those to other Australian States and to oversea countries, those to other Australian States depending on an estimate as previously explained:—

Articles of Domestic Produce Exported.	To other Australian States.	To Countries Oversea.	Total.
Food, Drink, Narcotics, and Stimulants—	£	£	£
Animal food ... ..	500,074	1,753,845	2,253,919
Vegetable food ... ..	649,872	356,122	1,005,994
Drinks—alcoholic ... ..	54,318	21,205	75,523
„ non-alcoholic ... ..	12,516	1,476	13,992
Tobacco and other narcotics ... ..	241,255	2,334	243,589
Other stimulants ... ..	14,493	1,211	15,704
	1,472,528	2,136,193	3,608,721
Live animals ... ..	2,051,535	99,801	2,151,336
Plants ... ..	22,691	21,777	44,468
	2,074,226	121,578	2,195,804
Textile fabrics, dress, and manufactured fibrous materials ... ..	376,210	39,727	415,937
Products of arts and manufactures, n.e.i. ... ..	944,967	547,462	1,492,429
Staple Animal and Vegetable Substances, including Mineral Oils—			
Animal substances ... ..	2,603,955	12,888,807	15,492,762
Vegetable substances ... ..	35,520	23,102	58,622
Oils ... ..	17,762	114,206	131,968
	2,657,237	13,026,115	15,683,352
Staple minerals and metals ... ..	2,898,881	3,062,975	5,961,856
Specie and bullion ... ..	376,167	2,663,487	3,039,654
Indefinite articles ... ..	17,426	4,887	22,313
Total... ..	10,817,642	21,602,424	32,420,066

Out of the amount £10,817,642 shown above as exported to other Australian States, considerably more than half was for export oversea, representing the value of wool sent from the Riverina and Western divisions of New South Wales to Victoria and South Australia, silver-lead ore and concentrates sent from Broken Hill to South Australia, and other staple products—agricultural, pastoral, and mineral—sent to both States. By far the larger portion of the

exports consists of raw materials, which, practically, are all produced for export abroad. The following table shows during the last three years the quantities and values of the principal articles of New South Wales produce exported direct to countries beyond the Commonwealth, and indicates that the export trade depends on the production from primary industries, and is affected by the variation in prices:—

Articles Exported Oversea.	Quantity.			Value.		
	1906.	1907.	1908.	1906.	1907.	1908.
Wool .. .. lb.	214,126,274	271,249,591	262,260,071	£ 10,945,627	£ 14,608,869	£ 11,219,666
Leather .. ..	.....	.....	.....	307,244	278,276	281,790
Tallow .. .. cwt.	357,031	349,200	311,515	461,540	526,697	424,676
Skins and Hides .. ..	.....	.....	.....	832,353	893,476	822,660
Meats, all kinds .. ..	.....	.....	.....	948,802	1,074,336	933,264
Butter .. .. lb.	22,991,303	17,832,354	17,261,331	962,877	769,463	813,490
Wheat .. .. bushel	4,206,177	3,036,810	413,558	639,734	793,901	92,621
Flour .. .. ton	33,962	35,544	16,453	249,290	292,978	158,132
Gold, bullion .. .. oz.	185,050	184,851	195,717	756,485	730,940	748,577
Copper, ingots and matte .. cwt.	203,012	212,547	193,700	831,769	842,325	554,599
"   ore .. .. "	1,963	11,891	5,434	1,545	6,551	5,422
Silver and Lead .. ..	.....	.....	.....	876,515	1,036,381	824,882
Spelter and concentrates .. cwt.	336,312	905,399	930,961	82,879	148,593	141,139
Tin, ingots .. .. "	47,775	49,434	39,661	432,228	424,131	262,763
"   ore .. .. "	9,536	10,797	16,801	49,473	61,893	79,122
Coal and Coke .. .. ton	2,068,572	2,678,966	2,585,945	902,520	1,325,147	1,375,195
Timber, dressed and undressed .. ..	.....	.....	.....	335,166	319,755	282,243

The figures in the above table represent the direct exports only. In almost every case, and especially for wool and silver-lead, the real exports would appear very much larger if the Interstate transfers in transit were added.

The relative importance of these articles will be seen from the following statement, which is based on the experience of the three years in the above table, and which shows the proportion per cent. of the value of the export of each article to the total oversea export of domestic produce:—

Article.	Proportion per cent.	Article.	Proportion per cent.
Wool .. ..	54·5	Copper .. ..	3·4
Leather .. ..	1·3	Silver and Lead .. ..	4·0
Tallow .. ..	2·1	Tin .. ..	1·9
Skins and Hides .. ..	3·8	Coal and Coke .. ..	5·3
Meat .. ..	4·4	Timber .. ..	1·4
Butter .. ..	3·8	All other articles....	7·4
Wheat and Flour .. ..	3·4		
Gold .. ..	3·3		100·0

Wool is the great staple export of the State, and constitutes over one-half of the value of the domestic exports. A marked feature of the wool trade is the growing disposition of buyers on the Continent of Europe to purchase their supplies direct from the State instead of obtaining them through the London brokers. Year by year the representatives of foreign manufacturers who visit Sydney for the purpose of attending the wool sales become more numerous. A little more than twenty years ago all the wool destined for Europe was transhipped in London, but in 1908 the shipments of the staple of local growth to Belgium, France, Germany, and Italy amounted to 152,607,051 lb., valued at £6,155,876. A direct trade with the Continent is desirable, and its growth will be seen from the following table, giving

at intervals since 1881 the destination of the wool exported, and the proportion taken by each country:—

Country.	Value.				Proportion.			
	1881.	1891.	1901.	1908.	1881.	1891.	1901.	1908.
	£	£	£	£	%	%	%	%
United Kingdom .. ..	4,062,766	5,741,350	3,853,008	4,648,648	98·9	74·9	51·9	41·4
Belgium .. .. .	3,933	1,019,614	874,012	1,156,084	·1	13·3	11·8	10·3
Germany .. .. .	988	407,924	1,238,492	2,553,759	·0	5·3	16·7	22·8
France .. .. .	.. .. .	409,553	1,295,274	2,394,992	.. .. .	5·3	17·5	21·3
United States .. .. .	40,008	88,981	39,159	301,480	1·0	1·2	·5	2·7
Other Countries—Oversea ..	20	3,038	120,174	164,703	·0	·0	1·6	1·5
Total .. .. .	4,107,715	7,670,460	7,420,119	11,219,666	100·0	100·0	100·0	100·0

It will be observed that since 1881 the wool exported to the United Kingdom has decreased from 98·9 to 41·4 per cent. France and Germany both show proportionate increases throughout the whole period, rising from nil in 1881 to 21·3 per cent. for France, and 22·8 per cent. for Germany in 1908.

The other products of the pastoral industry—leather, tallow, skins, hides, and meats—form an export of considerable value, and amount to 11 per cent. of the total.

Shipments of the principal minerals are also made on an important scale. Coal forms one of the staple exports of New South Wales, the quantity shipped beyond the Commonwealth in 1908 reaching 2,558,366 tons, valued at £1,347,237.

The export of silver, silver-lead, and ore has become important since 1884, the value for 1893 amounting to £3,031,720, but in consequence of the great fall in the price of the metal, due to the closing of the Indian mints and the stoppage of purchases by the United States Government, the value of the export greatly declined, being only £1,704,055 in 1898. The year 1900 witnessed a revival in production, and in 1908 the value of the export was £2,378,733.

Extensive development has taken place in the copper-mining industry within recent years, the export of the mineral of local production increasing from £197,814 in 1896 to £568,879 in 1908. Twenty-five years ago the industry contributed about half a million to the exports of the State; but there was a steady decline from 1883 to 1894, when the value of the shipments of locally-produced copper was only £63,617. The satisfactory prices realised of late years have had a stimulating effect on the industry, and a similar cause accounts for the increase in the production of tin, the exports of which rose from £68,546 in 1896 to £90,482 in 1899 and to £344,654 in 1908. The values of these exports for 1908 show a substantial decrease compared with the figures for 1907, on account of fluctuating prices. It should be explained that the amounts just quoted as the exports of silver-lead, copper, and tin, include the quantities transferred to other States, as practically the whole of these were for export abroad.

RE-EXPORT TRADE.

The re-export trade of the State increased considerably until 1889, but thereafter a marked decline was experienced. In 1895, however, an improvement was manifested, which has continued. The shipping facilities of Sydney at one time attracted to the port a large amount of trade from New Zealand, Queensland, and the South Seas, for transhipment to Europe; but the establishment of direct communication between these countries and Europe checked to some extent the expansion of the re-export trade.



The total value of the re-exports of the State will be found on reference to the previous tables showing the values, absolute and per head of population, of domestic exports and re-exports. Gold, consisting largely of Queensland and New Zealand metal coined at the mint and shipped by the banks to London, the United States, and the East, forms a large proportion of the trade. There is also a large re-export of wool, chiefly the produce of Queensland, and a fairly large trade in provisions and manufactured articles of British and foreign production with New Zealand, New Caledonia, Fiji, and other islands of the Pacific.

The total value of the re-exports in 1908 was £8,565,693, of which £4,511,025 was Australian produce, and £4,054,668 the produce of other countries.

Of the Australian produce goods valued at £973,211 were re-exported to other States, and £3,537,814 oversea; while of the "other" produce goods worth £2,314,197 were sent to other Australian States, and £1,740,471 to countries oversea.

Amongst raw commodities the principal articles re-exported are tallow, skins and hides, tin, and wool; while the manufactured articles are chiefly apparel and soft goods, metal manufactures, iron and steel, machinery, drugs and chemicals, books and stationery, boots, beer and spirits, tobacco, cigars and cigarettes, and also large quantities of provisions.

#### TRADE WITH VARIOUS COUNTRIES.

The trade of the State with the United Kingdom is greater than with any other country. It must be remarked, however, that the real trade with the United Kingdom is not shown, because on the one side foreign goods are sent to Australia through London, and on the other a large portion of the exports from New South Wales to Victoria and South Australia is eventually shipped to the United Kingdom. The following statement shows the total trade of New South Wales during 1908 with the principal countries:—

Country.	Imports.	Exports.	Total Trade.
	£	£	£
Australian States ... ..	17,814,260	14,105,050	31,919,310
United Kingdom ... ..	11,853,791	11,481,747	23,335,538
British Possessions—			
Canada ... ..	117,987	64,736	182,723
Hong Kong ... ..	106,531	462,112	568,643
India and Ceylon ... ..	864,019	496,421	1,360,440
New Zealand ... ..	1,354,216	1,280,598	2,634,814
South Africa ... ..	54,533	303,291	357,824
Straits Settlements ... ..	95,593	244,177	339,770
Others ... ..	304,468	406,346	710,814
	32,565,398	28,844,478	61,409,876
Foreign Countries—			
Belgium ... ..	459,630	1,748,183	2,207,813
China ... ..	39,970	235,584	275,554
France ... ..	164,227	2,661,865	2,826,092
Germany ... ..	1,181,229	3,937,045	5,118,274
Italy ... ..	101,132	130,792	231,924
Japan ... ..	235,489	746,833	982,322
New Caledonia ... ..	32,704	99,911	132,615
Philippine Islands ... ..	30,404	296,922	327,326
South Sea Islands ... ..	109,974	123,594	233,568
United States ... ..	2,318,431	1,001,326	3,319,757
Others ... ..	404,158	1,159,226	1,563,384
	5,077,348	12,141,231	17,218,629
Total ... ..	37,642,746	40,985,759	78,628,505

The statement represents the direct trade with the countries specified, irrespective of the place of origin, or of the ultimate disposal of the goods. It is impossible to trace the exports to their destination, but, so far as the imports are concerned, the Customs Department records the countries of origin of the goods, that is to say, the countries where the goods were actually produced or manufactured. The following statement affords a comparison of the imports during 1908, according to the countries whence they were directly shipped, and according to the countries of origin. In each case the proportions of each to the total imports are attached:—

Country.	Direct Imports.	Origin of Imports.	Proportion per cent.	
			Direct Imports.	Origin of Imports.
	£	£		
Australian States ... ..	17,814,260	15,941,605	47·32	42·34
United Kingdom ... ..	11,853,791	10,796,997	31·49	28·68
British Possessions—				
Canada ... ..	117,987	193,728	0·31	0·52
Hong Kong ... ..	106,531	2,353	0·28	0·01
India and Ceylon ... ..	864,019	932,906	2·30	2·48
New Zealand ... ..	1,354,216	1,302,050	3·60	3·46
Straits Settlements ... ..	95,593	77,037	0·25	0·20
Others ... ..	350,001	476,222	0·95	1·27
	32,565,398	29,722,898	86·50	78·96
Foreign Countries—				
Belgium ... ..	459,630	242,466	1·22	0·64
China ... ..	39,970	148,783	0·11	0·40
France ... ..	164,227	783,976	0·44	2·08
Germany ... ..	1,181,229	1,740,391	3·14	4·62
Italy ... ..	101,132	141,038	0·27	0·38
Japan ... ..	235,489	292,335	0·63	0·78
South Sea Islands ... ..	109,974	117,594	0·29	0·31
Switzerland ... ..	12,244	344,782	0·03	0·92
United States ... ..	2,318,431	3,069,150	6·16	8·15
Others ... ..	455,022	1,039,333	1·21	2·76
	5,077,348	7,919,848	13·50	21·04
Total ... ..	37,642,746	37,642,746	100·00	100·00

During the year Australian produce to the value of £15,966 was re-imported from outside the Commonwealth, and "other" produce to the value of £1,888,621 was re-imported from the other States. The table shows that there were fairly considerable differences in the case of the United Kingdom, Belgium, France, Germany, Switzerland, and the United States, and smaller differences in the case of all the countries, between the direct imports and those according to country of origin, and the differences would be still larger were it not that the totals for countries of origin are increased on account of goods re-imported from other States during the year. According to the

direct imports about 31 per cent. of the total was received from the United Kingdom, 8 per cent. from British possessions, and 13 per cent. from foreign countries, whereas, in reality, the proportion of British goods imported was 29 per cent., and of foreign goods 21 per cent., the proportion of those the produce of British possessions being practically unaltered.

The table below shows in quinquennial periods since 1880, the volume of imports divided under the four heads, Australian States, the United Kingdom, British possessions, and Foreign countries :—

Period.	Imports from—				Total Imports.
	Australian States.	United Kingdom.	British Possessions.	Foreign Countries.	
	£	£	£	£	£
1880-84 ...	32,592,680	48,726,544	7,092,661	9,502,846	97,914,731
1885-89 ...	40,837,186	48,279,604	8,134,224	11,063,225	108,314,239
1890-94 ...	44,238,360	41,293,833	6,943,513	10,208,197	102,683,903
1895-99 ...	47,175,625	37,123,060	7,775,602	16,271,863	108,346,150
1900-04 ...	57,426,119	43,118,128	10,147,402	23,827,977	134,519,626
1905 ...	14,938,885	8,602,288	2,448,226	3,434,609	29,424,008
1906 ...	17,061,860	10,047,928	3,446,059	4,109,516	34,665,363
1907 ...	18,595,804	12,474,736	3,308,836	5,076,819	39,456,195
1908 ...	17,814,260	11,853,791	2,897,347	5,077,348	37,642,746

If these figures be stated as proportions of the total imports the following results are obtained :—

Period.	Australian States.	United Kingdom.	British Possessions.	Foreign Countries.	Total.
	%	%	%	%	%
1880-84 ...	33·29	49·76	7·24	9·71	100
1885-89 ...	37·70	44·57	7·51	10·22	100
1890-94 ...	43·08	40·22	6·76	9·94	100
1895-99 ...	43·54	34·26	7·18	15·02	100
1900-04 ...	42·69	32·06	7·54	17·71	100
1905 ...	50·77	29·24	8·32	11·67	100
1906 ...	49·22	28·99	9·94	11·85	100
1907 ...	47·13	31·62	8·38	12·87	100
1908 ...	47·32	31·49	7·70	13·49	100

The diversion of trade shown by the table is rather remarkable, but is probably more apparent than real. Twenty years ago the ships which now trade direct between Australia and Europe and America were either just beginning to run or were not running at all, and goods were sent to Australia through London to a greater extent than is now the case. So far as the proportions are concerned, the Australian States and the United Kingdom have practically changed places. Since 1880 the proportion of imports from British possessions has hardly varied, but of late years the proportion of imports from foreign countries has increased materially.

The next table shows the exports from New South Wales under the same heads and for the same periods as in the preceding tables, and a careful consideration of the figures will show that the changes in the exports have been very similar to those in the imports:—

Period.	Exports to—				Total Exports.
	Australian States.	United Kingdom.	British Possessions.	Foreign Countries.	
	£	£	£	£	£
1880-84	37,167,523	39,961,529	5,449,726	5,925,747	88,507,525
1885-89	42,083,242	37,727,437	4,508,809	10,885,370	95,204,858
1890-94	47,766,714	39,358,695	4,742,725	21,592,966	113,461,100
1895-99	39,862,835	43,203,489	6,137,642	35,585,823	124,789,789
1900-04	44,483,581	40,732,026	14,441,877	39,224,800	138,882,284
1905	12,263,472	10,222,422	3,533,673	10,762,439	36,782,006
1906	14,651,156	12,174,155	4,923,904	13,886,829	45,638,044
1907	15,880,905	13,687,977	4,255,611	14,950,485	48,774,978
1908	14,105,050	11,481,747	3,257,681	12,141,281	40,985,759

Proportion per cent.

1880-84	41·99	45·15	6·16	6·70	100
1885-89	44·20	39·63	4·74	11·43	100
1890-94	42·10	34·69	4·18	19·03	100
1895-99	31·94	34·62	4·92	28·52	100
1900-04	32·03	29·33	10·40	28·24	100
1905	33·34	27·79	9·61	29·26	100
1906	32·10	26·68	10·79	30·43	100
1907	32·56	28·06	8·73	30·65	100
1908	34·41	28·01	7·96	29·62	100

The exports show a similar tendency to the imports. Both absolutely and relatively the exports to foreign countries have increased continuously; so that the proportion of goods now sent to the United Kingdom and to foreign countries hardly differs. The reason is similar to that given regarding the imports, namely, the opening up of direct communication with the various countries, and also to the fact that gold is now shipped direct to those countries on account of the United Kingdom. The exports to British possessions more than doubled during the last ten years, and at first sight this might seem curious, but the explanation is that there have been heavy shipments of gold and silver to India and Ceylon.

TRADE WITH AUSTRALIAN STATES.

It has already been stated that the records of Interstate trade are to a certain extent misleading. The outward Interstate transfers in particular are now worth very little. In 1904 records of outward Interstate transfers were abolished, and the only manner in which the exports from any State to the other States can now be obtained, is by the reverse method of taking the imports into the other States as the exports from that State. Consequently the values of the Interstate imports and exports are identical, and do not take into account freight, insurance, &c. The export values are therefore too high, the average excess being perhaps as much as 10 or 15 per cent.

Moreover, such movements as those of live stock between New South Wales and Queensland and South Australia are reckoned as trade, and again both the imports and exports are increased by including goods which pass through the State and are subsequently shipped to countries outside Australia,

chiefly to the United Kingdom. Altogether, of the total Interstate trade, considerably more than one-half is only nominal. However, taking the figures for what they are worth, the following table shows the total value of the imports from and exports to each State into and from New South Wales at intervals since 1870:—

State.	1870.	1880.	1890.	1900.	1908.
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## IMPORTS.

From—	£	£	£	£	£
Victoria ... ..	1,153,695	2,187,119	2,097,259	3,396,782	5,618,962
Queensland ... ..	1,767,974	2,224,421	5,482,452	4,631,384	6,643,019
South Australia ... ..	366,480	690,407	2,036,492	1,439,528	3,949,150
Western Australia ... ..	144	.....	830	147,908	153,807
Tasmania ... ..	90,827	383,106	432,615	548,478	1,449,322
Total ... ..	3,379,120	5,485,053	10,049,648	10,164,080	17,814,260

## EXPORTS.

To—	£	£	£	£	£
Victoria ... ..	2,583,552	4,578,867	5,336,553	3,977,828	6,155,738
Queensland ... ..	680,301	1,362,262	1,670,465	1,918,903	3,258,020
South Australia ... ..	350,247	830,256	3,700,124	3,259,530	3,457,703
Western Australia ... ..	.....	1,104	17,811	445,974	746,729
Tasmania ... ..	26,555	81,484	215,674	376,979	486,860
Total ... ..	3,640,655	6,853,973	10,990,627	9,979,214	14,105,050

The trade between New South Wales and the other States has increased constantly since 1870, and shows special expansion between 1880 and 1890, owing to the opening up of the Broken Hill silver mines about 1884. Practically the whole of the trade of Broken Hill passes through South Australia, and increases the volume of trade credited to that State. South Australia also receives credit for large quantities of wool sent from the Western districts of New South Wales for transhipment oversea. The decline after 1890 was due to the fact that the pastoral industry was affected by unfavourable seasons and lower prices, and the trade of Broken Hill also by lower prices for its minerals.

The largest trade of all the States is with Victoria, but Queensland is not far behind. A great part of the Riverina and south-western districts of the State trades almost exclusively with Melbourne. Included in the Queensland, West Australian, and Tasmanian figures is gold sent to Sydney for coinage, while movements of live stock are included in all the States—Queensland being most largely affected in each case. There are also included the re-exports of British and foreign produce from State to State.

The chief value of the Interstate records now is to show how the trade of the State has been affected by Federation, as since 1901 the old State tariffs have been abolished, and trade between all the States is free. The New South Wales markets were practically free to the other States before Federation. The following statement shows for each of the years 1906, 1907, and 1908, the value of the imports of Australian produce from the other States into New South Wales, and the value of New South Wales produce exported to the other States.

The articles exchanged between New South Wales and the other States are many, and only those are shown in the statement which were probably intended for consumption. The export figures are partly estimated for reasons already explained.

Article.	Australasian Produce imported from other Australasian States.			New South Wales Produce exported to other Australasian States.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter ... ..	121,308	125,220	155,009	48,659	132,534	353,001
Cheese ... ..	8,763	22,003	26,542	10,751	5,421	8,845
Eggs ... ..	38,170	48,874	58,244	1,721	856	1,314
Fish—all kinds ... ..	8,093	14,457	12,809	3,951	5,407	4,717
Meats—						
Bacon and ham ... ..	91,086	96,942	99,562	13,131	8,253	22,094
Frozen beef ... ..	183	11,197	3,934	793	125	893
,, mutton ... ..	1,591	.....	187	75,035	73,360	21,351
Extract of ... ..	890	7,997	6,326	252	36	68
Preserved ... ..	28,496	40,221	51,064	70,422	61,164	58,369
Milk—						
Preserved & Concentrated	17,746	28,218	33,493	3,786	6,297	12,179
Biscuits ... ..	12,414	11,981	14,717	51,576	60,833	63,274
Confectionery ... ..	63,275	66,170	66,347	15,705	19,583	17,778
Fruits—dried ... ..	59,229	98,499	107,537	1,443	1,888	1,479
fresh ... ..	199,490	232,375	291,157	99,282	103,546	78,344
Vegetables—fresh ... ..	66,537	51,366	70,039	9,924	8,777	10,153
Grain—Maize ... ..	117,194	117,901	115,895	8,056	3,564	6,934
Oats ... ..	77,051	112,018	89,810	2,473	2,092	4,682
Wheat ... ..	5,848	61,336	252,364	257,265	214,440	76,608
Grain, prepared—						
Flour ... ..	90,609	121,238	152,593	176,307	188,168	197,725
Malt ... ..	76,156	105,775	107,608	866	155	483
Bran, pollard, and sharps..	16,718	25,701	29,553	33,179	32,489	30,659
Hay and chaff ... ..	226,608	337,627	644,942	7,609	5,169	20,207
Jams and jellies ... ..	54,742	57,611	71,719	57,724	34,702	36,028
Linseed cake ... ..	67	109	288	9,663	10,153	12,628
Onions ... ..	42,223	35,287	70,105	2,660	1,379	2,395
Potatoes ... ..	298,926	196,991	390,607	34,650	32,695	39,649
Sugar ... ..	860,284	783,854	608,161	.....	.....	.....
Ale and beer ... ..	20,650	26,692	25,358	7,987	16,286	19,543
Spirits—Brandy ... ..	18,443	27,332	24,129	.....	.....	.....
Wine, Fermented, N.E.I. ... ..	41,026	44,284	53,009	7,683	13,236	14,086
Aerated waters ... ..	3,292	2,668	2,881	9,297	9,770	10,776
Tobacco—Manufactured ... ..	62,701	69,015	86,094	115,519	125,318	131,575
Cigarettes ... ..	13,222	14,839	14,593	71,298	87,020	96,011
Cigars ... ..	20,254	20,904	23,944	3,285	2,409	1,920
Hops ... ..	18,511	23,245	24,048	.....	.....	.....
Pickles ... ..	7,443	9,204	8,819	8,384	10,878	11,698
Salt ... ..	40,188	55,861	54,213	.....	.....	.....
Blankets ... ..	38,976	46,148	57,285	2,386	2,060	4,716
Woollens ... ..	40,140	55,733	56,308	8,511	8,509	10,670
Apparel and attire ... ..	264,801	338,347	362,526	111,282	134,134	143,616
Umbrellas, parasols ... ..	5,633	9,304	10,641	8,698	10,687	10,109
Boots and shoes ... ..	172,579	234,905	228,351	116,226	134,428	135,006
Hats and caps ... ..	49,856	62,043	77,857	27,878	35,705	38,493
Cordage, fibrous ... ..	28,532	29,743	35,699	14,150	14,207	14,973
Books ... ..	13,822	12,442	18,121	10,246	15,521	18,878
Paper ... ..	13,996	17,217	18,512	16,316	17,518	18,640
Stationery ... ..	56,050	63,364	54,195	26,894	32,196	33,160

Article.	Australian Produce imported from other Australian States.			New South Wales Produce exported to other Australian States.		
	1906.	1907.	1908.	1906.	1907.	1908.
Pianos ... ..	£ 2,015	£ 4,627	£ 2,887	£ 38,095	£ 57,900	£ 70,120
Jewellery ... ..	88,941	110,604	134,688	38,724	36,593	44,177
Machines and Machinery ... ..	102,331	178,693	99,813	48,404	61,080	54,403
Agricultural imple- ments ... ..	62,240	71,571	69,895	2,588	3,894	7,534
Harvesters ... ..	78,008	20,921	35,009	.....	.....	.....
Metal manufactures— Bolts, nuts, &c. ... ..	7,290	8,485	13,006	455	1,048	778
Nails ... ..	9,585	13,206	11,017	1,374	3,407	5,613
Wire (barbed) ... ..	7,077	8,480	5,722	69	406	4,448
Wire-netting ... ..	1,522	136	190	12,582	17,073	41,226
Other ... ..	67,486	86,239	74,545	54,747	67,747	81,943
Leather manufactures	18,892	18,885	15,658	12,900	14,209	14,470
Bicycles ... ..	12,123	10,042	14,357	1,334	2,228	3,813
Cement ... ..	7,034	6,440	1,638	33,856	54,234	45,602
Tiles ... ..	7,582	6,988	7,808	1,213	9,561	174
Timber—building ... ..	18,009	17,694	25,732	2,527	5,285	8,824
Furniture ... ..	28,054	43,190	28,389	12,383	16,675	17,631
Arms, ammunition ... ..	19,603	28,505	19,074	261	404	235
Drugs & chemicals, &c.	22,099	29,335	45,446	30,841	40,123	38,224
Medicines ... ..	22,288	27,253	24,872	107,711	124,690	130,110
Blue ... ..	3,022	3,649	2,096	11,063	10,621	10,938
Glassware, bottles, &c.	11,345	14,590	13,393	6,200	9,701	12,236
Candles ... ..	17,284	22,225	16,911	13,759	12,988	17,716
Blacking ... ..	4,749	4,582	7,988	1,601	2,414	3,900
Matches and vests ... ..	10,909	13,735	20,357	.....	.....	.....
Soap, N.E.I. ... ..	33,695	33,566	38,251	46,239	49,693	47,534
Wicker and wood manufactures ... ..	13,505	12,390	12,125	8,053	12,994	10,911
Starch ... ..	26,336	35,292	30,295	.....	.....	.....
India-rubber manu- factures, N.E.I.	45,341	53,241	56,640	5,968	5,415	5,290
Manures ... ..	8,908	17,169	16,441	29,880	27,988	26,806
Timber ... ..	75,575	110,794	114,631	36,438	27,826	52,813
Coal ... ..	1,017	1,533	2,627	891,446	970,765	1,061,797
Coke ... ..	839	562	406	94,233	115,426	134,907
All articles ... ..	15,292,881	16,387,805	15,925,639	11,595,097	12,493,033	10,817,642

There are not many articles where the balance of trade is in favour of this State; among the largest of the items are butter, frozen mutton, preserved meats, biscuits, flour, tobacco, cigarettes, pianos, wire-netting, cement, medicines, soap, coal, and coke. In a great many cases the excess of exports has increased, as in the case of butter, biscuits, cigarettes, pianos, wire-netting, medicines, coal, and coke. On the other hand, apparel and attire, jewellery, hay and chaff, onions, potatoes, dried fruits, jams and jellies, and malt show exceptionally large increases in the excess of imports.

VICTORIA.

In comparison with the imports from Victoria the export list is very meagre, although there is a tendency towards improvement. In the long list shown below of the articles exchanged between the two States there are only nine items under which New South Wales receives more from Victoria than she sends thereto, namely, butter, frozen mutton, wheat, oranges and lemons, cigarettes, medicines, cement, candles, and coal. In the way of manufactured articles—such as apparel, woollens, boots, hats, jewellery, furniture, agricultural implements, &c., Victoria has the advantage. With the exception of coal, the trade is largely in favour of Victoria; but, as mentioned previously, a great portion of the southern districts of New South Wales is supplied from Victoria:—

Article.	Australian Produce imported from Victoria.			New South Wales Produce exported to Victoria.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter... ..	15,479	26,336	16,244	15,978	50,813	182,814
Cheese ... ..	2,533	11,398	7,999	2,733	914	4,650
Meats—Bacon and ham	17,264	24,841	17,126	3,377	1,418	9,169
Frozen mutton ...	67	.....	177	45,442	45,458	3,094
Milk, preserved ...	6,183	13,376	12,239	393	1,445	7,135
Biscuits ... ..	10,317	9,229	12,749	4,073	3,804	2,748
Confectionery ...	57,582	58,757	60,576	3,268	5,291	2,515
Fruits, fresh—						
Apples ... ..	789	2,440	1,651	53	6	30
Oranges and lemons	87	257	114	53,656	56,572	30,726
Other ... ..	33,178	55,295	30,900	1,246	1,319	1,967
Fruits, dried—						
Raisins ... ..	15,333	20,380	15,825	.....	.....	.....
Sultanas ... ..	15,432	29,356	33,560	.....	.....	.....
Vegetables, fresh ...	15,730	6,462	18,057	7,719	5,964	7,817
Grain—						
Maize ... ..	16,068	12,791	44,970	1,860	932	2,542
Oats ... ..	41,420	37,918	23,520	416	380	1,160
Wheat ... ..	2,705	1,360	8,658	180,949	110,915	40,468
Grain, prepared—						
Flour ... ..	45,721	22,078	38,175	8,110	9,030	12,855
Malt ... ..	68,086	95,196	98,276	823	92	483
Bran, pollard, and sharps...	4,166	5,715	10,050	3,481	9,544	7,269
Hay and chaff ... ..	82,972	90,752	109,147	728	1,915	6,459
Jams and jellies ...	27,522	30,934	30,926	20,714	6,942	2,676
Onions ... ..	40,908	34,162	68,186	.....	.....	104
Potatoes ... ..	58,685	15,369	45,973	1,206	.....	185
Sugar ... ..	26,870	20,113	32,349	.....	.....	.....
Ale and beer ... ..	9,719	11,301	10,638	1,729	1,815	1,903
Spirits—Brandy ...	7,975	10,075	8,707	.....	.....	.....
Wine ... ..	15,602	15,629	17,858	1,256	4,355	3,243
Tobacco—						
Manufactured ...	48,036	55,838	63,192	23,896	26,400	30,253
Cigarettes ... ..	8,418	7,175	7,921	29,346	34,743	35,759
Cigars ... ..	19,134	19,352	22,162	352	224	139
Cocoa and chocolate ...	6,537	7,261	8,618	32	158	119
Coffee and chicory ...	3,211	4,555	5,849	348	229	119
Pickles ... ..	4,425	5,289	5,142	130	205	337



Article.	Australian Produce imported from Victoria.			New South Wales Produce exported to Victoria.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Blankets ... ..	34,691	36,438	47,847	.....	.....	138
Woollens ... ..	39,023	53,816	55,055	2,377	3,142	3,794
Apparel and attire ... ..	193,895	253,660	278,216	20,848	26,797	27,525
Umbrellas ... ..	5,229	8,744	10,045	182	387	145
Boots and shoes ... ..	135,870	188,003	192,535	16,861	21,546	21,999
Hats and caps ... ..	44,112	55,479	70,881	3,388	3,361	2,681
Cordage ... ..	22,845	24,975	30,969	2,307	465	4,569
Books ... ..	11,950	10,207	15,330	4,259	7,448	9,966
Paper ... ..	12,503	16,496	16,013	6,287	4,869	5,369
Stationery ... ..	43,922	54,590	46,428	6,634	7,716	8,653
Jewellery ... ..	56,531	75,469	92,095	78	3,630	11,315
Machines and machinery ... ..	56,139	105,022	67,153	10,083	12,069	10,875
Agricultural implements ... ..	49,036	62,079	62,809	1,228	1,587	3,669
Harvesters ... ..	74,041	19,074	29,590	.....	.....	.....
Metal manufactures—N. E. I. ... ..	51,665	65,570	58,719	12,444	17,420	23,588
Bolts and nuts ... ..	6,938	7,914	12,946	32	.....	69
Nails ... ..	8,833	11,720	9,967	72	.....	49
Leather manufactures ... ..	15,045	13,922	8,893	3,852	1,598	2,331
Bicycles ... ..	9,421	8,864	13,168	155	822	2,393
Cement ... ..	343	335	333	10,169	16,853	11,574
Tiles ... ..	7,413	6,880	7,725	937	9,310	13
Furniture ... ..	15,500	20,479	17,843	3,657	6,701	3,701
Arms and ammunition ... ..	19,174	28,163	18,889	.....	.....	.....
Drugs and chemicals ... ..	11,638	12,012	30,757	8,247	11,255	16,398
Medicines ... ..	17,944	20,778	18,983	43,622	43,084	48,678
Bile ... ..	2,913	3,521	1,745	2,556	1,615	1,682
Glassware, bottles, &c. ... ..	10,186	13,316	9,941	247	3,461	4,927
Candles ... ..	5,506	6,852	4,972	8,900	8,348	8,427
Blacking ... ..	4,364	4,243	7,235	327	615	1,580
Matches and vestas ... ..	10,861	13,470	20,341	.....	.....	.....
Soap, N. E. I. ... ..	15,705	20,235	21,100	14,202	14,413	14,490
Manures ... ..	8,474	14,435	12,049	3,005	1,136	3,404
India-rubber manufactures ... ..	36,956	38,795	42,865	3,281	2,369	1,930
Starch ... ..	25,510	34,205	29,242	.....	.....	.....
Coal ... ..	41	.....	35	467,126	488,925	577,229

## QUEENSLAND.

The imports from Queensland consist chiefly of meats, butter, sugar, maize, bananas, pine-apples, and timber, all more or less raw produce. During the three years there has been a great increase in the export trade with Queensland, chiefly in manufactured articles, biscuits, flour, tobacco, cigarettes, apparel, boots, hats, metal manufactures, coke, and others. Coal

is also exported largely. On the whole the balance of trade is in favour of New South Wales:—

Article.	Australian Produce Imported from Queensland.			New South Wales Produce Exported to Queensland.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter...	57,630	38,490	91,429	433	837	9,059
Cheese	3,602	4,023	12,109	2,089	1,004	630
Eggs	4,196	6,573	8,370	.....	.....	37
Fish—Fresh oysters	3,823	7,380	5,024	.....	.....	.....
Meats—						
Bacon and ham	63,860	53,479	64,841	700	1,440	710
Frozen beef	.....	11,045	3,440	.....	.....	60
Extract of	744	7,813	5,921	57	9	.....
Preserved	26,566	37,770	46,831	4,525	6,816	6,374
Arrowroot	2,263	3,366	3,760	.....	.....	.....
Biscuits	743	277	260	22,545	29,378	34,442
Fruit, fresh—						
Bananas	22,280	21,896	22,878	.....	.....	.....
Pine-apples	18,294	20,684	32,275	.....	.....	.....
Apples	47	66	296	13,506	16,196	21,408
Oranges and lemons	2,116	2,393	5,303	4,669	7,309	5,802
Other	7,394	7,594	6,896	13,498	13,081	11,467
Vegetables, fresh	25,267	15,028	24,798	1,517	2,005	1,825
Grain—Maize	100,851	105,108	70,582	5,186	985	4,012
Wheat	614	1,107	434	70,153	78,836	35,991
Grain, prepared—						
Flour	.....	28	.....	165,647	176,297	183,147
Oatmeal	.....	29	1	7,664	7,898	13,739
Hay and chaff	2,932	1,046	12,068	6,606	3,030	13,570
Jams and jellies	4,202	2,801	3,648	23,004	20,514	22,417
Potatoes	3,159	200	707	31,983	31,964	38,692
Sugar	807,145	736,746	547,944	.....	.....	.....
Aerated waters	1,957	1,647	1,581	7,139	7,637	7,973
Tobacco—						
Manufactured	938	869	4,330	53,548	55,928	60,559
Cigarettes	68	.....	57	15,308	20,188	25,402
Apparel and attire	36,171	46,106	50,692	64,705	76,104	85,267
Umbrellas	137	167	184	6,360	9,548	8,386
Boots and shoes	2,016	3,944	5,664	78,345	91,495	93,316
Hats and caps	1,939	2,269	2,808	17,906	23,266	23,561
Stationery	2,233	2,821	2,233	11,824	16,134	16,448
Jewellery	13,388	14,095	24,014	12,064	11,628	18,608
Machines and machinery	3,063	8,825	12,149	27,940	34,189	29,078
Metal Manufactures—N.E.I.	6,398	6,044	6,454	28,387	38,312	44,682
Wire-netting	204	106	3	8,404	9,399	16,869
Leather manufactures	1,494	1,283	2,137	6,668	8,605	8,991
Cement	5	7	.....	17,139	24,734	27,567
Timber—building	16,097	14,010	17,511	763	1,324	4,886
Drugs and chemicals	960	232	539	8,838	11,542	13,147
Medicines	572	910	18,983	25,790	32,755	33,962
Blue	.....	.....	1,745	3,318	3,894	3,368
Soap, N.E.I.	436	.....	105	9,704	10,718	10,771
Timber	41,144	38,365	65,706	4,668	8,379	10,509
Manures	.....	2,208	1,358	2,761	1,582	3,513
Coal	945	1,474	2,538	24,487	31,313	30,212
Coke	6	13	4	16,121	23,881	49,416

SOUTH AUSTRALIA.

The trade with South Australia is somewhat similar to that carried on with Victoria, owing to the fact that Broken Hill is almost entirely supplied by it. The Barrier trade is a great advantage to South Australia, as Broken Hill, with its population of 32,000, is commercially a part of that State.

There are very few articles where there is an excess of exports to South Australia, the principal being biscuits, cigarettes, pianos, medicines, manures, coal, and coke. In practically all the other important items the balance is in favour of South Australia.

Article.	Australian Produce Imported from South Australia.			New South Wales Produce Exported to South Australia.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter... ..	48,098	60,219	47,336	4,907	4,997	14,017
Eggs ... ..	33,531	41,806	49,605	.....	.....	.....
Meats—Bacon and ham ... ..	9,936	18,600	17,498	598	354	401
Biscuits ... ..	1,340	2,442	1,708	14,703	15,947	13,738
Fruits, fresh—						
Bananas ... ..	2,696	3,292	2,183	.....	.....	.....
Pine-apples ... ..	.....	.....	68	.....	.....	.....
Apples ... ..	5,271	5,608	6,845	81	139	151
Oranges and lemons ... ..	5,555	7,152	6,031	2,262	96	172
Other ... ..	8,025	15,485	20,315	414	389	357
Fruits, dried—						
Currants ... ..	2,565	6,279	12,708	.....	.....	.....
Raisins ... ..	8,786	15,841	12,009	.....	.....	.....
Sultanas ... ..	2,137	4,066	7,577	.....	.....	.....
Vegetables ... ..	20,966	24,846	21,967	.....	.....	8
Grain—Wheat ... ..	2,529	47,381	229,577	6,020	24,554	97
Grain, prepared—						
Flour ... ..	44,755	98,668	112,994	942	1,124	1,127
Malt ... ..	7,048	10,497	6,352	.....	.....	.....
Bran, pollard, and sharps ... ..	12,445	19,165	17,384	531	782	270
Hay and chaff ... ..	140,583	225,025	464,598	.....	.....	87
Jams and jellies ... ..	10,315	8,568	8,234	431	514	262
Potatoes ... ..	13,431	7,845	11,510	1,178	588	638
Spirits—Brandy ... ..	10,402	17,177	15,419	.....	.....	.....
Wine ... ..	26,098	29,859	35,629	1,842	2,041	2,530
Tobacco—						
Manufactured ... ..	13,611	12,228	18,542	17,469	18,156	17,413
Cigarettes ... ..	4,736	7,574	6,615	15,705	19,186	20,488
Cigars ... ..	1,028	1,420	1,691	68	100	109
Salt ... ..	36,425	46,821	45,874	.....	.....	.....
Apparel and attire ... ..	28,439	36,393	30,731	12,901	16,534	15,187
Boots and shoes ... ..	34,317	42,703	29,930	5,450	6,510	6,364
Pianos... ..	1,698	3,586	1,584	8,814	12,484	12,550
Jewellery ... ..	17,455	19,627	13,879	24,039	19,484	10,649
Machines and machinery ... ..	42,291	63,521	17,979	4,974	8,484	6,519
Agricultural implements ... ..	12,981	8,833	6,287	8	279	511
Harvesters ... ..	3,847	1,847	5,419	.....	.....	.....
Metal manufactures—N.E.I. ... ..	18,293	4,951	15,565	5,215	5,601	7,577
Furniture ... ..	11,140	19,272	8,550	896	1,608	1,655
Drugs and chemicals ... ..	4,436	9,555	13,628	1,736	2,451	3,483
Medicines ... ..	3,766	5,534	4,869	20,640	24,589	22,121
Blue ... ..	97	128	351	2,903	3,124	2,976
Candles ... ..	11,705	15,351	11,870	24	6	40
Soap, N.E.I. ... ..	17,510	13,224	16,971	4,928	5,138	4,757
Timber ... ..	11,453	31,483	11,670	4,364	3,520	7,963
Manures ... ..	148	210	3,034	11,216	12,236	6,241
Coal ... ..	31	.....	54	281,039	342,549	348,905
Coke ... ..	490	549	400	49,248	61,003	64,168

## WESTERN AUSTRALIA.

The import trade with Western Australia is practically nil, while the export trade has increased and is fairly valuable. The goods exported comprise principally coal, provisions, tobacco, apparel, pianos, and metal manufactures. Interstate trade with Western Australia has been absolutely free since 8th October, 1906. Prior to that date, under the Federal Constitution

Act, Western Australia could collect special duties on goods not originally imported from beyond the Commonwealth.

Article.	Australian Produce imported from Western Australia.			New South Wales Produce exported to Western Australia.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter...	.....	.....	.....	11,772	63,834	127,001
Meats—Bacon and ham	.....	.....	.....	2,485	1,265	6,880
Frozen mutton	.....	8	.....	29,506	27,836	18,135
Preserved	.....	.....	40	53,405	42,478	41,847
Bran, pollard, and sharps	.....	.....	.....	14,091	11,086	2,445
Jams and jellies	12	.....	.....	6,286	4,192	6,053
Linseed cake	.....	.....	.....	3,606	3,435	3,990
Tobacco—Manufactured	116	.....	.....	20,074	24,388	22,120
Cigarettes	.....	.....	.....	10,575	11,041	12,430
Apparel and attire	155	395	1,043	9,500	9,363	9,346
Pianos	.....	.....	173	10,461	10,666	13,837
Machines and machinery	382	363	1,179	3,414	3,506	5,065
Metal Manufactures—N.E.I.	163	294	119	6,566	6,673	5,194
Wire-netting...	.....	.....	.....	2,823	4,771	4,029
Drugs and Chemicals	.....	2	4	2,855	1,923	2,150
Medicines	4	11	30	12,411	17,864	18,249
Soap, N.E.I.	.....	.....	10	12,556	1,566	11,870
Manures	.....	.....	.....	7,867	6,718	6,935
Coal	.....	.....	.....	85,098	69,129	62,154

TASMANIA.

The principal articles imported from Tasmania are agricultural products in the shape of apples, potatoes, and other vegetables, oats, hay and chaff, hops, and timber, while there is also a good market for Tasmanian ale and jams. The exports are chiefly manufactured goods, apparel, boots, metal manufactures, medicines, soap, butter, biscuits, and coal.

Article	Australian Produce imported from Tasmania.			New South Wales Produce exported to Tasmania.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£	£	£	£
Butter...	2,525	175	.....	15,569	12,053	20,110
Meats—Bacon and ham	26	22	97	5,971	3,776	4,934
Biscuits	14	33	.....	8,923	8,612	8,396
Fruits, fresh—						
Apples	74,630	72,893	133,254	.....	.....	2
Oranges and lemons	.....	3	6	5,710	4,678	4,477
Other	18,710	16,950	21,867	1,682	1,389	971
Vegetables	4,574	5,030	8,295	610	733	511
Grain—Oats	33,087	70,698	60,045	112	.....	.....
Flour	.....	464	1,424	148	.....	123
Jams and jellies	12,691	15,308	28,911	7,289	2,540	4,620
Potatoes	223,651	173,577	332,417	.....	.....	32
Hay and chaff	121	11,485	50,012	.....	.....	91
Ale and beer	5,257	4,237	3,804	51	3	161
Hops	15,460	19,398	16,246	.....	.....	.....
Apparel and attire	1,225	1,713	1,844	3,176	4,923	6,291
Boots and shoes	339	207	149	7,859	6,882	4,146
Pianos	.....	.....	619	1,718	2,623	436
Metal Manufactures—N.E.I.	159	287	707	4,530	6,183	11,623
Wire-netting	.....	.....	.....	599	866	1,257
Cement	.....	.....	.....	3,245	3,779	4,876
Drugs and chemicals	250	473	518	1,878	1,125	3,046
Medicines	2	20	19	5,248	6,397	7,099
Blue	.....	.....	.....	442	536	829
Soap, N.E.I.	44	.....	65	4,759	873	5,646
Manures	.....	.....	.....	5,031	6,316	6,713
Timber	2,746	17,744	19,873	417	1,261	1,263
Coal	.....	.....	.....	33,696	38,849	43,297
Coke	.....	.....	.....	17,100	18,419	13,320

## TRADE WITH THE UNITED KINGDOM.

As previous tables show, the direct trade with the United Kingdom is decreasing, the development of facilities for communication having caused a great increase in trade with the British possessions and with foreign countries.

A classification of the principal articles imported into the State from the United Kingdom during the year 1908 is given below:—

Article.	Value.	Article.	Value.
	£		£
Ale and beer ... ..	123,044	Floor cloths and coverings ...	120,354
Apparel and soft goods—		Glass and glassware ... ..	65,095
Apparel and attire, N.E.I. ...	662,496	Hats and caps ... ..	131,629
Cosies, cushions, &c. ... ..	114,739	India-rubber manufactures ...	60,872
Curtains ... ..	23,560	Jewellery and precious stones	166,821
Gloves ... ..	66,622	Leather ... ..	113,273
Piece goods ... ..	2,585,209	Medicines ... ..	68,198
Sewing silks, &c. ... ..	141,521	Metals and Machinery—	
Trimmings, &c. ... ..	78,523	Implements, &c., agricul-	
Arms, ammunition, and ex-		tural ... ..	35,403
plosives ... ..	166,668	Iron and steel ... ..	641,311
Blankets and blanketing ... ..	24,186	Machines and machinery ...	1,057,519
Books (printed), music, &c. ...	136,697	Metals, manufactures of ...	867,936
Boots and shoes ... ..	94,072	Rails, &c., for Railways ...	181,314
Brushware (toilet and other) ...	30,261	Oils ... ..	102,000
Canvas and duck ... ..	67,049	Paints and colours ... ..	127,655
Carpets and carpeting ... ..	40,759	Paper ... ..	272,185
Cocoa and chocolate (ground) ...	70,233	Spirits ... ..	374,905
Confectionery ... ..	47,023	Stationery ... ..	88,003
Cordage and Twines—		Tinned plates and sheets ...	116,316
Metal ... ..	44,808	Tobacco ... ..	100,306
Other ... ..	59,297	Tools of trade ... ..	102,237
Cutlery, N.E.I. ... ..	57,678	Vehicles ... ..	191,935
Drugs and chemicals ... ..	156,557	Watches, clocks, &c. ... ..	44,056
Earthenware, &c. ... ..	48,560		
Electrical materials ... ..	106,481		
Fancy goods ... ..	77,065	Total, all Imports from United	11,853,791
Fish (preserved) ... ..	74,678	Kingdom.	

The largest market for the surplus products of New South Wales is found in the United Kingdom, which takes more than one-third of the export to oversea countries. The value of the principal articles exported during 1908 was as follows:—

Article.	Value.	Article.	Value.
	£		£
Butter ... ..	744,052	Leather ... ..	234,491
Copper ... ..	423,903	Meats ... ..	785,655
Gold ... ..	663,682	Skins and hides ... ..	368,914
Silver and lead ... ..	502,628	Tallow ... ..	390,955
Tin ... ..	193,847	Wool ... ..	4,648,648
Wheat ... ..	89,646		
		Total, all Exports to United	9,278,633
		Kingdom ... ..	

TRADE WITH BRITISH POSSESSIONS.

The following table shows the imports into New South Wales from the chief British possessions at decennial periods since 1870, and also for the year 1908:—

Possession.	1870.	1880.	1890.	1900.	1908.
	£	£	£	£	£
Canada .. .. .	1,726	17,530	18,784	114,321	117,987
Cape Colony .. .. .	.. .. .	5	55	943	30,545
Ceylon .. .. .	210,114	13,668	43,702	213,195	356,392
Fiji .. .. .	.. .. .	54,135	99,853	60,831	190,276
Hongkong .. .. .	48,808	228,526	271,730	67,923	106,531
India .. .. .	2,567	653	195,368	388,546	507,627
Mauritius .. .. .	325,680	207,107	5,059	76,779	3,287
Natal .. .. .	.. .. .	.. .. .	.. .. .	70	23,988
New Zealand .. .. .	298,951	460,735	932,073	1,348,605	1,354,216
Straits Settlements .. .. .	.. .. .	16,045	27,148	40,391	95,593
Other .. .. .	60	1,665	1,626	42,150	110,905
Total .. .. .	£ 887,906	1,000,069	1,595,398	2,358,759	2,897,347

As the table shows, imports from New Zealand, India and Ceylon, Canada, and Hongkong amounted in 1908 to £2,442,753, or about 84 per cent. of the total from all British possessions.

New Zealand gave promise at a former period of becoming one of the leading customers of this State; but from various causes both the imports and the exports fell away very considerably. The export trade in commodities shows but little sign of recovery, while the value of the imports fluctuates with the character of the season in New South Wales, a bad year being always attended with large importations of New Zealand oats and other produce.

Hongkong commercially is a port of China, and a considerable portion of the Chinese trade with New South Wales is transacted *via* that port. The Indian trade has grown up almost entirely since 1880, but it fluctuates largely owing to the variable exports of gold specie. The Fiji Island trade is valuable, but, like the trade with other colonial possessions, is rather unsteady.

From New Zealand, the imports comprised gold, £572,269; New Zealand pine, £284,905; hides and skins, £106,885; flax, £21,687; hay and chaff, £70,373; and oats, £68,999.

Amongst the chief imports from India were bags and sacks, £286,887; tea, £69,357; hessians, £58,295; and castor oil, £12,609. From Ceylon, tea to the value of £343,226 was imported during the year. The Indian and Ceylon teas have quite displaced the Chinese article in the public estimation; the imports of the latter having decreased from £217,402 in 1890 to £26,173 in 1908, while the value of Indian and Ceylon teas, imported during the same period, advanced from £43,317 to £412,583.

The chief articles imported from Fiji were copra, the value of which in 1908 amounted to £22,114; sugar, £106,175; and bananas, £53,200. Trade in bananas and sugar, which had been greatly restricted by the Federal tariff, has recovered.

Prior to 1893 there was a fair import trade in lumber with Canada, but the establishment of a direct line of steamers between Sydney and Vancouver in that year had the effect of increasing the number of articles imported, and of creating a new export trade. The chief imports in 1908 were machines and machinery, £19,485; medicines, £10,844; preserved fish, £13,590; fruits, fresh, £7,193; and timber, £7,008.

Hongkong furnished rice to the value of £21,335; tea, £15,877; and China oil, £6,180.

Amongst the chief imports from other possessions may be mentioned gold from New Guinea, valued at £35,319; manures (rock phosphates) from Ocean Island, £24,035; and rice from Burmah, £34,980.

The chief imports from the Straits Settlements comprised spices, £7,735; sago and tapioca, £15,408; and rice, £8,333.

The exports from New South Wales to the chief British possessions at the same periods were as shown below:—

Possession.	1870.	1880.	1890.	1900.	1908.
	£	£	£	£	£
Canada .. .. .	....	....	10	66,403	64,736
Cape Colony .. .. .	....	712	1,014	600,233	196,597
Ceylon .. .. .	1,258,813	1,781	4,080	58,402	82,835
Fiji .. .. .	....	120,518	98,951	183,579	315,185
Hongkong .. .. .	51,651	187,577	255,050	218,986	462,112
India .. .. .	11,176	19,611	253,250	115,894	413,586
Mauritius .. .. .	73,307	14,999	25,815	8,613	437
Natal .. .. .	....	....	....	155,254	106,694
New Zealand .. .. .	197,025	525,174	294,113	826,682	1,230,598
Straits Settlements .. .. .	2,421	5,392	34,347	39,898	244,177
Other .. .. .	....	2,915	1,654	40,973	90,774
Total .. .. .	£ 1,594,393	828,679	968,314	2,314,897	3,257,681

From the above table it will be seen that the bulk of the exports is taken by New Zealand, Hongkong, and India, in the order named, these three possessions receiving nearly two-thirds of the total exports to all British possessions in 1908.

The chief exports to India were gold bullion, £185,104; horses, £32,606; copper ingots, £44,411; timber, rough, £27,333; and coal, £83,247. Ceylon received in 1908 gold bullion to the amount of £40,023.

Amongst the principal exports to Cape Colony were butter, £11,667; and leather, £32,249. Sugar, valued at £127,656, was re-exported to Cape Colony.

Shipments for 1908 to Hongkong included timber, rough, £29,015; coal, £39,040; pig lead, £84,993; and gold specie, £276,551.

New Zealand received gold specie to the amount of £132,480; undressed timber, £110,724; coal, £145,760; manures, £47,714; soap, £21,696; and flour, £20,820. Articles re-exported to New Zealand were machinery, £43,019; instruments, £41,133; tea, £28,143; sugar, £26,811; and piece-goods, £37,219.

The principal exports to the Straits Settlements were coal, £111,680; and tin ore, £98,496.

Amongst exports to other British possessions may be mentioned frozen mutton, £43,044, despatched to Natal during 1908. The trade with South Africa, which assumed considerable proportions during the war, fell away largely in 1903, nevertheless, the accessibility of its markets makes the possession a convenient outlet for Australia's exportable surplus of forage and foodstuffs.

#### TRADE WITH FOREIGN COUNTRIES.

The total value of the trade of the State with countries other than those under British dominion is appreciably increasing.

Every year steamers of greater tonnage and higher speed are visiting the Commonwealth of Australia from Europe, and a considerable expansion of commerce must take place, owing to the new outlets for trade which have thus been provided. The values of the imports into New South Wales from

the principal foreign countries during the period 1870-1908 were as shown below:—

Country.	1870.	1880.	1890.	1900.	1908.
	£	£	£	£	£
Belgium .. .. .	.....	.....	130,819	147,661	459,630
France and New Caledonia .. .. .	66,119	160,348	201,791	298,593	196,981
Germany .. .. .	.....	47,169	639,475	1,105,664	1,181,229
Netherlands and Java .. .. .	71,365	136,640	122,342	103,493	205,109
Norway .. .. .	.....	.....	20,891	77,596	60,142
Italy .. .. .	.....	.....	23,961	92,732	101,132
Sweden .. .. .	.....	.....	9,852	31,801	52,114
China .. .. .	258,412	368,129	241,840	190,456	39,970
Japan .. .. .	.....	5,419	22,400	122,041	235,489
South Sea Islands .. .. .	13,024	42,789	40,214	107,488	109,974
United States .. .. .	154,799	387,056	859,102	2,557,961	2,318,431
Other Foreign Countries .. .. .	252,927	16,730	29,624	284,629	117,197
Total .. .. .	£ 816,646	1,154,280	2,341,951	5,120,115	5,077,348

As the table shows, the imports from the United States amounted, in 1908, to £2,318,431, or nearly half the total imports from all foreign countries. Next in order comes Germany with £1,181,229, followed by Belgium with £459,630, Japan with £235,489, and Java with £169,025.

At one time the United States was the largest foreign market for the exports of this State, but the direct shipments of wool to the Continent of Europe, which are steadily increasing, have placed it below Germany, France, and Belgium, although the large shipments of gold in several years may seem to indicate otherwise. The import trade with America, however, is still greater than that transacted direct with the principal Continental countries, although the imports from Germany are growing, and, moreover, some foreign products are sent to the State by way of Great Britain.

The direct trade between this State and Belgium began in 1881, and may be attributed, to a large extent, to the International Exhibition held in Sydney during 1879-80. In point of value the Belgian trade of the State is larger than that of any foreign country, Germany, the United States, and France excepted; but the port of Antwerp, which receives the bulk of the trade, is a distributing centre for a great part of the wool destined for French, German, and other Continental markets, and it is not possible to say how much of the goods shipped to Belgium are for local requirements.

A large trade has been maintained with Germany since 1879, and has attained considerable dimensions, exceeding that with any other foreign country, although the customs returns may not always disclose this fact.

The French trade has risen in importance since 1881, but it has been accompanied by a corresponding falling-off in the trade with New Caledonia, the chief dependency of France in the South Pacific. Thus, while in 1890 the total value of French imports and exports amounted to only £351,795, as against £2,826,092 in 1908, that of New Caledonia fell during the corresponding period from £277,309 to £132,615. As already shown, New Caledonia is an important market for the produce of the State, though its value has been affected by the establishment of regular communication between France and her dependency, and by increases in the French tariff during recent years.

The other foreign countries whose trade with New South Wales is of importance, are China and Japan. The imports and exports of Hongkong, however, belong in reality to the Chinese Empire generally, and the diminution which has taken place in the China trade since 1881 is to be attributed largely to the transference of part of the trade from the ports of the Empire to Hongkong. But, when allowance is made for this transference, it will be found that the actual loss of trade is considerable. The main import from



China is tea, £26,173, which exhibits a falling-off, the decline being attributable to the large consumption of Indian and Ceylon teas. The direct export trade amounted to £235,584, the principal item being copper ingots, £172,196.

The war with China gave Japan a new importance, which was enhanced by the Russo-Japanese conflict, so that in the future Japan may be expected to offer a large market for many of the products of New South Wales.

The imports from the United States consisted of a large number of articles, amongst the principal being preserved fish, £83,340; instruments, £91,010; machinery, £351,329; metal manufactures, £173,146; kerosene oil, £106,067; printing paper, £79,998; tobacco, £235,840; tools of trade, £82,446; vehicles, £55,560; and timber, £326,097.

The chief imports from Germany included wearing apparel, £56,070; fancy goods, £27,774; pianos, £76,493; china ware, £34,376; drugs and chemicals, £45,056; glass and glassware, £41,444; machinery, £65,087; metal manufactures, £183,840; piece-goods, £39,695; paper, £82,427; and electrical materials, £28,888.

From France the chief imports in 1908 were cream of tartar, £61,301; piece-goods, £13,134; spirits, £7,879; and corks and bungs, £13,152.

The list of imports from Belgium is lengthy, and liable to fluctuations. The principal articles were iron and steel, £33,563; glass and glassware, £37,562; matches and vestas, £23,142; wine, £20,734; metal manufactures, £72,682; and vehicles, £20,548.

From Norway, timber and paper of the value of £33,094 and £30,909, respectively, were received during the year; and from Sweden, timber, £15,182; and paper, £22,432.

The exports from New South Wales to the countries mentioned in the preceding table were as appended:—

Country.	1870.	1880.	1890.	1900.	1908.
	£	£	£	£	£
Belgium			1,011,846	620,349	1,748,183
France and New Caledonia	53,257	181,847	427,313	1,204,050	2,761,776
Germany			404,280	844,495	3,937,045
Netherlands and Java	25,981	11,042	50,358	86,203	265,011
Italy			24,498	61,132	130,792
Norway					
Sweden					1,027
China	17,516	14,344	1,037	68,004	233,584
Japan	52	6,581	7,156	133,989	746,833
South Sea Islands	131,918	52,657	66,714	126,851	123,594
United States	38,817	172,648	1,300,375	3,981,242	1,001,326
Other Foreign Countries	35,349	32,309	169,988	470,809	1,190,410
Total	£ 302,390	472,488	3,463,565	7,597,133	12,141,281

Most of the exports were sent to France, Germany, the United States, and Belgium, these four countries taking about 78 per cent. of the total exports to all foreign countries. A classification of the chief articles of export to these countries is appended:—

Article.	France.	Germany.	Belgium.	United States.
	£	£	£	£
Coal				102,073
Copper ingots	11,412	11,568	27,902	80,380
Silver-lead ore	247	76,833	193,852	
Sheepskins with wool	138,065	8,793	5,350	141
Skins, other	12,376	78,733	48,239	31,708
Tin, ingots and ore	7,936	94	44,612	18,913
Wool	2,430,169	2,740,482	1,172,738	302,255
Lead	37,317	16,680	103,584	2,379
Gold Specie	410	890,000		300,475

In addition to the above, Japan took wool to the value of £113,886. The value of coal exported to Chile was £427,820; to Hawaiian Islands, £35,828; to Peru, £42,121; and to the Philippine Islands, £190,899. The Philippines received also frozen beef and mutton to the value of £8,891; flour, £44,398; undressed timber, £12,157; and butter, £10,896; the Netherlands, kerosene shale valued at £14,761; pig lead, £63,191; and silver ore at £81,860; and Italy, wool to the value of £51,500; and skins, £40,461.

Under the present tariff conditions little extension of commercial intercourse with the United States can be expected; but trade with the East, especially with China, Japan, and the Philippines, gives good promise for the future. Japan has established a national line of steamers to foster the trade between that country and Australia, and during 1908 received from the State exports valued at £746,833, the chief items being gold specie, £550,000, and wool, together with smaller quantities of other pastoral products, such as bones, manures, &c. The State also finds a ready market there for wheat and flour.

The chief exports to Java were coal, £44,358; flour, £14,059; and horses, £12,446. Most of the requirements of the Dutch East Indies are met by America, but there is no doubt room for a greatly increased demand for Australian products.

A fair amount of business is transacted with the South Sea Islands, the exports consisting chiefly of foreign goods of all descriptions re-exported, among which may be mentioned apparel, &c., £5,605; piece-goods, £10,680; metal manufactures, £4,729; tobacco, £5,800; rice, £8,684; biscuits, £9,176; flour, £7,819. The last two articles mentioned were almost entirely the produce of New South Wales. The imports consist of island produce, the chief of these being copra, valued in 1908 at £102,115. New Caledonia received exports from the State to the amount of £99,911 during the year 1908, the chief articles being coal, £5,433; flour, £29,900; sugar, £5,007; and kerosene oil, £3,168.

IMPORTS FOR HOME CONSUMPTION.

The net imports into New South Wales during 1908 amounted to £29,077,053, or £18 6s. 1d. per head of population. Of this amount £11,414,614 represented the value of Australian produce, and £17,662,439 the value of British and foreign produce. The former, however, includes a fair proportion of goods made from articles of extra-Australian origin. Excluding specie and bullion, the figures are: Australian produce, £10,250,756; British and foreign produce, £17,629,243; total, £27,879,999.

The following statement shows the net imports during the last five years, and the equivalent rates per head of population; stimulants and narcotics being distinguished from other goods:—

Year.	Net Import.			Per Head of Population.		
	Stimulants and Narcotics.	All other Articles.	Total.	Stimulants and Narcotics.	All other Articles.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
1904	740,505	16,237,689	16,978,194	0 10 3	11 4 6	11 14 9
1905	775,944	19,930,728	20,706,672	0 10 6	13 9 7	14 0 1
1906	852,930	20,412,353	21,265,283	0 11 3	13 9 7	14 0 10
1907	1,105,158	27,300,896	28,406,054	0 14 3	17 11 2	18 5 5
1908	1,151,684	27,925,369	29,077,053	0 14 6	17 11 7	18 6 1

The above figures show the wonderful recovery in the spending power of the people. Since 1904, and following the long drought, the net import of stimulants and narcotics has increased by 4s. 3d. per head, or 41 per cent., and of all other articles taken together by £6-7s. 1d. per head, or 57 per cent.

## CUSTOMS AND EXCISE REVENUE.]

On the 1st January, 1901, the Department of Customs and Excise was transferred to the control of the Commonwealth. Previously it had been administered by the State. On the 8th October, 1901, the first uniform Federal tariff was introduced in the Federal Parliament, and thereupon the State tariff ceased to have effect. On 8th August, 1907, a new tariff was introduced, which superseded that of 1901, and duties were altered, in many cases being increased considerably. The duties of Customs and Excise are now collected under the Customs Act (No. 7 of 1908), and the Excise Tariff (No. 8 of 1908).

The following statement shows the amounts collected under each division of the tariff during 1908, and also shows the Interstate adjustments, and refunds and drawbacks:—

Tariff Division.	Credited.			Debited.				Net Revenue Collected
	Gross Collections.	Inter-state Credits.	Total.	Draw-backs.	Re-funds.	Inter-state Debits.	Total.	
Customs—	£	£	£	£	£	£	£	£
I. Stimulants .. .. .	925,763	37,679	963,442	21	349	98,079	98,449	864,993
II. Narcotics .. .. .	497,994	42,223	540,217	....	43,645	104,174	147,819	392,398
III. Sugar .. .. .	20,926	4,030	24,956	2,151	9	1,087	3,247	21,709
IV. Agricultural products and groceries .. .. .	372,873	19,272	392,145	10,254	1,624	16,806	28,684	363,461
V. Apparel and textiles .. .. .	722,205	75,193	797,398	15,887	4,956	83,852	104,695	692,703
VI. Metals and machinery .. .. .	435,151	26,468	461,619	7,808	5,882	31,656	45,341	416,278
VII. Oils, paints, and varnishes .. .. .	82,084	5,359	87,443	4,363	687	6,172	11,222	76,221
VIII. Earthenware, cement, china, glass, and stone .. .. .	91,166	5,355	96,521	1,346	1,869	5,903	9,118	87,403
IX. Drugs and chemicals .. .. .	33,593	2,695	36,288	1,670	343	8,143	10,156	26,132
X. Wood, wicker, and cane .. .. .	133,382	9,759	143,141	1,470	509	3,645	5,624	137,517
XI. Jewellery and fancy goods .. .. .	103,064	21,323	124,387	5,520	1,074	33,717	40,311	84,076
XII. Leather and rubber .. .. .	81,805	18,894	100,699	4,153	456	19,693	24,302	76,397
XIII. Paper and stationery .. .. .	75,607	5,548	81,155	1,111	507	7,109	8,727	72,428
XIV. Vehicles .. .. .	41,169	6,662	47,831	811	430	3,213	4,454	43,377
XV. Musical instruments .. .. .	32,993	2,408	35,401	356	195	4,380	4,931	30,470
XVI. Miscellaneous .. .. .	84,525	5,872	90,397	3,487	766	8,374	12,627	77,770
Adjustments of Duties on ships' stores .. .. .	....	10,305	10,305	....	....	21,999	21,999	Dr. 11,694
Total, Customs .. .. .	3,734,300	299,045	4,033,345	60,403	63,301	458,002	581,706	3,451,639
Excise—								
Beer .. .. .	183,322	3,315	186,637	279	....	2,567	2,846	183,791
Spirits .. .. .	61,674	12,147	73,821	5	62	2,186	2,253	71,568
Sugar .. .. .	264,718	26,596	291,314	1,329	18	6,234	7,581	283,733
Tobacco, &c. .. .. .	363,365	35,765	399,130	....	1	123,223	123,224	276,906
Starch .. .. .	6,317	2,961	9,281	3	....	240	243	9,038
Adjustment of Duties on ships' stores .. .. .	....	1	1	....	....	1	1	....
Licenses .. .. .	2,742	....	2,742	....	....	....	....	2,742
Total, Excise .. .. .	882,138	80,788	962,926	1,616	81	139,451	141,148	821,778
Total, Customs and Excise .. .. .	4,616,438	379,833	4,996,271	62,019	63,382	597,453	722,854	4,273,417

Nearly half the revenue is obtained from the duties, customs and excise, on stimulants and narcotics. Of the other divisions apparel and textiles contribute the largest amount, and then come the divisions comprising agricultural products and groceries, and metals and machinery.

The amount collected from customs and excise, and the proportion per head of population during the last twelve years, have been as follows. A tariff on a freetrade basis was in force in the State in the year 1896, and continued in existence until October, 1901, when the first Commonwealth tariff was imposed:—

Year.	Net Amount collected from Customs and Excise.	Per Head of Population.	Year.	Net Amount collected from Customs and Excise.	Per Head of Population.
	£	£ s. d.		£	£ s. d.
1896	1,637,078	1 5 9			
1897	1,520,116	1 3 7	1903	3,384,458	2 7 7
1898	1,551,827	1 3 8	1904	3,094,608	2 2 9
1899	1,660,333	1 4 11	1905	3,112,368	2 2 1
1900	1,778,993	1 6 3	1906	3,352,444	2 4 3
1901	2,475,729	1 16 1	1907	4,170,046	2 13 8
1902	3,116,052	2 4 9	1908	4,273,417	2 13 10

Under the Federal tariff the contributions to Customs and Excise have increased by over £1 per head.

## AGRICULTURE.

THE agricultural interest of New South Wales is becoming more extensive and valuable every year. The advantages derivable from a wide range of climate, and from fertile soils of varying characteristics, are such as render possible the cultivation of plants indigenous to cold, temperate, and even tropical regions.

Very few parts of the State are so barren or unwatered as to be thereby unsuitable for cultivation; consequently the only problem which confronts the settler, as a rule, is the choice of type of production to which he should devote his land, or whether he should combine two or more primary industries in developing his advantages.

Certain parts of the mountain regions and portions of the great western plain are unsuitable for profitable working; and on the whole, it may be said that there are about 8,000 square miles, or approximately one-fortieth of the State, unfit for any kind of cultivation.

The country which is essentially suitable for farming operations, is situated in the Eastern and the Central Land Divisions, the whole area in those divisions, with the exception of portions of the mountain chain, being capable of profitable agricultural development. The rainfall within this region is such as to admit of the successful cultivation of about 50,000,000 acres under ordinary conditions; and that area might be extended by the application of modern scientific methods relating to intense cultivation.

The land division consisting of the Great Western Plains is so capricious as to rainfall that no reliance can be placed on payable results accruing from agricultural pursuits; moreover, from the grazier's aspect as to cost, results, and markets, the pastoral industry presents superior attractions in this part of the State.

### AREA UNDER CULTIVATION.

During the year ended 31st March, 1909, an area of 3,521,895 acres, including grassed lands, was under cultivation, of which the area under crops was 2,713,971 acres, and the area sown with grasses was 807,924 acres.

The progress of cultivation at five-year intervals since 1856 is shown in the following table, in which, in common with the subsequent agricultural tables, the year relates to the period from the 1st April in the year mentioned to the 31st March in the following year:—

Year.	Area under—		Acres per inhabitant under—	
	Cultivation, including grasses.	Crops.	Cultivation.	Crops.
	acres.	acres.		
1856	186,034	156,210	0·69	0·58
1860	260,798	209,794	0·75	0·60
1865	378,254	295,092	0·92	0·72
1870	426,976	317,581	0·86	0·64
1875	451,138	323,379	0·76	0·54
1880	710,337	629,180	0·95	0·84
1885	868,093	714,790	0·91	0·75
1890	1,241,419	852,704	1·11	0·76
1895	1,649,462	1,348,600	1·31	1·07
1900	2,868,305	2,445,564	2·10	1·79
1905	3,465,611	2,838,081	2·32	1·90
1906	3,521,842	2,824,211	2·30	1·84
1907	3,306,217	2,570,137	2·10	1·63
1908	3,521,895	2,713,971	2·10	1·69

During the first thirty years covered by the table, exceedingly slow progress was made in agricultural development; even including grass lands, the average cultivation per inhabitant in 1890 was only about one acre, and the total area under crop did not reach a million acres till 1892. During the next six years expansion was much more rapid, and the recorded area increased to 2,000,000 acres. The largest increase in any year was in 1898, and amounted to 382,671 acres, being over 20 per cent. advance on the previous year. Since 1898 the rate of growth has been much slower, and at the present time the area slightly exceeds 2,700,000 acres. Comparison of the area actually under crop with the population shows that the area reached one acre per inhabitant in 1893. During the next five years the industry had so developed that in 1898 the rate was 2 acres per head; but since that year the cultivation per capita has remained practically stationary. The following statement shows, in decennial periods, the relative increases in population and in area under crop:—

	1870-80.	1880-90.	1890-1900.	1900-08.
Increase per cent. in population	50·0	50·0	21·6	16·0
Increase per cent. in area under crop	58·3	35·5	186·8	24·9

During the first ten years quoted above, the crop area increased more rapidly than the population. From 1880 to 1890 these conditions were reversed, and the population increased at a faster rate by 41 per cent. than the crop area; but during the next period, 1890-1900, cultivation increased no less than 187 per cent., or nearly nine times faster than the population. This increase was due mainly to the cultivation of large areas on holdings previously devoted to pastoral purposes. Since 1900 this phenomenal increase has not been maintained, and the decline in rapidity of development has been due partly to the check induced by adverse seasons, but more materially to the increased attention given to dairying; yet in the period 1900-1908 the area cropped increased 55 per cent. faster than population.

The following statement shows the districts in which the greatest advances have been made:—

Division.	Area under Crops.			Index Numbers. (1900=100).	
	1900.	1905.	1908.	1905.	1908.
Coastal—	acres.	acres.	acres.	per cent.	per cent.
North Coast	109,568	109,704	99,025	100·12	90·38
Hunter and Manning	111,261	103,511	100,774	93·03	90·57
Cumberland	47,152	46,053	43,998	97·67	93·31
South Coast	55,209	51,009	53,440	92·39	96·80
Total	323,190	310,277	297,237	96·00	91·97
Tableland—					
Northern	60,186	68,362	69,266	113·58	115·09
Central	217,463	222,715	204,890	102·41	94·22
Southern	62,363	55,336	53,926	88·73	86·47
Total	340,017	346,413	328,082	101·88	96·49
Western Slopes—					
North	157,091	265,217	271,197	168·83	172·64
Central	259,588	412,578	427,643	158·94	164·74
South	416,465	442,855	471,649	106·34	113·26
Total	833,144	1,120,650	1,170,489	134·51	140·49
Riverina	756,855	745,183	672,196	98·46	88·81
Western Plains—					
North	5,994	10,261	8,437	171·19	140·76
Central	165,032	237,437	225,199	174·17	136·46
Total	171,026	297,698	233,636	174·07	136·61
Western Division	21,332	17,860	12,331	83·72	57·81
All Divisions	2,445,564	2,838,081	2,713,971	115·64	110·97

It is evident from these figures that, between 1900 and 1908, absolute increases have occurred in only seven districts, viz., the Northern Tableland, the whole of the Western Slopes, and of the Western Plains. On the other hand, the most notable decrease has been in the Western Division, in which the area under crop is little more than half the crop area for 1900. Considerable decreases have occurred also in the Southern Tableland, the Riverina division, and the whole Coastal region.

The largest aggregate increase has taken place in the North-western Slope, and amounted to 114,106 acres since 1900. Taken as a whole, the Western Slopes show an advance of 337,345 acres. The districts which show the heaviest proportions of the total cultivation are the Riverina, with 24·77 per cent., and the Western Slopes, with an aggregate of 43·13 per cent. in its three divisions. The remaining 32·1 per cent. of the total cultivation is distributed over the Coastal, Tableland, and Western Plains Divisions; less than 5 per cent. of the area under crop is in the Western Division.

The great extension of cultivation during the last sixteen years has been fostered by wheat-growing on large estates formerly devoted almost exclusively to grazing, by the added security against bad seasons afforded by wool and wheat-farming in conjunction, and also by the adoption of the system of farming on shares. During the year 1908 the area cultivated on shares was 307,750 acres, of which 173,351 acres were in the Western Slopes Division and 111,077 acres in the Riverina.

In order that the figures relating to cultivation may be fully appreciated, the following table has been prepared, showing the area under crops, in conjunction with the total area, and the area in occupation, in each division during 1908:—

Division.	Total area of Division.	Area under—			Proportion of area under crops to—	
		Occupation in holdings over 1 acre.	Crops.	Sown grasses.	Total area.	Area under occupation.
Coastal—	acres.	acres.	acres.	acres.	per cent.	per cent.
North Coast ... ..	5,409,370	4,064,208	99,025	517,077	1·8	2·4
Hunter and Manning ... ..	10,390,920	6,045,204	100,774	57,167	1·0	1·7
Cumberland ... ..	1,070,989	543,852	43,998	3,263	4·1	8·1
South Coast ... ..	5,484,122	2,527,162	53,440	171,602	1·0	2·1
	22,355,401	13,180,426	297,237	749,109	1·3	2·3
Tableland—						
Northern ... ..	8,928,487	7,506,860	69,266	14,658	0·8	0·9
Central... ..	8,989,259	6,414,066	204,890	9,576	2·3	3·2
Southern ... ..	7,913,500	6,589,048	53,926	4,361	0·7	0·8
	25,831,246	20,509,974	328,082	28,595	1·3	1·6
Western Slopes—						
North ... ..	9,813,555	8,387,739	271,197	3,539	2·8	3·2
Central... ..	6,252,567	5,042,087	427,643	641	6·8	8·5
South ... ..	8,185,759	7,228,877	471,649	4,069	5·8	6·5
	24,251,881	20,658,703	1,170,489	8,249	4·8	5·7
Riverina ... ..	19,767,073	18,531,559	672,196	14,529	3·4	3·6
Western Plains—						
North ... ..	10,030,901	7,611,757	8,437	5,509	0·1	0·1
Central... ..	16,029,880	14,408,253	225,199	1,864	1·4	1·6
	26,060,781	22,020,010	233,636	7,373	0·9	1·1
Western Division ... ..	80,368,498	76,718,287	12,331	69	0·0	0·0
All Divisions ... ..	198,634,880	171,618,959	2,713,971	807,924	1·4	1·6

Only about 1·4 per cent. of the total area of New South Wales is actually devoted to the growth of agricultural produce; and if the small extent of land upon which grasses have been sown for dairy-farming.

purposes be added to the area under crops, the proportion reaches only 1·8 per cent., and represents about 2·2 acres per head of population. The proportion of the cultivated area on alienated holdings is only 5·4 per cent. of the total area of alienated rural lands. Of the area in occupation, 50,509,842 acres are alienated and 121,109,117 acres are leased from the Crown.

Purely agricultural settlements are confined to limited areas in the alluvial lands of the lower valleys of the coastal rivers, and to parts of the southern and central divisions of the tableland; and the cultivation of crops is conducted, to a large extent, conjointly with grazing operations. Tenant occupancy, so general in the United Kingdom, is but little known in New South Wales; of the total area under crop, 2,230,104 acres, or 82·2 per cent., were cultivated by owners, and 483,867 acres, being 17·8 per cent., were cultivated by tenant occupiers, including Crown land lessees.

In addition to the area shown as cultivated and under sown grasses, 56,393,182 acres were ringbarked and partly cleared, and 1,604,305 acres were ready for cultivation on alienated holdings, comprising 77,420 acres in fallow, 1,241,583 acres which had been cropped previously, and 285,302 acres of new land cleared and prepared for ploughing.

Cultivation is necessarily not confined to particular districts, but is carried on in all parts of the State. Some of the best lands for producing cereals are, and will remain probably for many years, in the hands of the pastoralists; so that farmers have not always been settled on the kind of country best suited for the cultivation of their crops.

The county of Cumberland, which contains the densest population, has a large area cultivated in proportion to area under occupation; but generally the Western Slopes show the largest relative areas under cultivation, followed by the Riverina and Central Tableland. In the north-western plain and the Western division there is practically no cultivation.

The largest proportion of the area under crops is devoted to the cultivation of wheat, which, in 1908, accounted for 51·3 per cent. of the total; the area for hay was 26·4 per cent., for green food 8·7 per cent., maize 6·6 per cent., and oats 2·2 per cent. The following statement shows the cultivated area for each of the principal crops, at decennial intervals since 1880, and the relative importance of each crop:—

Crop.	Area.				Proportion per cent.			
	1880.	1890.	1900.	1908.	1880.	1890.	1900.	1908.
	acres.	acres.	acres.	acres.				
Wheat ... ..	253,137	333,233	1,530,609	1,394,056	40·2	39·1	62·6	51·3
Maize ... ..	127,196	191,152	206,051	180,812	20·2	22·4	8·4	6·6
Barley ... ..	8,056	4,937	9,435	9,517	1·3	·6	·4	·3
Oats ... ..	17,922	14,102	29,383	59,881	2·9	1·6	1·2	2·2
Hay ... ..	131,153	175,242	466,236	715,896	20·9	20·6	19·1	26·4
Green food ...	21,383	37,473	78,144	235,539	3·4	4·4	3·2	8·7
Potatoes ...	19,095	19,406	29,408	26,301	3·0	2·3	1·2	1·0
Sugar-cane ...	10,971	20,446	22,114	16,981	1·7	2·4	·9	·6
Vines ... ..	4,800	8,044	8,441	8,251	0·8	·9	·3	·3
Orchards ...	24,565	33,643	46,234	45,880	3·9	3·9	1·9	1·7
Market-gardens							5,098	7,764
Other crops ...	10,902	9,928	12,948	13,640	1·7	1·2	·5	·5
Total ... ..	629,180	852,704	2,446,767	2,717,085	100	100	100	100



The figures for the year 1900 and 1908 include the areas double-cropped, viz., 1,203 acres and 3,114 acres respectively.

The area devoted to wheat has always exceeded that given to other crops, and from the year 1880 the proportion, though fluctuating, has remained high; it now stands at slightly more than half the whole area under cultivation. During the same time the proportion under maize has decreased from 20 per cent. to 6·6 per cent. Other crops have not varied materially, excepting green food, for which, in 1908, the area was more than double that for 1890.

#### VALUE OF PRODUCTION.

The average value of the principal crops, with the proportion of each to the total value, during the last three years, is shown in the following table; the values are based on prices obtained at the farm:—

Crop.	Value.			Proportion per cent.		
	1906.	1907.	1908.	1906.	1907.	1908.
	£	£	£			
Wheat ... ..	2,943,150	1,831,180	2,774,000	39·1	27·8	33·4
Maize ... ..	720,375	905,570	954,700	9·6	13·7	11·5
Barley ... ..	23,015	16,160	34,240	·3	·2	·4
Oats ... ..	152,160	117,120	111,910	2·0	1·8	1·3
Hay and straw ... ..	1,767,920	1,878,280	2,630,760	23·5	28·5	31·6
Green food... ..	245,785	523,620	515,900	3·3	7·9	6·2
Potatoes ... ..	548,470	207,590	275,340	7·3	3·2	3·3
Sugar-cane... ..	192,500	252,480	118,480	2·6	3·8	1·4
Grapes ... ..	76,580	43,060	50,130	1·0	·7	·6
Wine and brandy... ..	81,520	65,220	67,330	1·1	1·0	·8
Oranges and lemons ... ..	122,460	202,460	129,610	1·6	3·1	1·6
Orchards ... ..	230,135	153,110	231,370	3·1	2·3	2·8
Market gardens ... ..	258,000	262,786	298,740	3·4	4·0	3·6
Other crops ... ..	155,480	129,354	126,390	2·1	2·0	1·5
Total ... ..	7,517,550	6,587,990	8,318,900	100	100	100

It is apparent that the agricultural wealth of New South Wales at present depends mainly on the return from wheat and hay, the value of these crops in 1908 being £5,404,760, or 65 per cent. of the total. The return of wheat for the year ended March, 1909, shows a total crop of 15,483,276 bushels, valued at £2,774,000. The value of maize is next in importance, but at a considerably lower level; and the returns from sugar-cane, vines, green food, orchards, and gardens are comparatively of smaller value.

The next statement shows the areas cultivated and the value of the production from agriculture, as well as the average value per acre over five-year periods since 1880:—

Period.	Area Cultivated.	Value of Production.	Value per acre.
	acres.	£	£ s. d.
1880—1885 ... ..	3,310,427	17,971,776	5 8 7
1885—1890 ... ..	4,176,834	19,229,839	4 12 1
1890—1895 ... ..	5,242,770	18,940,086	3 12 3
1895—1900 ... ..	9,474,285	26,003,397	2 14 11
1900—1905 ... ..	12,183,823	30,827,138	2 10 7
1905—1908 ... ..	10,946,408	28,967,490	2 12 11

The highest relative value received in any year was in 1881, when the return was £4,215,268, or £7 4s. 5d. per acre. Decrease in prices, not want of productiveness, caused the decline in value after 1881. The fall in prices, especially of wheat, was very rapid down to 1895; for the next three years there was a very material increase; in 1899 they fell again to the 1895 level; but in 1901 there was a general increase; while towards the close of 1902, and almost up to the close of 1903, the effects of the adverse season were acutely felt, and prices rose to double those of the previous year. At the end of 1903, when heavy crops began to arrive, prices again fell, but they were, nevertheless, higher than the 1901 level. In 1904 prices increased slightly, and were generally higher than at the close of 1903. In 1905 there was a slight falling off as compared with 1904. In 1907 there was a marked increase in the prices, which was fairly maintained during 1908.

WHEAT.

In New South Wales, as in most other countries, the area devoted to wheat far exceeds that of any other cereal; and it is in this form of cultivation that the returns of the State show the greatest expansion. In 1908 the area under wheat for grain was 1,394,056 acres, which was 51·3 per cent. of the whole area under cultivation. The year 1897 may be said to mark the beginning of the present era of wheat-growing in the State, for it was in that year that the production for the first time exceeded the consumption, and left a surplus available for export. The following statement shows the increase in the area under wheat, between 1897 and 1908, in the various districts; and the figures for 1907 are inserted to supply an immediate comparison with 1908:—

Division.	Area under Wheat for Grain.			Proportion in each District.		
	1897.	1907.	1908.	1897.	1907.	1908.
	acres.	acres.	acres.	per cent.	per cent.	per cent.
Coastal ... ..	16,192	4,940	4,261	1·6	·4	·4
Tableland—						
Northern ... ..	20,686	6,362	5,631	2·1	·4	·4
Central ... ..	80,318	62,587	54,474	8·1	4·5	3·9
Southern ... ..	22,421	4,990	6,744	2·2	·4	·5
	123,425	73,939	66,849	12·4	5·3	4·8
Western Slopes—						
North ... ..	59,330	172,907	191,749	6·0	12·4	13·8
Central ... ..	102,136	273,025	242,600	10·3	19·6	17·4
South ... ..	198,268	274,950	310,513	19·9	19·9	22·2
	359,734	720,882	744,862	36·2	51·9	53·4
Western Plains ...	31,589	142,979	111,663	3·2	10·3	8·0
Riverina ... ..	460,474	445,537	465,484	46·4	32·0	33·3
Western Division ...	1,936	1,894	937	·2	·1	·1
All Divisions ...	993,350	1,390,171	1,394,056	100·0	100·0	100·0

As might be expected, the proportions of land under wheat in each district generally follow the same order as shown in a previous table for the total area under cultivation. Between 1897 and 1908, however, the proportions in each district have changed considerably. The tablelands, for instance, now include only 4·8 per cent. of the whole area, as against 12·4 per cent. in 1897, and the Riverina 33·3 per cent., as against 46·4 per cent., while the Western Slopes have increased from 36·2 per cent. to 53·7 per cent., and the Western Plains from 3·2 per cent. to 8 per cent. The largest proportionate increase in area has been in the Western Plains, where it is now more than three and a half times the area of 1897; closely following is the North-western slope; then Central-western and the South-western Slopes. On the northern and southern tablelands wheat-growing is declining in favour. The great bulk of the wheat is grown on the Western Slopes and in the eastern part of the Riverina, these two districts together contributing 93 per cent. of the whole. On the coast, in the Western Division, and in the Central-western Plain, with the exception of the eastern fringe, the wheat area and the yield are very small. The expansion in the Western Plains is attributable to the increase around Narromine.

The next statement shows the yield in each of the above-named districts in the same years:—

Division.	Yield of Grain.			Average yield per acre.			
	1897.	1907.	1908.	1897-1907	1897.	1907.	1908.
	bushels.	bushels.	bushels.	bushels	bushels	bushels	bushels
Coastal ... ..	329,274	23,996	62,843	12·4	20·3	4·9	14·7
Tableland—							
Northern ... ..	300,215	90,728	78,831	13·8	14·5	14·3	14·0
Central ... ..	933,296	479,404	376,286	11·6	11·6	7·7	6·9
Southern ... ..	242,556	42,176	88,840	11·9	10·8	8·5	13·2
	1,476,067	612,308	543,957	11·9	12·0	8·3	8·1
Western Slopes—							
North ... ..	1,208,859	1,070,344	3,286,157	12·1	20·4	6·2	17·1
Central ... ..	1,398,967	2,033,284	1,454,869	11·1	13·7	7·4	6·0
South ... ..	1,849,521	2,482,004	4,042,109	10·1	9·3	9·0	13·0
	4,457,347	5,585,632	8,783,135	10·9	12·4	7·7	11·8
Western Plains ...	563,066	611,852	403,003	8·4	17·8	4·3	3·6
Riverina ... ..	3,725,421	2,306,188	5,686,018	8·3	8·1	5·2	12·2
Western Division	8,936	15,908	4,320	5·5	4·6	8·4	4·6
All Divisions...	10,560,111	9,155,884	15,483,276	9·8	10·6	6·6	11·1

The most prolific district usually is the North-western Slope, which shows the highest average yield over the whole period covered by the table; and it should be noted that these years were amongst the most adverse experienced by the State. The Riverina and South-western Slope, which yield the largest aggregate crops, control the general average for the State. The average yields on the Northern Tableland are high, but the aggregate yield is not large.

To further illustrate the relative extent of the acreage under wheat for grain, and the resultant yield for 1907 and 1908, the following table shows the index numbers of those years in relation to 1897, which is taken as a basis, and is equal to 100:—

	Wheat Acreage.		Yield.	
	1907.	1908.	1907.	1908.
	per cent.	per cent.	per cent.	per cent.
Coastal ... ..	30·5	26·3	7·3	19·1
Tableland—				
Northern ... ..	30·7	27·2	30·2	26·3
Central... ..	77·9	67·8	51·4	40·3
Southern ... ..	22·6	30·1	17·3	36·6
Total, Tableland ...	59·9	54·2	41·5	36·8
Western Slopes—				
North ... ..	291·4	323·2	88·5	271·8
Central... ..	267·3	237·5	145·3	238·9
South ... ..	138·7	156·6	134·2	218·5
Total, Western Slopes	200·4	207·1	125·3	197·1
Western Plains ... ..	452·1	353·5	108·8	71·6
Riverina ... ..	96·8	101·1	101·9	152·6
Western Division ...	97·8	48·4	178·0	48·3
All Divisions ..	139·9	140·3	86·7	146·6

A great proportion of the immense area of the State, hitherto devoted exclusively to pastoral pursuits, consists of land which could be profitably utilised for agriculture, much of it being more suitable for the cultivation of wheat than some of the land now under crop; and the returns show that wheat-growing, which was formerly confined to small farmers, is now engaging the attention of a number of the large landholders, who cultivate areas of thousands of acres in extent, and use the most modern and effective implements and machinery for ploughing, sowing, and harvesting.

A considerable portion of the new area which is being brought under wheat in New South Wales is cultivated on the shares system, especially in the southern portion of the State. Under this system, the owner leases land to the agriculturist for a period, for the purpose of wheat-growing only, the farmer possessing the right of running upon the estate the horses necessary for working the farm, and the owner the right of depasturing his stock when the land is not in actual cultivation. It is usual for the owner to provide seed, and the tenant the labour; and up to a specified yield, the parties to the agreement take equal shares of the produce, any excess going to the farmer as a bonus. The system, however, is subject to local arrangements. The number of acres farmed on the shares system during 1908 was 307,750, as compared with 348,444 for the preceding year.

The progress of wheat-growing for many years was slow and irregular. Prior to 1866 the area under crop had remained almost stationary at a little more than 125,000 acres; but in 1866 the acreage increased to 175,000. Eleven years later, the area reaped for grain was practically the same, although during the intervening period it had fluctuated somewhat. Then more land was laid under the cereal, and in 1878 the area increased to 233,252 acres. In 1890, twelve years later, the acreage stood

at 333,233 acres, although, during the interval, it had reached as high as 419,758 acres. From 1892 onwards progress was more regular. A great impetus was given to the industry in 1896, when the area increased to 866,112 acres; in 1900 it had advanced to 1,530,609 acres, and in 1905 to 1,939,447 acres. The following statement shows the area under wheat for grain at intervals since 1875, together with the total production and average yield per acre:—

Year.	Area under Wheat for Grain.	Yield.		Year.	Area under Wheat for Grain.	Yield.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1875	133,609	1,958,640	14·66	1905	1,939,447	20,737,200	10·69
1880	253,137	3,717,355	14·69	1906	1,866,253	21,817,938	11·69
1885	264,867	2,733,133	10·45	1907	1,390,171	9,155,884	6·59
1890	333,233	3,649,216	10·95	1908	1,394,056	15,483,276	11·11
1895	596,684	5,195,312	8·71				
1900	1,530,609	16,173,771	10·56				
1901	1,392,070	14,808,705	10·64	Average for 30 years ended 1908			10·81
1902	1,279,760	1,585,097	1·24	„ 10 years			1888 13·54
1903	1,561,111	27,334,141	17·51	„ „			1898 10·89
1904	1,775,955	16,464,415	9·27	„ „			1908 10·11

The advance in wheat cultivation is encouraging, although the decrease of 1907 has been only partially restored. Despite the vicissitudes of the climate, it will be seen from the above table that lack of capacity to produce a payable average has not been the cause of this tardiness in development. During the last thirty years, the mean annual average yield has been 10·81 bushels to the acre, and the average for 1908 is slightly above this figure. The highest averages recorded have been 17·51 in 1903, and 17·37 in 1886. The lowest was 1·24 bushels in the disastrous year of 1902. During the whole period there were only seven seasons when the yield fell below 10 bushels per acre, the failures in each case being due to drought conditions.

In spite of the lower averages of certain years, it may be said that from equal qualities of soil a better yield is now obtained than was realised twenty years ago, a result due largely to extension of agricultural education, leading to improved farming, the use of fertilizers, and of more economical harvesting appliances; also to the fact that rust, smut, and other forms of disease in wheat have been less frequent and less general in recent years.

#### AREA SUITABLE FOR WHEAT-GROWING.

If reference be made to the map at the beginning of this volume, it will be observed that two lines traverse it from north to south. Of these, the line marked by dash and circle denotes the westward limit of that part of the State which has, theoretically, sufficient rainfall—(a) to admit of ploughing operations being carried out at the right time of the year; (b) to cover the growing period of the wheat plant; and (c) to fill the grain during the months of September and October, or, in the case of districts where, notwithstanding light rains in these months, to counteract the deficiency by the increased falls in the earlier or later months.

The line marked by dash and cross represents the westward limit of profitable wheat-growing, based upon actual results.

It is to be remarked, in discussing the crop-line, that the average crops recorded over the greater part of Riverina are below the possible yield, as it is unfortunately true that the majority of the farmers do not obtain

the results from their land which are possible under good treatment. In many instances the land is badly prepared, the grain sown too late, the method of harvesting wasteful (much of the grain being lost), and the use of fertilisers is by no means general. Experts place the loss as high as 2 bushels per acre, and rarely less than one bushel; and it is certain that the average yields would be considerably increased with better farming conditions. In determining the crop-line, therefore, consideration must be given to the poor results attributable to bad farming, as well as to losses by other preventable causes such as rabbits, bush fires, &c.

It is, however, possible that a more rigid definition of successful farming might even exclude districts now placed within the wheat area. For example, several districts along the edge of the line, such as Tocumwal, Wagga, Temora, Young, and Parkes, have been included, although results have been rather doubtful, two—and, in some cases, as many as four—failures having been recorded in ten years.

In some of the northern districts within the line, much of the land is considered unsuitable for wheat-growing, consisting of stony, hilly country, too rough for cultivation, and of black-soil plains, which bake and crack, and present mechanical difficulties in tillage. The rich soils of river flats must also be omitted from good wheat-growing areas, as such land has a tendency to produce excessive straw growth, although excellent hay can be grown in those localities.

September and October are regarded generally as the most critical months as regards rainfall—this being the time for the filling of the grain. Heavy soils require more rain than light soils, especially if the latter possess retentive subsoils. The nature of the soil, and considerations of elevation, temperature, evaporation, &c., have an important bearing on the rainfall needed for wheat and general culture; and there are few matters of more importance in regard to settling people on the land under payable conditions than the question of soil characteristics.

Excluding the coastal area, where wheat-growing has been practically abandoned during recent years, owing to the liability to rust, the area contained within the wheat belt, and suitable for its cultivation, has been estimated to cover from twenty to twenty-five million acres.

INCREASE IN THE WHEAT YIELD.

It has been shown that the area under wheat is 1,394,056 acres, which is a very insignificant portion of the total just mentioned as available; and even this small area is not worked as profitably as it might be. Compared with the principal wheat-growing countries of the world, an average yield of 10 bushels per acre is very small, as will be seen from the table below. The averages shown are based on the latest available returns:—

Country.	Average yield per acre.	Country.	Average yield per acre.
	bushels.		bushels.
United Kingdom ... ..	34·0	India ... ..	10·7
Germany ... ..	29·6	Russia ... ..	8·0
France ... ..	22·5	Argentina ... ..	11·1
Hungary ... ..	15·2	Canada (Ontario, Manitoba, Quebec, Alberta and Saskatchewan)	15·5
United States ... ..	14·0		

A bare statement of average is, however, not entirely conclusive, as the relative cost of production should also be taken into consideration.

Moreover, in the older countries, the efforts of farmers are more concentrated, and more intense cultivation is necessary. In this State, wherever agriculturists have confined their operations to a restricted area, and have made systematic efforts to completely till the soil, their returns have been much greater than those obtained by imperfect cultivation of areas which are beyond the capacity of the holder's teams and implements.

It is reasonable to expect that the rough-and-ready methods of farming which prevail in several of the outlying districts will soon disappear, and that the yield will increase to the extent of at least 2 or 3 bushels per acre. The lack of system in farming is almost necessarily prevalent amongst pioneers in new countries. In many instances the settlers have begun with insufficient capital and with very little practical knowledge; and there are probably very few places where persons without capital could have succeeded so well.

The possibilities of New South Wales are great; and if only a quarter of the area favourable for growing wheat were cultivated on scientific lines, there would be a probable surplus of over 50 million bushels available for export, after satisfying all the demands of the local population. There is a very large market for breadstuffs in the United Kingdom, the average annual import during the last five years having been over 200 million bushels, of which, on the average, slightly more than  $4\frac{1}{2}$  million bushels per annum were received from this State. Were the farmers to grow the wheats most in demand in Great Britain, there should be very little of the year's crop unsold, and little risk of the local price falling so low as to be unprofitable. There is also an increasing demand for Australian wheat in the markets of the East.

In the British markets, during 1908, New South Wales wheat was quoted at 37s. 5d. per quarter, or 1s. 11d. per quarter higher than the Argentine grain, 5s. 5d. higher than English, and 2s. 4d. higher than Canadian. Usually it is about 2s. per quarter higher than the English.

#### COST OF GROWING AND EXPORTING WHEAT.

The cost of raising wheat depends upon the size of the holding, as a large farm with first-class agricultural appliances can be worked at a very much lower proportionate cost than a small one. An estimate of the cost of growing wheat should include rent, or interest on purchase-money of land, and carriage to the market. Careful inquiries show that in New South Wales, taking into account the producing factors, such as the proportions of lands variously prepared and sown, the proportion of crops harvested by different methods, average railway and other freights, but excluding interest on capital, rent, &c., the cost of landing wheat in Sydney may be assumed at 19d. per bushel with a 10-bushel crop; and with the increased use of improved machinery, the average cost is likely to be much reduced.

As estimated for wheat farms on large areas with a minimum expenditure per acre, the average cost includes initial expenses for seed, for ploughing, harrowing, sowing, and rolling; then the cost of gathering the crop, stripping, winnowing, and bagging; after which comes the expenditure for transporting the crop from the farm to the market, including road haulage and train transport. These initial charges would naturally vary with conditions, with the size of the farm, the type of machinery, and distance from market, but for a 10-bushel crop might be approximately assessed at 15s. to £1 per acre.

But apart from these initial charges is to be considered the cost of placing the product on the London market, for since wheat is a world product with

a world market, of which London is the pivot, this cost affects selling prices. It includes charges for freight, transshipment, insurance, selling charges, and varies also with the type of vessel and other conditions, but always assists to raise the cost by another 1s. per bushel, approximately.

PRICE OF WHEAT.

The price of wheat is subject to constant fluctuation, as shown in the following table, which gives the average rates ruling in the Sydney market in the months of February and March of each year since 1865. These figures exhibit clearly the tendency to a gradual reduction in the value of the cereal down to 1895, when the price was the lowest of the series. In 1896, however, owing to a decrease in the world's supplies, the price rose considerably, and led to an extension of cultivation in Australasia. Up to a few years ago, with a deficiency in the local production, the price in Sydney was generally governed by the rates obtained in the neighbouring Australian markets where a surplus was produced. These, again, are now determined by the figures realised in London, which are usually equal to those ruling in Sydney, plus freight and charges. The prices in the following table are for an imperial bushel, and, being for new wheat, are slightly below the average for the year:—

Year.	February.	March.	Year.	February.	March.	Year.	February.	March.
	per bushel.	per bushel.		per bushel.	per bushel.		per bushel.	per bushel.
	s. d.	s. d.		s. d.	s. d.		s. d.	s. d.
1865	9 6	9 7½	1880	4 8	4 9	1895	2 7	2 7
1866	8 4½	8 0	1881	4 1	4 3	1896	4 4½	4 5
1867	4 3	4 4	1882	5 5	5 6	1897	4 8	4 6½
1868	5 9	5 9	1883	5 1½	5 2	1898	4 0	4 0
1869	4 9	4 10	1884	4 3	4 3	1899	2 7½	2 9
1870	5 0	5 1½	1885	3 10½	3 7½	1900	2 9	2 8
1871	5 7½	5 9	1886	4 3½	4 5	1901	2 7	2 7
1872	5 0½	5 3	1887	3 10	3 11	1902	3 2	3 2½
1873	5 1	5 8½	1888	3 6	3 6½	1903	.....	.....
1874	6 9	6 1½	1889	4 9	5 3	1904	3 0½	3 0½
1875	4 7½	4 6	1890	3 6	3 6	1905	3 4½	3 3¾
1876	5 1½	5 6	1891	3 7½	3 10	1906	3 15	3 2½
1877	6 1½	6 6	1892	4 9	4 9	1907	3 0½	3 1½
1878	6 1½	5 7½	1893	3 6½	3 6	1908	4 4	4 5½
1879	5 0	4 9½	1894	2 11	2 8	1909	3 11½	4 4½

During recent years the price did not vary greatly in 1899, 1900, and 1901. There were no quotations in 1903, owing to the almost universal failure of the 1902-3 crop. In 1908 the figure was higher than in any year since 1897, and the prices in February and March, 1908, were fairly maintained. In 1909 they were lower than in 1908, but otherwise were better than in any year since 1898.

CONSUMPTION OF WHEAT.

New South Wales was for many years largely dependent on external supplies to meet her requirements for wheat, and in 1897 for the first time the production exceeded the consumption, and there was an apparent surplus of 1,123,000 bushels. Since that period there have been deficiencies in 1899 and 1902. The apparent annual consumption per head of population has ranged from 4.1 and 5.3 bushels in 1891 and 1908 to as much as 10.5 bushels in 1904. In the earlier years of the State the consumption was generally much higher than at the later periods; but the quality of the yield was inferior in the initial stages of wheat-growing, and the produce used as human food varied according to the preponderance of wheat unfit for milling purposes. In recent years occasional advances in the average may



be ascribed to this cause; the consumption is also affected by the state of the maize market, short supplies leading to a larger demand for wheat as food for poultry, pigs, etc.

During the last ten years Government agricultural experts have been endeavouring to determine the varieties of wheat most suitable for the various districts, and to secure new types which would return the best milling results under local conditions. It is gratifying to record that their efforts have been attended with marked success.

The statement below shows during each of the last ten years the net export or import of breadstuffs from the State, and the apparent consumption, including wheat required for seed. The figures for flour have been converted into the grain equivalent, 1 ton of flour being regarded as equal to 50 bushels of wheat.

Year ended 31st March.	Wheat crop.	Year ended 31st December.		Apparent consumption, including grain for seed.	
		Net export.	Net import.	Total.	Per head.
	bushels.	bushels.	bushels.	bushels.	bushels.
1899	9,276,216	.....	2,126,453	11,402,669	8·6
1900	13,604,166	3,513,112	.....	10,091,054	7·5
1901	16,173,771	7,702,072	.....	8,471,699	6·2
1902	14,808,705	2,774,782	.....	12,033,923	8·6
1903	1,585,097	.....	6,919,765	8,504,862	6·0
1904	27,334,141	12,207,661	.....	15,126,480	10·5
1905	16,464,415	7,695,496	.....	8,768,919	5·9
1906	20,737,200	8,249,807	.....	12,487,393	8·2
1907	21,817,938	8,636,733	.....	13,181,205	8·5
1908	9,155,884	738,015	.....	8,417,869	5·3

#### MAIZE.

Maize ranks second in importance amongst the crops of New South Wales; but its cultivation is small in contrast to that of wheat, although thirty-two years ago there was very little difference in the areas under each cereal. In 1880 the area under maize was half that under wheat; now it is less than one-seventh.

This cereal is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted for its growth. On the tableland also good results accrue, and as the land rises in elevation so the average yield per acre proportionately decreases, although in compensation the grain produced is of more enduring quality for export and storage. The following statement shows the distribution of the area under maize for grain during 1908, with the production and average yield in each district:—

District.	Area under maize for grain.		Yield.	
	Acres.	Per cent. of total area.	Bushels.	Bushels per acre.
<b>Coastal—</b>				
North ... ..	69,299	38·3	2,399,971	34·6
Hunter and Manning ... ..	37,821	20·9	1,110,045	29·3
Cumberland ... ..	3,248	1·9	75,334	23·2
South ... ..	14,522	8·0	629,794	43·4
	124,890	69·1	4,215,144	33·7
<b>Tableland—</b>				
Northern ... ..	15,292	8·4	307,627	20·1
Central ... ..	11,512	6·4	214,691	18·6
Southern ... ..	1,803	1·0	43,529	24·1
	28,607	15·8	565,847	19·8
<b>Western Slopes...</b>	26,568	14·7	427,486	16·1
<b>Western Plains, Riverina, and Western Division...</b>	747	·4	7,561	10·1
<b>All Districts ... ..</b>	180,812	100·00	5,216,038	28·8

The North Coast is the most important maize-growing district in the State, having yielded in 1908 nearly one-half of the total production, the average yield being 34.6 bushels per acre. After the North Coast, the Hunter and Manning district shows the largest area under crop. The highest average yield in any county was in Auckland, in the South Coast division, with 51.0 bushels per acre. On the North Coast, the best counties were Raleigh and Dudley, which gave 41 and 40 bushels per acre respectively. In 1908 the average yield on the tableland was slightly more and on the western slopes was slightly less than half that on the coast. At an early period in the history of the North Coast maize displaced wheat as a product, but latterly dairying has been replacing maize-growing, and a larger proportion of the area under maize is cut for green food for dairy stock.

The next statement gives a comparative review of the maize crop since 1888:—

Year.	Area under maize for grain.	Production.		Year.	Area under maize for grain.	Production.		
		Total.	Average per acre.			Total.	Average per acre.	
	acres.	bushels.	bushels.		acres.	bushels.	bushels.	
1888	166,101	4,910,404	29.6	1901	167,333	3,844,993	23.0	
1889	173,836	5,354,827	30.8	1902	202,437	3,049,269	15.1	
1890	191,152	5,713,205	29.9	1903	226,834	6,836,740	30.1	
1891	174,577	5,721,706	32.8	1904	193,614	4,951,132	25.6	
1892	167,549	5,037,256	30.1	1905	189,353	5,539,750	29.3	
1893	205,885	7,067,576	34.3	1906	174,115	5,763,000	33.1	
1894	208,308	5,625,533	27.0	1907	160,980	4,527,852	28.1	
1895	211,104	5,687,030	26.9	1908	180,812	5,216,038	28.9	
1896	211,382	5,754,217	27.2	Average for 20 years ended 1908			28.6	
1897	209,588	6,713,060	32.0	„	10	„	1898	30.0
1898	193,286	6,064,842	31.4	„	10	„	1908	27.1
1899	214,697	5,976,022	27.8					
1900	206,051	6,292,745	30.5					

During the last twenty years there have been several fluctuations in the area under cultivation. The largest area—226,834 acres—was cropped in 1903, but since that year the acreage has not been so high. The yield per acre is somewhat variable, ranging from 15.1 bushels in 1902 to 34.3 bushels in 1893, and generally the tendency has been for the average to decrease, owing to the reduction of the area in the coastal districts, where the average yield is highest. In the most favourable localities yields of 80 to 100 bushels per acre have been obtained, and probably few places are better suited for the growth of maize than the coastal districts of New South Wales.

Until 1890 the State produced more maize than could be consumed locally, and exported a small quantity to southern States, but every year since, with one exception, there has been a net import ranging from 9,883 bushels in 1898 to 1,476,704 bushels in 1903. Practically nothing has been done to develop an oversea export trade, although the demand for maize is apparently increasing in the United Kingdom and Europe:—

Year.	Net import of maize	Year.	Net import of maize.
	bushels.		bushels.
1899	357,401	1904	366,758
1900	380,638	1905	353,002
1901	210,569	1906	805,257
1902	1,218,668	1907	892,995
1903	1,476,704	1908	742,577

This experience of a net import each year reveals a disregard for the potentialities of the State, and is not easily explained. There is no doubt that the uncertainty as to the price that will be realised for maize, an uncertainty which is shared with all produce grown only for local consumption, has caused the cultivation of this cereal to decrease in favour on the coast and tableland, while on the other hand the profit to be obtained from dairying has led to its further neglect. Another possible reason for the decline is the small attention that has been paid to the cereal as regards scientific cultivation and experiment. During recent years wheat has received very close study as to the kinds suited to various localities and climatic conditions, and as to improvements in cultivation and harvesting, but maize has received little consideration. The falling tendency of the average yield shows also that the land has been drawn upon too much, and emphasises the need for closer attention to the question of fertilisation.

## OATS.

The cultivation of oats has been much neglected in New South Wales, though the return has been fairly satisfactory, and the deficiency between the production and the consumption is very considerable. The elevated districts of Monaro, Argyle, Bathurst, and New England contain large areas of land where the cultivation of oats could be maintained with good results.

This cereal is cultivated as a grain crop, principally in the wheat-growing districts; and as it is essentially a product of cold climates, it thrives best in those parts of the country which have a winter of some severity. The principal districts where oats are grown are the tableland, the South-western Slope, and Riverina. The area under crop for grain in 1908 was 59,881 acres, which produced 1,119,558 bushels, being 18.7 bushels per acre. The northern tableland gave the best average, with 21.0 bushels per acre. In the whole tableland division, 17,707 acres were under crop, and yielded 331,716 bushels, or 18.7 per acre; on the South-western Slope, 16,530 acres gave 320,630 bushels, or 19.5 per acre; while in the Riverina the production was 388,682 bushels from 18,975 acres, or 20.5 bushels per acre. These three divisions accounted for about 93 per cent. of the total production. In the remainder of the State there were only 6,669 acres under cultivation, which yielded 78,530 bushels.

The following table illustrates the progress in the cultivation of oats for grain during the last twenty years:—

Year.	Acres under oats for grain.	Production.		Year.	Acres under oats for grain.	Production.	
		Bushels.	Bushels per acre.			Bushels.	Bushels per acre.
1889	22,358	543,330	24.3	1901	32,245	687,179	21.3
1890	14,102	256,659	18.2	1902	42,992	351,758	8.2
1891	12,958	276,259	21.3	1903	51,621	1,252,156	24.3
1892	20,890	466,603	22.3	1904	40,471	652,646	16.1
1893	34,148	701,803	20.6	1905	38,543	883,081	22.9
1894	30,636	562,725	18.4	1906	56,431	1,404,574	24.9
1895	23,750	374,196	15.8	1907	75,762	851,776	11.2
1896	39,530	834,633	21.1	1908	59,881	1,119,558	18.7
1897	28,605	543,946	19.0				
1898	19,874	278,007	14.0				
1899	29,125	627,904	21.6				
1900	29,383	593,548	20.2				
				Average for 20 years ended 1908			22.0
				„ 10 „		1908	18.4

The area under oats for grain, with slight fluctuations, remained practically stationary until 1893, when over 13,000 acres were added; the rate has since increased, with variations due to the seasons; and in 1907 the

area reached 75,762 acres, but in 1908 had receded to 59,881 acres. The yield varies considerably, and in a fair season will exceed 20 bushels per acre, the average for the last ten years being 18·4 bushels. The lowest yield was 8·2 bushels per acre in 1902, when the crop almost failed, owing to the unfavourable season; and the highest yield was 24·9 bushels in 1906.

The market for oats is chiefly in the metropolitan district, and the demand depends mainly on the price of maize. The production is far from sufficient for the wants of the State, and large quantities are imported each year from Victoria, Tasmania, and New Zealand. The following statement shows the net import of oats during the last ten years, including oatmeal expressed in its equivalent of oats—100 bushels of oats to one ton of oatmeal:—

Year.	Net import of oats.	Year.	Net import of oats.
	bushels.		bushels.
1899	1,837,142	1904	622,304
1900	1,187,529	1905	897,775
1901	986,882	1906	636,838
1902	1,560,541	1907	786,773
1903	1,388,710	1908	1,196,895

It is apparent that much yet remains to be done before the State can be independent of outside assistance; but there is strong reason to believe that as agricultural settlement is developed on the northern tableland this cereal will receive more attention.

BARLEY.

Barley is an important crop, but at present is produced on a moderate scale, although there are several districts where the necessary conditions as to soil and drainage present inducements for cultivation, and particularly with regard to the malting varieties. It is mostly grown on the North-west Slope, in the Tamworth district, the area in that part during 1908 being 5,800 acres, from which the bulk of the produce was for malting purposes. The areas under crop in other districts are small, and do not call for special notice. For the State as a whole the following table shows the area under barley for grain, together with the production in each year since 1889:—

Year.	Area under barley for grain.	Production.		Year.	Area under barley for grain.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1889	5,440	113,109	20·8	1901	6,023	103,361	17·2
1890	4,937	81,383	16·5	1902	4,557	18,233	4·0
1891	4,459	95,446	21·0	1903	10,057	174,147	17·3
1892	4,618	91,701	19·9	1904	14,930	266,781	17·9
1893	6,113	114,272	18·7	1905	9,519	111,266	11·7
1894	10,396	179,348	17·3	1906	7,879	152,739	19·1
1895	7,590	96,119	12·7	1907	11,890	75,148	6·3
1896	6,453	110,340	17·1	1908	9,507	166,538	17·5
1897	5,151	99,509	19·3				
1898	4,459	64,094	14·4				
1899	7,154	132,476	18·5	Average for 20 years ended 1908...			15·7
1900	9,435	114,228	12·1	„	10	„	1908... 14·5

The record exhibits considerable fluctuations as to area and as to the average production per acre, thus indicating that farmers consider it more profitable to devote their attention to the other cereals, the

immensely larger areas for which clearly point to their preference. From the table it appears that limited areas were cultivated, until in 1894 there were upwards of 10,000 acres. With great variations, down to 4,500 acres, it was not until nine years later that the area again reached the figures for 1894. A maximum year was experienced in 1904, when the total suddenly expanded to 15,000 acres, which produced 267,000 bushels; and at the present time it appears that the farmers' judgment will keep the area for this cereal at about 10,000 acres.

As to yield, great variations are to be found, ranging from 4 bushels per acre in 1902, when the crop practically failed, to the excellent rate of 21·9 bushels obtained in 1886. The average crop during the last ten years has been 14·5 bushels per acre; but as there were two extremely adverse seasons in the period, this rate should not be regarded as characteristic; on the other hand, the returns for many seasons indicate that an average crop of 18 bushels per acre may be expected under normal conditions.

A remunerative price can be obtained from maltsters for suitable grain, and if the farmers were to consult with the users as to requirements in threshing, &c., and to treat the grain accordingly, no doubt a mutually advantageous trade could be developed, which would displace the importations at present necessary, and which are derived mainly from New Zealand growers. The net imports of barley and malt into the State during the last ten years have been as follows:—

Year.	Net Import.		Year.	Net Import.	
	Barley.	Malt.		Barley.	Malt.
	bushels.	bushels.		bushels.	bushels.
1899	115,966	422,272	1904	123,680	327,818
1900	63,919	387,388	1905	21,834	275,833
1901	74,743	497,229	1906	150,582	320,835
1902	214,141	356,639	1907	136,516	408,957
1903	223,728	304,733	1908	196,604	429,002

#### RYE.

Rye is cultivated to a very limited extent, and is grown either in separate areas, or in combination with leguminous crops, largely as green food for dairy cattle, the supply for grain being obtained mainly in the central part of the tablelands of the State. The total area under this cereal during 1908 was 4,635 acres; the average yield during the last ten years was 12·1 bushels per acre, the best year being 1904, with an average of 16·3 bushels. The average for 1908 was 10·7 bushels.

#### BROOM MILLET.

Broom millet is a small but valuable crop, the return from the fibre alone amounting to £13,910. In 1908 the area under broom millet was 1,851 acres, from which 12,365 cwt. of fibre and 11,337 bushels of grain were obtained, the averages being 6·7 cwt. and 6·1 bushels respectively per acre. Particulars of this crop have been recorded only during the last nine years, and the average return during that period was 6·6 cwt. per acre. In 1900 and 1903 the averages exceeded 8 cwt. per acre. The greater part of the crop is grown in the Hunter River Valley and in the valleys of the northern coastal rivers. For 1908 the acreage—and consequently, the production—were considerably less than in 1907, but the average return was higher, viz., £22 10s. per ton for fibre, as against £21 18s. for 1907.

HAY.

A very considerable proportion of the areas under wheat, oats, barley, and lucerne are utilised for the production of hay for farm stock, and chaff for the markets. These are increasing, but the extent of the increase depends on the climatic conditions of the season, which determine the future of the crops for grain purposes.

The following statement shows the area under each crop for hay, the total production, and the average return per acre during the last six years:—

Crop.	1903.	1904.	1905.	1906.	1907.	1908.
AREA.						
	acres.	acres.	acres.	acres.	acres.	acres.
Wheat ... ..	286,702	284,367	313,582	316,945	365,925	490,828
Oats ... ..	159,828	107,805	88,495	94,420	132,325	169,441
Barley... ..	1,242	1,285	2,397	843	937	1,566
Lucerne ... ..	48,245	42,247	33,562	45,964	43,574	54,061
Total ... ..	496,017	435,704	438,036	458,172	542,761	715,896
PRODUCTION.						
	tons.	tons.	tons.	tons.	tons.	tons.
Wheat ... ..	452,484	207,439	304,714	403,109	198,230	426,916
Oats ... ..	250,930	82,166	93,522	131,355	99,865	186,243
Barley .. ...	1,959	1,111	1,856	1,202	638	1,757
Lucerne ... ..	111,437	75,577	59,090	86,180	78,067	115,098
Total ... ..	816,810	366,293	459,182	621,846	376,800	730,014
AVERAGE PRODUCTION PER ACRE.						
	tons.	tons.	tons.	tons.	tons.	tons.
Wheat ... ..	1.6	.7	1.0	1.3	0.5	0.9
Oats ... ..	1.6	.8	1.1	1.4	0.8	1.1
Barley... ..	1.6	.9	0.8	1.4	0.7	1.1
Lucerne ... ..	2.3	1.8	1.8	1.9	1.8	2.1
All varieties ...	1.6	0.8	1.0	1.3	0.7	1.0

About 70 per cent. of the total area under cultivation for hay is taken up by the area under wheaten hay. Until 1894 the area for wheaten hay increased at a much greater rate than that for grain, but during subsequent years, on account of the great development in wheat cultivation, there has been little difference in the ratio of the two forms of production.

In general, oats are grown in parts of the State which, on account of the climate, are unsuitable for maturing the grain, and preference is given to cultivation for hay; moreover, the prices obtainable for the hay are usually so profitable as to prevent any material development of the grain harvest.

The area under barley for hay is inconsiderable. Lucerne hay is always in good demand, and consequently realises remunerative prices. It gives the best return of all hay crops, the average yield during the last ten years having been 2 tons per acre for lucerne, rather more than 1 ton each for barley and oaten, and nine-tenths of a ton for wheaten hay. In favourable districts, if it has received careful attention, it grows so rapidly that a series of crops may be secured. As many as eight cuttings have been secured, with an average result of 1 ton per acre for each.

The growing of hay is evidently receiving additional attention every year ; but there is still a considerable margin between the amount of hay required in the State and the local production, as evidenced by the large import trade, the continuous volume of which clearly shows that dry seasons do not constitute the only influencing factor. The following table shows the net imports of hay and chaff during the last ten years :—

Year.	Net import of hay and chaff.	Year.	Net import of hay and chaff.
	tons.		tons.
1899	131,609	1904	22,699
1900	31,160	1905	41,890
1901	14,665	1906	68,441
1902	293,810	1907	83,586
1903	116,241	1908	113,218

The figures shown above afford a convincing reason to justify the farmers in the State in the extension of the cultivation of hay in its various forms.

#### GREEN FOOD AND SOWN GRASSES.

The great advance in the dairying industry, the details concerning which are treated elsewhere, has caused a corresponding increase during recent years in the cultivation of cereals, lucerne, and grasses, for green food. The sowing and improvement of artificial grasses have received great attention, particularly in the northern and southern coastal districts, the great centres of the dairy farming of the State. Considerable areas have been sown also in the centre of the tableland, and smaller cultivations have been undertaken in the northern and southern tablelands and in the Murray Valley. The following statement shows the increase in the area cultivated for green food and sown with artificial grasses since 1885 :—

Year.	Area cultivated for green food.	Area sown with permanent grasses.	Year.	Area cultivated for green food.	Area sown with permanent grasses.
	acres.	acres.		acres.	acres.
1885	26,318	130,392	1903	77,093	552,501
1890	37,473	388,715	1904	87,718	607,997
1895	66,833	300,862	1905	95,058	627,530
1900	78,144	422,741	1906	122,914	697,631
1901	113,060	467,839	1907	260,810	736,080
1902	109,146	477,629	1908	235,539	807,924

The great advance in cultivation indicated by the table shows the appreciation by the farmers of the necessity for enriching the deteriorated pastures, and for replacing the grasses which have disappeared.

Lucerne is grown in considerable quantities on the Hunter River flats, and the cultivation of this fodder is extending throughout the country, principally along the banks of the rivers on the western slope of the Dividing Range. In the far western pastoral districts attempts have been made to cultivate lucerne under irrigation, and have met with marked success. During 1908 there were 48,161 acres grown for green food, and if these be added to the area previously shown as being under hay, viz., 54,061 acres, there were altogether 102,222 acres under this form of cultivation. In the United States and Argentine, where experiments have proved that it will succeed, lucerne is superseding the indigenous grasses.

ENSILAGE.

New South Wales is liable, at intervals, to long periods of dry weather, and in occasional years severe droughts occur; hence the necessity for conserving green foods in the form of ensilage must be readily admitted. Ensilage is also clearly an advantage in the dairying districts of the coast, where the conditions are unfavourable to the growth of winter fodder.

The quantity of ensilage made during the last four years is shown in the following table:—

Divisions.	Ensilage made.			
	1905.	1906.	1907.	1908.
	tons.	tons.	tons.	tons.
Coastal ... ..	1,414	2,667	5,621	12,427
Tableland ... ..	1,430	1,522	1,825	3,339
Western Slopes ... ..	2,250	5,115	3,681	6,374
Western Plains and Riverina... ..	4,227	2,528	1,529	5,168
Western Division ... ..	.....	17	200	160
<b>Total ... ..</b>	<b>9,321</b>	<b>11,849</b>	<b>12,856</b>	<b>27,468</b>

Comparatively little attention has been devoted to the construction of silos, and the storing of ensilage; but the necessities of the grazier, when the policy of closer settlement shall have reduced the large areas of land hitherto available for feeding stock, will compel him to make provision by preserving and storing the green food when opportunities occur in the growing season of the year.

It will be seen that during 1908 the ensilage made was more than double the amount of the previous year, and constitutes a record. The whole amount was made on 300 farms, and is valued at £42,098; but it is particularly noticeable in the above table that the quantities of ensilage made are quite negligible in the Western division, where, it is manifest, there is the greatest need of such provision.

POTATOES.

In the potato is another illustration of the great neglect in the cultivation of a staple article of food, although many parts of the State are eminently suitable for its growth. The bulk of the production is on the tableland, especially in the central portion, where, in 1908, there were 11,591 acres under cultivation. One county, Bathurst, had 8,271 acres, or over one-third of the whole area in the State, devoted to potatoes. After the tableland, the coastal districts grow the largest crops. The highest average—3·20 tons per acre—was returned by the southern tableland, after which came the south coast with 3·03 tons. The following statement shows the area under cultivation, and the production:—

Year.	Area under crop.	Production.		Year.	Area under crop.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	tons.	tons.		acres.	tons.	tons.
1885	15,166	38,695	2·6	1905	26,374	50,386	1·9
1890	19,406	52,791	2·7	1906	36,815	114,856	3·1
1895	24,722	56,179	2·3	1907	31,917	55,882	1·8
1900	29,408	63,253	2·2	1908	26,301	71,794	2·7
1901	26,158	59,146	1·5				
1902	19,444	30,732	1·6				
1903	20,851	56,743	2·7	Average for 10 years ended 1898...			2·2
1904	23,855	48,754	2·0	,, 10 ,, 1908...			2·2



There was a marked increase in cultivation in the year 1894, when 30,089 acres were planted; but the continuous fluctuation in the area from year to year since that time clearly shows that the possible advantages of this crop have been much neglected. The year of maximum growth was 1906, when 36,815 acres were planted.

The average yield during the last ten years has been 2·2 tons per acre, and the highest 3·1 tons per acre in 1906. At present New South Wales has to meet a considerable deficiency by importation from the other States, chiefly Victoria and Tasmania, which amounted to 71,473 tons in 1908, or about 50 per cent. of the total consumption. The statement below shows the net import of potatoes during the last ten years:—

Year.	Net import of potatoes.	Year.	Net import of potatoes.
	tons.		tons.
1899	58,384	1904	73,044
1900	49,299	1905	42,118
1901	42,628	1906	32,619
1902	50,284	1907	44,928
1903	62,083	1908	71,473

The slow progress in the cultivation of potatoes is caused largely by the cost of carriage to market, as compared with the cheap water transport from Victoria and Tasmania. Some years ago the coast districts produced large quantities of potatoes; but the cultivation was abandoned, owing to the prevalence of pests, which continually devastated the crops, and for which, at the time, a remedy was not available.

#### MINOR ROOT CROPS.

The cultivation of root crops other than potatoes requires brief notice, as only 1,255 acres were planted with onions, turnips, mangold-wurzel, carrots, and sweet potatoes. The largest area was under turnips, namely, 663 acres, which yielded 2,211 tons, or 3·3 tons per acre. The probable reason for the small attention paid to the growth of onions, of which there were 344 acres, yielding 1,203 tons, is the uncertainty as to the price to be obtained for the produce, as there is no lack of soil suited to its cultivation. Large importations are necessary to meet the local demand, and amounted to 10,170 tons during 1908.

The area under sweet potatoes was 211 acres, and the yield 1,696 tons. Mangold-wurzel showed only 31 acres under cultivation, which yielded 259 tons. In some of the more elevated dairying districts, mangold-wurzel is now being grown as winter fodder for cattle. Excellent results in the cultivation of arrowroot have been obtained at the Wollongbar experimental farm, near Lismore.

#### TOBACCO.

The growing of tobacco as an industry has been undertaken for many years, but with considerable fluctuation in the annual production. This may, perhaps, be attributed to the necessity for special knowledge and care in its cultivation and curing, and probably no material advancement will be made until trade pressure in other countries forces attention to new fields of production.

Originally the plant was cultivated chiefly in the agricultural districts of the county of Argyle and the Hunter River Valley, but it has now been abandoned there, and the little that is grown is found in the northern and southern portions of the western slope and on the central tableland. The

following statement shows the cultivation of tobacco during the last ten years:—

Year	Area.	Production.		Year.	Area.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	cwt.	cwt.		acres.	cwt.	cwt.
1899	546	6,641	12.2	1906	601	5,371	8.9
1900	199	1,905	9.6	1907	533	3,438	6.5
1901	182	1,971	10.8	1908	618	3,838	6.2
1902	317	2,604	8.2	Average for 20 years ended 1908			9.9
1903	407	5,320	13.1				8.9
1904	752	5,015	6.7	Average for 20 years ended 1908			9.9
1905	809	7,327	9.1				8.9

For seven or eight years prior to 1888 the area under cultivation grew steadily, until in that year it reached the highest figure it has ever attained, namely, 4,833 acres. As however, the local product did not compare favourably with the American leaf, it could not be exported profitably, so that a large proportion of the crop remained upon the farmers' hands, and as the quantity sold realised very unsatisfactory prices, due mainly to the failure to produce, by cultivation and curing, a first-grade article, many growers abandoned tobacco in favour of other crops. With the accumulation of stocks of leaf, and the fall in the price of the local product, the area under the plant and the resultant yield declined rapidly, until in 1894 the acreage was only 716. During the next two years there was a little more activity, and the area increased to 2,744 acres in 1896; it, however, fell away again after that year, and in 1901 amounted to only 182 acres. During the next three years the area again increased, owing to the increased attention paid to the curing of the leaf. Tobacco manufacturers have endeavoured to stimulate the industry by offering good prices for suitable leaf, and by employing an expert to assist and instruct the growers.

Since few countries are better favoured than this State with climate and soil necessary for successful cultivation, it is a matter for regret that the industry has not made more satisfactory progress. This has been due partly to the producer and partly to the market. With an improvement in the quality of the leaf, the local consumption could be rapidly overtaken and an export trade promoted. Tobacco of excellent quality has been produced, but much of it is now grown by Chinese, who consider weight rather than quality, and an inferior leaf is the consequence. There is, therefore, ample scope for improving the quality of the product sufficiently to satisfy the local consumer.

The impression that it is not possible to produce tobacco of high quality in New South Wales probably arose from experience of a product grown in unsuitable soil, and carelessly cultivated. During recent years excellent tobacco has been grown at Ashford, in the Inverell district generally, and near Tumut, under the guidance of a departmental expert, proving that it is possible to grow in the State a tobacco well suited to the most fastidious market, and if a regular supply were available, properly fermented and packed, a large trade might be developed.

#### SUGAR CANE.

Sugar-cane was grown as far back as 1824, but it was not until 1865 that anything like systematic attention was given to the matter. In the latter year experiments were carried out on the Clarence, Hastings, Manning, and Macleay Rivers which on the whole proved successful, and were followed by more extensive planting. The Macleay may be regarded as the principal seat of the industry during its earlier stages; but it proved to be unsuitable to the growth of the cane, and the risk of failure from frosts compelled

the planters to keep more to the north. In a few years the richest portions of the lower valleys of the Clarence, the Richmond, the Tweed, and the Brunswick, were occupied by planters. Mills were erected in the chief centres of cane-cultivation, and cane-growing and sugar-manufacturing became established industries in the north-eastern portions of the State. Although frosts are sometimes experienced in this region, the soil and climate of the valleys of the northern rivers are in most respects well adapted to successful cultivation, and it is confined principally to the valleys of the Richmond, Tweed, and Clarence Rivers, where, on account of the proximity to Queensland and the similarity to the conditions which rule the sugar production of the northern cane-fields, the producers of the raw material in this State may benefit by any experimental work. Continual efforts are being made to improve the quality of the cane product; varieties and seedlings are carefully tested, soils are closely analysed, the effects of irrigation and fertilising noted, and by due regard to these points the cane-yield has been greatly increased.

As the difference between the results of good cultivation as opposed to merely growing cane without the application of scientific principles may extend the yield to 34 tons per acre, it is evident careful methods will reap a reward in an enhanced production.

The yield of sugar from the cane crushed varies considerably, the variation approximating between a maximum and minimum year to 1 ton of cane in the quantity required to make 1 ton of sugar, according to the saccharine density of the cane. As compared with Queensland, where the average yield of cane to each acre crushed was 15.54 tons, the yield for this State may be regarded as satisfactory, but as compared with the return which could be gathered by the application of more scientific methods of culture, there is evidence that considerable improvement might easily be made.

The following table shows the progress of this industry since 1863, when only 2 acres were recorded as under cultivation. As sugar-cane is not productive within the season of planting, the area under cultivation has been divided, as far as practicable, into productive and non-productive, the former representing the number of acres upon which cane was cut during the season, and the latter the area over which it was unfit for the mill, or allowed to stand for another year. On the average the area cut for cane represents about one-half of the total area planted.

Year.	Area.			Production of cane.	
	Productive.	Non-productive.	Total.	Total.	Average per acre.
	acres.	acres.	acres.	tons.	tons.
1863	.....	.....	2	.....	.....
1864	.....	.....	22	.....	.....
1865	.....	.....	141	.....	.....
1870	1,475	2,607	4,082	.....	.....
1875	3,654	2,800	6,454	.....	.....
1880	4,465	6,506	10,971	121,616	27.2
1885	9,583	6,835	16,418	239,347	25.0
1890	8,344	12,102	20,446	277,252	33.2
1895	14,398	18,529	32,927	207,771	14.4
1900	10,472	11,642	22,114	199,118	19.3
1901	8,790	12,019	20,809	187,711	21.4
1902	8,899	11,402	20,301	183,105	20.6
1903	10,405	9,814	20,219	227,511	21.9
1904	9,772	11,753	21,525	199,640	20.4
1905	10,313	11,492	21,805	201,998	19.6
1906	10,378	10,202	20,580	221,560	21.3
1907	9,916	8,037	17,953	277,390	28.0
1908	6,951	10,030	16,981	144,760	20.8

From the small beginnings of 1863 there was but one single break (that of 1875) in the yearly increase of land put under cane until 1884. During succeeding years there was, however, a retrograde tendency, and the area cultivated in 1888 was less by 2,236 acres than that cultivated in 1884. The low price of the product and the disturbed state of the markets of the world during these years forced the sugar manufacturers to reduce the price offered for the cane, and so caused, for a time, the abandonment of this cultivation by the small farmers, who found in the growth of maize less variable results for their labour.

In 1889 there was an increase in the area under cane of 1,213 acres, with further increases in successive years until 1895, when the largest area on record, 32,927 acres, was planted. In 1895 alterations were made in the Customs tariff as regards sugar, and also about that time there were great developments in the dairying industry on the northern rivers, both of which diverted attention from sugar-planting. After 1895 the area under cane steadily declined for five years, until in 1900 there were only 22,114 acres under cultivation. From 1900 the area remained practically stationary for five years at a little over 20,000 acres; there has been a further diminution, and in 1908 there were only 16,981 acres under cultivation.

In 1896 the highest production of 320,276 tons of cane was obtained; but the average production per acre was only 17.6 tons—with the exception of that of 1895 and of 1884, the lowest on record. The cane disease, prevalent principally on the Clarence, caused the low averages during the period 1894-96, and in 1895 the crop was further damaged by frost. The comparatively low yields of 1898-1900 were due to unfavourable seasons. The area of cane cut during 1908 was 6,951 acres, with a total yield of 144,760 tons, or an average of 20.8 tons per acre. During the last ten years the average has been 21 tons per acre.

The county of Rous is the principal centre of cultivation, containing 8,927 acres, devoted to the production of sugar—an area equal to more than half the total acreage in the State under cane crops. The yield obtained in 1908 from 3,714 acres of productive cane amounted to 81,961 tons, showing an average of 22.1 tons per acre. In the county of Clarence cane is grown on 5,952 acres. In this, as in the other sugar-growing counties, the majority of the farmers cultivate sugar-cane in addition to other crops, or in conjunction with dairying, and only a few estates are devoted entirely to its production. Some planters have areas of 25 to 100 acres in extent under cane; but their number is limited. The yield in the county of Clarence last season was 50,259 tons, or an average of 20.7 tons per acre, cut on an area of 2,430 acres. In the county of Richmond, the area under sugar-cane was 2,112 acres, of which 807 acres were cut, giving a total yield of 12,540 tons of cane, or an average of only 15.5 tons to the acre.

Sugar-cane is generally cut in the second year of its growth, the fields being replanted after they have given crops for three or four seasons; and as the cane has been planted at irregular intervals, the seasons of large production have sometimes been followed by small crops in the succeeding year. Sugar manufacturers invariably purchase the year's crop of cane standing, and cut it at their own cost. From plantations in full bearing the average weight of the cane cut varies from 25 to 32 tons, and the value received by the grower, exclusive of bounty on sugar grown by white labour, is about 12s. 6d. per ton. The field work on the sugar plantations of New South Wales has been performed generally by white labour, and even in 1901, when the Federal legislation in connection with the sugar industry was passed, the number of blacks employed was not large. At the Census of 1901 there were 239 Hindoos and 291 natives of the Pacific Islands working on the plantations.

The duty on imported cane sugar is £6 per ton, while the excise duty is fixed at £4 per ton; but a bounty of 6s. per ton of cane, calculated on cane giving 10 per cent. of sugar, is allowed on Australian sugar grown by white labour, the bounty being paid to the grower. In 1911 and 1912 the rates will be respectively two-thirds and one-third of those just mentioned. The cost of growing may be assumed at 2s. 11d. to 3s. 5d. per ton of cane for white and black labour, respectively, and about 10 per cent. of the sugar grown is cultivated by black labour. The following statement shows during the last seven years the area cultivated and the sugar produced by white and black labour, also the total amount of bounty paid each year:—

Year.	Area cultivated by—			Sugar produced by—			Amount of bounty.
	White labour.	Black labour.	Total.	White labour.	Black labour.	Total.	
	acres.	acres.	acres.	tons.	tons.	tons.	£
1902	21,591	2,466	24,057	19,434	1,526	20,960	36,333
1903	22,076	2,503	24,579	19,236	2,561	21,797	40,154
1904	19,114	2,411	21,525	17,812	1,838	19,650	36,107
1905	19,612	2,193	21,805	18,019	1,964	19,983	36,234
1906	18,645	1,956	20,601	21,805	1,613	23,418	42,789
1907	15,164	1,613	16,777	28,247	934	29,181	78,080
1908	15,545	1,436	16,981	14,351	964	15,315	40,687

The figures in the above table are supplied by the Customs Department, and differ as regards the area cultivated from those in the preceding table. The figures agree as to the area cut for cane, but differ as regards the area uncut; the reason is not apparent, but it is due probably to different methods and times of collecting the information.

#### GRAPE VINES.

In almost every part of the State, with the exception of the sub-tropical portion and the higher parts of the mountain ranges, grape-vines thrive well, and bear large crops, equal in size, appearance, and flavour to the products of France, the Rhinelands of Germany, and Spain. The principal vineyards are situated in the valleys of the Murray and Hunter Rivers, where considerable expense has been incurred to introduce skilled labour, and to provide manufacturing appliances. The vine-growing and wine-manufacturing industries are in their infancy, but with a growing local demand, and with the establishment of a market in England, where the wines of New South Wales have gained appreciation, the future of grape culture in this country appears to be fairly assured. At present the production is comparatively insignificant, as shown in the following table:—

Year.	Total area under vines.	Area under vines for wine-making only.	Production.		Year.	Total area under vines.	Area under vines for wine-making only.	Production.	
			Total.	Average per acre.				Total.	Average per acre.
	acres.	acres.	galls.	galls.		acres.	acres.	galls.	galls.
1860	1,584	622	99,791	160	1902	8,790	5,041	806,140	160
1865	2,126	1,243	168,123	135	1903	8,940	5,101	1,086,820	213
1870	4,504	2,371	342,674	145	1904	8,840	5,298	928,160	175
1875	4,459	3,163	831,749	263	1905	8,754	5,279	831,700	157
1880	4,800	2,907	602,007	207	1906	8,521	4,951	1,140,000	230
1885	5,247	2,876	555,470	193	1907	8,483	4,644	778,500	168
1890	8,044	3,896	842,181	216	1908	8,251	4,472	736,262	165
1895	7,519	4,390	885,673	202	Average for 10 years ended 1898				189
1900	8,441	4,534	891,190	197	" 10 "				180
1901	8,606	4,889	868,479	178					

The production has increased slowly during the period under review, the total area planted being now 8,251 acres, of which 4,472 acres yielded 736,262 gallons of wine. The total number of vineyards in 1908 was 1,657.

The average area of each vineyard was 5 acres, and the area planted with vines still in an unproductive state was 655 acres. Vignerons consider 250 gallons per acre a good yield; but the average yield for New South Wales reached this figure only in one year since the establishment of the industry, viz., in 1875, with 263 gallons. The average yield in 1908 was 165 gallons per acre, and during the last ten years 180 gallons. The best yield during the last twenty years was in 1891, when it was 237 gallons per acre.

Notwithstanding the acknowledged excellence of our wines, the export for the State has not yet reached an important figure. Among the causes which retard the acceptance of Australian wines in English markets may be mentioned the practice of shipping the product at too early an age, and the impossibility of obtaining from the shippers details respecting the vintage of any particular wine. Foreign experts also find fault with the method of casking; and there is no doubt that the success of New South Wales as a wine-exporting country will depend on the adoption of more advanced methods, and on the enterprise of vignerons in properly advertising the merits of their productions.

In the following table are particulars of the export trade in wine locally produced, for the nine years extending from 1900 to 1908:—

Year.	Export.	Year.	Export.
	gallons.		gallons.
1900	28,324	1905	47,471
1901	39,651	1906	75,661
1902	93,799	1907	128,946
1903	53,193	1908	70,460
1904	42,852		

The wine industry is hampered in its development by such drawbacks as phylloxera and anthracnose ("black spot"). Phylloxera has caused damage in the Camden, Seven Hills, and Parramatta districts, and some alarm exists among wine-growers touching its development in the future. Fortunately, the affected areas are confined to isolated patches.

The desire of the Government to extend the application of the most scientific methods in connection with wine-making and the general cultivation of the vine, and to extirpate the phylloxera disease, has led to the appointment of an expert, under whose direction inspectors have been engaged vigorously dealing with infected vineyards, and a Viticultural Station has been established at Howlong, near Albury, for the propagation of resistant stocks, and for conducting various experiments in connection with wine-growing.

The culture of grapes is not restricted to the production of fruit for the purposes of wine manufacture only, as a considerable area is devoted to the cultivation of table-grapes, particularly in the neighbourhood of Sydney, and in Ryde, Parramatta, and other districts of Central Cumberland. The extent of country devoted to this branch of the industry in 1908 included 2,975 acres, with a production of 3,150 tons of grapes, giving an average of 1.1 tons of fruit per acre.

Although there is a large local demand, and a possibility of an export trade for raisin fruits, no extensive effort has been made in that direction. In 1908 there were 149 acres cultivated for drying purposes, and the

yield was 1,435 cwt. At the Wagga and Hawkesbury experimental vineyards, raisins and sultanas are dried every season and placed on the local market, where they are regarded as equal in every respect to the imported article.

#### ORCHARDS.

The cultivation of fruit does not receive the full attention it deserves, although the soil and climate of large areas throughout the State are well adapted to fruit-growing. With these areas and with climatic conditions so varied, ranging from comparative cold on the high lands to semi-tropical heat in the north coast district, a large variety of fruits can be cultivated. In the vicinity of Sydney, oranges, peaches, plums, and passion-fruit are most generally planted. On the tableland, apples, pears, apricots, and all fruits from cool and temperate climates thrive well; in the west and south-west, figs, almonds, and raisin-grapes would grow; and in the north coast, pineapples, bananas, and other tropical fruits grow excellently.

The cultivation of citrus fruits has been undertaken largely in the districts adjacent to the metropolis. The first orange groves were planted near the town of Parramatta, and soon spread to the neighbouring districts of Ryde, Pennant Hills, Lane Cove, the whole of Central Cumberland, the valleys of the Hawkesbury and Nepean Rivers, and the slopes of the Kurrajong Mountains. Statistics relating to this branch of fruit-culture since 1890 are shown in the subjoined statement:—

Year.	Area under cultivation.			Production.	
	Productive.	Not yet bearing.	Total.	Total.	Average per acre.
	acres.	acres.	acres.	dozen.	dozen.
1890	8,737	2,551	11,288	11,562,000	1,058
1895	8,759	3,197	11,956	5,954,940	680
1900	11,013	3,952	14,965	6,486,276	589
1901	11,670	4,091	15,761	7,254,552	622
1902	12,550	3,657	16,207	5,092,392	406
1903	13,418	3,310	16,728	7,841,544	584
1904	14,486	2,918	17,404	7,918,380	547
1905	15,054	2,795	17,849	8,864,928	589
1906	15,173	2,582	17,755	7,837,488	516
1907	16,430	2,087	18,517	12,957,216	789
1908	16,570	2,040	18,610	7,847,580	474

In 1878 the area under oranges and lemons was 4,287 acres; in 1908 this had increased to 18,610 acres, of which 16,570 were productive. The production was equal to 474 dozen per acre—during the last five years the average yield being 582 dozen. It is estimated that over 3,000 dozen of fruit to the acre can be obtained during an average season from fair-sized trees in full bearing, and it is, therefore, probable that the figures returned by the growers include the production of a considerable number of young trees. The number of orangeries cultivated during the year 1908 was 2,709, and of these, the average area was 6·9 acres.

The production of oranges has attained such proportions, that the growers are obliged to seek markets abroad for the disposal of their crop, as the supply, both in New South Wales and in the adjacent States, in some seasons, exceeds the demand. The principal market outside Australia is in New Zealand. Efforts have been made to establish a trade with the United Kingdom, but for various reasons they have not met with

success. However, in view of the success that has been attained in other countries in carrying these fruits long distances by sea, there is reason to hope that the present difficulties may be surmounted.

The following table shows the area under orchards and fruit-gardens, exclusive of orangeries, together with the total value of each year's yield, since 1890:—

Year.	Area of productive fruit-gardens and orchards.	Area of fruit-gardens and orchards not bearing.	Total area cultivated for fruit-gardens and orchards.	Total value of the production of fruit-gardens and orchards.	Approximate average value per acre.
	acres.	acres.	acres.	£	£ s. d.
1890	16,081	6,274	22,355	213,934	13 6 0
1895	20,635	8,145	28,780	130,735	6 7 0
1900	25,766	5,503	31,269	270,081	10 10 0
1901	27,044	5,302	32,346	155,579	5 15 0
1902	27,161	4,216	31,377	173,535	6 8 0
1903	27,576	4,012	31,588	211,318	7 13 0
1904	26,196	3,740	29,936	162,670	6 4 0
1905	25,189	3,577	28,766	189,195	7 10 0
1906	24,708	3,714	28,422	230,135	9 6 0
1907	23,992	4,205	28,197	153,110	6 8 0
1908	23,170	4,100	27,270	231,370	10 0 0

There has been no increase in the area under orchards and fruit-gardens of recent years. Since 1890 the increase has been 4,915 acres; but since 1896 there has been a marked decrease. More than one-third of the area under orchards is in the county of Cumberland, the actual acreage in 1908 being 9,653. From 1889 to 1892 the average production was valued at from £12 to £13 per acre, but during the last five years the average has been only £7 18s. per acre.

The fruit-production of New South Wales, with the exception of oranges, is far behind local demands. The State is, therefore, obliged to import large quantities, the greater portion of which could be successfully grown within its own boundaries. Leaving out of the question the considerable importations of tropical fruits from Fiji, the South Sea Islands, and Queensland, the introduction of fruit from abroad is still greatly in excess of the possibilities of local production.

The following statement shows the imports of fresh fruits, excluding bananas and pineapples, during each of the last three years, and the exports of locally-grown fruit. The exports are almost entirely to the other States and New Zealand, and the imports chiefly from Italy and the United States, Victoria, and Tasmania.

Fresh Fruits.	Imports.			Exports (domestic produce).		
	1906.	1907.	1908.	1906.	1907.	1908.
	centals.	centals.	centals.	centals.	centals.	centals.
Apples ... ..	133,843	166,442	208,293	19,029	34,432	63,783
Oranges and Lemons	24,198	25,685	22,691	141,782	205,966	94,273
Other ... ..	85,373	166,275	120,682	61,198	49,630	35,099

In addition to the above, there were large imports of jams and canned fruits and pulp. In 1908 the value of the net import of fruit commodities, jams, fresh fruits, preserved fruits, &c., was £353,149, a sum which is far too large, considering the State's natural advantages of soil and climate.



## MARKET-GARDENS.

In 1908 there were in the State 3,462 holdings, comprising 10,331 acres, cultivated as market-gardens, the average size of each garden being 3 acres. The value of the production for the year was £298,740. More than one-third of the total area laid down for market-gardens is in the county of Cumberland. Until recent years the industry was almost entirely in the hands of the Chinese, but latterly it has received much attention from European farmers in the districts in the vicinity of the metropolis.

The subjoined statement gives the number and area of market gardens, and the value of the produce in various years since 1890:—

Year.	Market-gardens.	Area.	Value of production.	
			Total.	Average per acre.
	No.	acres.	£	£ s. d.
1890 ... ..	*	5,098	192,597	37 15 7
1895 ... ..	2,297	6,899	170,115	24 13 2
1900 ... ..	2,266	7,764	189,448	24 8 0
1901 ... ..	2,215	7,834	208,040	26 11 1
1902 ... ..	2,283	8,263	218,612	26 9 1
1903 ... ..	2,559	8,754	213,412	24 7 7
1904 ... ..	2,783	8,827	225,400	25 10 8
1905 ... ..	2,842	9,119	242,405	26 11 8
1906 ... ..	3,437	9,550	250,905	26 5 5
1907† ... ..	3,324	10,052	262,786	26 2 10
1908† ... ..	3,462	10,331	298,740	28 18 0

\* Not available. † Including green peas cultivated on farms.

One branch of gardening—tomato culture—has not received sufficient attention. As this cultivation entails light labour, and is particularly remunerative, the vegetable could be grown by persons unaccustomed to heavier labour on farms, and it is surprising that the industry should have been so long neglected. In 1908 there were 651 acres under cultivation for tomatoes, which yielded 61,412 cases, or 94 cases per acre.

## MINOR CROPS.

In addition to the crops already specified, there are small areas under various kinds of products—as, for instance, pulse and gourd crops.

*Pulse.*—During the year 1908 there were 274 acres under crop for peas and beans, which gave a total yield of 10,327 bushels, being 37·6 bushels per acre.

These peas and beans were grown mainly as hard fodder for horses and pigs, and must not be confounded with the peas and beans cultivated in the kitchen and market gardens for table use as vegetables.

*Gourd Crops.*—The area devoted to pumpkins and melons during the year 1908 was 3,869 acres, and the yield 11,245 tons, being 2·9 tons per acre. The principal places of cultivation are the maize districts and the metropolitan county.

Pumpkins are grown for table use as vegetables, but are also used extensively as fodder for cattle and pigs. The number of acres under gourd-vines mentioned above is somewhat below the true figures, as crops of pumpkins and melons are sometimes raised in orchards and vineyards amongst the fruit-trees and vines, and particulars respecting the production are not returned.

Other branches of agriculture have hardly been considered, although, no doubt, as the rural population increases, their importance will be more recognised. There are indications that more attention is being paid to them. Little has been attempted in the cultivation of any of the following, although experiment has proved that they can all be raised in the State:—Olives, castor-oil plant, flax, ramie fibre, hops, silk, coffee, and cotton. The varieties of the soil and of climate are so diverse that almost any kind of produce can be raised, and there is every reason for hope for future extension.

The olive has been grown successfully in South Australia, and could be cultivated in districts with suitable temperature in New South Wales.

The castor-oil plant grows luxuriantly in the humid coastal districts.

A most valuable crop is flax, and more persistent efforts should be made to introduce it.

Hops are cultivated to a slight extent in the neighbourhood of Orange; other districts adapted for its cultivation are Armidale, Goulburn, and Cooma.

MACHINERY.

The estimated value of the machinery in use in farming operations is £2,851,974, distributed as follows:—

Division.	Area farmed.	Value of machinery.	Value, per acre.
	acres.	£	£
Coastal Division ... ..	297,237	407,001	1·37
Tableland ... ..	328,082	434,361	1·32
Western Slopes ... ..	1,170,489	1,173,080	1·00
Western Plains and Riverina ...	905,832	791,648	·87
Western Division ... ..	12,331	45,884	3·72
Total ... ..	2,713,971	2,851,974	1·05

The following statement gives a comparative view of the machinery used and the labour employed in agricultural pursuits during the last five years:—

Year.	Area farmed.	Machinery.	Labour.			Machinery, per acre.	Labour per acre.
			Males.	Females.	Total.		
	acres.	£				£	No.
1904 ...	2,672,973	2,459,346	63,111	5,742	68,853	·92	·022
1905 ...	2,838,081	2,557,262	62,419	5,008	67,427	·90	·024
1906 ...	2,824,211	2,645,980	63,448	5,715	69,163	·94	·021
1907 ...	2,570,137	2,599,156	57,327	5,385	62,712	1·01	·024
1908 ...	2,713,971	2,851,974	55,324	5,409	60,733	1·05	·022

The above table shows how little advance has been made in the relative extent of machinery and labour applied to each acre of land under crops in the last five years.

IRRIGATION.

The provision of an adequate water supply for other than domestic purposes is essential to the well-being of all primary industries, and particularly in a country which is liable to dry seasons which affect extensive areas. Much of the area of the State receives an adequate and

regular rainfall, but over a considerable extent of country all the factors exist which are requisite to success in agricultural pursuits, except a constant water supply. The recognition of the fact that the area suitable for cultivation might be largely extended by a comprehensive system of water conservation and irrigation has led the State to undertake various schemes in detached groups, which will constitute portion of the ultimate irrigation system necessary to serve the whole State. The following statement shows the extent of the work which has been successfully effected under the provisions of the Water and Drainage and other Acts as regards existing Artesian bores:—

*Number of Bores.*

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Artesian Wells, &c.... ..	99	28	127	247,978
For Country Towns Water Supply ... ..	3	.....	3	4,287
For Improvement Leases ... ..	50	2	52	88,280
Total, Government Bores..	152	30	182	298,205
Private Bores ... ..	213	35	248	41,000

The average depth is 1,871 feet in the case of Government bores, and of private bores, 1,360 feet. The total area watered by artesian bores is estimated at 2,194,675 acres, which, though a large extent of country, yet, when related to the whole land surface of New South Wales, represents only 1.1 per cent. of the total area.

But the exploitation of the artesian supply by no means represents the extent of the efforts at water conservation. New South Wales possesses, outside the boundaries of the artesian supply, river basins eminently adapted for storage purposes. The most important work of this type is the scheme now being carried to completion to conserve and utilise the vast quantities of water which annually flow down the Murrumbidgee River. The estimated cost of this work is rather more than one and a half million pounds, and the plan is to conserve the water by the erection of a huge storage dam at Barren Jack, then to divert the water to serve the land between the Murrumbidgee and Lachlan River valleys. The catchment area for this reservoir, which will hold 33,613 million cubic feet, is 5,000 square miles. The construction of a weir some 200 miles below the dam will divert the water to serve the land on each side of the river. An area of three million acres will be irrigated ultimately, but the land on the north side of the Murrumbidgee, to be immediately watered, represents one and a half million acres.

In addition to this extensive scheme, which is under construction, much preliminary work has been done in the way of surveys, observations, gaugings, and exploration, to discover the extent to which the waters of other rivers may be conserved. On the Lachlan River a gauging station has been established at Wyangala, where it is estimated that a dam 155 feet high would impound 12,000 million cubic feet of water; and there is another station at Canowindra, on the Belubula. During 1908-9, 275 observations were taken at forty gauging sites, distributed over twenty main rivers and tributary streams.

Under the Water Rights Act of 1902, administered by the Public Works Department, all rivers, creeks, and lakes are vested in the Minister, who has power to grant licenses for private schemes of conservation. Up to the end of June, 1909, 1,964 applications were made for licenses.

To utilise the water thus conserved through the efforts of the Government and by private enterprise, several irrigation areas have been devised. The Government has an irrigation farm at Yanco, and the most extensive private scheme is at North Yanco, where 60 miles of channel are supplied from an anabranch of the Murrumbidgee River. At the Yanco experiment farm the first irrigation was undertaken only in October, 1908, and satisfactory results are anticipated; but as the scheme is not completed, no statistics are available.

Other irrigation settlements have been established at Hay and at Wentworth. In the Wentworth irrigation area, 1,214 acres have been subdivided, of which 458 acres were under cultivation during 1908-9, including 265 acres devoted to fruit-trees, oranges, grapes, sultanas, and currants. In this area is instituted a dual scheme of irrigation and intense cultivation of small areas, and the results of the experiment will be regarded with interest, and of exceptional value from the educational standpoint.

The proposals for the further development of water conservation include the sinking of seven new bores in areas already investigated, in addition to the various works now under construction, which embrace bores in six districts, and the consequent reticulation work; the extension of the public watering-places, which, at 30th June, 1909, numbered 200, and of which 113 had been leased; the drainage of swamp areas, and the development of shallow bores in the Pilliga Scrub.

#### EXPERIMENT FARMS.

With the combined objects of obtaining a thorough knowledge of local conditions and of affording an education in agriculture on scientific and local bases, the Government has established agricultural colleges, experimental farms, and farmers' experiment plots, and has engaged agricultural lecturers and experts to guide and assist the farmers.

The agricultural and experiment farms in operation number thirteen, covering a total area of 14,607 acres, of which 4,001 acres were under cultivation during 1908, the areas for various crops being as follows:—

	acres.
Cereals and hay ... ..	1,869
Fruit-trees and vines ... ..	101
Green fodder ... ..	1,101
Sown grasses and forage plants ... ..	621
Root and other crops ... ..	309

Much of the remaining area allocated to these farms is cleared only partially; portion of it is under fallow, and portion ready for ploughing.

The Hawkesbury Agricultural College provides accommodation for resident students, and gives theoretical and practical instruction in a three-years' course, which embraces every department of agriculture. In addition, experimental research work is conducted in connection with cereal and other crops, and with fertilisers, and soil culture, &c. Necessarily, all subsidiary branches of farm labour are taught, including blacksmithing, carpentering, sheep-killing, bee-keeping, and other allied occupations. Special courses of instruction are also provided, notably at the Farmers' Winter School and Public School Teachers' Summer School,

in connection with which 452 persons attended during the year 1908-9, to receive some training. During 1908 there were 190 regular students in attendance, and 1,317 acres out of the total of 3,551 acres attached to the College were under cultivation.

Experiment farms have been established in various districts of the State, and the experiments and education vary with the particular climatic conditions. Such farms have been established in thirteen centres, viz., at Wagga, Wollongbar, Bathurst, Berry, Grafton, Coolabah, Cowra, Glen Innes, Pera Bore, Moree, Howlong, Raymond Terrace, and Yanco. A farm was opened at Nyngan during 1909, to replace that at Coolabah. At Wagga farm, the specialties are the growing of seed wheats, and fruits for drying, and the breeding of dairy cattle (notably Jerseys), and swine. The area under cultivation is 1,034 acres out of 3,228 acres.

At Bathurst, particular attention has been devoted to the orchard, and to mixed farming and irrigation. A demonstration area of 180 acres has been set apart, the object of which is to show the profit, on commercial lines, accruing from the results of past experiments.

The Berry Stud Farm, as in the case of Wollongbar, on the North Coast, has offered education and assistance to dairy-farming.

At Howlong and at Raymond Terrace, viticultural stations are affording instruction and advice in regard to vine-growing.

At Yanco, preparations are being made by experimental irrigation work, for the advent of large numbers of settlers on the area adjacent to Barren Jack Reservoir, which, when completed, will serve to irrigate a large extent of territory in the vicinity.

At Moree and Pera Bore, experiments have been made with bore water in agriculture, and with methods of neutralising the chemical constituents in the water.

The value of plant and machinery on all these farms was estimated at £9,073 at 31st December, 1908, being £2 per acre under crop; 131 persons were employed, in addition to 286 students in attendance, making a total labour force of 417 persons, representing approximately one person to every  $9\frac{1}{2}$  acres cultivated. The value of the produce was assessed at £19,347, but as these farms are for experimental purposes only, the estimated monetary value of the products does not by any means represent its whole value.

#### STATE ADVANCES TO SETTLERS.

To meet the demand for capital, and impelled by the necessity for affording assistance to settlers whose prospects had been affected by the prevalent drought conditions, the Government inaugurated a system in 1899, by which advances are made to settlers on the basis of the French *Crédit Foncier*, at rates of interest and of repayment which are intended to be available for the benefit of every settler offering adequate security. The original Act of 1899 received several amendments, till finally, in 1906, the powers of the Advances to Settlers Board have been transferred to the Commissioners of the Government Savings Bank of New South Wales, and the maximum and minimum advances are fixed at £2,000 and £50 respectively.

Up to 31st December, 1908, 7,678 advances, total £1,062,626, were made to settlers, averaging £139 per loan, of which 4,167, representing £470,548, have been repaid, leaving 3,511 advances current at that date, the average balance of principal being £169 per loan.

The operations of the bank, relating to advances to settlers, for the years 1907 and 1908, were as follows:—

Year.	No.	Total Amount.	Average.
<i>Advances made.</i>			
		£	£
1907	424	106,025	250
1908	822	273,292	332
<i>Repayments.</i>			
1907	777	84,255	.....
1908	963	104,725	.....
<i>Balances Repayable.</i>			
1907	3,652	423,511	116
1908	3,511	592,078	169

The Commissioners are empowered to make advances upon mortgages of land in fee-simple or of land held under conditional purchase or lease, settlement purchase or lease, or homestead grant or selection. The advances are made for the purposes of repaying existing encumbrances, or of purchasing land or in order to effect improvements, utilise resources, or build homes. The conditions under which loans are repayable vary according to the circumstances of the individual case; the maximum loan to any one person is £2,000; the rate of interest ranges between 4½ and 5 per cent.; and the maximum period for repayment is thirty-one years. It is clear that the system is intended to confer, and does afford material assistance to men who contemplate settling on the land, as well as to those already engaged in agriculture; but necessarily this system was not initiated to meet every instance in which farmers might require credit, usually in relatively small amounts, and for a comparatively short period. To effect this object it seems necessary that a comprehensive system should be established in New South Wales, on the lines of a co-operative bank, or borrowers' association, with the sole object of obtaining cheap credit for its members, with adequate protection of their security on the plan of the co-operative loan organisations which have been introduced satisfactorily in Europe, and of which the best example exists in the Raiffeisen banks of Germany, which represent the latest stage in the evolution from the early *Crédit Foncier* system.

The history of this evolution ranges through Germany, France, Italy, Switzerland, and Austria-Hungary; the first stage in the evolution is found in the German *Landschaften* established in the middle eighteenth century, when, in 1769, Frederick the Great obliged all noblemen holding land in Silesia to unite to form a loan society, to cope with an enormous withdrawal of capital from agriculture. The whole property of the members was collectively liable for each loan made and passing the first stage, when the association merely brought intending borrowers in touch with possible lenders, later associations became true land banks, borrowing money by the issue of debentures secured by mortgages and the joint liability of members, and issuing loans on mortgage to the landed proprietors composing the membership.

In the middle nineteenth century, after inquiry into the German institutions then existing, a law was passed in France, in 1852, by which the *Crédit Foncier de France* was established. This is on the principle of a joint-stock company, the funds being constituted partly of share capital and partly by the proceeds of debentures, and moneys received on deposit.

The money thus obtained is used for loans on real property, the reduction of existing encumbrances, and the general development of agriculture, but advances are also made to public bodies and departments. The loans are usually for long terms, with easy repayments and low interest rates, and shareholders benefit by any profits.

This system did not, however, fulfil all the needs of the community, and in 1861, *La Société du Crédit Agricole* was formed also on the lines of a joint-stock company, to provide cheap loans for the smaller class of agriculturists; the Government guaranteed a minimum interest of 4 per cent. for five years for shareholders. Debentures were issued and deposits received, and current accounts opened, but the society's business was mainly discounting, and partly lending. The endorsement of an agent of the society or of a joint-stock company or local association working under its auspices was required on all negotiable instruments drawn by agriculturists, and by the addition of the society's signature, the borrower could deal with the Bank of France. As a loan institution the society made advances on single signatures of the borrower, secured by material pledges. In 1876 the society failed, having failed to confine its business to agricultural requirements.

In 1884, Belgium established *Comptoirs Agricoles* for the purpose of dealing with loan proposals as agencies of the general savings banks, the deposits in which are used by the National Bank for the development of commerce.

This system also has failed to obtain a full measure of success, mainly because of the failure to reach easily its intended clients, and the inability to secure satisfactory agents.

Following these attempts on joint stock lines came institutions established on a co-operative basis, classed after their founders, as *Schulze-Delitzsch* societies and *Raiffeisen* societies. The former societies were established with the primary objects of relieving borrowers from usurious interest rates, and of mitigating the tendency to look for State aid. The first society was established in 1850, and within forty years the aggregate loans of existing *Schulze-Delitzsch* societies reached £100,000,000.

The first beneficiaries under this system were urban artizans, but its assistance was soon extended to agriculturists, who now form the bulk of its membership. Originally, the bases of the system were unlimited liability and a substantial share capital; but the condition of unlimited liability has now ceased to be essential. Seven members, male or female, with one share each, may form a society, of which the operations are, in practice, usually confined to a definite area. The articles of association are in accordance with law, and the society is controlled by an elected administrative directorate. The law requires a compulsory audit periodically. The funds are constituted partly by shares and partly by capital obtained from ordinary banks by discount or deposit; debentures are not issued. Advances are now made to members only, credit is personal, based on surety, and no control is exercised in regard to the uses to which loans are put. The advances are of three types, being (a) advances on bills drawn by members and guaranteed by other members; (b) cash credits or overdrafts on the borrowers bond, with collateral security; and (c) ordinary bills of exchange. The period of loan does not usually exceed the period for which deposits are made, but loans are renewable; repayment by instalments is not acceptable; interest rates are about 7 per cent.; dividends are allowed to members, assisting to encourage deposits. The system has achieved considerable success and an extensive influence, but as its business is not exclusively agricultural development, it does not represent a perfect rural bank.

In 1864 the first Credit Union was established by Raiffeisen. The basis was unlimited liability of members; the share principle was rejected as uselessly hampering rural development; but being made compulsory by law, the share values were made as low as possible, and only one share was allowed to each member. Operations are confined to a limited area, thus ensuring intimacy amongst the members. The specific objects include the supply of raw materials, the sale of products, purchase of commodities, implements, and machinery for members, and assistance towards land purchase. All adults may become members, all administrative services of the elected directorate are gratuitous. Funds are supplied by borrowed capital, the share capital being insignificant; interest is paid to lenders or depositors, ranging about  $4\frac{1}{2}$  per cent.; loans are made to members, usually on personal security for any term, and sureties are required; mortgage and cash credits are granted, but in every case the solvency of the borrower must be assured, and the loans are granted for useful and productive purposes. The loans are usually small; interest is generally 5 per cent., and a commission is charged which, in the aggregate, covers cost of administration. Financially, societies of this type have achieved marked success. Unlike the Schulze-Delitzsch societies, no dividends are paid, except trifling rates on shares. Net profits form a reserve fund, which, when large, may be drawn upon for some object of general utility.

The societies are grouped in unions under a central union for all Germany, which also promotes life assurance and assurance against loss; central banks have been established to regulate the finances of the unions, and in recent years the State has made advances of Government money available to the central banks of both the Schulze-Delitzsch and the Raiffeisen systems.

Other banks have been established which unite the characteristics of both these systems, of which an example is found in the Austrian Raiffeisen unions and in the Luzzatti Popular banks and Wollemborg Agricultural Banks in Italy; thence the principles of co-operative agriculture have spread to other quarters of the world, and it remains for New South Wales to introduce the system to Australia.



## PASTORAL INDUSTRY.

THE whole stock of the infant colony in 1788 consisted of 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats. No systematic record of the arrival of live stock was 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. The numbers of each class of stock at various periods up to 1850, prior to the separation of Victoria, were as follow:—

Year.	Horses.	Cattle.	Sheep.	Swine.
1788	7	6	29	12
1792	11	23	105	43
1796	57	227	1,531	1,869
1800	203	1,044	6,124	4,017
1825	6,142	134,519	237,622	39,006
1842	56,585	897,219	4,804,946	46,086
1850	132,437	1,738,965	13,059,324	61,631

In 1851 the severance of Victoria from the mother State reduced the number of stock considerably; the separation of Queensland at the close of 1859 involved a further reduction, and at the end of the latter year the numbers of each kind of live stock within the existing boundaries of New South Wales were 251,497 horses, 2,408,586 cattle, 6,119,163 sheep, and 180,662 pigs. The following table shows the number of stock at the end of each decennial period from 1861 to 1901 inclusive, and for each of the last four years:—

Year.	Horses.	Cattle.	Sheep.	Swine.
1861	233,220	2,271,923	5,615,054	146,091
1871	304,100	2,014,888	16,278,697	213,193
1881	398,577	2,597,348	36,591,946	213,916
1891	469,647	2,128,838	61,831,416	253,189
1901	486,716	2,047,454	41,857,099	265,730
1905	506,884	2,337,973	39,506,764	310,702
1906	537,762	2,549,944	44,132,421	243,370
1907	578,326	2,751,193	44,461,839	216,145
1908	591,045	2,955,934	43,370,797	215,822

Since 1891 the sheep have diminished in number to the extent of over 18 millions, and swine by over 37,000, but the other classes of stock show increases—horses 121,000, and cattle 827,000. In order to indicate the

districts in which the changes in the flocks and herds have occurred the following table has been prepared, showing the number of live stock in each district at the end of various years since 1896. The returns for years prior to 1896 were compiled on a different basis, so that it is impossible to make any comparison with them; but the figures given will be sufficient to show that the chief decrease in sheep has been in the Western districts, where the ravages of drought are felt most keenly. A striking feature of the table is the large increase both of dairy and ordinary cattle in the coastal district:—

District.	1896.	1901.	1907.	1908.
<b>SHEEP—</b>				
Coastal District .. .. .	964,759	1,097,471	1,405,936	1,514,463
Table-lands .. .. .	7,036,733	8,859,069	9,160,446	8,811,468
Western Slope .. .. .	10,968,344	11,671,524	12,269,431	11,926,527
Western Plains and Riverina .. .. .	18,541,961	14,573,523	14,911,225	14,656,524
Western Division .. .. .	10,806,993	5,522,953	6,714,301	6,461,815
Unclassified .. .. .	.....	127,559	.....	.....
<b>Total .. .. .</b>	<b>43,318,790</b>	<b>41,857,099</b>	<b>44,461,839</b>	<b>43,370,797</b>
<b>ORDINARY CATTLE—</b>				
Coastal District .. .. .	612,797	667,282	944,775	1,061,619
Table-lands .. .. .	541,493	500,974	560,971	578,219
Western Slope .. .. .	403,294	305,789	424,134	451,176
Western Plains and Riverina .. .. .	199,817	114,327	219,006	234,724
Western Division .. .. .	68,579	41,247	95,312	102,353
<b>Total .. .. .</b>	<b>1,825,980</b>	<b>1,629,619</b>	<b>2,244,798</b>	<b>2,423,091</b>
<b>DAIRY COWS IN MILK—</b>				
Coastal District .. .. .	238,530	284,099	371,556	407,964
Table-lands .. .. .	82,487	70,224	67,422	58,173
Western Slope .. .. .	46,578	39,732	45,899	41,156
Western Plains and Riverina .. .. .	26,372	19,790	19,020	18,208
Western Division .. .. .	6,216	3,990	2,498	2,347
<b>Total .. .. .</b>	<b>400,183</b>	<b>417,835</b>	<b>506,395</b>	<b>527,843</b>
<b>HORSES—</b>				
Coastal District .. .. .	160,285	160,704	180,795	186,225
Table-lands .. .. .	115,314	112,294	117,924	116,249
Western Slope .. .. .	108,493	110,845	145,020	148,743
Western Plains and Riverina .. .. .	85,622	77,650	104,792	108,550
Western Division .. .. .	40,922	25,223	29,795	31,278
<b>Total .. .. .</b>	<b>510,636</b>	<b>486,716</b>	<b>578,326</b>	<b>591,045</b>

### SHEEP.

The suitability of the land for grazing was undoubtedly the means of inducing the early colonists to enter upon pastoral pursuits, and the relative ease with which operations could be conducted, in comparison with the difficulties attendant upon other primary industries, confirmed their choice.

In the year 1795 Captain Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of a thousand sheep; but, not satisfied with the natural increase of his flocks, he sought also to improve the quality of their fleeces. By good fortune in 1797 Captain Waterhouse arrived from the Cape of Good Hope with a number of very fine Spanish-bred sheep, which he sold to various stockowners. With the advantage of this superior stock, Macarthur gradually improved his strain, and in a few years obtained fleeces of very fine texture.

Prior to the nineteenth century the production of the finest wool had been fostered chiefly in Spain, so that woollen manufactures were necessarily somewhat restricted, and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, proving conclusively the capabilities of Australia as a wool-producing country.

In this way he established a small trade, which, as Australian wool rose in public estimation, gradually increased until it has reached its present enormous dimensions; so that, although not the first to introduce merino sheep into Australia, there is no doubt that to him is due the credit of having been the first to prove that the production of fine wool could be made a profitable industry in this country.

As might have been anticipated, natural conditions in Australia have, somewhat varied the character of the Spanish fleece. The wool has become softer and more elastic, and while diminishing in density it has gained in length, so that the weight of the fleece has increased. The quality of the wool, on the whole, has improved under the influence of the climate, and Australian wool is now probably the best in the world.

The following table shows the number of sheep at the close of various years, and illustrates the progress of sheep-breeding in New South Wales:—

Year.	Sheep.	Year.	Sheep.	Year.	Sheep.
1861	5,615,054	1891	61,831,416	1905	39,506,764
1866	11,562,155	1896	48,318,790	1906	44,132,421
1871	16,278,697	1901	41,857,099	1907	44,461,839
1876	25,269,755	1902	26,649,424	1908	43,370,797
1881	36,591,946	1903	23,656,501		
1886	39,169,304	1904	34,526,894		

Divided into five periods, the rates of increase are—

1861-71	annual increase	11·2	per cent.
1871-81	„	8·4	„
1881-91	„	5·4	„
1891-1901	„	decrease	4·0
1901-1908	„	increase	0·5

Considering the unimproved condition of the pasturage over a great portion of its area, it was apparent in 1891 that the State was overstocked, and graziers restricted the natural increase of their flocks by breeding only from the better-class ewes. In addition, the following season proved unfavourable, so that during the year there was a large decrease in the number of sheep. The adverse season of 1892 was, unfortunately, the forerunner of many others, so that with the exception of 1900, the whole of the years up to 1902 were distinctly unfavourable to the pastoral industry. The climax was reached in 1902, which was particularly disastrous, as the number of sheep fell from 41,857,099 at the beginning of the year to 26,649,424 at its close, when the total flocks were over 35 millions less than in 1891.

The decrease in the total was accompanied by great changes in the sizes of individual flocks, and these changes may be traced in the following table, which gives an approximate classification of the flocks, for various years from 1891 to 1908. In the former year there were only 13,187 holdings, but in 1908 the number had increased to 23,893, although the sheep had decreased by over 18 millions. It is significant that while in 1891 there were 73 holdings which each carried over 100,000 sheep, the number of such in 1901 was 12, and in 1908 only 10. The sheep in flocks of over 20,000 comprised 62 per cent. of the total in 1891, but only 32 per cent. in 1908. The greatest change has occurred since 1894, when a very large number of sheep perished,

and pastoralists realised that the best method of meeting droughty seasons lay in the subdivision of their large flocks :—

Year.	Size of Flocks.								Total.
	1 to 1,000.	1,001 to 2,000.	2,001 to 5,000.	5,001 to 10,000.	10,001 to 20,000.	20,001 to 50,000.	50,001 to 100,000.	100,001 and over.	
NUMBER OF SHEEP.									
1891	2,794,751	2,979,168	5,493,942	4,943,221	7,056,580	15,553,774	12,617,206	10,392,774	61,831,416
1894	2,863,963	3,050,107	5,264,700	5,114,109	6,844,167	15,125,070	10,366,501	8,348,653	56,977,270
1897	3,169,977	2,710,546	4,511,676	4,625,398	6,230,663	12,468,278	6,972,298	3,264,061	43,952,897
1900	3,471,775	3,266,864	4,725,271	4,824,604	6,206,402	10,686,291	4,564,309	2,066,475	40,020,506*
1901	3,797,114	3,560,849	5,519,008	5,210,117	6,666,429	10,552,373	4,835,547	1,588,103	41,857,099*
1902	3,988,724	2,580,865	3,867,402	3,862,638	5,329,031	5,039,100	1,297,333	684,331	26,649,424
1903	3,580,943	2,640,465	3,956,302	3,770,657	5,201,133	7,120,873	1,489,395	706,688	28,656,501*
1904	3,808,700	3,158,219	4,722,130	4,307,558	6,004,591	8,750,595	3,096,192	678,909	34,526,894
1905	4,066,162	3,787,648	5,746,793	4,580,497	6,522,915	10,001,922	3,769,240	1,031,587	39,506,764
1906	4,397,818	4,327,447	6,715,317	5,287,191	6,966,647	10,637,410	4,409,600	1,390,991	44,132,421
1907	4,712,734	4,587,219	7,245,911	5,837,076	7,388,940	9,392,069	4,359,321	938,569	44,461,839
1908	4,846,637	4,616,175	7,613,697	5,657,418	6,852,672	8,813,625	3,747,775	1,222,798	43,370,797

\* Includes sheep in unclassified flocks, 208,515 in 1900; 127,559 in 1901; and 181,045 in 1903.

NUMBER OF HOLDINGS.									
1891	7,606	1,954	1,696	686	495	491	186	73	13,187
1894	8,402	2,013	1,633	716	441	478	148	60	13,891
1897	9,376	1,767	1,383	651	436	406	104	21	14,144
1900	10,646	2,152	1,462	676	431	349	67	14	15,797
1901	11,800	2,351	1,722	729	465	344	76	12	17,489
1902	14,074	1,715	1,186	534	371	168	20	6	18,074
1903	13,154	1,791	1,253	528	368	238	23	6	17,361
1904	12,732	2,146	1,498	601	429	296	48	5	17,755
1905	13,089	2,560	1,816	638	464	338	57	7	18,949
1906	13,894	2,925	2,127	757	484	357	69	11	20,624
1907	15,923	3,148	2,354	835	520	320	66	7	23,173
1908	16,641	3,177	2,431	796	485	295	58	10	23,393

After allowing for the causes which naturally impede the increase, such as the demands of the meat supply, the requirements of the neighbouring States, and the losses occurring from causes other than drought, it is found that the rate of annual increase has been as high as 20 per cent., so that it is possible for the flocks of New South Wales to double themselves within four years, and actual experience shows that this rate of increase occurred in 1904 and in several of the earlier years. During the period of five years from 1861 to 1866 there was an increase of 100 per cent.; and the flocks of the State were again doubled in the eight years from 1866 to 1874, and in the thirteen years from 1874 to 1887.

The export and import of sheep during the last ten years is shown below. The figures do not exactly represent the trade in sheep, being somewhat in excess of the truth, since sheep are often transferred from one State to another for the convenience of station-holders, for better pasturage, and for business purposes :—

Year.	Exported.	Imported.	Year.	Exported.	Imported.
	No.	No.		No.	No.
1899	1,200,331	498,111	1904	883,156	662,691
1900	754,849	656,699	1905	1,619,842	798,026
1901	1,237,875	413,409	1906	1,951,183	1,138,620
1902	1,700,164	360,306	1907	2,475,210	1,569,767
1903	761,546	1,521,278	1908	1,849,416	1,539,481

Until recent years the demand for sheep for local consumption was so small compared with the supply that it did not appreciably affect the increase of the flocks of the State. This, however, is not now the case;

the annual demand for food consumption within the State is about 7 per cent. of the number of sheep depastured—equal to about three-fifths of the cast. The “cast” implies the number of sheep which, from breeding or wool-growing considerations, it is more profitable to kill than to feed. Expressed as a percentage of the whole of the sheep depastured, the “cast” is a variable quantity, which, however, may be taken approximately as 11½ per cent. The number required for export in a frozen or preserved state, and for tallow, brings up the total killed per annum to nearly 12 per cent. of the entire flocks.

The following table gives the number of sheep in each State of Australia at the end of 1908, together with the proportion of the total owned in each:—

State.	Sheep.	Proportion owned in each State.
	No.	per cent.
New South Wales ... ..	43,370,797	49·86
Victoria ... ..	12,545,742	14·42
Queensland ... ..	18,348,851	21·09
South Australia ... ..	6,898,451	7·93
Western Australia ... ..	4,098,519	4·71
Tasmania ... ..	1,728,053	1·99
Australia... ..	86,990,413	100·00

The introduction of sheep and cattle into the State was forbidden for many years, lest the flocks and herds might be contaminated by scab and various diseases prevalent in other countries; but these restrictions were removed at the beginning of the year 1888, and pure-bred sheep are now imported from the United Kingdom, the United States, and Germany. So far, the principal breed imported has been the merino; but Lincoln, South Downs, Vermont, Shropshire, and other well-known breeds have been introduced. It is, however, to Tasmania that pastoralists chiefly look for their stud stock, several breeders in that State having made a speciality of raising merinos from the finest strains procurable in the world. The stud stock bred in the island State possess generally a fleece of strong character—an essential feature for the maintenance of weight and quality in those districts of New South Wales where the natural tendency is towards extreme fineness. The sheep imported during 1908 for breeding purposes numbered 10,543, valued at £54,046, of which 3,544, worth £21,439, came from Tasmania.

The breeds of sheep in New South Wales are the Merino, Lincoln, Leicester, Downs, and Romney Marsh, and crosses of the long-woolled breeds, principally with the merino. In addition, the Suffolk Downs sheep, which appear to be pre-eminently adapted for farming purposes, and for the production of a weighty lamb for the export trade, were introduced into the New England district during 1904. At the close of 1908, the respective numbers of merino, and long-woolled sheep, and cross-breeds were as shown below, the figures including only those in flocks of 100 and over.

Class of Sheep.	Rams.	Ewes.	Wethers.	Lambs.	Total.
Merino ... ..	546,852	18,784,695	10,765,035	6,698,138	36,794,720
Cross-breeds ... ..	93,134	2,241,712	1,588,993	1,089,818	5,013,657
Total ... ..	639,986	21,026,407	12,354,028	7,787,956	41,808,377



## WOOL.

The wool-clip is the most important item of production of New South Wales, and the prosperity of the State very largely depends upon the wool market. The following table shows the export trade in New South Wales wool in quinquennial periods since 1860, and illustrates the growth of this important industry during the forty-nine years. The weights given represent the actual exports, washed and greasy wool being taken together:—

Period.	Quantity.	Total Value.	Period.	Quantity.	Total Value.
	lb.	£		lb.	£
1860-1864	95,792,401	8,635,588	1895-1899	1,282,457,338	44,108,894
1865-1869	172,503,856	12,362,527	1900-1904	1,071,168,177	41,765,526
1870-1874	301,441,632	19,778,734	1905	266,359,306	12,362,515
1875-1879	525,964,323	28,687,368	1906	291,183,294	14,186,562
1880-1884	802,842,533	37,175,364	1907	332,363,433	17,241,213
1885-1889	1,056,290,069	42,896,802	1908	319,248,070	13,526,466
1890-1894	1,530,993,123	48,925,721			

These figures do not show the production clearly; nor can the fluctuations in the market value be ascertained from them, as the relative quantities of greasy and washed wool vary each year. In order to indicate clearly the production, washed wool should be stated as in the grease. This has been done for the purposes of the following table, and, adding to the exports already shown the quantity of wool used locally in woollen mills, the total production, stated as in the grease, was as follows:—

Period.	New South Wales Wool.—Quantity.			Value.		
	Exported.	Used locally.	Total production.	Exported.	Used locally.	Total.
	lb.	lb.	lb.	£	£	£
1876-1880	713,518,500	4,878,500	718,397,000	31,076,350	222,248	31,298,598
1881-1885	939,605,700	4,208,300	943,814,000	40,381,381	181,711	40,563,092
1886-1890	1,290,919,900	3,861,100	1,294,781,000	44,641,559	130,821	44,772,380
1891-1895	1,808,007,600	5,622,400	1,813,630,000	48,893,015	131,565	49,024,580
1896-1900	1,401,170,000	7,070,000	1,408,240,000	42,782,417	201,276	42,983,693
1901-1905	1,295,317,300	5,466,700	1,300,784,000	46,447,330	271,801	46,719,131
1906	324,605,600	835,400	325,441,000	14,072,371	26,637	14,099,008
1907	366,501,900	944,100	367,446,000	17,158,636	26,490	17,185,126
1908	337,128,954	1,000,046	338,129,000	12,650,518	29,282	12,679,800

The values given in this table represent the export prices free on board, and, consequently, differ from those on a later page, which shows the values at the place of production.

No distinction was made prior to 1876 between washed and greasy wool, so that any attempt to estimate the production is surrounded with difficulty. From the information available, however, it would appear that the production in 1861 was 19,254,800 lb., and in 1871 the weight in grease was 74,401,300 lb. An estimate of the production for the intervening years is rendered impossible because in several instances the greater portion of the wool clip was held over for a considerable period, awaiting an opportunity for shipment.

The above figures at once show how greatly the prosperity of the State is affected by fluctuations in the market value of its staple export, for, taking the average annual export during the past 5 years at 315,000,000 lb., a rise of 1d. per lb. in the market price means an addition of £1,300,000 to the wealth of the people.

As the season for exporting wool does not fall wholly within the calendar year, the exports for any year consist partly of that season's clip and partly of the previous clip. The following table shows the total number of sheep shorn during each year since 1891:—

Year.	Sheep and Lambs shorn.	Year.	Sheep and Lambs shorn.	Year.	Sheep and Lambs shorn.
1891	57,702,702	1897	42,429,750	1903	26,994,870
1892	55,602,188	1898	41,220,440	1904	31,804,772
1893	54,090,109	1899	34,569,924	1905	37,145,686
1894	54,234,997	1900	38,400,241	1906	41,704,814
1895	45,695,657	1901	40,417,263	1907	40,338,700
1896	45,997,583	1902	27,639,804	1908	41,912,546

The largest number was shorn in 1891, when about 16,000,000 more sheep were shorn than in 1908. Although the number has since decreased the weight of the fleece has increased.

Of late years considerable attention has been given to the question of breeding, and the result is seen in the great improvement in the weight of fleeces. In spite of the bad seasons experienced, the wool clips have been very good, and notwithstanding the greatly diminished flocks, the production of wool has not by any means decreased proportionately. The improvement in the weight of fleece will be apparent from a consideration of the following table:—

Period.	Average number of Sheep depastured annually.	Average annual production of Wool.	Average yield of Wool per Sheep.
	No.	lb.	lb.
1881-85	36,020,700	188,762,800	5.24
1886-90	47,746,200	258,956,200	5.42
1891-95	56,297,400	362,726,000	6.44
1896-1900	41,949,300	281,648,000	6.71
1901-05	34,239,300	260,517,000	7.61
1906-08	43,988,352	343,672,000	7.81

From these figures it appears that the average weight during the last three years has been over  $7\frac{3}{4}$  lb. A striking proof of the increased weight of the fleece is afforded by a comparison of the figures relating to the periods ending with 1890 and 1908. In the earlier period the sheep numbered 3,830,000 more, yet the average annual production of wool was 93,831,000 lb. less than that of the later term.

Formerly almost all the wool was shipped on the grower's account and sold in London, but of late years fully 80 per cent. has been sold in the local markets, as purchasers have realised the advantages of buying on the spot. The attached table exhibits the growing tendency to operate in Sydney:—

Seasons.	Total deep-sea exports (from Sydney and Newcastle).	Sydney Wool Sales.		
		Offered.	Sold at auction and privately.	Proportion of deep-sea exports sold in Sydney.
	bales.	bales.	bales.	per cent.
1887-88--1889-90	1,318,351	764,520	580,000	43.99
1890-91--1892-93	1,823,085	1,093,766	886,541	48.63
1893-94--1895-96	2,158,220	1,382,517	1,241,858	57.54
1896-97--1898-99	1,971,513	1,318,579	1,294,373	65.65
1899-1900--1901-02	1,766,922	1,330,747	1,309,915	74.14
1902-03--1904-05	1,549,598	1,232,819	1,252,817	80.85
1905-06--1907-08	2,356,811	1,969,061	1,939,916	82.31
1906-07--1908-09	2,531,234	2,066,660	2,062,014	81.46



Of the wool sold in Sydney during the last season, approximately 560,104 bales were purchased for the Continent of Europe, 124,815 bales for the English trade and for London on speculative account, 27,831 bales for America, 8,620 bales for Japan, China, and India, and 24,239 bales by local scourers. The average prices per bale realised in Sydney and in London during the last seven years are shown in the following table:—

Year.	Average Prices per Bale realised.					
	In Sydney.			In London.		
	£	s.	d.	£	s.	d.
1902-3	12	8	8	13	2	6
1903-4	12	17	1	13	10	0
1904-5	12	17	1	14	10	0
1905-6	13	19	6	15	15	0
1906-7	14	3	0	17	0	0
1907-8	13	9	0	16	10	0
1908-9	11	15	10	13	5	0

In comparing the prices of the Sydney and London markets, it should be noted that in the former the season ends with June and in the latter with December, also that a much larger proportion of the lower qualities of wool, such as pieces, bellies, locks, &c., are sold in Sydney. As freight and other charges amount to 25s. or 30s. per bale, it is evident that the Sydney market is the more favourable to producers.

The prices realised for the different descriptions of wool at the Sydney wool sales during the last two seasons are given below:—

Description.	Superior.		Good.		Medium.		Inferior.	
	1907-08.		1908-09.		1907-08.		1908-09.	
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
Greasy—	d.	d.	d.	d.	d.	d.	d.	d.
Fleece	12½ to 17½	12 to 15½	11½ to 12½	9½ to 11½	9½ to 11	8½ to 9	8 to 9½	6½ to 8
Pieces	11½ „ 12½	10 „ 12	10½ „ 11½	8½ „ 9½	9 „ 10½	7 „ 8½	8 „ 8½	5½ „ 6½
Bellies	9 „ 10	7½ „ 9½	8 „ 8½	6 „ 7½	6½ „ 7½	4½ „ 5½	5 „ 6½	3½ „ 4½
Lambs	10½ „ 14½	11 „ 16	8½ „ 10½	8½ „ 10½	6½ „ 8	6½ „ 8½	4 „ 6	4 „ 6½
Crossbred—								
Fine	11½ „ 16½	10 „ 12½	9½ „ 11	8 „ 9½	8½ „ 9½	6 „ 7½	6½ „ 8	4½ „ 5½
Coarse	8 „ 9	7½ „ 8½	6½ „ 7½	6½ „ 7½	5½ „ 6½	5½ „ 6½	4½ „ 5½	4 „ 5
Scoured—								
Fleece	23½ „ 27½	20 „ 23½	21½ „ 23	18½ „ 19½	19½ „ 21	17 „ 18½	17½ „ 19½	15 „ 16½
Pieces	21 „ 22½	18 „ 21	19½ „ 20½	16½ „ 17½	18½ „ 19½	14½ „ 16½	18½ „ 19½	14½ „ 16½
Bellies	18 „ 19	15 „ 18	16½ „ 17½	13 „ 14½	15 „ 16½	11½ „ 12½	13 „ 14½	9½ „ 11½
Locks	14 „ 15½	10 „ 15	12½ „ 13½	9 „ 9½	10½ „ 12	7½ „ 8½	9½ „ 10	6 „ 7½

In order to illustrate the fluctuations in value, the following table has been compiled, which gives a fairly correct idea of the average value realised for greasy wool in the London market at each of the principal sales during the last ten years:—

Year.	1st Series.	2nd Series.	3rd Series.	4th Series.	5th Series.	6th Series.
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
	d.	d.	d.	d.	d.	d.
1900	11½	10½	9½	8½	7	...
1901	8½	8	8½	8½	9½	...
1902	10½	10½	11½	11½	12	12½
1903	12½	12	11½	11	11	10½
1904	11	10	10½	11	11½	12
1905	12	11½	12½	12½	12½	12½
1906	12	12½	12½	12½	12	12½
1907	12½	12½	12½	12½	12½	11½
1908	11½	10	9½	10½	10½	11½
1909	11½	11½	12	12	12½	12½

During the period covered by the table, Sydney-shipped greasy wool realised 12 $\frac{3}{4}$ d. to 7d. The maximum prices were realised during 1907, when the sales twice closed at 12 $\frac{3}{4}$ d. per lb. The 1900 sales opened at 11 $\frac{3}{4}$ d., but gradually fell to 7d. at the end of the year. The prices rose gradually to 9 $\frac{1}{2}$ d. at the close of 1901, and in the succeeding year to 12 $\frac{1}{2}$ d. In 1903 there was a gradual fall to 10 $\frac{1}{2}$ d., but at the last sales in 1904 prices again reached 12d. This value was more than maintained during the next three years. During 1908 the value fell to 9 $\frac{3}{4}$ d., but rose to 11 $\frac{1}{4}$ d. at the close of the year. In 1909 prices opened at 11 $\frac{1}{2}$ d. and gradually rose to 12 $\frac{1}{2}$ d., finishing at the last sales at 12 $\frac{1}{4}$ d.

CATTLE.

Though still a very important industry, cattle-rearing does not now occupy so prominent a position as formerly. The number of cattle returned at the close of various years since 1861 as per the subjoined table, shows that there was a great decline in the total from 1876 to 1886, that the number steadily increased from 1886 to 1896, when it stood at 2,226,163, and then owing to unfavourable seasons the numbers decreased until in 1902 the total was only 1,741,226. Within the last five years there has been a decided recovery, and the number at the close of 1908 was 2,955,934.

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1891	2,128,838	1904	2,149,129
1866	1,771,809	1896	2,226,163	1905	2,337,973
1871	2,014,888	1901	2,047,454	1906	2,549,944
1876	3,131,013	1902	1,741,226	1907	2,751,193
1881	2,597,348	1903	1,880,578	1908	2,955,934
1886	1,367,844				

The principal breeds of cattle now in the State are the Durham or Shorthorns, Hereford, Devon, Black-poll'd Ayrshire, Alderney, Jersey, and crosses from these various breeds. At the close of the year 1908 the numbers of each breed, as far as could be ascertained, were:—

Breed of Cattle.	Pure and Stud.	Ordinary.	Total.
	No.	No.	No.
Shorthorn ... ..	75,974	571,847	647,821
Hereford ... ..	31,493	153,148	184,641
Devon ... ..	15,485	39,221	54,706
Black-poll'd ... ..	899	7,824	8,723
Red-poll'd ... ..	133	660	793
Ayrshire ... ..	8,659	49,331	57,990
Alderney ... ..	1,503	5,224	6,727
Holstein ... ..	627	2,809	3,436
Jersey ... ..	13,457	52,002	65,459
Guernsey ... ..	244	2,862	3,106
<b>Total ... ..</b>	<b>148,474</b>	<b>884,928</b>	<b>1,033,402</b>
<b>Crosses (first crosses)—</b>			
Shorthorn—Hereford ... ..	.....	279,817	279,817
"    —Devon ... ..	.....	150,014	150,014
Hereford — " ... ..	.....	64,281	64,281
Ayrshire—Shorthorn ... ..	.....	208,759	208,759
Alderney — " ... ..	.....	1,100	1,100
Black-poll'd— " ... ..	.....	25,158	25,158
Jersey— " ... ..	.....	67,874	67,874
Unknown ... ..	.....	683,671	683,671
<b>Total ... ..</b>	<b>.....</b>	<b>1,480,674</b>	<b>1,480,674</b>
	<b>148,474</b>	<b>2,365,602</b>	<b>2,514,076</b>

There were in addition, 441,858 head not classified, which were for the most part in the towns.

There has been an appreciable increase in the number of milking cattle, many of the farmers in the coastal districts having turned their attention to dairying, with very satisfactory results. The number of milch cows at the close of the year 1908 was 527,843.

The breed of cattle throughout the State is steadily improving—a result due to the introduction of good stud stock; to greater attention and care exercised in selection and breeding, more particularly for dairying purposes; and to culling and keeping in paddocks. In order to encourage and assist dairy farmers in improving breeds the Government have imported some high-class stud bulls from England; there are now thirty-three of these bulls.

Importations from Europe and America were discontinued for many years owing to the natural dread of the stockowners lest their herds should contract diseases which have devastated the cattle of other countries. The prohibition was removed in 1888, and cattle are now admitted after quarantine; the number so admitted in 1908 was 34—18 bulls and 16 cows, and in addition, a number of stud cattle were imported from the other States, principally for dairying purposes.

The breeding cows in 1908 numbered 670,483, and as there were 383,199 calves branded, the average calving was about 57 per cent., which may be regarded as satisfactory.

Australian cattle, probably because they live in a more natural state, are, on the whole, remarkably free from milk-fever and other complaints attendant on calving.

#### HORSES.

At an early period the stock of the country was enriched by the importation of some excellent thoroughbred Arabians from India, so that Australian horses have acquired a high reputation. The number in the State steadily increased from 1883 to 1894, when it stood at 518,181; but, owing to the drought, the total in 1895 fell to 499,943. In 1896 there was an increase to 510,636, attributed to increased settlement, more breeding, and fewer sales for export. By successive decrements the number of horses had fallen in 1902 to 450,125. During the last two years there has been a substantial increase, and the number at the end of 1908 reached nearly six-hundred thousand.

The following table shows the number of horses at the end of various years since 1860:—

Year.	Horses.	Year.	Horses.	Year.	Horses
1861	233,220	1891	469,647	1904	482,663
1866	274,437	1896	510,636	1905	506,884
1871	304,100	1901	486,716	1906	537,762
1876	366,703	1902	450,125	1907	578,326
1881	398,577	1903	458,014	1908	591,045
1886	361,663				

For purposes of classification the horses have been divided into draught, light-harness, and saddle horses, and the number of each particular kind, so far as could be ascertained from returns collected by the Stock Department, was as follow:—

Class.	Thoroughbred.	Ordinary.	Total.
Draught ... ..	22,044	145,157	167,201
Light-harness ... ..	15,310	129,875	145,185
Saddle ... ..	25,786	150,495	176,281
Total... ..	63,140	425,527	488,667

Returns relating to the remaining 102,378 animals were not received.

New South Wales is specially suitable for the breeding of saddle and light-harness horses, and it is doubtful whether in these particular classes the Australian horses are anywhere surpassed. On many of the large holdings thoroughbred sires are kept, and the progeny combine speed with great powers of endurance. Fed only on the ordinary herbage of the country, these animals constantly perform long journeys across difficult country, and become hardy and sure-footed to a high degree. It is the possession of these qualities which gives them great value as army remounts.

The approximate number of animals fit for market is as follows:—

Draught	..	..	..	..	..	..	25,358
Light-harness	...	...	...	...	...	...	22,678
Saddle	...	...	...	...	...	...	28,735
Total							76,771

Of these it is estimated that about 23,000 are suitable for the Indian and other markets.

There is a considerable export trade annually to countries outside Australasia, the number in 1908 being 2,852, valued at £74,627. The total sent from the State during the year numbered 11,561, with a value of £372,691. Little notice need be given to the exports to other States of the Commonwealth and to New Zealand, as the great majority of the animals are racehorses journeying to and fro to fulfil engagements. The following table shows the export trade since 1899:—

Year.	Country to which Exported—						Total.
	Australian States.	New Zealand.	India.	South Africa.	Japan.	Other Countries.	
HORSES—NUMBER.							
1899	7,865	335	1,111	1,200	.....	885	11,396
1900	11,395	199	1,688	7,714	.....	1,983	22,979
1901	11,282	235	998	6,300	2	943	19,760
1902	9,437	74	834	2,918	.....	664	13,927
1903	7,120	398	1,249	145	1	1,292	10,205
1904	10,181	138	1,771	169	66	1,275	13,600
1905	8,109	123	1,922	8	1,631	1,760	13,553
1906	7,229	61	1,311	49	43	971	9,664
1907	6,777	29	873	11	141	1,218	9,049
1908	8,664	45	1,535	13	187	1,117	11,561
VALUE.							
1899	£ 142,263	£ 6,152	£ 19,020	£ 25,025	£ .....	£ 20,632	£ 213,092
1900	183,705	4,376	18,521	124,485	.....	57,578	388,665
1901	205,619	6,398	17,076	81,204	100	19,873	330,270
1902	191,163	1,852	15,044	38,116	.....	15,566	261,741
1903	210,437	11,849	21,309	7,775	15	31,889	283,274
1904	248,130	8,040	32,074	3,727	7,975	32,235	332,181
1905	229,318	9,688	42,774	1,780	26,495	44,227	354,282
1906	239,516	7,272	34,859	1,721	1,918	29,220	314,506
1907	236,242	3,141	20,255	524	8,585	36,360	305,107
1908	301,273	2,556	32,606	841	10,634	30,546	378,456

For many years India has offered the best market for horses. The demand for horses in that country is considerable, and Australia is a natural market from which supplies are derived. Since 1904 also there has been a considerable export to Japan.

Of the exports to other countries, nearly all go to the Straits Settlements, Java, Fiji, or other islands in the Pacific.

With a view to improving the breed of horses, a decision has recently been arrived at by the principal Agricultural Societies, that all stallions entered as such for prizes at Agricultural Shows, shall be subject to veterinary examination with a view to detecting hereditary unsoundness. Moreover a number of people vitally interested in this industry are in favour of an Act of Parliament, insisting on the examination of all stallions used for breeding purposes, and forbidding the use of any animals which have not obtained the necessary certificate. Recognising the importance of improving the breed, and of further developing the industry, the Government has lately established a Chair of Veterinary Science at the Sydney University.

#### PASTORAL PROPERTY.

The grazing industry constitutes the greatest source of wealth in the State, consequently information relating to pastoral returns and income is most desirable. But unfortunately it is not possible to ascertain with precision the values of land occupied for pastoral purposes, nor can the worth of the improvements be estimated.

From the nature of the industry, it is difficult to arrive at a correct estimate of the return from pastoral pursuits as at the base of production; but taking the Sydney prices as a standard, and making due allowance for incidental charges, such as agistment, railway carriage or freight, and commission, the value in 1908 would appear as £18,846,000. The returns received from the different kinds of stock are shown in the following table, for various years since 1891:—

Year.	Annual Value of Pastoral Production.					
	Sheep for Food.	Wool.	Cattle.	Horses.	Total.	Per Head of Population.
	£	£	£	£	£	£ s. d.
1891	2,367,000	9,996,000	1,535,000	827,000	14,725,000	12 17 10
1896	1,745,000	8,619,000	990,000	420,000	11,774,000	9 5 4
1901	2,071,000	8,425,000	1,374,000	682,000	12,552,000	9 3 6
1902	1,446,000	7,152,000	1,322,000	811,000	10,731,000	7 13 10
1903	2,327,000	8,361,000	1,339,000	750,000	12,777,000	9 0 0
1904	2,206,000	9,133,000	1,347,000	687,000	13,373,000	9 4 11
1905	2,753,000	12,103,000	1,533,000	724,000	17,113,000	11 11 6
1906	3,514,000	13,792,000	1,592,000	845,000	19,743,000	13 0 9
1907	3,222,000	16,459,000	1,574,000	1,026,000	22,281,000	14 6 7
1908	3,034,000	12,680,000	2,032,000	1,100,000	18,846,000	11 17 3

The value of production in 1907 was the highest on record, although the number of stock depastured was not nearly so great as in some of the earlier years, and it is satisfactory to note the rapid recovery which has been made since 1902. The improved position has been attained through the advancement in prices of pastoral products, especially of wool, which fortunately has been concurrent with a greatly increased production.

In order to exhibit clearly the extent of the variation in the prices of pastoral products, the following table has been prepared, showing the price-level in each year since 1901. The figures are calculated on the average prices of exports to the United Kingdom free on board ship at Sydney. The prices of 1901, represented by the number 1,000, are taken as a basis.

Article.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
Wool—greasy ... ..	1,111	1,233	1,200	1,300	1,433	1,553	1,272
„ scoured ... ..	1,258	1,396	1,415	1,396	1,509	1,585	1,258
Tallow ... ..	1,170	1,045	910	937	1,031	1,303	1,176
Leather... ..	1,017	1,067	983	1,078	1,183	1,150	1,017
Frozen Beef ... ..	1,000	1,000	813	1,000	875	1,010	1,008
„ Mutton ... ..	1,000	1,000	1,214	1,031	1,125	1,055	1,021
Skins—Hides ... ..	1,000	1,013	1,092	1,250	1,375	1,316	1,053
„ Sheep, with wool ... ..	1,209	1,246	1,266	1,541	2,000	1,863	1,175
All articles ... ..	1,096	1,125	1,112	1,192	1,316	1,354	1,122

## MEAT SUPPLY.

Slaughtering for food is permitted only in places licensed for the purpose, such establishments being very numerous. In the metropolitan district there are 57, and in the country districts, 1,159 slaughter-yards, employing respectively 335 and 3,721 men; in all 1,216 establishments and 4,056 men.

The consumption of meat cannot be stated separately for the metropolitan and country districts, as several of the large country slaughter-yards supply the metropolitan market. For New South Wales generally, it is estimated that the average annual consumption of mutton per inhabitant is about 89 lb., of beef 138 lb., and of pork and bacon 13 lb., making a total consumption of 240 lb.

The following table shows the number of stock slaughtered during 1908:—

Stock.	Number slaughtered in 1908.		
	Metropolitan.	Country.	Total.
Sheep ... ..	1,703,883	3,136,484	4,840,367
Lambs ... ..	80,531	280,594	361,125
Bullocks ... ..	69,862	163,144	233,006
Cows ... ..	17,692	96,997	114,689
Calves ... ..	19,703	9,176	28,879
Swine ... ..	96,491	113,828	210,319

These figures represent the stock killed for all purposes. Of the sheep and lambs, 3,382,956, including 1,237,758 killed on stations and farms, represent the local consumption; 620,013 sheep were required by meat-preserving establishments; 1,172,338 for freezing for export; and 26,185 were boiled down for tallow. All the cattle killed, except 4,078 treated in the meat-preserving works and 1,719 exported frozen, were required for local consumption; and of the swine, 108,863 were cured as bacon, and 101,456 killed for ordinary consumption.

The following table shows the slaughter of stock in the various establishments for ten years :—

Year.	Establishments.	Hands Employed.	Sheep.	Lambs.	Cattle.			Swine.
					Bullocks.	Cows.	Calves.	
1890	1,798	5,158	4,603,225	192,034	244,134	114,753	25,011	202,603
1900	1,770	4,853	4,197,026	162,487	239,038	139,113	21,841	227,379
1901	1,642	4,675	4,372,016	147,117	202,795	113,374	19,654	248,311
1902	1,548	3,685	4,502,513	133,337	164,916	99,450	23,765	203,352
1903	1,702	3,991	3,180,408	96,712	157,173	103,471	14,555	178,157
1904	1,593	3,961	2,927,073	131,458	211,839	72,778	14,472	232,955
1905	1,563	4,570	3,959,577	324,054	236,306	64,833	19,713	289,096
1906	1,522	4,391	4,229,407	252,648	237,722	94,955	26,200	231,650
1907	1,352	4,553	4,882,206	302,351	242,261	109,263	28,518	238,488
1908	1,216	4,056	4,840,367	361,125	233,006	114,689	28,379	210,319

The prices of stock show great variation in the course of a year. In cross-bred sheep the average monthly values at the Homebush sale-yards during 1908 ranged from 7s. 9d. paid for medium wethers, during December, to 22s. 0d. paid in July for extra prime cross-bred wethers, while in merino sheep the highest value reached was 22s. 0d. and the lowest 6s. 6d. The prices of sheep vary not only with the class and condition of the animal and the number on the market, but also in accordance with the season and the growth of the fleece. The average values of good cross-bred wethers and ewes during 1908 were 13s. 0d. and 12s. 6d. respectively: merino wethers were practically equal to cross-breds in value, but ewes were about 2s. 3d. less valuable. Good lambs were worth about 10s. 6d. throughout the year. In cattle, the prices ranged from £14 17s. paid in August for extra prime bullocks to £3 4s. in December for medium cows. The general average for good bullocks was about £8 13s. 6d., and for good cows about £6 13s. 6d. Best beef averaged about 29s. 9d. per 100 lb. Porkers brought an average price of 31s. 8d. during the year, while baconers realised an average of 61s. 6d., going up to 70s. 6d. in March.

#### THE MEAT EXPORT TRADE.

The table below shows the growth of the export trade in New South Wales meat since 1891. The export of frozen meat varies, of course, with the seasons. In regard to mutton, the State is rather at a disadvantage, as the qualities of the merino as a food are not greatly appreciated in the English market. It has been proved, however, that a great expanse of country is suited to the breeding of large-carcase sheep, and pastoralists have lately turned their attention in this direction, with a view to securing a larger share in the meat trade of the United Kingdom :—

Year.	Frozen or Chilled Meat.				Preserved Meat.	
	Beef.	Mutton.	Total Weight.	Total Value.	Weight.	Value.
1891-1895	quarters.	carcases.	cwt.	£	lb.	£
1896-1900	204,211	5,442,044	1,495,893	986,760	67,062,284	867,028
1901-1903	91,780	1,808,613	2,685,587	1,822,139	64,606,006	1,000,153
	cwt.	cwt.	875,166	1,041,768	27,992,773	600,433
1904	4,201	207,721	211,922	290,065	7,251,911	135,073
1905	19,580	463,567	483,147	641,216	9,634,636	199,224
1906	33,158	512,799	545,957	655,122	5,944,333	132,729
1907	18,971	553,558	572,529	712,738	7,120,597	142,467
1908	7,100	415,712	422,812	557,717	8,107,565	167,105

The following statement, compiled from the British trade returns, shows the imports of frozen mutton into the United Kingdom during the past six years, and also the quantity imported from New South Wales—

Year.	Total Imports.		Imports from New South Wales.	
	Quantity.	Value.	Quantity.	Value.
	cwt.	£	cwt.	£
1903	4,016,622	7,826,062	37,502	73,406
1904	3,494,782	6,861,531	67,200	130,839
1905	3,811,069	7,336,490	244,033	470,482
1906	4,082,756	7,645,935	341,963	609,275
1907	4,573,523	8,687,407	391,500	723,148
1908	4,385,771	8,140,029	315,998	564,326

Below is given a statement of the average wholesale prices obtained during the past ten years for English and frozen mutton sold in London. From an examination of the figures, it would seem that the class of people requiring locally-grown mutton in England is quite distinct from that using frozen mutton:—

Year.	Best English.	New Zealand.	Australian.	River Plate.	Year.	Best English.	New Zealand.	Australian.	River Plate.
	d.	d.	d.	d.		d.	d.	d.	d.
1899	7½	3⅞	2⅞	2⅞	1904	7½	4½	4	3⅞
1900	7⅞	4	3½	3½	1905	7½	4½	3½	3⅞
1901	7	3½	3½	3½	1906	7½	4	3⅞	3½
1902	7	4½	3½	3⅞	1907	7½	4⅞	3½	3½
1903	7½	4	3½	3⅞	1908	7⅞	4½	3½	3½

In addition to the export of frozen beef and mutton, there has grown up in the last few years a considerable trade in frozen rabbits and hares, details of which appear in the chapter on "Dairying and Minor Industries."

OTHER PASTORAL PRODUCTS AND BY-PRODUCTS.

The minor products arising from pastoral occupations include tallow, edible fat and lard, skins and hides, furs, horns, hoofs, bones, and hair. Some of these are more specially dealt with in the chapter on manufactories and works, and need only brief mention here.

The production of tallow has declined considerably since 1897, consequent on the decrease in the number of live stock depastured, and the falling-off in the market value of the article. In earlier years the production was much greater than for any of the years shown hereunder, for in each of the years 1894 and 1895 it reached nearly 54,000 tons:—

Year.	Estimated Quantity of Tallow.		
	Produced.	Locally consumed.	Exported.
	tons.	tons.	tons.
1899	19,492	7,139	12,353
1900	22,221	6,768	15,453
1901	22,536	6,206	16,330
1902	12,559	4,884	7,675
1903	11,760	5,710	6,050
1904	17,654	5,897	11,757
1905	24,758	5,681	19,077
1906	24,396	5,838	18,558
1907	24,527	5,788	18,739
1908	21,665	5,881	15,784



For many years the exports of skins and hides have reached a large value, while recently there has been a considerable export of rabbit and hare skins. The following table shows the value of skins exported during the last nine years :—

Year.	Value of Skins and Hides exported.					
	Cattle.	Horse.	Sheep.	Rabbit and Hare.	Other.	Total.
	£	£	£	£	£	£
1900	90,861	248	146,540	4,182	118,882	360,713
1901	158,953	170	202,407	13,291	199,954	574,775
1902	108,152	2,854	344,399	38,094	330,597	824,096
1903	85,332	2,200	242,307	38,233	193,524	561,596
1904	113,977	*.....	160,425	105,952	82,224	462,578
1905	187,517	1,391	361,212	162,783	133,006	845,909
1906	171,868	428	405,340	316,929	144,562	1,039,127
1907	203,081	1,932	534,332	241,099	164,448	1,144,892
1908	242,405	3,066	378,162	163,457	223,391	1,016,981

\* Included with cattle skins.

The other products of the pastoral industry are of minor importance, as leather is classified as a product of the manufacturing industry. The values of the exports of minor products for the last nine years were as follow :—

Year.	Value of Exports.				
	Hoofs, Horns, and Bones.	Hair.	Edible Fat—Lard.	Glue Pieces—Sinews.	Furs.
	£	£	£	£	£
1900	20,128	8,155	630	10,346	2,465
1901	14,947	11,420	1,049	6,047	1,441
1902	12,713	8,226	657	5,054	909
1903	10,567	7,387	2,601	7,424	917
1904	14,856	9,655	4,340	6,538	1,979
1905	15,559	12,102	4,509	5,484	3,645
1906	15,374	15,543	4,489	8,119	4,637
1907	13,174	11,325	3,923	10,510	1,757
1908	17,904	13,204	5,441	8,678	1,338

#### NOXIOUS ANIMALS.

The only large carnivorous animal in Australia at all dangerous to stock is the dingo, or native dog; but graminivorous animals, such as kangaroos, wallabies, hares and rabbits, are deemed by the settlers equally noxious. The rabbits are the greatest pests; at one period over 100 million acres were infested with them, and 25 million rabbits were destroyed in one year.

Rabbits first found their way into this State from Victoria, where some were liberated about fifty years ago in the Geelong district. Their presence first attracted serious attention in 1881, when complaints were heard in the south-west of this country of the damage done. They multiplied so rapidly that, in 1882, they were to be met on most of the holdings having frontages to the Murray. Attempts to cope with them under the Pastures and Stock Protection Act were ineffectual, and the "Rabbit Nuisance Act" was passed. This Act provided for the compulsory destruction of rabbits by the occupiers of the land, who were to receive a subsidy from a fund raised by an annual tax upon stockowners, but the fund soon proved inadequate, and from the 1st May, 1883, to the 30th June, 1890, when the Act was repealed, it was supplemented by £503,786 from the Consolidated Revenue. The tax upon

stockowners yielded £831,457, and landowners and occupiers contributed £207,864, so that the total cost during the whole period exceeded £1,543,000.

The Rabbit Act of 1890 repealed the 1883 Act and those provisions of the Pastures and Stock Protection Act relating to rabbits. It also provided, as occasion required, for the proclamation of Land Districts as "infested," and for the construction of rabbit-proof fences. From the 1st July, 1890, to the 30th April, 1902, the State expenditure under this Act was £41,620, nearly all of which has been devoted to the erection of rabbit-proof netting. From May, 1902, to December, 1903, the expenditure was £10,548, but the subsequent disbursements have consisted mainly of payments to the Railway Commissioners for the maintenance of rabbit-proof barrier fences, amounting to £6,635 to the end of June, 1909.

In order to prevent the spread of the pest, and also with a view of assisting in its destruction, fences have been erected by the Government of the State at numerous places. The longest of these traverses the western side of the railway line from Bourke, *via* Blayney and Murrumburrah, to Corowa, in the extreme south of the State, a distance of 612 miles, the Railway Commissioners undertaking the work of supervision. On the border between New South Wales and South Australia there is a fence which extends from the Murray northwards, a distance of about 350 miles. On the Queensland border a rabbit-proof fence has been erected between Barrington and the river Darling, at Bourke, a distance of 84 miles; while another has been erected at the joint expense of the Governments of Queensland and New South Wales, from Mungindi to the Namoi River, a distance of about 115 miles. The total length of rabbit-proof fences erected by the State up to 31st December, 1908, was, approximately, 1,332 miles, at a cost of £69,888; by private persons, 71,249 miles, at a cost of £4,002,696; and by Pastures Boards, 65½ miles, at a cost of £2,585.

The chief means adopted for the destruction of the pest are poisoning and trapping, but it has long been recognised that these methods are inadequate to cope with the evil. In 1906 Dr. Danysz, an eminent French scientist, claimed to have discovered a disease which was fatal to rabbits and easily propagated amongst them, while proving harmless to other animals or to birds. A liberal offer was made by the pastoralists of the State for the introduction of the disease, and the use of Broughton Island, near Newcastle, was granted by the New South Wales Government for the purpose of experiments with animals and birds, under the supervision of a medical officer of the Health Department. The experiments were continued during 1907, and in November of that year the Supervising Medical Officer reported that although the microbe used could be made to infect small animals, there was no reason to apprehend danger from its practical use, but the efficacy of the virus as a destroyer of rabbits had not been demonstrated.

Although the rabbit has a commercial value both as a food and for the sake of its skin, the return furnished is but a poor compensation for its enormous inroads upon pastures.

Under the provisions of the Pastures Protection Act of 1902, the Pastures Protection Boards may erect rabbit proof fences on any land, take measures to ensure the destruction within their districts of all noxious animals, and pay rewards for such destruction.

#### WATER CONSERVATION AND PUBLIC WATERING PLACES.

The necessity of providing a constant water supply for domestic use, and also for stock, in the dry portions of the interior of the State, induced the Government to devote certain funds to the purpose of bringing to the surface such supplies as might be obtained from the underground sources which exist in the tertiary drifts and the cretaceous beds which extend under an immense portion of the area of the State.

The probability of the existence of underground water had long been a subject of earnest discussion, but doubts were set at rest in 1879 by the discovery of an artesian supply of water on the Kallara run, at a depth of 140 feet. The Government then undertook the work of searching for water, and since the year 1884 the sinking of artesian wells has been conducted in a systematic manner, under the direction of specially-trained officers.

The deepest bore completed is that at Dolgelly, on the road from Moree to Boggabilla, where boring has been carried to a depth of 4,086 feet; this well yields a supply of 607,000 gallons per diem. The largest measured flow obtained from Government bores is from the Boomi, near Moree; the depth of this well is 4,008 feet, and the flow 1,133,300 gallons per diem. The State flowing bores yield over 67,300,000 gallons of water per day, and in addition there are pumping bores which supply 459,600 gallons per day; but in many cases the flow is estimated only, and in others no data are available.

Watering places are established on all the main stock routes of the State, and consist of tanks, dams, wells, and artesian bores. At the close of 1908 there were 403 tanks and dams or reservoirs, 87 wells, and 69 artesian bores. Except at those dams and reservoirs which are of large extent and capacity, stock are not allowed direct access to the tanks, but are watered at troughs which are filled by means of service reservoirs, into which the supply is raised by various methods—steam, horse, or wind power. From the wells the water is mostly drawn by whims and self-acting buckets.

The "Artesian Wells Act of 1897" provides that any occupier of land, or any group of occupiers, may petition the Minister to construct an artesian well, and the necessary distributing channels. The petitioners are required to transfer to the Crown an area, not exceeding 40 acres, embracing the site for the bore, and to pay such charges as may be assessed by the Land Board, which shall not exceed the yearly value to each occupier of the direct benefit accruing to his land from the supply of water, but such charges must not exceed 6 per cent. per annum on the cost of the works. Provision is also made for the Minister to take the initiatory steps when a group of settlers are not in agreement; it is enacted that a two-thirds majority, occupying two-thirds of the area affected, shall rule, and that the minority must come into the scheme and pay proportionately with the others.

Much has been done in the way of artesian boring by private enterprise. As far as can be ascertained, 269 private bores have been undertaken in New South Wales, of which 21 were failures, and 3 are in progress. Information concerning the daily flow is not available, as in many cases this has not been gauged at all, whilst in the others the measurements cannot be regarded as reliable.

The "Water and Drainage Act of 1902" authorised the expenditure of £200,000 annually for a period of five years on works of water supply, water conservation, irrigation, or drainage, and provided for the constitution of administrative trusts in certain cases. The majority of the trusts are situated in the northern portions of the State, and have been formed to deal with works that have been wholly or partially constructed under the Artesian Wells Act. The trustees make an assessment to cover maintenance, 4 per cent. interest and 2 per cent. sinking fund, and to liquidate the capital cost of the work at the end of twenty-eight years. Under this Act five drainage proposals have been gazetted, while action has been taken to form trusts and gazette proposals in connection with twenty-two bores, which will ensure a return on the capital outlay; and to stop the waste of water, which has resulted for some years, from the absence of distributing works.

## DAIRYING INDUSTRY.

### DAIRY FARMING.

THE dairying industry has advanced considerably during recent years, and is now a very important factor in the wealth and prosperity of the State. At an early period in colonial history the first dairy farm for the manufacture of butter was established on the Nepean River. At a more recent period, dairying as a profitable pursuit was conducted mainly on the South Coast, in the Shoalhaven and Illawarra districts. For many years its progress was slow, and it was not until the introduction of the creamery and factory system that any great development occurred. With the manufacture of butter by machinery, and the perfection of the cold-storage system, the real business of dairying may be said to have begun.

The first creamery and factory were established in the South Coast district, and for some years dairying was confined mainly to this district; but eventually it was firmly established in the North Coast, especially on the Clarence and Richmond Rivers, which may now be regarded as the centre of the industry. Expansion has taken place to a smaller extent on the rivers between the Clarence and Hunter, and as a whole, the advantages of the northern coastal rivers have induced a large migration from the South Coast district.

A glance at the following figures will show the great strides made by the North Coast district, and the rapidity with which it has outstripped the south in regard to production.

Year.	Dairy Cows in Milk at end of year.	Total yield of Milk.	Butter made.	Cheese made.	Bacon and Hams cured.
North Coast.					
	No.	gallons.	lb.	lb.	lb.
1898	140,141	.....	13,186,584	16,212	1,799,307
1908	298,925	112,180,056	43,606,138	128,176	3,408,619
South Coast.					
1898	135,896	.....	13,188,105	3,033,457	3,919,458
1908	109,039	43,063,496	9,331,790	4,159,099	4,231,799

In this table the North Coast includes the North Coast, Hunter, and Manning districts, while the South Coast includes the county of Cumberland. It will be seen that, except in cheese-making and bacon, the north is far in advance of the south; but with regard to the figures relating to butter, it should be borne in mind that a large proportion of the milk from the South Coast furnishes the supply of the metropolis. The quantity of milk for each purpose in the two districts during 1908 was:—

	North Coast. gallons.	South Coast. gallons.
Used on farms for making—		
Butter ... ..	2,534,918	2,235,780
Cheese ... ..	12,490	1,962,385
Separated, or sent to creamery or factory ...	104,091,993	27,220,632
Balance sold for other purposes ... ..	5,540,655	11,644,699
	112,180,056	43,063,496

The quantity of milk used for making butter on farms was 2,534,918 and 2,235,780 gallons respectively in each district, while 104,091,993 and 27,220,632 gallons were either separated or sent to the creamery or factory. Of the latter portion 368,936 and 2,936,148 gallons respectively were used for cheese, sweet cream, and condensed milk, so that 106,257,975 and 26,520,264 gallons were used for making butter. Comparing these figures with the production of butter, it is found that, during 1908, 100 gallons in the north yielded 41·04 lb. of butter, and in the south 35·19; so that it would appear that the milk in the northern district contained a higher proportion of butter-fat.

Although dairying is confined mainly to the coastal regions, where grass is available for food throughout the year, it is also actively pursued in the more favoured parts of the non-coastal regions for the purpose of supplying local wants, and already in places remote from the metropolis well-equipped factories have been established. In these localities the industry is generally carried on in conjunction with wheat-farming and sheep-raising, and sufficient fodder must be grown to carry the cattle through the winter months.

Most of the native grasses of the State are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities, and these are supplemented in winter by fodder, such as maize, barley, oats, rye, lucerne, and the brown variety of sorghum or planter's friend. Ensilage is also used as food, but not so generally as it should be, and the quantity made varies considerably in each year. In the year 1903, 21,393 tons were made; in 1904, 12,609 tons; in 1905, only 9,321 tons; in 1906, 11,849 tons; in 1907, 12,856 tons; and in 1908, 27,468 tons. The area of land devoted to sown grasses has been largely extended during the last few years, and in March, 1909, it amounted to about 808,000 acres. The produce of this land is principally used as food for dairy cattle, and as the area is still below the present requirements, an extension of this form of cultivation may be anticipated. The number of dairy cows in milk, and the area under sown grasses in each district of the State during 1908 were as follows:—

District.	Dairy Cows in milk.	Area under Sown Grasses.
	No.	acres.
Coastal Division—		
North Coast ... ..	191,068	517,077
Hunter and Manning ... ..	107,857	57,167
County of Cumberland ... ..	19,388	3,263
South Coast ... ..	89,651	171,602
Total ... ..	407,964	749,109
Tableland Division—		
Northern Tableland ... ..	24,161	14,658
Central   "   ... ..	20,631	9,576
Southern   "   ... ..	13,381	4,361
Total ... ..	58,173	28,595
Western Slopes—		
North-western Slope ... ..	15,492	3,539
Central-western   "   ... ..	7,805	641
South-western   "   ... ..	17,859	4,069
Total ... ..	41,156	8,249
Western Plains and Riverina—		
North-western Plain ... ..	3,441	5,509
Central-western   "   ... ..	3,964	1,864
Riverina ... ..	10,798	14,529
Total ... ..	18,203	21,902
Western Division ... ..	2,347	69
Total, All Districts ... ..	527,843	807,924

The number of dairy cows shows a considerable increase during the past ten years, although several of the seasons were unfavourable. This will be apparent from the following figures:—

Year.	No. of Dairy Cows in milk.	Year.	No. of Dairy Cows in milk.
1899 ...	399,327	1904 ...	424,936
1900 ...	420,148	1905 ...	442,950
1901 ...	417,835	1906 ...	494,820
1902 ...	351,287	1907 ...	506,395
1903 ...	362,429	1908 ...	527,843

Since 1902 there has been a remarkable increase in the number of cows, and, still more important, there has been also an increase in their average yield of milk, as shown below:—

Year.	Dairy Cows in milk at end of year.	Production of milk.	Average Yield per Cow.
	No.	gallons.	gallons.
1901	417,835	122,750,500	294
1902	351,287	105,742,900	301
1903	362,429	129,966,100	359
1904	424,936	158,650,800	373
1905	442,950	162,918,600	368
1906	494,820	185,941,230	376
1907	506,395	183,303,474	362
1908	527,843	188,518,562	357

It would be more accurate to base the average yield on the mean number of cows in milk during the year. Owing, however, to the great difficulty in ascertaining that number, which depends not only on the actual number of cows, but on the length of time during which they were in milk, the average has been deduced as above, and probably is as accurate as can be obtained. It is evident that there has been a substantial increase in the average yield since the first year quoted; the figures for 1908 are not so high as in the previous five years, as the season was not favourable in many parts of the State.

Almost as important as the average yield of milk is the percentage of butter-fat, and it is satisfactory to note that this also shows an improvement since 1902, the first year for which the proportion can be ascertained. In order to show the improvement in this respect, the following table has been prepared, showing the quantity of butter made and the milk used for that purpose during each of the last seven years, distinguishing between the milk treated on farms and in factories:—

Year.	On Farms.		In Factories.		Total.	
	Milk used.	Butter made.	Milk used.	Butter made.	Milk used.	Butter made.
	gallons.	lb.	gallons.	lb.	gallons.	lb.
1902	9,914,454	3,417,502	66,924,976	26,533,475	76,839,430	29,950,977
1903	11,859,529	4,094,150	87,189,710	34,632,957	99,049,239	38,727,107
1904	12,791,709	4,530,771	117,698,450	49,060,472	130,490,159	53,591,243
1905	13,640,534	4,576,076	116,723,796	48,464,174	130,364,330	53,040,250
1906	14,288,379	4,636,642	141,760,969	54,304,495	156,049,348	58,941,137
1907	12,750,602	4,128,256	140,357,812	55,913,193	153,108,414	60,041,449
1908	12,876,805	4,329,241	142,996,126	57,051,635	155,872,931	61,390,876

## DAIRYING INDUSTRY.

Comparing the quantity of milk used with the butter produced during the past two years, it is found that although the proportion of butter-fat increased during 1908, owing to the dryness of the season, nevertheless 100 gallons of milk yielded 1·7 lb. of butter less than in 1904:—

Year.	Quantity of butter per 100 gallons of milk treated.		
	On Farms.	In Factories.	On Farms and in Factories.
	lb.	lb.	lb.
1902	34·5	39·6	39·0
1903	34·5	39·7	39·1
1904	35·4	41·7	41·1
1905	34·0	41·5	40·7
1906	32·0	38·0	37·8
1907	32·4	39·8	39·2
1908	33·6	39·9	39·4

As already stated, it was the manufacture of butter by machinery which made the dairying industry really important, and it is to the introduction of the factory system in convenient centres that it owes its present development. When the factory system was introduced, the processes of cream separation and butter making were carried on together. This arrangement was improved by the establishment of public "creameries" or separating stations, where the cream is separated and then sent to the factories. In the last few years there has been another great change, and most of the farmers now treat the milk in their own dairies by means of hand separators. The subjoined table shows to what extent this system has been adopted since 1902, the first year for which the information is available:—

Year.	Milk Separated for making Butter.			
	On Farms.		In Public Separating Stations.	Total.
	By hand, &c.	By steam, &c.		
	gallons.	gallons.	gallons.	gallons.
1902	54,124,023	6,319,687	16,395,720	76,839,430
1903	76,419,864	5,771,980	16,857,395	99,049,239
1904	108,029,663	6,184,480	16,276,016	130,490,159
1905	103,438,591	7,577,972	19,347,767	130,364,330
1906	140,859,572	5,899,445	9,290,331	156,049,348
1907	142,843,911	3,775,899	6,488,604	153,108,414
1908	146,623,868	5,352,269	3,896,794	155,872,931

Most of the factories dealing with dairy produce are established on the co-operative principle, and during the past twelve years the total value of the machinery has increased from £224,526 to £287,771. During this period the quantity of butter has increased from 29,409,966 lb. to 61,380,876 lb. The production in each district during 1908 is shown in the following table:—

District.	Butter made.	District.	Butter made.
Coastal Division—	lb.	Western Slopes Division—	lb.
North Coast ... ..	28,829,147	North-western Slope ...	1,255,272
Hunter and Manning ...	14,776,991	Central-western " ...	507,187
County of Cumberland... ..	681,461	South-western " ...	1,679,542
South Coast ... ..	8,650,329	Total ... ..	3,442,001
Total ... ..	52,937,928	Western Plains & Riverina—	
		North-western Plains... ..	54,951
Tableland Division—		Central-western " ...	96,213
Northern Tableland ... ..	1,937,329	Riverina ... ..	489,157
Central " ... ..	1,554,069	Total ... ..	640,321
Southern " ... ..	833,235	Western Division ... ..	35,993
Total ... ..	4,324,633	Total, All Districts ...	61,380,876

Prior to 1890 there was a considerable import of butter to meet local requirements, but from that year an export trade was commenced, the surplus increasing from 281,341 lb. in 1890 to 22,042,265 lb. in 1908. The following table shows the comparative figures of production:—

Year.	Butter made—			Excess of Exports over Imports.	Apparent local consumption of Butter.
	In Factories.	On Farms.	Total.		
	lb.	lb.	lb.	lb.	lb.
1899	28,817,747	4,216,134	33,033,881	4,549,722	28,484,159
1900	37,056,317	4,423,477	41,479,794	8,487,534	32,992,260
1901	34,282,214	4,774,664	39,056,878	8,643,071	30,413,807
1902	26,533,475	3,417,502	29,950,977	*1,779,583	31,730,560
1903	34,632,957	4,094,150	38,727,107	7,625,069	31,102,038
1904	49,060,472	4,530,771	53,591,243	20,513,307	33,077,936
1905	48,464,174	4,576,076	53,040,250	13,841,514	39,198,736
1906	54,304,495	4,636,642	58,941,137	22,250,668	36,690,469
1907	55,913,193	4,128,256	60,041,449	18,923,638	41,117,811
1908	57,051,635	4,329,241	61,380,876	22,042,265	39,338,611

\* Excess of Imports.

The proportion of factory-made butter in the total production has increased from 87 to 93 per cent. during the decennium; and naturally, for not only is less milk required to produce a certain quantity of butter, but the price is also from  $\frac{1}{2}$ d. to 1d. per lb. higher than for butter made on farms.

The export trade has grown rapidly, and is carried on almost entirely with the United Kingdom, whose immense population presents a ready market for all products of the dairying industry. The imports of butter into the United Kingdom during the last five years are shown hereunder:—

Year.	Imports of Butter from New South Wales.	Proportion of English Imported Butter.
	cwt.	per cent.
1904	159,622	3.76
1905	168,531	4.06
1906	180,655	4.17
1907	195,289	4.64
1908	138,953	3.30

Butter from this State has attracted attention in London only in recent years; the great import and established reputation of the Swedish or Danish article had practically controlled the market. But the position is changing, so that in 1908 15 per cent. of all butter imported into London during the winter months was of Australian origin, and on many occasions Australian creamery butter has commanded a higher value than



Danish. The prices per cwt. for New South Wales butter in London during the last four seasons were as shown below:—

Month during which Sales were effected in London.	1905-1906.		1906-1907.		1907-1908.		1908-1909.	
	Top.	Bottom.	Top.	Bottom.	Top.	Bottom.	Top.	Bottom.
	1905.		1906.		1907.		1908.	
August ... ..	s. 108	s. 104	s. 112	s. 106	s. 100	s. 95	s. *	s. *
September ... ..	110	104	114	111	98	96	*	*
October... ..	114	106	119	113	119	112	121	117
November ... ..	113	103	117	111	119	112	118	115
December ... ..	115	110	109	106	120	114	107	105
	1906.		1907.		1908.		1909.	
January ... ..	116	103	104	96	122	115	108	106
February ... ..	106	101	101	96	136	126	106	104
March ... ..	104	94	100	97	117	109	105	103
April ... ..	95	90	98	91	111	105	98	96
May ... ..	97	95	97	90	110	103	98	96
June ... ..	97	94	96	91	106	97	98	96
July ... ..	103	94	97	93	109	104	106	104

\*No quotations.

The experience of the export trade shows that butter should be made, salted and coloured to suit the taste of the particular market for which it is intended. So long as the present standard is maintained, no doubt the product of the State will continue in its present demand, and there is no reason why further improvement should not be made by greater attention to detail.

In earlier years the difficulty in securing ocean freights during the export season constituted a severe drawback, but the trade has assumed such important dimensions that it is now the subject of keen competition among shipping companies, with consequent reduction in charges.

The freight on butter forwarded by mail steamers from Sydney to London during the seasons 1900-1 to 1904-5, was 3s. 6d. per box of 56 lb., while other steamers accepted shipments at rates varying from  $\frac{3}{4}$ d. to  $\frac{3}{8}$ d. per lb. For the season 1905-6 mail steamers contracted to accept 1s. 10d. per box, while other steamers charged  $\frac{3}{8}$ d. per lb., or 1s. 9d. per box. Since the 1st January, 1908, the rates have been 2s. 6d. per box by mail steamers, and 2s. per box by all other steamers, including the cargo boats of the Peninsula and Oriental Company.

The advance in cheese-making has not been commensurate with the expansion of the butter trade; in 1908 the quantity of cheese made was only 18 per cent. more than in 1896, but the production of butter had increased by 137 per cent. The demand for cheese is much more limited but as the production does not meet the requirements of the local market, it is evident that the manufacture of butter has been found more profitable. It is certain that the manufacture of cheese will never command the same attention as butter, owing to its great disadvantages as an article of export. Cheese matures quickly, and, unlike butter, cannot be frozen; and it decreases in value after a certain period. Moreover, it has only half the money value of butter, while the cost of freight is practically the same; so that it is not surprising that even where cheese can be produced in New South Wales under excellent conditions, its manufacture is not being greatly extended.

The following table shows the manufacture of cheese in districts during the years 1907 and 1908:—

District.	Cheese.	
	1907.	1908.
Coastal Division—	lb.	lb.
North Coast .....	77,487	115,355
Hunter and Manning .....	12,232	12,821
County of Cumberland .....	7,288	12,907
South Coast .....	3,970,712	4,146,192
Total ... ..	4,067,719	4,287,275
Tableland Division—		
Northern Tableland .....	153,211	173,790
Central „ .....	71,526	40,613
Southern „ .....	22,381	11,232
Total ... ..	247,118	225,635
Western Slopes Division—		
North-western Slope .....	28,584	18,002
Central-western „ .....	13,063	.....
South-western „ .....	229,573	232,448
Total ... ..	271,220	250,450
Western Plains and Riverina Division .....	800	.....
Western Division .....	.....	.....
Total, All Districts .....	4,586,857	4,763,360

It will be seen that cheese-making is practically confined to the South Coast; in fact, the quantity made in other parts of the State is becoming smaller each year. The South Coast production was equivalent to 90 per cent. of the total in all divisions.

Although the manufacture of cheese for export has many disadvantages, it is evident that these must apply to a similar extent in other countries, and it is, therefore, notable to find there is a large import into this State. The following table shows, for each year of the last decennial period, the local production and the total consumption of cheese:—

Year.	Production of Cheese.			Excess of Imports over Exports.	Apparent local consumption of Cheese.
	In Factories.	On Farms.	Total.		
	lb.	lb.	lb.	lb.	lb.
1899	1,376,895	1,009,092	2,385,987	2,454,260	4,840,247
1900	2,322,663	1,236,160	3,558,823	1,503,526	5,062,349
1901	2,428,599	1,410,236	3,838,835	1,771,247	5,610,082
1902	2,691,439	1,456,599	4,148,038	873,627	5,021,665
1903	3,340,510	1,407,666	4,748,176	811,745	5,559,921
1904	2,677,830	1,545,791	4,223,621	496,595	4,720,216
1905	2,997,982	1,627,998	4,625,980	414,972	5,040,952
1906	3,459,641	1,929,704	5,389,345	*77,700	5,311,645
1907	3,261,894	1,324,963	4,586,857	540,041	5,126,898
1908	3,260,389	1,502,971	4,763,360	783,719	5,547,079

\* Excess of Exports.

In addition to butter and cheese, there are other milk products which might receive more attention than at present. The manufacture of condensed milk is an instance, as the annual import during the last eight years has averaged 5,227,193 lb., with a value of £95,344. At present there are three factories in the State, situated at Bomaderry, Belford, and Pitt Town. A somewhat similar product, known as concentrated milk, is also being manufactured at the Bomaderry and Belford factories. This article will keep for months in cool chambers, and is used principally on ocean-going steamers. Being without sugar, it has all the richness and flavour of fresh milk, and consequently is more useful than condensed milk, which is not palatable to many people. The total quantity of milk used in the manufacture of the two products in 1908 was 679,683 gallons, and the output of the articles aggregated 2,399,673 lb.

#### SWINE.

The breeding of swine, which is usually carried on in conjunction with dairy-farming, has been very much neglected in New South Wales, as the fluctuations in the following table tend to show:—

Year.	Swine.	Year.	Swine.	Year.	Swine.
	No.		No.		No.
1860	180,662	1893	240,860	1902	193,097
1865	146,901	1894	273,359	1903	221,592
1870	243,066	1895	223,597	1904	330,666
1875	199,950	1896	214,581	1905	310,702
1880	308,205	1897	207,738	1906	243,370
1885	208,697	1898	247,061	1907	216,145
1890	283,061	1899	239,973	1908	215,822
1891	253,189	1900	256,577		
1892	249,522	1901	265,730		

The breeding of swine is an important factor in successful dairy-farming, but the number of stock has not kept pace with the increase in the quantity of milk available for food. A farmer who possesses his own cream separator can utilise the separated milk for the purpose of feeding pigs, and those who sell their milk to a creamery can sometimes obtain separated milk without cost; in any case it can be purchased at about a farthing per gallon, a price which renders it a most economical food for pigs, provided that such crops as maize, rye, peas, mangolds, pumpkins, &c., are grown to supplement the milk diet. Under these circumstances, and as it is no uncommon thing for good bacon pigs to bring over £3 in the open market, the breeding of a good class must be a profitable pursuit. Until recent years, there was some difficulty in obtaining suitable pigs for breeding purposes, but as stock from the best imported strains may now be purchased at the Government Experiment Farms and other Institutions, this difficulty has been overcome. The breeds generally met in the State are the improved Berkshire, Poland, China, and Yorkshire strains.

The following statement shows the number of pigs in each district at the end of 1908, and the quantity of bacon and ham made:—

District.	Swine.	Bacon and Ham made.
	No.	lb.
<b>Coastal Division—</b>		
North Coast ... ..	56,105	2,825,971
Hunter and Manning ... ..	49,268	582,648
County of Cumberland ... ..	13,163	3,480,957
South Coast ... ..	24,778	750,842
<b>Total ... ..</b>	<b>143,314</b>	<b>7,640,418</b>
<b>Tableland Division—</b>		
Northern Tableland ... ..	10,434	308,019
Central " ... ..	13,031	457,180
Southern " ... ..	5,626	207,925
<b>Total ... ..</b>	<b>29,091</b>	<b>973,124</b>
<b>Western Slopes Division—</b>		
North-western Slope ... ..	9,599	115,670
Central-western " ... ..	5,349	129,950
South-western " ... ..	10,636	260,975
<b>Total ... ..</b>	<b>25,584</b>	<b>506,595</b>
<b>Western Plains and Riverina Division—</b>		
North-western Plains ... ..	2,243	15,355
Central-western " ... ..	3,467	73,945
Riverina ... ..	7,569	251,680
<b>Total ... ..</b>	<b>13,279</b>	<b>340,980</b>
<b>Western Division ... ..</b>	<b>4,554</b>	<b>27,182</b>
<b>Total, All Districts ... ..</b>	<b>215,822</b>	<b>9,488,299</b>

There is no reason why the production of bacon and hams should not be very largely increased, as, except in very rare instances, it has not been sufficient to meet local requirements. The production has varied with the seasons, but the general tendency is towards an increase, as may be seen from the following table:—

Year.	Production and Consumption of Bacon and Hams.				
	Factory.	Farm.	Total Production.	Excess of Imports over Exports.	Apparent Consumption.
	lb.	lb.	lb.	lb.	lb.
1899	4,452,112	2,379,831	6,831,943	291,145	7,123,088
1900	7,963,670	2,899,455	10,863,125	1,030,889	11,894,014
1901	7,392,060	3,688,831	11,080,891	1,188,843	12,269,734
1902	6,143,030	2,852,826	8,995,856	1,719,451	10,715,307
1903	5,664,492	2,200,279	7,864,771	820,006	8,684,777
1904	7,343,220	3,337,312	10,680,532	919,974	11,600,506
1905	6,931,217	4,721,223	11,652,440	2,692,758	14,345,198
1906	7,337,910	4,505,685	11,843,595	2,258,631	14,102,226
1907	7,240,685	3,117,841	10,358,526	2,609,030	12,967,556
1908	7,296,532	2,191,767	9,488,299	2,254,201	11,742,500

As with butter and cheese, the production of bacon and ham is confined chiefly to the coast districts, but the breeding of pigs is more evenly distributed throughout the State.

At present there are few factories devoted entirely to the curing of bacon and hams, and more bacon factories fitted with refrigerating machinery are required, so that curing may be continued during the summer months. In these central establishments, moreover, greater care could be exercised both in securing uniformity in the quality of the article and in cutting. For export the animals should be grown larger, as English bacon pigs weigh 300 or 400 lb. each. The pigs bred in this State are usually sold when fat as porkers at from 60 lb. to 90 lb. weight, the majority being sent to the Sydney market alive. The price ruling for good porkers during 1908 ranged from 24s. 6d. to 36s., the average being about 31s. 9d. Owing to the neglect to grow root crops for the purpose of feed during the winter, when milk is scarce, the demand for store pigs at the commencement of the summer is usually very great, and there is a corresponding glut of fat pigs at low prices as winter approaches.

The number of swine slaughtered during 1908 was 210,319, of which 96,491 were killed in the metropolis.

#### VALUE OF PRODUCTION.

The value of the production from the dairying industry during 1908 was £3,862,000, to which may be added £202,000 obtained from the sale of swine, making a total of £4,064,000. The value from each produce was as follows:—

	£
Butter ... ..	2,913,000
Cheese ... ..	152,000
Milk (not used for butter or cheese) ... ..	465,000
Milch Cows ... ..	332,000
Swine ... ..	202,000
	£4,064,000

There has been a considerable increase in the total value of dairy production during the past few years, the figures for 1907 being £3,567,000, as compared with £3,425,000 in 1906 and £3,123,000 in 1905.

### OTHER PRIMARY INDUSTRIES.

#### POULTRY-FARMING.

Poultry-farming has been conducted in past years in conjunction with the dairying industry, but the interests involved have become so important commercially, that a distinct industry relating to poultry alone has now been developed. Great attention is given to secure the most modern methods in the conduct of the farms, both as to the excellence of breeds for egg-producing and for table, and as to the treatment of the birds in view of expected profitable results. Information is not available regarding the full production, but a general estimate based on the accessible records shows the value for 1908 to be approximately £1,202,000.

#### BEE-KEEPING.

The bee-keeping industry is of very small importance, but there is ample inducement for further expansion, inasmuch as the average annual import of honey into the State is about 160,000 lb.

The production of honey and of beeswax varies considerably from year to year, as will be apparent from the attached table relating to the last ten years:—

Year ended 31st March—	Bee Hives.		Honey.	Average Yield of Honey per Hive.	Beeswax.
	Productive.	Un-productive.			
	No.	No.	lb.	lb.	lb.
1900	48,997	9,813	2,795,141	57·0	55,988
1901	47,394	11,560	2,397,698	50·6	49,337
1902	42,174	10,915	2,259,177	53·6	51,735
1903	37,980	8,263	1,815,480	47·8	37,207
1904	45,094	13,236	2,147,295	47·6	49,589
1905	53,043	11,687	3,023,468	57·0	58,610
1906	36,589	12,043	1,841,236	50·3	39,620
1907	37,306	11,964	1,907,744	51·1	34,690
1908	53,240	15,148	2,660,363	50·0	48,427
1909	53,612	16,347	3,064,526	57·2	58,697

The estimated value of the production of honey and beeswax in 1908 was £35,340, the production for each division being as follows:—

Division.	Honey.	Beeswax.
	lb.	lb.
Coastal Division... ..	1,071,856	21,161
Tableland Division ... ..	1,203,111	23,375
Western Slopes Division ... ..	651,078	12,590
Western Plains and Riverina Division.	136,391	1,554
Western Division ... ..	2,090	17
Total ... ..	3,064,526	58,697

#### FORESTRY.

There is great variety in the timbers of the State, and many of the species provide a wide range of usefulness, from the hardness and durability of the ironbark to the light, easily-worked woods suitable for cabinet-work.

The early colonists cut down the timber just as their requirements prompted, and gave no heed to the necessity for systematic replacement to meet the wants of the future, and as there was no specially-constituted body with powers of supervision or of conservation of the forests, the country was rapidly denuded of some of the most valuable timber. In the course of time, this denudation has produced such harmful effects, that not only is the supply of certain species practically exhausted, but the operation of replacement will occupy many years of patient propagation.

Realising the necessity for immediate and vigorous remedial measures, the Government, in 1907, appointed a Royal Commission to investigate the matter, and, *inter alia*, to report upon the effectiveness of the present forestry laws, and to indicate what steps should be taken in the direction of afforestation and reafforestation. At the present time only about 15 million acres are covered with timber of commercial value, and of this area about 7 million acres, or less than half, have been reserved for the preservation and growth of timber.

It was estimated by the Royal Commission that at the present rate of consumption the supplies of hard and soft timbers will last for forty-seven and twenty-eight years respectively, the young timber which will mature in the meantime being taken into consideration.

The Royal Commission recommended the framing and passing of a Forestry Act, to be administered by three Commissioners, with the assistance of the necessary officers, the present field staff being strengthened considerably. An area of 7,610,056 acres should be dedicated permanently for the preservation, growth, and re-growth of timber, and owing to the enhanced prices of timber, the State should benefit to a greater extent by increased royalties. It also recommended that the oversea export of iron-bark and tallow-wood be prohibited for a period of ten years. It is hoped these measures will stop the ruthless destruction of the best species of brush and hardwood, which has occurred principally in the Clarence River district and in the eucalyptus forests on the Murray.

Following the report of the Royal Commission on Forestry, a Forestry Act was passed at the end of 1909 embodying the following provisions:—

A branch of the Public Service is to be established, to be called the Forestry Department, with a Director of Forests, and other necessary officers.

The Governor may purchase, resume, or appropriate land for the purpose of a State forest, and, subject to certain restrictions, may dedicate as a State forest land vested in His Majesty.

Timber-getters' and other licenses may be granted by the Minister, or by any person authorised by him.

The Minister, under certain conditions, may grant exclusive rights to take timber or products on specified areas of State forest or timber reserves.

Every person conducting a saw-mill for the sawing or treatment of timber must obtain a license, keep books and records, and make returns as prescribed.

Royalty must be paid on all timber felled, and on all products taken from any State forests, timber reserves, Crown lands, or lands held under any tenure from the Crown; but such royalty is not payable on timber exempted therefrom by the terms of the license or by the regulations, or on timber on any holding required for use on that holding. Allowance may be made for any timber which is not marketable.

Trees on any State forest, timber reserve, or Crown lands, with the exception of lands held under conditional lease granted before the passing of the Act, must not be ringbarked except under special conditions.

The Minister, where practicable, must impose conditions for afforestation and reforestation in all exclusive rights or licenses.

The Act makes provision for regulations on the following matters:—

For granting licenses, &c., and prescribing the fees and royalties payable.

To determine the periods and the conditions under which licenses, &c., may be granted.

Providing for the protection and preservation of timber, and regulating the cutting, marking, and removing thereof.

For inspecting, branding, and marking timber, and prescribing the kinds, sizes, and quantities which may be cut or removed.

Determining the conditions under which fires may be lighted in State forests, and providing for the organisation of a system of education in scientific forestry.

The Director of Forests has recently been appointed, and regulations have been framed, to give practical effect to the Act.

It is impossible to state accurately the annual value of production for this branch of industry, but it has been calculated to represent, at the base of production, about £990,000 for 1908, the return from hardwood sleepers obtained for export and local use being about £127,300.

## FISHERIES.

Splendid fishing-grounds extend along the whole length of the coast, the natural features of which are peculiarly favourable to the existence of a very large supply of the best food fishes. In the waters of the numerous bays and estuaries, and in the lakes and lagoons communicating with the sea, are found shelter and sustenance, as well as excellent breeding-grounds. The principal fishes found on the coast are not migratory, and as a consequence may be procured nearly always in the market. But despite the unlimited supply and a large local demand, the fishing industry has long been in an unsatisfactory condition, and fresh fish is scarce, while preserved fish to the value of over £200,000 was imported during 1908 for local consumption.

At the present time the control of the fisheries of the State is placed in the hands of a Commission, who supervise the industry and ensure that the regulations are observed in regard to the dimensions of nets, the closing of tidal waters to net-fishing, and other matters. Every fisherman in tidal waters must apply for a license yearly, the fee being 10s., which is reduced to half that amount if the license is issued in the second half of the year. A license must be taken out for every fishing-boat, the fee being £1, which likewise is reduced by one-half if granted after the 30th June. Penalties are imposed by the Fisheries Acts for breaches of the regulations of the Commissioners.

The number of fishing-boat licenses issued during the year 1908 was 1,163, and of licenses granted to fishermen 2,093, the fees received for these 3,256 licenses amounting to £1,044. The class of boat used for fishing purposes in New South Wales is ill-suited, and very little improvement is likely to result to the industry if the present fishermen are left unaided with their primitive appliances, and unless others of a better class, provided with capital, are induced to take up the business.

For the purpose of oyster-culture, the Crown grants leases of the foreshores of tidal waters between the mean high and mean low-water mark. The rental is 20s. per annum for every 100 lineal yards. The maximum length for which a lease may be obtained is 2,000 yards, but as the same person may take out more than one lease, the portion of shore which may be acquired is practically unrestricted. The lease may be taken out for a term of ten years. Leases of deep water or natural oyster beds are also granted for an area not exceeding 25 acres, at a rental not less than £2 per acre. During the year 1908 487 applications for leases, aggregating 150,303 yards, were granted, and at the end of the year the existing leases numbered 2,042, and the length of the foreshore held was 597,495 yards. In addition, there were in existence deep-sea leases to the extent of 72 acres 10 perches. The deposits paid with the applications for leases amounted to £1,137, while the rentals received from leased areas were £4,771 during the year.

During 1908 15,374 bags of oysters were obtained from the tidal waters of the State. During 1900, 20,182 bags were taken, but from this year the annual take showed a general tendency to decrease on account of the spread of disease in some of the rivers. The smallest quantity of oysters taken—12,613 bags—was during 1904; in the last four years the production has shown a tendency to increase, the output in 1908 being the largest since 1902.

It is estimated that the annual value of production of the fisheries of the State is about £175,000.



## OTHER PRIMARY INDUSTRIES.

## RABBITS AND HARES.

The growth of the export trade in frozen rabbits and in rabbit skins is a noticeable development of recent years, but the return thus brought to the State is by no means commensurate with the financial losses caused by the deprecations of the pest.

Year.	Value of Domestic Exports.		
	Frozen Rabbits and Hares.	Rabbit and Hare Skins.	Frozen Rabbits, Hares, and Skins.
	£	£	£
1900	4,537	4,182	8,719
1901	6,233	13,291	19,524
1902	12,143	38,094	50,237
1903	37,653	38,233	75,886
1904	56,007	105,952	161,959
1905	145,268	162,783	308,051
1906	248,507	316,929	565,436
1907	303,078	241,099	544,177
1908	248,981	163,457	412,438

The export trade, which is principally with the United Kingdom, amounted to £412,438 in 1908; but these figures by no means represent the total return from rabbits and hares, which may be set down as approximately £495,000 during this year. In the State itself, these animals now form a common article of diet, both in the metropolis and country, especially during the winter months, when large numbers of men are engaged in their capture and distribution. The fur is largely used in the manufacture of hats.

## MINING INDUSTRY.

THE most powerful factor in effecting the settlement of population in New South Wales, and consequently in Australia, was the discovery of gold in payable quantities in 1851. During the decade succeeding this discovery (made by Hargraves), gold-mining became the leading industry in the State, easily eclipsing in quantity and value of production the mining of coal which, up to that date, had been the only mineral raised. Naturally, in the earlier stages of gold-mining, when alluvial deposits were being worked, and diggers could obtain the metal readily, the knowledge of these conditions induced a great influx of population from other countries, and also turned the attention of the resident population from existing industries; but as the alluvial deposits became exhausted the character of the industry changed from the fluctuations of prospecting to the more settled conditions of an industry, requiring large capital and expensive machinery, under the direction and control of companies mainly organised on the no-liability system, and the surplus population of the early gold-field days naturally settled down to the development of more permanent industries, such as agriculture.

Since the period of permanent development in gold-mining various other metals have been found in New South Wales, and though gold still occupies a prominent place in the mineral wealth of the State, other metals, such as silver, tin, copper, and iron now join with it in rendering mining an important section of the primary industries.

### MINERS EMPLOYED, AND PRODUCTION.

The following table gives the approximate number of persons actually engaged in the principal departments of mining during each of the past eight years. The figures are given on the authority of the returns furnished to the Mines Department:—

Mineral.	Miners employed at end of each year.							
	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
	No.	No.	No.	No.	No.	No.	No.	No.
Gold ... ..	12,064	10,610	11,247	10,648	10,309	8,816	7,468	6,363
Silver and Silver-Lead	6,298	5,382	6,035	7,071	7,887	9,414	10,021	7,560
Tin ... ..	1,428	1,288	2,502	2,745	2,884	3,795	3,173	2,456
Copper ... ..	2,964	1,699	1,816	1,850	2,171	3,047	3,764	2,745
Coal ... ..	12,191	12,815	13,917	14,034	14,019	14,929	17,080	17,734
Shale ... ..	224	299	200	112	118	270	276	350
Other Minerals ...	1,446	1,602	1,842	1,377	1,544	2,275	1,976	1,757
<b>Total ... ..</b>	<b>36,615</b>	<b>33,695</b>	<b>37,559</b>	<b>37,837</b>	<b>38,932</b>	<b>42,546</b>	<b>43,758</b>	<b>38,965</b>

During a portion of the period covered by the above table, there was a marked falling-off in the number of men engaged in mining as compared with the earlier years. The lowest point was reached in 1902, when, as a result of the continued dry weather, only 33,695 were employed. In the subsequent years, steady increases were recorded, until, at the close of 1907, the industry gave employment to 43,758 persons. During 1908 the figures again dropped considerably, the number engaged at the close of the year being 38,965, a decrease of 4,793 as compared with the year 1907.

With the exception of 1903, the gold-miners have steadily decreased year by year, till at the end of 1908 there were only 6,363, or about half the number so employed only seven years ago. This apparent neglect of gold-mining is due to some extent to the diversity of the mineral wealth of this State; for, during the past few years, most of the available capital has been directed towards the development of other minerals, as is indicated by the satisfactory increase in the number of men mining for silver, tin, and coal. The reefs on most of the gold-fields have been worked, as far as practicable, by the ordinary miner, and the introduction of capital is necessary for their further development. Fossicking has not been followed so persistently as in the earlier years. In comparing the detailed returns for 1908 with those of the previous year, it is seen that there were 706 less men employed in quartz-mining and 399 in alluvial-mining. This falling-off is attributable to the decrease in the number of small gold-mines and claims worked, and the cessation of active prospecting and fossicking operations during the year.

The value of mining plant and machinery is approximately £4,558,069, of which £1,242,000 represents the value of the winning, weighing, and ventilating plant and machinery used in connection with coal and shale mines. The value of machinery in operation on other mineral fields is shown below:—

Classification.	Value at 31st December, 1908.
	£
Gold—Dredging ... ..	192,179
Other ... ..	518,602
Silver and Lead ... ..	1,785,001
Copper ... ..	463,310
Tin—Dredging ... ..	153,376
Other ... ..	22,355
Other Metals or Minerals ... ..	181,246
	£3,316,069

The value of machinery and plants in operation at the mines is, as stated above, £4,558,069; but this sum does not include the value of the large smelting plants in operation at Cockle Creek, and Woolwich, the copper reducing and refining plants at Lithgow and Newcastle, and the plant at the Eskbank iron-works, the total value of which is estimated at not less than £245,000, while the land and buildings are valued at £80,000. The total is exclusive also of value of plant used for conveying products from the mines to railway station or wharf, which, in the case of coal and shale mining, is set down at £973,000.

The summary given below shows the value of the production of the various minerals since their first discovery, as well as of minerals won in the last four years:—

Mineral.	Value.				
	1905.	1906.	1907.	1908.	To end of 1908.
	£	£	£	£	£
Gold (native ores only) ...	1,165,013	1,078,866	1,050,730	954,854	56,319,736
Coal ... ..	2,003,461	2,337,227	2,922,419	3,353,093	56,632,255
Silver and silver-lead ...	2,494,052	2,862,973	3,915,946	2,160,195	48,781,865
Copper, Matte, and Ore ...	527,403	789,527	727,774	502,812	9,703,215
Tin and ore ... ..	226,110	255,744	293,305	205,447	8,243,261
Kerosene Shale ... ..	21,247	28,470	32,055	26,067	2,193,567
Zinc (Spelter and Concentrates)	221,155	292,806	536,620	600,883	2,027,777
Coke ... ..	100,306	110,607	159,316	199,933	1,465,613
Noble Opal ... ..	59,000	56,500	79,000	41,800	1,109,899
Lead (pig, &c.)... ..	2,657	1,084	374,182	186,746	1,091,963
Limestone flux... ..	9,519	7,463	16,162	14,779	648,410
Antimony and ore ... ..	5,221	52,645	46,278	1,141	300,698
Bismuth ... ..	20,763	5,700	5,268	2,017	121,899
Diamonds ... ..	3,745	2,120	2,056	1,358	107,503
Chrome iron ore ... ..	62	15	105	.....	101,108
Alunite ... ..	6,750	4,637	5,115	2,705	90,417
Ironstone flux ... ..	4,525	723	7,707	6,199	75,204
Pig iron... ..	.....	.....	60,550	98,777	159,327
Wolfram ... ..	7,361	9,057	26,235	6,742	60,288
Scheelite ... ..	10,122	7,647	23,781	11,082	58,593
Molybdenite ... ..	2,507	4,798	3,564	929	20,823
Platinum ... ..	825	623	1,014	439	18,993
Iron oxide ... ..	417	336	1,961	1,857	17,946
Cobalt ... ..	.....	.....	.....	.....	7,955
Manganese ore ... ..	.....	.....	.....	.....	1,655
Sundry minerals ... ..	4,860	3,148	4,147	4,294	128,781
Total Value ... ..	£ 6,897,031	7,912,716	10,295,290	8,384,149	189,488,751

Thus, at the end of 1908, the State had produced various minerals of the total value of 189½ millions sterling. These figures differ slightly from those issued by the Mines Department, because such items as scrap-iron, Portland cement, and lime have been included in the report of the Department, but omitted in preparing the above statement, as these products are considered in connection with the statistical returns of manufactories and works. For the sake of comparison, however, the following table shows the value of each of the items mentioned for the same periods as shown in the previous summary:—

Article.	Value.				
	1905.	1906.	1907.	1908.	To end of 1908.
	£	£	£	£	£
Iron made from scrap ... ..	85,693	112,848	118,082	19,447	1,410,030
Portland cement ... ..	88,100	128,487	144,548	184,400	702,525
Lime ... ..	15,019	15,573	19,458	21,610	146,059
Totals ... ..	188,812	256,908	282,088	225,457	2,258,614

## GOLD.

Amongst the metals which occur in the State, gold occupies the foremost place, both on account of the quantity which has been raised and of the influence of its discovery on the settlement of the country.

Native gold is the only true mineral species of the metal which has been found in New South Wales, and was first met in easily-worked alluvial deposits. These diggings, until recent years, attracted a large number of miners, as the gold is obtained without costly appliances; but however rich they may be, alluvial deposits are very soon exhausted, their area generally being of limited extent.

Although the alluvial deposits discovered in the early days have been practically abandoned, there is ample evidence that only the surface of the country has been touched. The search for gold has been prosecuted for more than half a century, and still new fields and fresh deposits are being discovered. The gold formation is very widely diffused throughout the State, as may be gathered from the fact that the fields of Albert, Delegate, and Ballina are between 600 and 700 miles distant from each other; and it has been estimated that the extent of country covered by formations in association with which gold always occurs, exceeds 70,000 square miles, whilst it has also been found in strata where its presence was never suspected. A considerable portion of this area has never been tested by the miner.

Gold is found also in quartz-veins, occurring in older and metamorphic rocks, such as argillaceous slates, chloritic and talcose schists, as well as granite, diorite, serpentine, and porphyry. Vein gold is associated more commonly with iron pyrites, though found with copper, lead, zinc, and silver ores, and also in asbestos. But the extraction of gold from quartz-veins requires extensive machinery and gold-saving appliances, involving an outlay of capital such as the ordinary miner seldom possesses; consequently this branch of mining is generally carried on by companies.

It would be difficult to name a part of the State in which gold is not found, as the precious metal appears throughout the greater portion of the territory, and there is ample evidence that there exist deposits which will offer to the prospector or the miner a profitable field of employment for many years.

Below will be found the quantity and value of the gold produced during each quinquennial period since 1851, and for each of the last three years. New South Wales gold which was received at the Sydney Mint for coinage in 1908 amounted to 166,748 oz., of the gross value of £598,061, the average price being £3 11s. 9d. per oz.

Period.	Quantity.	Value.
	oz.	£
1851—1855 ... ..	1,920,200	6,338,257
1856—1860 ... ..	1,360,763	5,192,326
1861—1865 ... ..	2,233,001	8,606,290
1866—1870 ... ..	1,309,911	5,069,812
1871—1875 ... ..	1,613,049	6,210,345
1876—1880 ... ..	640,210	2,366,310
1881—1885 ... ..	626,931	2,333,358
1886—1890 ... ..	546,954	1,973,183
1891—1895 ... ..	1,176,325	4,258,462
1896—1900 ... ..	1,691,012	6,073,658
1901—1905 ... ..	1,353,526	4,813,285
1906 ... ..	302,556	1,078,866
1907 ... ..	289,043	1,050,730
1908 ... ..	261,683	954,854
	15,325,164	56,319,736

Thus the value of the gold won amounts to over 56 millions; and although the annual yield is now considerably less than that of either silver or coal, yet gold divides with coal the importance of premier position in respect of the total value of production, and exceeds the output of silver by over seven million pounds worth, as at the end of 1908.

The introduction of the systems of dredging and sluicing has awakened considerable activity in certain districts, where gold is being saved from the beds of rivers and creeks, and also from wet lands where the ordinary alluvial miner experienced considerable difficulty in working. The initial cost of these undertakings is heavy, but, on the other hand, the large quantity of material that can be treated at a small cost, and the saving in labour, more than compensate for it. With the present improved appliances it is possible to treat profitably alluvial drifts containing only 1 or 2 grains to the ton, while a large percentage of gold, and particularly of fine gold, is obtained by operating over alluvial drifts worked in a crude way.

In 1900, large areas were taken up for dredging for gold and tin, and notwithstanding that many of the dredges were working only for short periods in the year, results were very satisfactory. The following table demonstrates the progress made since the inauguration of dredging in this State:—

Year.	Area under Lease at 31st Dec.	Gold.		Stream-tin.	
		Quantity.	Value.	Quantity.	Value.
	acres.	oz.	£	tons.	£
1900	6,943	8,882	33,660	.....	.....
1901	8,702	23,585	89,628	.....	.....
1902	11,719	25,473	97,891	110	8,300
1903	9,015	27,237	104,303	244	20,100
1904	9,855	32,345	123,656	319	26,180
1905	13,571	35,388	136,090	532	50,904
1906	15,595	36,649	141,101	1,032	120,661
1907	16,614	39,946	153,498	1,692	176,212
1908	16,117	40,890	161,059	1,562	129,952
Total ... ..		270,395	1,040,886	5,491	532,309

This system of mining has made steady progress during each year of the period, the increase in the number of dredges in operation, coupled with a better appreciation of local conditions, contributing materially to this satisfactory result. The area leased for dredging at the 31st December, 1908, was 16,117 acres, as compared with 6,943 acres in 1900; and during the same period the number of dredges in operation increased from 22 to 63, the value of the latter being set down at £345,555. Araluen is the principal centre of gold-dredging operations, and here, during the past seven years, gold to the value of £439,800 has been recovered. The other districts which have contributed are Adelong, Stuart Town, Sofala, Wellington, Tumbarumba, Nerrigundah, Nundle, and Hill End.

The returns from 21 "bucket" dredges show that 4,909,600 cubic yards of material were treated, the gold won amounting to 25,920 oz., valued at £101,060, or an average of 2.53 grains, worth 4.94d., for every yard. The returns of five "pump" dredges show that 1,952,140 cubic yards of material were treated, and yielded 13,619 oz. of gold, valued at £54,710, or an average of 3.35 grains, worth 6.73d. per cubic yard.

Information as to cost of working is not given, but it appears that pump dredging is more expensive than the bucket system.

The number of men employed in alluvial and in quartz mining during the last ten years, and the production from each branch of the industry, are set down below. The particulars of production are based on information obtained in the various localities, but owing to the non-receipt of detailed returns in some instances, and to the difficulty in obtaining accurate data respecting all the gold won, the quantity of the metal, as returned by the wardens and mining registrars, does not agree with the total amount actually recorded. The quantities of quartz and alluvial, which are approximate, are considered sufficiently accurate for practical purposes:—

Year.	Number of Miners.			Production.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	No.	No.	No.	oz.	oz.	oz.
1899	8,030	11,318	19,348	84,767	375,033	459,800
1900	8,387	9,571	17,958	64,125	245,759	309,884
1901	5,409	6,655	12,064	57,293	156,396	213,689
1902	5,434	5,176	10,610	55,349	134,967	190,316
1903	5,906	5,341	11,247	69,413	226,365	295,778
1904	5,253	5,395	10,648	79,040	245,956	324,996
1905	5,091	5,218	10,309	80,512	248,235	328,747
1906	4,255	4,561	8,816	78,690	223,866	302,556
1907	3,250	4,218	7,468	76,478	212,565	289,043
1908	2,851	3,512	6,363	62,390	199,293	261,683

These figures show clearly that since 1899 gold-mining has not received much attention from capitalists and miners. Owing to the high market prices of many of the other metals, there has been less prospecting for gold than formerly. All the men employed in quartz-mining are Europeans, but on alluvial fields 211 Chinese found occupation in 1908.

The principal seats of alluvial gold-mining are the Bathurst and Mudgee districts; the country watered by the various feeders of the Upper Lachlan; the Braidwood, and Tumut and Adelong districts; and in the north of the State, the New England district.

The principal quartz veins worked in New South Wales during 1908 are situated near Adelong, Armidale, Bathurst, Cobar, Forbes, Hillgrove, Orange, Pambula, Parkes, Peak Hill, Wellington, and Wyalong. The districts which produced the largest quantities of gold during 1908 were:—

District.	Ounces.
Cobar (including Canbelego and Mt. Drysdale)	82,474
Wyalong and West Wyalong	16,586
Adelong	15,727
Wellington	13,531
Araluen	12,941
Hillgrove (including Metz)	12,607
Murrumburrah	12,101
Stuart Town	6,341
Peak Hill	6,043

In addition to the Mount Drysdale gold-field, in the Cobar district, discovered in 1893, the most important find of recent years was made at Wyalong, in the Lachlan district. For the period 1897-9 the production of Wyalong was the highest from any gold-field; but the yearly output since 1900 has been exceeded by that of the Cobar and Mount Drysdale field.

The Cobar and Mount Drysdale district now holds the premier position as a gold-field, the yield exceeding that of Wyalong for the first time during 1900 by 12,251 oz. The gold won at Cobar is worth, on the average, £3 5s. 11d. per oz., as compared with £3 10s. at the latter place. Much of the success of this field during the last seven years has been due to the operations of the Cobar Gold Mines Company (Limited) and to the Mount Boppy gold-mine, at Canbelego, the results from which place this district in the first rank as regards production. The annual gold yield for the Cobar district since 1900 is shown below:—

Year.	Quantity.	Value.
	oz.	£
1900	44,676	157,108
1901	42,299	145,146
1902	26,956	90,209
1903	79,860	266,355
1904	69,140	262,213
1905	70,109	230,386
1906	68,685	224,052
1907	58,399	228,981
1908	82,474	271,682

The low yield in 1902 was due to the cessation of work at most of the mines for varying periods on account of drought, and the decreases exhibited in 1904 and subsequent years, when compared with 1903, were caused by the restricted operations of the Cobar gold-mines, where the hands employed were considerably reduced, pending the adoption of another method for economically treating the gold-copper ore now in sight. For this purpose additional machinery was erected in 1908, and although considerable difficulty was experienced with the furnaces, the result of its operations is shown in the increased output.

The gold found in New South Wales is never absolutely pure, but contains traces of other metals, such as copper, iron, and bismuth, and often a fair percentage of silver, and to the presence of silver its light yellow colour is due. New South Wales gold is generally lighter in colour than Victorian, but is of a deeper yellow than that found in the fields of Southern Queensland. Its specific gravity is about 17·5.

The average weight of the metal obtained per miner in 1908 was 41·13 oz., as compared with 38·70 oz. in the previous year. The values of these quantities are £150 1s. 3d. and £140 13s. 11d. respectively for each miner engaged, and compare very favourably with the averages obtained during the past ten years, namely, 25·92 oz. per miner, valued at £92 4s. 9d. These figures do not represent the total earnings of the men engaged in gold-mining, many of whom follow other pursuits during a portion of the year; further, there were several new fields which so far had yielded very small returns, and a number of men were engaged in prospecting.

The number of fatal accidents in gold-mines during 1908 was 4, as against 5 in the previous year. The four men who lost their lives in 1908 were engaged in auriferous quartz-mining. Sixteen serious accidents occurred in quartz-mines, and one casualty in connection with dredging.



## SILVER.

Until the year 1882 the quantity of silver raised in New South Wales was very small. In that and following years extensive discoveries of the metal, associated principally with lead and copper ores, were made in various parts of the State, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, and at Silverton, Broken Hill, and other places on the Barrier Range.

The argentiferous lead ores of the Barrier Ranges and Broken Hill districts of New South Wales have attracted attention more than any other. This rich silver-field, which was discovered in 1883 by 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 South Australia. In the Barrier Range district, the lodes occur in Silurian metamorphic micaceous schists and banded gneisses, 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.

The total value of minerals exported from the Barrier district during 1908 was £2,018,383, distributed as follows:—Silver-lead ore, 315,785 tons, £1,573,948; copper ore, 120 tons, £826; zinc concentrates, 229,390 tons, £443,609.

As a natural consequence of the success of the Broken Hill mines, numbers of miners were attracted to the district, and the population, which in 1883 consisted of only a few station hands, had risen at the date of the 1901 census to a total of 28,887 souls, of whom 6,320 men were employed in and about the mines. The population of the municipality at the end of 1908 was estimated at 32,020, and 6,869 persons were permanently employed on the mines.

The production of silver and of lead are largely influenced by the prices of those metals in the markets of the world. Thus, in 1906 and 1907, when prices were high, the number of men employed was higher than at any previous time. Zinc recovery is the most important question at the present time, and it is satisfactory to note that the output of zinc concentrates during 1908 amounted to 229,390 tons, valued at £443,609. In 1907 the output was 190,981 tons, valued at £364,791.

The question of determining the metallic contents of the silver and silver-lead ores mined in this State has always been extremely difficult, owing to the absence of reliable data, also because only a small percentage of the ore won is treated within the State. The figures published by the Broken Hill Proprietary Company have enabled rough approximations to be made, but the results have not been satisfactory. For the past five years, however, the Department of Mines has collected from the various mine managers, smelting companies, and ore buyers in Australia particulars of the metallic contents of all New South Wales ores treated, the results being shown below:—

Contents, &c.	1904.	1905.	1906.	1907.	1908.
Silver (fine oz.) ... ..	7,751,667	6,804,934	5,575,410	5,921,457	6,484,288
Lead (tons) ... ..	106,038	93,182	79,925	79,870	103,371
Zinc (tons) ... ..	299	544	1,008	984	1,065
Value of above ... ..	£ 2,088,784	2,131,317	2,112,977	2,228,420	2,008,410

In addition to the ore treated within the Commonwealth, the results of which are shown above, concentrates are exported to Europe for treatment. The quantity and value of these, together with the estimated gross silver, lead, and zinc contents, based on average assays, are shown hereunder:—

Year.	Concentrates, &c., exported.		Estimated Metallic contents.		
	Quantity.	Amount received.	Silver.	Lead.	Zinc.
	tons.	£	oz.	tons.	tons.
1904	140,464	642,125	2,945,058	59,507	22,318
1905	270,474	1,181,720	3,480,561	69,044	30,637
1906	165,151	1,876,834	3,111,013	58,683	33,427
1907	337,823	3,574,775	6,228,225	111,830	76,645
1908	330,812	2,400,997	5,499,381	69,501	113,853

In connection with the above figures, it should be mentioned that, although the metallic contents are based on average assays, it is impossible to say what proportion of the bulk quantities was recovered.

The greatest achievement in connection with silver-mining in this State is the profitable extraction of zinc from the immense heaps of tailings which have accumulated since the opening of the Broken Hill mines about twenty-five years ago. The formation of a company to recover the zinc contents of large quantities of tailings, and the steps taken by other mining companies, notably the Broken Hill Proprietary Company, have added greatly to the vast wealth of minerals extracted from this field, and point to this State becoming in the near future one of the principal producers of spelter.

The estimated quantities of silver, lead, and zinc contained in the sulphide ores won during the last six years are as follows:—

Year.	Silver.	Lead.	Zinc.
	fine oz.	tons.	tons.
1903	8,226,201	121,999	14,911
1904	10,696,725	165,545	22,617
1905	10,285,495	162,226	31,181
1906	8,686,423	138,608	34,435
1907	12,149,682	191,700	77,629
1908	11,983,669	172,872	114,918
	62,028,195	952,950	295,691

This State, however, is not entitled to take credit for the full value of the finished product, as large sums are expended outside New South Wales in extracting the silver, lead, and zinc. For this reason, the production of silver and lead is set down at the value of the quantities exported as declared to the Customs authorities.

The quantity and value of silver and silver-lead ore exported from New South Wales to the end of 1908 are shown in the following table:—

Period.	Silver.		Silver-sulphides, Silver-lead, and Ore.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
To 1885	oz.	£	tons.	tons	£	£
1886-1890	1,730,297	382,884	7,074	191	237,810	620,694
1891-1895	2,481,253	464,081	165,756	94,002	6,478,515	6,942,596
1896-1900	3,009,187	445,873	663,754	231,847	12,615,432	13,061,305
1896-1900	2,352,092	269,663	1,771,983	86,005	9,592,856	9,862,519
1901-1905	4,154,020	445,051	1,877,515	108,353	8,910,586	9,355,637
1906	284,994	36,431	349,720	22,218	2,826,542	2,862,973
1907	2,043,887	257,314	413,720	20,360	3,658,632	3,915,946
1908	2,490,163	253,920	358,730	.....	1,906,275	2,160,195
Total...	18,545,893	2,555,217	5,608,252	562,976	46,226,648	48,781,865

As the bulk of the silver has been exported in the form of silver-lead bullion and ore, it is impossible to ascertain the quantity of pure silver won except for the last six years. The net value of the ores won during these years is set down at £15,000,109, and from the tables already given it will be seen that the estimated gross silver and lead contents amounted to 62,028,195 oz. fine and 952,950 tons respectively; but owing to the absence of similar data for previous years, also to the great improvements effected during recent years in the method of extraction and treatment of the ores generally, it is impossible to state with any degree of accuracy the metallic contents of the total production of the State.

Owing to the steady fall in the price of the metal, which had already set in before the opening up of the Broken Hill mines, and which, after a slight recovery in 1890, has continued with slight fluctuations, the value of the output has greatly diminished. In 1890 the price of silver was 47½d. per oz. standard; in 1893, when the Indian mints were closed, the price was 35½d., and this fell to 29d. in 1894; in 1908 the average for the year was only 24d. per oz. The variations in the price of lead have likewise affected the value of the output. From 1904 nearly to the end of 1907 the price rose with corresponding benefit to the industry; but in 1908 the prices of silver, lead, and zinc dropped considerably.

The number of miners engaged in silver and silver-lead mines in 1908 was 7,560, and the average value of mineral won per miner engaged was £285 14s. 10d. A comparison with the figures of the last ten years is afforded by the following table:—

Year.	Miners.	Value of Silver and Lead won.	
		Total.	Per Miner.
	No.	£	£ s. d.
1899	7,893	2,070,657	262 6 10
1900	8,196	2,604,117	317 14 7
1901	6,298	1,854,463	294 9 1
1902	5,382	1,440,179	267 11 10
1903	6,035	1,501,403	248 15 8
1904	7,071	2,065,540	292 2 3
1905	7,887	2,494,052	316 4 6
1906	9,414	2,862,973	304 2 5
1907	10,021	3,915,946	390 15 6
1908	7,560	2,160,195	285 14 10

The total number of accidents which occurred in the silver-mines of the State in 1908 was 37, 19 persons losing their lives, while 18 were seriously injured. Cases of slight injury are not recorded.

COPPER.

The principal deposits of this metal are found in the central part of the State, between the Macquarie, Bogan, and Darling Rivers. Deposits occur also in the New England and Southern districts, as well as at Broken Hill, thus showing a wide distribution. The copper-mining industry is of considerable importance, and reached its highest point of production in 1906, when the value of the output was £789,527. Until 1902, the year of highest production was 1883, when copper to the value of £472,982 was obtained; but in subsequent years the industry rapidly declined through the heavy fall in the price of the metal. In 1894, the production was valued only at £63,617, which marked the lowest point of depression in the copper market, the average price for the year being only £40 per ton. During the last decade copper mining has shown very satisfactory progress, and the average production is much in advance of that of any other decennial period. During 1904, the output was valued at £406,001, as compared with £462,640 for the previous year, due mainly to the cessation of productive work at one of the principal mines in the Burruga district; but conditions have decidedly improved, and the mine is again in full operation. With copper at a high price, it was to be expected that the mining for this metal would come in for considerable attention. The value of the copper production during 1908 was £502,812 as compared with £727,774 for the previous year—a decrease of £224,962. The production during 1906 excepted, the returns for 1907 largely exceed that of any other year. The decrease in the value for 1908 is attributed to the great fall in the price of the metal during the year, and to the lessened output from the Cobar district. The copper lodes of New South Wales contain ores of a very much higher grade than those of many well-known mines worked in other parts of the world, and, with a fair price, should return satisfactory results. The net export of copper, which is taken as the production of the State, is shown below from the year 1858:—

Period.	Value.	Period.	Value.
	£		£
1858-1879	1,067,670	1905	527,403
1880-1884	1,554,326	1906	789,527
1885-1889	778,804	1907	727,774
1890-1894	454,765	1908	502,812
1895-1899	1,286,094		
1900-1904	2,014,040	Total ...£	9,703,215

The most important mines are those of Cobar, where the Great Cobar, which recommenced work early in 1894, is the principal mine.

The output of metals from this district during the last six years is shown hereunder:—

Metals.	1903.	1904.	1905.	1906.	1907.	1908.
	£	£	£	£	£	£
Gold ... ..	266,355	262,213	231,418	224,052	229,143	272,204
Silver ... ..	5,089	5,033	9,366	10,034	10,117	9,343
Copper ... ..	221,242	236,510	444,858	516,320	474,681	347,429
Lead ... ..	.....	.....	3,000	17,416	4,258	.....
Totals ... ..	492,686	503,756	688,642	767,822	718,199	628,976

In other portions of the Cobar district considerable activity has been displayed. At Nymagee very satisfactory progress has been made, and copper to the value of £236,845 was produced during the three years, 1905, 1906, and 1907; but in 1908 operations were suspended, since the low market prices, combined with the heavy cost of transport, rendered it impossible to treat the ore profitably. Recent developments favour the opinion that the auriferous copper ores at the Cobar gold-mines and other mines will in future be worked in conjunction with one or other of the richer copper mines of the district.

The Mount Hope mine recovered copper to the extent of £14,546; the Lloyd copper-mine, in the Burruga district, treated some 18,000 tons of material, and obtained 578 tons of copper, valued at £32,500, as compared with a production valued at £98,000 during the previous year.

The total number of miners engaged in copper-mining in 1908 was 2,745, as against 3,764 in 1907, 3,047 in 1906, 2,171 in 1905, 1,850 in 1904, and 1,816 in 1903. It may be mentioned that the number of men finding employment in 1896 was only 810; this figure rapidly increased to 3,334 in 1900, but fell away to 2,964 in 1901, and to 1,699 in 1902. There were six fatal accidents recorded in copper-mining in 1908, and 19 miners were seriously injured.

#### TIN.

Lode tin occurs principally in the granite country, and stream tin under the basaltic formation, in the extreme north of the State—at Tenterfield, Emmaville, Tingha, and in other districts of New England. The metal has also been discovered in the Barrier district, at Poolamacca and Euriowie; near Bombala, in the Monaro district; at Gundle, near Kempsey; at Jingellie and Dora Dora, on the Upper Murray; and in the valley of the Lachlan; but in none of these districts has it been worked to any extent. Although the first discovery was made by the Rev. W. B. Clarke as far back as 1853, the opening of tin-fields did not take place until the year 1872. The value of production since that date has been as follows:—

Period.	Value.	Period.	Value.
	£		£
1872-1879	2,015,407	1905	226,110
1880-1884	2,194,533	1906	255,744
1885-1889	1,415,374	1907	293,305
1890-1894	677,392	1908	205,447
1895-1899	342,503		
1900-1904	617,446	Total...f	8,243,261

Tin has contributed in a very considerable degree to the total production of the mineral wealth of the State, and in point of value its aggregate yield stands in the fifth place—next to gold, coal, silver, and copper. From the opening of the fields the production increased rapidly until 1881, when in value it was almost equal to the output of gold for the year, and but slightly behind coal. During the twenty years from 1881 to 1902 the industry experienced several vicissitudes, chiefly owing to dry weather and fluctuations in the price of the metal.

The increased production since 1902 is due to the activity which has characterised tin-mining on the various fields throughout the State, owing to the satisfactory prices obtained. But in 1908 the value of the output showed a considerable decrease, due to the drop in the market price and to the lesser output of ore principally from the dredges in the Tingha Division. A feature of the industry is the success achieved by the

operations of the dredges. The principal leads worked during 1908 were at Tingha; at Elsmere, in the Inverell district; at the Mann River, near Glen Innes; at Vegetable Creek, near Emmaville; at Deepwater; and at Wilson's Downfall.

Dredging for tin-ore has become a firmly-established industry, and during 1908 twenty-three pump dredges, operating on the stanniferous gravels in the Tingha and Inverell divisions, recovered 1,054 tons of stream tin, valued at £88,588. Four plants operating in the Emmaville division obtained 287 tons of stream tin as the result of the year's work; the value is set down at £23,440. The dredges operating in the Wilson's Downfall division recovered 163 tons, valued at £13,225. There were also several smaller plants operating in the Deepwater, Bendemeer, and Germanton divisions; and, in addition, a quantity of stream tin was saved by several of the gold dredges. In all, tin-ore to the extent of 1,562 tons, valued at £129,952, was recovered during 1908, a decrease in value of £46,260 being shown as compared with the output from this source in the previous year. Within the thirty-six years that have elapsed since the opening of the tin-fields, the value of the net export, which is regarded as the production, has been £8,243,261.

In the alluvial tin-fields of Tingha and Emmaville, the number of Chinese engaged in this industry has in some years greatly exceeded that of the Europeans. In 1908, however, the total number of tin-miners was 2,456, of whom only 380 were Chinese; and in the previous year 3,173 were employed, 2,739 being Europeans and 434 Chinese.

Three fatal accidents occurred during 1908 in tin-mining.

#### IRON.

Iron is widely diffused throughout the State, and occurs principally in the form of magnetite, brown hematite or goethite, limonite, and bog-iron; deposits of chrome iron are also found. Magnetite is the richest of all the iron ores, and, when pure, contains a little over 72 per cent. of available metallic iron, though it is not often found reaching this very high percentage. The results of a number of analyses made from deposits at Brown's Creek, in the county of Bathurst, where veins have been opened out, show that the samples of ore yielded from 48·83 to 61·30 per cent. of metallic iron.

Brown hematite or goethite occurs in very extensive deposits in the Blue Mountain and Macquarie Ranges, the principal centres explored being situated at Mittagong, Picton, Berrima, Cadia (near Orange), Lithgow Valley, Wallerawang, in the Rylstone and Mudgee districts, and in the vicinity of Port Stephens. The result of a number of analyses of this kind of ore denotes that it is very rich in metallic iron, containing a proportion of 42·69 to 64·48 per cent., and in the majority of cases over 45 per cent. of metal. A sample of hematite from the Maitland district contained 60·83 per cent. of metallic iron, and another from Mount Pleasant, near Wollongong, analysed during 1891, gave 54·28 per cent. of iron. The value of these deposits is enhanced by their almost invariable occurrence in proximity to limestone and coal beds. It is fortunate, also, that the main lines of railway pass through the regions where the deposits are most easily worked.

Limonite—a variety of brown hematite—occurs principally at Lithgow, Eskbank, and Bowenfels, in the Blue Mountains; in several parts of the Hunter River coal-field; and at Bulli, in the Illawarra district. This ore is usually found very rich in metal, and contains an average of over 50 per cent. of iron, while the English clay bands, which are mostly carbonates, contain only about 30 per cent. of metallic substance. It

occurs in lenticular layers of no great extent, in the Coal Measures. Bog-iron ore, which is impure limonite, is found principally at Mittagong; and assays of this ore gave a percentage of metal of more than 45 per cent.

The following table, taken from a report furnished during 1905 by Mr. E. F. Pittman, Government Geologist, gives the description and estimated quantity of iron-ore available in the various districts of New South Wales where the deposits occur:—

District.	Description of Ore.	Estimated minimum quantity of Ore.
		tons.
Bredalbane ... ..	Brown ore and hematite ... ..	700,000
Cadia ... ..	Specular hematite, magnetite, and carbonate ore.	39,000,000
Carcoar ... ..	Hematite and brown ore ... ..	3,000,000
Chalybeate Spring — Deposits of Southern District.	Brown ore ... ..	1,510,000
Cowra (Broula)... ..	Magnetic ore ... ..	100,000
Goulburn ... ..	Brown ore ... ..	1,022,000
Gulgong ... ..	Magnetic ore ... ..	120,000
Mandurama and Woodstock ... ..	Brown ore ... ..	609,000
Marulan ... ..	Brown ore and hematite ... ..	40,000
Mudgee ... ..	Brown ore with manganese... ..	150,000
Newbridge, Blayney, and Orange	Brown ore and magnetic ore ... ..	150,000
Queanbeyan (Paddy's Point) ..	Magnetic ore ... ..	1,000,000
Rylstone and Cudgong ... ..	Brown ore ... ..	443,000
Wallerawang and Piper's Flat	Brown ore ... ..	200,000
Williams and Karuah Rivers...	Titaniferous magnetic ore ... ..	1,973,000
Wingello ... ..	Aluminous ore ... ..	3,000,000
	Total ... ..	53,017,000

The Cadia ironstone beds—14 miles from Orange—have proved the most extensive yet examined. The ore consists of two classes, oxidised and unoxidised, the former of which consists of hematite and magnetite, and contains from 57 to 61 per cent. of metallic iron. A large proportion of the ore is of excellent quality and suitable for the manufacture of steel by the ordinary Bessemer and other acid processes, and compares favourably with some of the best American ores.

The deposits at Carcoar include brown ore, hematite, and magnetite. It is estimated that at least 3 million tons of ore are in sight, and it is probable that the deposit is capable of yielding 10,000,000 tons, or even a larger quantity, the ore containing about 52.67 per cent. of metallic iron.

A large amount of iron ore has been raised from the deposits situated in the Marulan, Goulburn, Bredalbane, Mittagong, and Carcoar districts, and despatched to the smelting works at Dapto and Cockle Creek, where it has been used as flux, the gold contents of the ore helping to defray the extra cost of railway carriage. The estimated quantity of ironstone flux raised during the last five years is shown in the following table:—

Year.	Quantity.	Value.
	tons.	£
1904	8,661	6,628
1905	6,801	4,525
1906	935	723
1907	10,659	7,707
1908	8,087	6,199

The decreased output in 1905 is due partly to the closing down of the smelting works at Dapto. Only 935 tons, valued at £723, were obtained during 1906, and used at Cockle Creek Smelting Works. The establishment of ironworks at Eskbank resulted in a greatly increased output in 1907. Parcels of iron oxide are still sent from the Fitzroy and other ironstone deposits in the Mittagong and Port Macquarie districts to the various gas-works of the Australian States and New Zealand, where it is used in purifying gas.

#### ANTIMONY.

Deposits of antimony occur in the State in various places, chiefly in the Armidale, Bathurst, and Rylstone districts; and at Bowraville, on the North Coast. The principal centre of this industry is at Hillgrove, near Armidale, where the Eleanora Mine, one of the richest in the State, is situated. The output during 1908 was confined mainly to this district, where it is found that the metal can be profitably extracted owing to its association with gold. The results of a number of analyses of antimony ore, made by the authorities of the Geological Museum, show from 16.5 to 79.45 per cent. of metal; but, notwithstanding these encouraging assays, the price has never been, until recently, sufficiently high to stimulate production to any extent. The satisfactory price of the metal, which rose to £25 per ton in May, 1906, caused the reopening of numerous long-abandoned claims, and mining operations were carried on with great activity throughout the year on the Hillgrove field, and also at Bowraville, where several leases have been secured. The value locally of 50 per cent. ore during the first three months of 1907 was £25 per ton; by the end of May, however, the value had receded to £5 per ton; and with the exception of a sudden rise to £12 in October, it remained low. The supplies consequently fell off, and at the end of the year no ore was coming forward. In 1908 the price showed no improvement, and consequently very little work was done. Prospectors were successful in obtaining small quantities of ore in the Kookabookra, Uralla, Maitland, and Barraba divisions, and in the Copmanhurst district. A considerable quantity of ore was raised some years ago at the Corangula Mines, in the Macleay district, but these are at present closed down. Lodes have also been opened and partly worked near Nambucca, Drake, Gulgong, and Razorback. The value of antimony raised during 1908 was £1,141, as compared with £46,278 in 1907. The total quantity raised up to the end of 1908 is set down at 16,233 tons, valued at £300,698.

#### MANGANESE.

Deposits of manganese ore have been discovered in various places. Pyrolusite, in the form of black oxide and manganese dioxide, occurs principally in the Bathurst districts and at Bendemeer. Wide veins have also been found in the Glen Innes district, near the Newton Boyd road. Some of the specimens analysed have yielded a very high percentage of metal; but the demand for manganese in the State is very small, and unless it increases, or until a foreign market is found, the rich deposits of this ore will remain comparatively untouched. The ore is found extensively in conjunction with iron in coal and limestone country, and often contains a small percentage of cobalt.

The value of manganese raised to the end of 1908 is set down at £1,655, the last year of production being 1903, when only 72 $\frac{3}{4}$  tons, valued at £254, were raised.



## BISMUTH.

Bismuth is found associated with molybdenum and gold, in quartz-veins, chiefly in the neighbourhood of Glen Innes. The principal mines are situated at Kingsgate, the mineral occurring in a granite formation, associated with molybdenum, mispickel, and tin. The total quantity of this metal exported during 1908 was 9 tons, valued at £2,017. Rich argentiferous ores have been obtained, the lodes consisting of soft granular felspar matrix, impregnated with blotches of bismuth, molybdenum, and chloride of silver. The largest mass of native bismuth yet discovered in the State weighed nearly 30 lb., and was obtained in the Kingsgate mine. The value of this metal exported up to the end of 1908 was £121,899.

## MOLYBDENUM.

Molybdenite, the principal ore of molybdenum, occurs most plentifully in pipe-veins at Kingsgate, near Glen Innes, and in the Jingera Mineral Proprietary mines at Whipstick, near Pambula; in both these localities it is associated with ores of bismuth. Molybdenum is used chiefly in the preparation of special steels, its influence being similar to that of tungsten, but it gives greater toughness, and the steel so treated is more readily worked when hot, and stands hardening better than tungsten steel. The output during 1908 was confined to the Kingsgate district, the quantity exported during the year being valued at £929, as compared with £3,564 in 1907.

## PLATINUM.

Platinum and the allied compound metal iridosmine have been found but so far in inconsiderable quantities, the latter occurring commonly with gold or tin in alluvial drifts. Mining operations were confined in 1908 to the Fifield gold-field, in the Parkes district, where the metal is found associated with the gold in washdirt. The total yield of platinum for the year was 135 oz., as compared with 276 oz. in 1907, and is the smallest yield recorded. The Fifield platinum occurs in coarse, shotty grains. The quantity of platinum produced during 1908 was valued at £439, and to the end of that year, £18,993.

## CHROMIUM.

Chromium, usually associated with serpentine, is found in the northern portion of New South Wales, in the Clarence and Tamworth districts, also near Gundagai; the principal mines are at Mount Lightning, in the Mooney Mooney Ranges, about 18 miles from Gundagai. The chrome mining industry is of very recent date, but the low price obtainable has prejudicially affected the industry. The quantity produced during 1899—5,243 tons, valued at £17,416—is the highest recorded as the annual output. In 1900 the production fell to 3,285 tons, valued at £11,827, the decrease being due to the exhaustion of the smaller deposits. During 1907, only 30 tons, valued at £105, have been disposed of for use in the lining of furnaces. The mines were not worked during 1908. The production up to 1903, and the production during the last six years, were as follows:—

Year.	Quantity.	Value.
	tons.	£
Up to 1902 ... ..	28,218	92,316
1903 ... ..	1,951	7,342
1904 ... ..	397	1,268
1905 ... ..	52	62
1906 ... ..	15	15
1907 ... ..	30	105
1908 ... ..	.....	.....
Total .. ..	30,663	101,708

## OTHER METALS.

Mercury, in the form of cinnabar, has been discovered on the Cudgegong River, near Rylstone, and it also occurs at Bingara, Solferino, Yulgilbar, and Cooma. In the latter place the assays of ore yielded 22 per cent. of mercury. As an encouragement in the search for quicksilver ores, the Government has offered to pay a reward of £500 to the first person or company producing 50,000 lb. of quicksilver from ores raised in New South Wales. During 1903, 40 tons of ore were treated, yielding 1,010 lb. of quicksilver, valued at £126; but there has been no further production.

Deposits of cobaltiferous minerals have been found at Bungonia, Carcoar, and Port Macquarie; but the market for the metal is small, and no attempt has yet been made to produce it on a large scale. The only deposits worked during recent years are at Port Macquarie, where the ore occurs in nests or pockets in serpentine and the overlying clays resulting from its decomposition; but as the ore is of irregular occurrence, and does not permit of profitable working, operations were discontinued during 1904. An average sample assayed cobalt oxide 7.48, and nickel oxide 1.36, and a picked sample showed cobalt oxide 7.03, and nickel oxide 2.39 per cent. The output of cobalt during 1904—the last year of production—was valued at £60 as against £1,570 for the preceding year. The value of the total production to the end of 1904 was £7,955.

Tellurium has been discovered at Bingara and other parts of the northern districts, as well as at Tarana, on the Western line, though at present only in small quantities, which would not repay the cost of working. It has also been found at Captain's Flat, in association with bismuth.

Selenium has been discovered at Mount Hope, also in association with bismuth.

Wolfram and scheelite, generally associated with other minerals, such as tinstone (cassiterite), bismuth, and molybdenite, occur in many districts. The deposits, as a rule, have been found too patchy for profitable working, and as the market is limited, very little has been done in the way of production. The steady demand that has existed during the last few years for tungsten ores has, however, stimulated the search for payable deposits, especially in the Peel, Uralla, and New England districts. Practically all the scheelite was produced in the Hillgrove district during 1908, the ore being of good quality and carrying a large percentage of tungstic acid. During that year 154 tons, valued at £11,082, were exported. Wolfram ore was obtained mainly in the vicinity of Deepwater and Emmaville. The quantity exported during 1908 was 86 tons, valued at £6,742.

Deposits of pigments are found near Mudgee and Dubbo, and also in the Orange district, where a fair quantity of the raw material, consisting principally of purple oxide and yellow ochre, has been produced.

## MINERALS—COAL.

Coal constitutes the most important of the many mineral resources of the State, and the coal-fields are of much greater importance as to area and as to quality of the coal than in any other part of Australia. The area over which the mineral is distributed in this State extends to 28,000 square miles; but the limit within which the coal measures are considered payable is estimated at 16,550 square miles. In the opinion of the Government Geologist, the quantity of coal underlying this area, down to a depth of 4,000 feet, is 115,347 million tons. This estimate allows for one-third loss in working; but no account has been taken of the coal

measures of the Clarence basin, nor of the area to the west of a line stretching from Dubbo to Texas. The coal in these districts is probably suitable for local requirements; but its quality is not sufficiently good for the purposes of export, and it would be expensive to work, on account of the numerous bands of shale which occur in the seams.

At present the coal-mining industry is confined to those centres which, from their close proximity to ports of shipment and to the railway lines, afford ready means for distribution.

In 1826, the Australian Agricultural Society obtained from the Crown a grant of 1,000,000 acres of land, together with the sole right of working the coal-seams which were known to exist in the Newcastle district. Several mines were opened, with profitable results for a number of years; but it was not until the expiration, in 1847, of the monopoly enjoyed by the company, that the coal-mining industry showed signs of extensive development.

During that year the output of coal reached a total of 40,732 tons only, valued at £13,750. Six years afterwards the production was doubled, and the output has rapidly increased year by year, until coal-mining is now one of the staple industries of the State, the production for the year 1908 amounting to 9,147,025 tons, valued at £3,353,093. This quantity is the largest output recorded, exceeding that of the previous year by 489,000 tons. The average price secured was 7s. 4d. per ton, and the value of the production was £430,674 in excess of that raised in 1907, when prices were nearly 9 per cent. lower. The total production to the end of the year 1908 was 147,825,174 tons, valued at £56,632,255.

In view of its wealth in coal, New South Wales possesses an immense advantage in the development of manufacturing industries, as it naturally follows that the largest coal-producing countries are the greatest manufacturers. Newcastle, the centre of the local coal trade, fitted with all the requirements of a busy port, is peculiarly well situated to supply the other Australian States and foreign countries; and to facilitate the shipping of coal, the Government has erected extensive wharves, fitted with the latest appliances in cranes and other necessary machinery.

The markets of the State are likewise supplied with excellent coal from the seams worked in the Illawarra district, the product of which is exported in large quantities.

The deposits which have been found in the Blue Mountains, near the line of railway, at Katoomba, Lithgow, Wallerawang, and elsewhere, supply a portion of the requirements of Sydney and other industrial centres in its neighbourhood, as well as part of the western districts of the State. Coal is also obtained in the Berrima district, whence a large quantity of the coal consumed in the southern parts of the State is obtained.

The number of coal-mines under inspection in New South Wales at the end of the year 1908 was 115, which gave employment to 17,734 persons, of whom 13,664 were employed underground and 4,070 above. The average quantity of coal extracted per miner was 669 tons, as against an average of 648 tons for the previous year, and 658 tons for 1906.

The quantity of coal raised in New South Wales and the number of coal-miners employed during each of the last ten years are stated below. Calculated on the total value of the coal produced during the decade, the average quantity of 611 tons extracted yearly by each person employed underground represents a value of £205, and for the total number of persons employed, 480 tons, valued at £161. In 1908 the average value

of production was £245 for each person employed underground, and £189 for each person employed in any capacity about the mines:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1899 ... ..	10,339	8,217	4,597,028	559	1,325,799	5 9	161
1900 ... ..	11,333	9,000	5,507,497	612	1,668,911	6 1	185
1901 ... ..	12,191	9,644	5,968,426	619	2,178,929	7 4	226
1902 ... ..	12,815	10,050	5,942,011	591	2,206,598	7 5	220
1903 ... ..	13,917	10,910	6,354,846	582	2,319,660	7 4	213
1904 ... ..	14,034	11,122	6,019,809	541	1,994,952	6 7	179
1905 ... ..	14,019	11,054	6,632,138	600	2,003,461	6 1	181
1906 ... ..	14,929	11,588	7,626,362	658	2,337,227	6 2	202
1907 ... ..	17,080	13,369	8,657,924	648	2,922,419	6 9	219
1908 ... ..	17,734	13,664	9,147,025	669	3,353,093	7 4	245
Average for 10 years	13,839	10,861	6,645,306	607	22,311,049	6 9	205

A very satisfactory feature of the coal trade is the increasing quantity taken for local use, indicative of greater industrial activity. The increase is due to the growing requirements for smelting and other purposes.

*Northern District.*—In the Northern or Hunter River District, the number of collieries under official inspection in 1908 was 82, employing 13,228 persons, 10,064 of whom were miners, wheelers, &c., employed underground. The quantity of coal raised amounted to 6,511,002 tons, valued at £2,625,446, or 71 per cent. of the whole production of New South Wales. This amount, being the highest in any year, shows an increase of 452,422 tons on the figures of 1907.

The following table shows the growth of the coal industry within the last ten years in the Hunter District. The number of men employed and the quantity of coal raised have increased steadily, with trifling exceptions, during the period:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1899 ... ..	7,815	6,249	3,259,708	522	1,005,420	6 2	161
1900 ... ..	8,555	6,817	3,926,584	576	1,246,011	6 4	183
1901 ... ..	9,157	7,258	3,999,252	551	1,669,519	8 4	230
1902 ... ..	9,730	7,588	3,900,297	514	1,633,062	8 4	215
1903 ... ..	10,461	8,161	4,410,565	540	1,783,409	8 1	219
1904 ... ..	10,450	8,217	4,042,739	492	1,450,300	7 2	176
1905 ... ..	10,505	8,265	4,645,742	562	1,473,095	6 4	178
1906 ... ..	11,005	8,478	5,336,188	629	1,718,178	6 5	203
1907 ... ..	12,486	9,692	6,058,580	625	2,231,901	7 4	230
1908 ... ..	13,228	10,064	6,511,002	647	2,625,446	8 1	261

*Southern and South-western District.*—In this district there were in 1908 nineteen collieries under official inspection, giving employment to 3,587 persons, of whom 2,863 were at work underground. These numbers exhibit an increase of 177 persons employed in and about the mines, and of 192 underground workers, as compared with those so engaged in 1907. There was also an increase of 93,811 tons in the production, the total quantity raised during the year being 1,929,236 tons, valued at £570,022. Owing to the demand for southern coal for steam purposes, the trade of this district has greatly improved during recent years, and the increase would doubtless have been more pronounced but for the difficulty experienced in loading. To remove this drawback, the Government is making a harbour at Port Kembla, a few miles south of Wollongong. The work involves the construction of a breakwater 2,800 feet long, and the necessary shipping appliances, at a cost of £220,000, and when these are completed shipping operations will be greatly facilitated. At the 30th June, 1908, 1,960 feet of the breakwater had been completed, and the two jetties from which coal is to be shipped are already experiencing considerable protection from the effects of the south-easterly and easterly gales that affect the coast.

The history of coal production in the Southern district for the last ten years may be gathered from the following table:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1899	2,121	1,636	1,119,503	684	274,923	4 11	168
1900	2,324	1,802	1,265,055	702	314,812	5 5	191
1901	2,499	1,946	1,544,454	794	407,196	5 3	209
1902	2,545	1,988	1,588,473	799	458,851	5 9	231
1903	2,887	2,255	1,476,005	654	418,919	5 8	186
1904	3,044	2,450	1,558,383	636	436,640	5 7	178
1905	3,050	2,397	1,556,678	649	421,768	5 5	176
1906	3,249	2,540	1,783,395	702	494,871	5 7	195
1907	3,410	2,671	1,835,425	687	515,786	5 7	193
1908	3,587	2,863	1,929,236	674	570,022	5 11	199

*Western District.*—In the Western District, in 1908, there were 14 collieries under official inspection, giving employment to 919 persons, of whom 737 were at work underground. From the subjoined table, it is apparent that the output has largely expanded during the decade, the increase being due to more regular work, and to the absence of labour troubles, which retarded operations in the earlier years.

The average quantity of coal raised per miner is much greater in the Western collieries than elsewhere in the State. This is due to a variety of causes, but chiefly to the greater thickness of the seams, the friable character of the coal, and the accessibility of the coal beds. In some cases the coal is worked by means of adits or tunnels, so that the facilities for winning the mineral are much greater than in the Newcastle mines, where shafts must be sunk in most instances. But though the output is greater per miner than in the other coal-mining districts, the price for hewing is lower, so that the earnings of the individual miner do not differ greatly wherever the mine is situated.

The following table shows the growth of coal production in the Western district during the last ten years. Situated in close proximity to the principal iron-fields of New South Wales, the prospects of these mines are

extremely favourable since the manufacture of iron from the ore is now carried on in this part of the State:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
1899	No. 403	No. 332	tons. 217,817	tons. 656	£ 45,456	s. d. 4 2	£ 137
1900	454	381	315,858	829	78,088	4 11	205
1901	535	440	424,720	965	102,214	4 10	232
1902	540	474	453,241	956	114,685	5 1	242
1903	569	494	468,276	948	117,332	5 0	238
1904	540	455	418,687	920	108,012	5 2	237
1905	464	392	429,718	1,096	107,698	5 0	275
1906	675	570	506,779	889	124,178	4 11	218
1907	1,184	1,006	763,919	759	174,732	4 7	174
1908	919	737	706,787	959	157,625	4 6	214

The following table shows the average price of coal per ton in the various districts for the last ten years; in the average for New South Wales, allowance has been made for the quantity raised in each district:—

District.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Northern ...	6 2	6 4	8 4	8 4	8 1	7 2	6 4	6 5	7 4	8 0
Southern ...	4 11	5 5	5 3	5 9	5 8	5 7	5 5	5 7	5 7	5 11
Western ...	4 2	4 11	4 10	5 1	5 0	5 2	5 0	4 11	4 7	4 6
New South Wales	5 9	6 1	7 4	7 5	7 4	6 8	6 0½	6 1½	6 9	7 4

ACCIDENTS IN MINES.

There were 21 persons killed and 111 seriously injured during 1908, the number of cases terminating fatally being 4 more than in the previous year. For the decennial period ended 1907, the average annual loss of life in the British coal-mines was 1·29 per thousand, or at the rate of 229,910 tons of mineral raised for every fatal accident. In the New South Wales collieries, for the ten years ended 1908, the rate was 1·88 fatal accidents per thousand miners employed, and 253,285 tons of coal were raised for every life lost. The number of accidents in the coal and shale mines of the State, with the proportion of miners to each fatal and non-fatal case, is given below, as well as the quantity of mineral raised to each life lost and person injured:—

Year.	Accidents.		Number of miners employed to each person.		Number of tons of mineral raised to each person.	
	Killed.	Injured, including minor accidents.	Killed.	Injured.	Killed.	Injured.
1899	10	154	1,052	68	463,375	30,089
1900	24	193	479	60	230,432	28,655
1901	17	207	730	60	354,306	29,098
1902	105	154	125	85	57,189	38,993
1903	13	121	1,086	116	491,509	52,807
1904	12	121	1,179	117	504,807	50,063
1905	24	115	589	123	277,932	58,003
1906	21	125	724	118	364,705	61,270
1907	17	160	1,021	108	512,074	54,408
1908	21	166	861	109	437,778	55,381
Av'ge	26	152	533	92	253,285	43,876

The abnormal figures for 1902 were due to the explosion at Mount Kembla, which caused the deaths of 95 persons and injuries more or less serious to 14 others. The experience of coal-mining in this State with respect to accidents bears very favourable comparison with that of other countries.

The average annual number of fatalities in the coal and shale mines of various countries for the last available five years will be seen from the following table:—

Country.	Average Annual Number of—		Mortality per 1,000 Employed.
	Persons Employed.	Lives Lost.	
United Kingdom ... ..	874,191	1,103	1·26
United States ... ..	621,452	2,231	3·59
Prussia ... ..	507,311	1,009	1·99
France ... ..	175,280	404	2·30
Austria ... ..	121,546	142	1·17
Belgium ... ..	139,000	138	0·99
British Columbia ... ..	4,798	27	5·71
Nova Scotia... ..	11,557	27	2·30
<i>New South Wales</i> ... ..	<i>15,559</i>	<i>19</i>	<i>1·22</i>

#### MINERS' ACCIDENT RELIEF FUND.

The New South Wales Miners' Accident Relief Act, which came into force on the 1st January, 1901, applies to all mines in or about which fifteen or more persons are employed. A sum of 4½d. per week is deducted from the wages of each employee and paid by the manager of the mine to the treasurer of a committee for the mine. The committee for a mine consists of (1) an Inspector of Mines appointed by the Minister, (2) three persons appointed by the employees, and (3) two persons appointed by the owner or manager. The committee considers all applications for relief in cases of accident, and votes such allowances as appear warranted under the provisions of the Act. The fund is administered by a board consisting of six members, one of whom is the chairman, and the others representative of (1) owners of coal and shale mines, (2) owners of other mines, (3) persons employed in or about coal and shale mines, (4) persons employed in or about other mines, and (5) the Department of Mines. Payments into the fund consist of (1) the balances of deductions from wages unexpended by the committees in payment of allowances, (2) a quarterly contribution by the owner or owners of each mine equal to 50 per cent. of the aggregate amount deducted from the wages at such mine, and (3) a subsidy from the Consolidated Revenue Fund equal to the amount contributed by owners of mines. The Board makes advances to committees in cases where the sums deducted from wages are inadequate to meet allowances payable.

The Registrar of Friendly Societies valued this fund as at 30th April, 1905, and the outcome revealed such flourishing conditions that the benefits were increased in the various scales, and are now payable as follows:—

(I) In cases of fatal accident—(1) Funeral allowance, £12; (2) a weekly allowance of 10s. to the widow or other adult dependent upon the deceased for support; and (3) a weekly allowance of 3s. in respect of each child of the deceased or of each child of an adult dependent, payable until such child attains the age of 14 years.

(II) In cases of disablement—(1) A weekly allowance of 15s. until able to resume work; and (2) where disablement is permanent, a weekly allowance of 3s. in respect of each child under the age of 14 years.

For the nine years during which the Act has been in operation, the average annual number of employees contributing has been 23,964, the

amount contributed being £210,286. During the same period the mine owners have paid £101,201, and Government subsidy to the extent of £101,201, and interest amounting to £35,713, have been received; the sum of £195,351 has been disbursed in allowances. Accumulated funds, amounting to £241,000, have been invested in New South Wales Funded Stock.

At the end of 1909, the "permanent" beneficiaries numbered 960, of whom 715 were drawing allowances in respect of fatal accidents, and 245 as the result of permanent disablement; 280 persons were drawing an allowance of 10s. weekly, and 110 permanently disabled workmen were each receiving 15s. weekly. The balance was made up of 570 children, to whom a weekly allowance of 3s. was made, 435 of them being beneficiaries in respect of fatal accidents.

#### PRODUCTION OF COAL.

The following table shows the quantity and value of coal raised from the earliest record to the close of 1908, the total production being 147,825,174 tons, valued at £56,632,255.

Period.	Quantity.	Average per ton.	Value.
	tons.	s. d.	£
Prior to 1880	20,697,747	10 8	11,036,723
1880-4	10,615,625	8 10	4,672,569
1885-9	15,490,611	9 2	7,077,864
1890-4	17,830,177	7 8	6,811,568
1895-9	21,334,976	5 8	6,048,231
1900-4	29,792,589	7 0	10,369,050
1905	6,632,138	6 1	2,003,461
1906	7,626,362	6 2	2,337,227
1907	8,657,924	6 9	2,922,419
1908	9,147,025	7 4	3,353,093
Total	147,825,174	7 8	56,632,255

From 1883 to 1898, there was a general decline in prices, but in this respect coal has not differed greatly from other products. In the earlier years the fluctuations in prices to a large extent arose from uncertainty in the markets; this uncertainty no longer exists, for the local markets and those of the other States of Australia and New Zealand demand a large share of the coal raised. The proportion of the production taken by Australasia increases every year, and operates in the direction of steadying the price by removing the principal cause of fluctuation.

New South Wales was the chief customer during 1908, when, out of the total production stated above, the local consumption amounted to 3,048,349 tons, or 33·3 per cent. Victoria was the principal outside customer, taking 1,217,470 tons, or 19·96 per cent. of the total export of 6,098,676 tons.

The quantity of coal required for local consumption shows a satisfactory increase during most years, as will be seen from the following statement:—

Year.	Tons.	Year.	Tons.
1896	1,434,610	1903	2,638,652
1897	1,686,968	1904	2,846,942
1898	1,914,455	1905	2,914,085
1899	1,798,505	1906	2,664,822
1900	2,138,165	1907	2,914,417
1901	2,497,441	1908	3,048,349
1902	2,680,552		



The annual local consumption per head increased from 16 cwt. in 1877 to over 39·4 cwt. in 1904 and 1905. The larger use of steam for railway locomotives, for manufacturing, smelting, and other purposes, also the multiplication of gas-works, caused a great portion of the increase; but there is a large and growing demand for bunker coal for ocean-going steamers, which to the end of 1905 appears not as an export, but as required for home consumption. The figures given above for 1908 for local consumption are exclusive of bunker coal, and are equivalent to 38·3 cwt. per head of population; on the same basis as for previous years the annual consumption per inhabitant would be 57·1 cwt. The amount of bunker coal taken by steamers during 1908 was 1,488,361 tons.

No record has been kept of the quantity of bunker coal taken by steamers for the period ended with the year 1905, the amount having been included in the figures relating to home consumption. In order that the details of the coal supplied to customers abroad, given in the following table, may be comparable, only the coal taken away as cargo has been included in the returns:—

Country or Port.	1904.	1905.	1906.	1907.	1908.
	tons.	tons.	tons.	tons.	tons.
Victoria ... ..	848,637	922,906	916,971	966,018	1,153,265
Queensland ... ..	30,735	41,050	53,587	67,972	59,477
South Australia ... ..	486,316	525,317	478,485	548,764	586,983
Western Australia ... ..	177,260	185,250	169,853	147,497	146,502
Tasmania ... ..	90,343	103,301	100,525	90,814	105,722
Total, Interstate ... ..	1,633,291	1,777,824	1,719,421	1,821,065	2,051,949
New Zealand ... ..	247,254	292,831	215,503	221,094	285,043
Fiji ... ..	52,144	54,591	19,519	33,114	44,649
Straits Settlements ... ..	30,810	82,836	215,762	142,795	217,809
India ... ..	53,839	72,646	46,042	52,835	164,352
Hong Kong ... ..	17,345	94,762	70,668	63,623	86,632
Mauritius ... ..	24,407	12,197	12,237	1,001	791
South Africa ... ..	13,417	14,005	4,150	1,800	1,249
Canada ... ..	13,600	12,762	.....	1,014	.....
United Kingdom ... ..	11,619	23,348	.....	.....	48
New Guinea ... ..	6,997	2,610	1,190	.....	422
Other British Possessions ... ..	1,757	1,450	977	13,452	23,956
Total, British Possessions ... ..	473,189	664,038	586,048	530,728	824,951
Chili ... ..	457,128	462,975	601,044	878,012	789,620
United States ... ..	155,428	100,705	83,511	539,876	188,498
Philippine Islands ... ..	205,588	271,693	312,996	314,235	351,441
Hawaiian Islands ... ..	66,121	119,245	90,635	98,530	65,918
Peru ... ..	45,485	92,124	109,278	101,131	78,223
Java ... ..	30,331	47,350	66,342	37,784	87,226
Mexico ... ..	26,266	46,523	74,737	50,312	55,732
Panama ... ..	10,292	11,019	11,906	6,402	15,528
New Caledonia ... ..	19,501	18,192	12,294	12,816	10,079
South Sea Islands ... ..	11,382	10,341	5,893	4,172	5,911
Ecuador ... ..	13,833	14,257	15,484	7,519	36,092
China ... ..	10,699	39,492	71,794	41,058	43,394
Other Foreign Countries ... ..	14,333	42,270	15,419	21,932	5,753
Total, Foreign Countries ... ..	1,066,387	1,276,191	1,471,333	2,113,779	1,733,415
Grand Total ... ..	3,172,867	3,718,053	3,776,802	4,465,572	4,610,315

In the following statement are presented the results of a number of proximate analyses, made by the Government Geologist, of coals from the various districts of New South Wales:—

Districts.	Composition.				
	Hygroscopic Moisture,	Volatile Hydrocarbons.	Fixed Carbon.	Ash.	Sulphur.
	per cent.	per cent.	per cent.	per cent.	per cent.
Northern .....	1.93	35.13	54.14	8.80	0.54
Southern .....	0.97	23.10	65.26	10.67	0.46
Western .....	1.87	31.49	52.61	14.03	0.63
Average .....	1.74	32.43	56.07	9.76	0.53

Similar analyses of English coal are shown in the following table:—

Description of Coals.	Composition.				
	Moisture.	Volatile matter.	Fixed Carbon.	Ash.	Sulphur.
	per cent.	per cent.	per cent.	per cent.	per cent.
Anthracite .....	1.50	6.25	81.75	10.50	1.25
Bituminous .....	2.50	39.00	50.00	8.50	2.00
Semi-bituminous .....	2.00	18.25	71.25	8.50	1.75
Average Bituminous Coals .....	2.25	28.63	60.62	8.50	1.88

Excluding the Welsh anthracite—the best coal known for steaming purposes—the above analyses show that the New South Wales product, especially that obtained from the Southern and Northern mines, compares favourably as a heat producer with the average bituminous coals. In addition, it has the advantage of a greater specific gravity, while containing less sulphur. The mean specific gravity of the Northern district coals was 1.338, and of the Southern and Western coals 1.389, the mean of a number of samples of British coals being 1.279. The gas-producing qualities of New South Wales coal, especially that obtained from the Northern mines, are superior to those of English coal, but the latter has a slightly smaller percentage of ash. Southern coal is much used by the naval authorities on the Australian station and on the large ocean-going steamers, mainly on account of its cheapness, since the steam-producing power of the coal from the Northern districts of the State is almost equal to that of the Southern article.

## COKE.

The quantities of coke manufactured in New South Wales during the last ten years were as follows:—

Year.	Quantity.				Total value.
	Northern District.	Southern District.	Western District.	Total.	
	tons.	tons.	tons.	tons.	£
1899	43,912	52,618	.....	96,530	77,130
1900	49,374	76,839	.....	126,213	109,620
1901	35,939	92,943	.....	128,882	105,665
1902	24,219	102,653	.....	126,872	89,605
1903	34,730	125,862	.....	160,592	108,764
1904	31,825	139,181	.....	171,006	110,692
1905	25,329	137,632	.....	162,961	100,306
1906	55,991	130,069	.....	186,060	110,607
1907	31,453	210,614	12,542	254,609	159,316
1908	29,132	228,778	25,963	283,873	199,933

Owing to the difficulty of obtaining regular supplies of coke, consequent upon the uncertainty relating to freights, the Broken Hill Proprietary Company erected coke works at Bellambi, on the South Coast Railway line; these supply a large proportion of the company's requirements, and are so arranged that duplication can be carried out at any time when it may be considered desirable. The Mount Lyell Copper Mining Company have also erected coke works at Pork Kembla, on the South Coast. It would seem that coke of local manufacture has at last overcome the strong prejudice which existed, judging from the great increase in the production in the Illawarra district during the last decade. This is doubtless due to the greater care exercised in its manufacture, and to the employment of a better class of kiln and appliances for cleaning the coal.

At the old Bulli mine a coal seam 6 feet thick has been for about half its thickness transformed into a natural coke, apparently through the intrusion of igneous matter underneath the seam.

Considerable activity is now being displayed in the South Coast district, where there are eight works all fully employed, and when the good qualities of the locally-manufactured coke are fully recognised, the district will doubtless become a great manufacturing centre.

## KEROSENE SHALE.

This mineral is found in various parts of New South Wales, but principally at Hartley, Katoomba, Megalong, Bathgate, near Wallerawang, Joadja Creek, Berrima, Mount Kembla, Burragorang, and Greta, Colley Creek, near Murrurundi, in the Capertee district, and in the valley of the Wolgan River. The shale occurs in seams, or lenticular patches of varying extent, the largest hitherto discovered not exceeding 1 mile in length, and varying in thickness from a few inches to 6 feet. It is a species of torbanite or cannel-coal, similar to the boghead mineral of Scotland, but yielding a much larger percentage of volatile hydrocarbon than the Scotch mineral. The richest shale at the Joadja mine, near Mittagong, yields about 130 gallons of crude oil per ton, or 15,400 cubic feet of gas, with an illuminating power equal to forty-eight sperm

candles when gas only is extracted from the shale, and has a specific gravity of 1.098, while the best shale from Hartley Vale yields from 150 to 160 gallons of crude oil, or 18,000 cubic feet of gas of forty candle power per ton. The specific gravity of the best specimens of Joadja Creek and Hartley shale is 1.06, the amount of sulphur 0.49 per cent., and the yield of tar 40 gallons per ton. It is very suitable for mixing with ordinary coal in the manufacture of gas, and is largely exported to Great Britain, America, and other foreign countries, as well as to the neighbouring States. On analysis, the following result was obtained from average specimens:—

Volatile Hydrocarbons, including moisture ... ..	82.50 per cent.
Fixed Carbon ... ..	6.50 „
Ash ... ..	11.00 „

The industry is at present confined to the mines controlled by the Commonwealth Oil Corporation, at Hartley Vale, New Hartley, and Wolgan. This company not only raises shale for export, but also manufactures petroleum oil and other products. The production of kerosene shale from the opening of the mines in 1865 to the end of 1908 amounts to 1,373,301 tons, of the value of £2,193,567, as shown in the following table:—

Period.	Quantity.	Average price per ton.	Total value.	Period.	Quantity.	Average price per ton.	Total value.
	tons.	£ s. d.	£		tons.	£ s. d.	£
1865-84	370,217	2 4 9	828,194	1905	38,226	0 11 1	21,247
1885-89	186,465	2 3 7	406,255	1906	32,446	0 17 7	28,470
1890-94	247,387	1 16 6	451,343	1907	47,331	0 13 7	32,055
1895-99	191,763	1 3 3	222,690	1908	46,303	0 11 3	26,067
1900-04	213,163	0 16 8	177,246	Total .....	1,373,301	1 11 11	2,193,567

The features of this table are the steady fall in the average price of the mineral and the fluctuating production. There is no special reason for the rise and fall in the quantity of shale produced, beyond the irregular demand for export, and the slackening of mining operations while the mineral at grass is being reduced. Since 1902 the Genowlan and Joadja mines have been closed.

At the shale mines in 1908 there were 259 men employed under ground and 91 above ground, or a total of 350.

#### DIAMONDS AND OTHER GEM-STONES.

The existence of diamonds and other gem-stones in the territory of New South Wales was recorded as early as 1851, but no definite industry has yet been founded in this connection. The diamonds occur in old tertiary river drifts, and in the more recent drifts derived from them. The deposits, which occur in the Inverell, Bingara, Mittagong, Cudgegong, and Narrabri districts, are extensive, and have not yet been thoroughly prospected. The finest of the New South Wales diamonds are harder and much whiter than the South African diamonds, and are classified as on a par with the best Brazilian gems. The largest stone secured in this State was found during 1905 at Werong, 30 miles from Oberon, and weighed  $28\frac{5}{16}$  carats. There is a great difficulty in obtaining exact statistics of

the production in New South Wales, which will continue until the industry becomes well established. The following table, compiled from the available information, can be regarded only as an approximation, and is believed to considerably understate the actual output. The majority of the diamonds have been obtained from the mines in the Bingara and Copeton (Tingha) districts:—

Period.	Carats.	Value.
	No.	£
1867-1885*	2,856	2,952
1886-1890	8,120 $\frac{1}{2}$	6,390
1891-1895	19,742 $\frac{1}{2}$	18,245
1896-1900	69,384 $\frac{1}{2}$	27,948
1901-1905	54,206	46,434
1906	2,827	2,120
1907	2,539	2,056
1908	2,205	1,358
Total ...	161,880 $\frac{3}{4}$	107,503

\* Estimated.

Other gem-stones, including the sapphire, emerald, oriental emerald, ruby, garnet, chrysolite, topaz, zircon, &c., have been found in the gold and tin-bearing drifts and river gravels in numerous localities throughout the State. Precious stones, such as amethyst, cairngorm, and onyx, with other varieties of agate, are occasionally found. No gems have been produced during recent years.

The topaz is obtained largely at Oban, in the Glen Innes district, but the price obtained is very low.

Turquoises have been discovered at Mount Lorigan, near Wagonga, and work was carried on during the year 1895 by means of aid granted from the Prospecting Vote. In 1896, however, the mine was closed.

#### OPAL.

The finest opal known is obtained in the upper cretaceous formation at White Cliffs, near Wilcannia. It is difficult to state the extent of the production; but the following table shows the estimated value to the end of 1908:—

Year.	Value.	Year.	Value.
	£		£
1890	15,600	1900	80,000
1891	.....	1901	120,000
1892	2,000	1902	140,000
1893	12,315	1903	100,000
1894	5,684	1904	57,000
1895	6,000	1905	59,000
1896	45,000	1906	56,500
1897	75,000	1907	79,000
1898	80,000	1908	41,800
1899	135,000		
		Total ...	1,109,899

The quality of the stone found on the fields varies considerably, some realising only 10s. per oz., whilst the best quality occasionally realises as much as £70 per oz. in the rough, but prices ranging from £5 to £20 per oz. are of frequent occurrence. The best market for the gems is

Germany, where they are sold readily; but it is stated that the principal gem merchants of Europe have now agents on the fields for the purchase of the stone.

In 1896, opal was discovered at Purnanga, about 40 miles north-east of White Cliffs, but the scarcity of water has retarded development. Some very fine parcels of stone have been raised in this locality, and it is considered that Purnanga is the nucleus of a fine opal field should a good water supply become available. A new field near the Queensland border, and known as Wallangulla, produced opal valued at about £9,000. The decrease in value during 1908 is attributed, principally, to the decline in the market price, which, it is estimated, amounted to over 40 per cent. There is now a settled population on the Wallangulla field, and a considerable expansion of operations is expected.

#### OTHER MINERALS.

Mica is known to exist in many parts of New South Wales, but has never yet been worked, although there is a considerable demand for the article, especially if in blocks of fairly large size that could be split easily into thin plates. It is to be obtained in the numerous granitic areas which occur in various parts of the State, especially in the coarsely-crystalline granitic formations in the Silverton district, and elsewhere in the Barrier Ranges.

Asbestos has been found in veins in serpentine in the Gundagai, Rockley, and Barrier Range districts—in the last-named in considerable quantities.

Alunite occurs as a large deposit at Bulladelah, about 35 miles from Port Stephens, the yield averaging about 80 per cent. of alum. During 1908, 1,082 tons of alunite, valued at £2,705, were shipped to England, where it was found that the stone can be treated more cheaply than is possible locally. The value of alunite, the product of this State, exported to the end of 1908, is set down at £90,417.

#### MARBLE, BUILDING STONES, FIRE-CLAYS, AND SLATES.

New South Wales possesses an abundant supply of various kinds of stone and other materials for building purposes. Marble limestone is found in great masses near Wallerawang, Bathurst, Molong, Marulan, Tamworth, and Kempsey, localities which are all within convenient distance of the great arteries of communication. Marble quarries have been opened in the Cow Flat, Marulan, Wallerawang, Orange, and Tamworth districts; but as the total value of the marble raised to the end of 1908 amounted only to £16,280 at point of production, it is evident that the natural advantages have not been materially developed.

The cost of quarrying and the carriage to Sydney are heavy; but the local marble compares so favourably, both in form and colouring, with the imported article, that its more extensive use may reasonably be expected. During 1907 marble valued at £2,200 was obtained, principally from quarries at Caloola, in the Rockley division, and from Borenore, in the Orange division. The value of the marble disposed of in 1908 was identical with that for 1907, and was drawn from the same quarries.

Granite is found at Bathurst, Moruya, Trial Bay, and on Montagu Island, as well as at many other places throughout the State. Most of the granite hitherto used in Sydney has been obtained from Moruya, a port about 180 miles south of Sydney.

Limestone flux was supplied formerly to the Broken Hill silver-mines from quarries at Tarrawingee, about 30 miles distant. When the Broken Hill Proprietary Company transferred the whole of their smelting operations to Port Pirie, in April, 1898, the demand for flux ceased, and the quarries thereupon were closed. From 1900 to 1904 considerable activity was displayed in the mining of limestone at Portland, in the Mudgee district, in connection with the Lime and Cement Works, also in the Rockley division, and at Marulan, Broken Hill, Bulladelah, Taree, Barraba, Parkes, and Peak Hill, where lime has been produced and a quantity of limestone obtained for flux.

The output during the last four years has been well maintained, the quantities raised being used for the manufacture of Portland cement and lime, or utilised by the smelting companies as flux. The following table shows the quantity raised for flux since 1902, together with the value of cement manufactured:—

Year.	Limestone raised for flux.		Value of Cement manufactured.
	Quantity.	Value at Smelting Works.	
	tons.	£	£
1902	17,352	10,615	46,500
1903	23,824	14,221	55,740
1904	24,975	14,434	54,750
1905	14,941	9,519	88,100
1906	12,788	7,463	128,487
1907	41,667	16,162	144,548
1908	53,668	14,779	184,400

The Hawkesbury formation, on which the city of Sydney is built, provides an inexhaustible supply of sandstone, of the highest quality for building purposes. This material is admirably adapted for architectural effect, being of a pleasing colour, fine grain, and very easily worked. The beauty of Sydney street architecture is due, in a considerable degree, to the free use of this excellent sandstone.

Basalt, or "blue metal," which is much in demand for road metal and for the ballasting of the railway lines, is obtained at Kiama, Prospect, and Pennant Hills. This stone has not yet been used to any extent for building purposes.

Syenite, commonly called trachyte, is found at Bowral; as a building material it is equal to granite in solidity, and takes a beautiful polish. The success which has attended its use for building purposes, together with the short distance from the metropolis at which it is to be found, will no doubt cause it to be regarded favourably in the future for large structures.

Kaolin has been found in many granitic districts, such as Bathurst, Gulgong, Uralla, and Tichbourne, near Parkes. The clay is of excellent quality, and superior to the best obtained in England and France.

The coal measures also contain numerous beds of fire-clays; and in every part of the State excellent clays, well adapted for brick-making purposes, are extensively worked. Slates are found in several districts,

but are quarried principally at Gundagai, Bathurst and Goulburn. The State has no need to import building material of any description, as it possesses a supply amply sufficient to provide for all requirements.

Graphite occurs in the Walcha division, and at Undercliffe, in the New England district, where there are several lodes, one of which is 6 feet wide, but of inferior quality. The only mining for plumbago is at the Undercliffe mine, where recently a company has entered upon operations with the intention of manufacturing lubricants, crucibles, paints, &c.

#### PROSPECTING VOTE.

The Legislature for some time past has provided a sum annually to encourage prospecting for gold, and in 1889 the conditions of the vote were so amended as to embrace all minerals. The amount set apart each year was originally £20,000. For the year 1892, however, it was fixed at £40,000; and during each of the subsequent years, until 1902, the sum of £25,000 was available. For the year 1902-3 the amount voted was reduced to £20,000, and this has been further decreased to £15,000 for each of the following years. During recent years, with the exception of the Cobar district, where operations are most active, prospecting has not been followed so vigorously as previously. This is explained by the demand for competent miners at the established mines, and by the steady employment offering in connection with the agricultural and pastoral industries.

The discovery of a large payable field has, so far, not been made by means of the Prospecting Vote; but some rich mines have been opened up with the aid granted, notably the Mount Boppy mine, which is now the premier gold-mine of the State, having produced gold to the value of £733,504 during the last eight years. The Queen Bee copper mine owes its present successful position to the aid granted, and the Crowl Creek mine at Shuttleton was opened up indirectly as the results of assistance from the same source. In addition to the employment of labour, the proving of a lode or reef invariably leads to the development of large areas of adjoining land under the Mining Act, from which increased revenue is derived by the State. From the year 1888 to the end of 1908, the amount expended in prospecting work was £394,293.

Miners desiring a grant from the vote have to satisfy the Prospecting Board that the locality to be prospected is likely to yield the mineral sought, and that the mode of operation is suitable for its discovery. Aid is given in deserving cases up to 50 per cent. of the value of the developmental work done, inclusive of the cost of the necessary implements and materials. The granting of assistance for sinking from the surface is not favoured, and applicants are generally required to prove their *bona-fides* by carrying out a certain amount of work unassisted. Miners who have been assisted from the vote are not entitled to claim any reward that may be offered for the discovery of a new gold or mineral field.

A clause in the Prospecting Regulations provides that the amount advanced from the vote shall be refunded in the event of the discovery of payable mineral by means of the aid granted.

#### AREA UNDER MINING OCCUPATION.

At the close of the year 1908 the area of Crown lands occupied for mining purposes amounted to 270,048 acres, and there were 114,242 acres of private and reserved lands held under mining regulations. Under the Church and School Lands Mining Act of 1889 42 acres were held,



making a total of 384,332 acres under mining occupation. The following table shows how the total area is made up:—

Nature of Holding.	Acres.	Acres.
Crown lands under lease for gold ... ..	6,833	
„ „ other minerals ... ..	163,239	
„ „ under special lease (dredge) for gold ...	7,161	
„ „ „ „ tin ... ..	2,668	
„ „ for water conservation ... ..	2,063	
„ „ under lease for gold and other minerals	1,260	
<b>Total area Crown lands under mining lease ...</b>	<b>183,274</b>	
Auriferous Crown lands under application to lease	1,654	
Crown lands under application to lease for other minerals ... ..	31,822	
Crown lands under application for dredging ...	5,292	
„ „ as sites for races, dams, &c. ....	841	
<b>Total Crown lands under application to lease</b>	<b>39,629</b>	
<b>Other Crown lands held under Mining Regulations</b>	<b>47,145</b>	
<b>Total Crown lands occupied for mining purposes ...</b>	<b>270,048</b>	
Private lands under gold lease ... ..	3,109	
„ „ mineral lease ... ..	2,852	
„ „ gold and mineral lease ... ..	1,206	
„ „ leased for water conservation, &c. ....	268	
<b>Total area Private lands under mining lease ...</b>	<b>7,435</b>	
Private lands under application to lease ... ..	2,647	
Reserved lands under permits for gold ... ..	49	
„ „ „ „ and other minerals ... ..	42,777	
Reserved lands under application for permits for other minerals ... ..	13,108	
Private lands under agreement with owners ...	39,073	
„ „ „ authority to enter ... ..	9,153	
<b>Total Private lands under permits ... ..</b>	<b>106,807</b>	
„ „ „ „ leases and permits ... ..	<b>114,242</b>	
<b>Area under Church and School Lands Mining Act of 1889 ... ..</b>	<b>42</b>	
<b>Total area under mining occupation at 31st December, 1908 ... ..</b>	<b>384,332</b>	

The number of miners' rights issued during 1908 was 21,010, and the revenue derived therefrom amounted to £3,343. During the same period 1,748 business licenses were granted, the fees received being £1,040.

#### MINING ACT, 1906.

The Mining Act, 1906, consolidated and amended the Acts previously existing—thirteen in number—relating to mining on Crown and private lands. The Mining Board Regulations, and the various sets of regulations made under the repealed Acts, have been superseded by a consolidated set of regulations under the new Act. They practically constitute the law relating to holdings under miners' rights, besides prescribing conditions relating to mining leases; in each case the existing provisions are simplified and liberalised. The principal provisions of the Act may be summarised briefly as follows:—

#### *Miners' Rights and Business Licenses.*

A miner's right or a business license is issued for any period from six months up to twenty years, the fees payable being determined according to the currency of the right or license. In the case of a miner's right, the fee is 5s. per annum, and for a business license £1 per annum.

The miner's right entitles the holder to occupy Crown land for the purpose of mining for gold or minerals; for constructing works, conserving water, or obtaining timber in connection with mining; also for residence.

A business license entitles the holder to occupy one quarter of an acre of Crown land in a town or 1 acre outside town boundaries, for the purpose of carrying on business and for residence respectively.

The regulations prescribe the areas which may be held as prospecting areas or claims, and the contingent labour conditions. Also areas for dam or machinery sites, &c., and provision is made for registration and survey in certain instances, transfer, creation of shares, and all other matters affecting holdings under miner's right or business license.

Special provision is made by section 17 of the Act for the issue to any holder of a miner's right of an authority to prospect upon extended areas of Crown land, whether exempted from ordinary occupation under miner's right or not. Such authority is subject to payment of a small rent, and upon finding gold or minerals the holder may be required to take out a lease.

#### *Leases of Crown Lands.*

The term "Crown Lands" has a much wider interpretation under the existing Act than was the case under the repealed Acts, and now embraces all lands vested in His Majesty or in any trustee or constructing authority for public purposes, all lands held under lease from the Crown (except conditional lease or conditional purchase lease), and any road, street, or highway.

Leases of Crown lands are divided into two classes—(a) Mining leases, and (b) leases for "mining purposes."

Mining leases are for either gold or minerals, the annual rent in each case being 5s. per acre, except in the case of leases for coal or shale, which are subject to a rental of 1s. per acre, and a royalty of 6d. per ton on all shale or large coal, and 3d. per ton on all small coal raised. The amount paid as rent may be deducted from the royalty.

Gold-mining leases are limited to 25 acres, mineral leases (other than coal, shale, or opal), to 80 acres, coal or shale leases to 640 acres, and opal leases to 10 acres; and the maximum term for which a lease can be granted is twenty years, with the right of renewal for a similar term.

Under special conditions, where there are exceptional difficulties in mining the land, leases for larger areas may be granted, subject to report by the Prospecting Board. Such special leases are subject to payment of a rent or royalty to be fixed by the Minister in each case.

The definition of "mining purposes" covers all operations in connection with mining, such as erecting buildings or machinery, conserving water, treatment of tailings, or any other purpose in connection with mining for gold or minerals. These "mining purpose" leases are limited to the surface and to a specified depth, and do not authorise the holder to mine for any minerals contained in the land.

#### *Mining on Private Lands.*

The holder of a miner's right may obtain from the Warden an authority to enter upon any private land to prospect for gold, or upon land granted with the reservation of minerals to the Crown, to prospect for minerals other than coal or shale. The fee for such authority is 5s., and the holder must pay to the owner of the land such rent and compensation for surface damage as the Warden, after inquiry, may assess. Having obtained his authority to enter, the holder may search for the specified mineral on the area granted (not more than 25 acres for gold nor 80 acres for minerals)

and may apply for a lease of the whole or any part of the land. Such lease may be for any term not exceeding twenty years, with the right of renewal for a like term. The rent to the owner of the land is £1 per acre, payable in respect only of such part of the surface as is granted. A royalty of 1 per cent. on the gross value of the gold and minerals won is payable to the Crown. The owner of private land, or the occupier with the owner's consent, may obtain an authority to enter or lease of any area, not exceeding that prescribed for an ordinary lease, to mine for gold or for any minerals, without any payment of rent or compensation, and such owner or occupier may also obtain a lease of any area not exceeding 640 acres to mine for coal or shale. Such owners' leases are subject to the payment to the Crown of 1 per cent. royalty on gold or minerals, and 6d. per ton of large coal or shale, and 3d. per ton of small coal.

The owner of any private land may enter into an agreement with the holder of a miner's right, giving him permission to mine for gold or minerals (if reserved to the Crown) on any area not exceeding that prescribed for an ordinary lease. Such agreement must be submitted for the Minister's concurrence, and is subject to the payment of 1 per cent. royalty to the Crown on all gold or minerals won. All agreements must be registered.

All lessees or holders of agreements may deduct rent paid from the amount of royalty payable.

Under special conditions, where there are exceptional difficulties in mining the land, leases for extended areas may be granted, subject to report by the Prospecting Board.

#### *Dredging.*

Leases of Crown or of private land may be granted for the purpose of mining for gold or any mineral by dredging, sluicing, or other method. Such leases may cover any area not exceeding 100 acres, and continue for any term not exceeding twenty years, with the right of renewal for a similar term. The lessee is required to employ a certain number of men, and to expend a certain sum in the purchase and erection of machinery and appliances. Then rent of Crown land is 2s. 6d. per acre, and of private land such amount as may be assessed by the Warden. Compensation for surface drainage to private land may also be assessed by the Warden. Rent paid may be deducted from the royalty payable.

#### *Leases generally.*

The labour conditions fixed by Regulation are as follows:—

For gold: 1 man to 5 acres for the first year, and thereafter 1 man to 2 acres.

For minerals other than gold, coal, or shale: 1 man to 20 acres for the first year, and thereafter 1 man to 10 acres.

For coal or shale: 2 men to 320 acres.

The Act empowers the Warden to grant suspension of the labour conditions on any lease if the mine is unworkable, or if the lessee is physically, or financially, unable for a limited period, to work the mine.

The Minister may grant suspension, on the recommendation of the Warden, if the price of the miner's product be low, or for any other adverse conditions. Suspension may be granted for any period not exceeding six months. If a lessee has employed labour in excess of that required by the terms of his lease, he may obtain exemption from labour conditions to the extent of one month in respect of each six months during which excess labour has been employed.

## THE MANUFACTURING INDUSTRY.

A BROAD general view of the rapidly growing importance of the manufacturing industries of New South Wales may be gathered from the following statement, which shows for each of the last six years the value of plant and machinery, the wages paid to employees, and the corresponding annual output:—

Year.	Value of Plant and Machinery.	Wages paid.	Annual Out-put.
	£	£	£
1903	7,121,806	4,839,557	24,721,681
1904	7,648,903	5,012,758	25,283,320
1905	8,031,948	5,191,350	27,850,158
1906	8,407,337	5,591,888	32,424,251
1907	9,155,772	6,650,715	37,571,116
1908	9,718,842	7,218,556	37,338,101

From these figures it appears that within the short period of six years additional plant to the value of upwards of  $2\frac{1}{2}$  million pounds has been introduced, and that the wages and output for 1908 were 50 per cent. greater than in 1903.

Prior to 1901 there was no law in force requiring proprietors of factories and works to supply annual returns of their operations. The Census Act of 1901, however, conferred extensive powers on the Statistician with respect to these establishments, and, in consequence, the industrial statistics since that year have been on a very comprehensive basis. At the present time particulars of the operations of factories and works are seldom unavailable, and when they are not given, an approximate return is furnished by the collector, who usually possesses a special knowledge of the district.

Establishments where machinery is not used are excluded from consideration unless at least four persons are employed. Prior to 1896 the minimum in such cases was five hands; but a change was made to secure interstate uniformity, consequently all information regarding manufactories throughout Australia is now compiled on a common basis. All works and factories are included in which machinery is used, as it is obvious that an establishment where only two or three hands are employed to look after the machinery may turn out a greater quantity of work than another in which the services of a much larger number of hands, unassisted by mechanical power, are utilised.

The following table shows the progress since 1896, both in regard to hands employed and machinery used :—

Year.	Number of Establishments.	Hands employed.			Power of Engines.		Value of Machinery and Plant.
		Males.	Females.	Total.	Full Capacity.	Average Used.	
					h.-p.	h.-p.	£
1896	2,928	42,908	6,932	49,840	44,839	33,253	5,035,905
1897	2,826	44,333	7,106	51,439	46,347	34,191	5,294,228
1898	2,839	44,673	7,845	52,518	44,241	32,968	5,435,696
1899	2,912	47,063	8,583	55,646	45,938	33,080	5,640,384
1900	3,077	50,516	10,263	60,779	49,599	35,828	5,707,640
1901	3,367	54,556	11,674	66,230	63,405	44,595	5,860,725
1902	3,396	54,326	11,943	66,269	75,907	52,813	6,795,843
1903	3,476	52,453	13,180	65,633	81,475	59,353	7,009,806
1904	3,632	53,457	14,579	68,036	86,878	62,407	7,536,903
1905	3,700	56,111	16,064	72,175	90,896	70,054	7,919,948
1906	3,861	59,979	17,843	77,822	97,244	74,756	8,295,337
1907	4,432	65,953	20,514	86,467	108,257	81,293	9,043,772
1908	4,453	67,616	21,482	89,098	116,571	88,109	9,718,842

During the two years preceding 1893 the manufacturing industry declined; but after the financial crisis in that year there was a recovery, and in each succeeding year, with one exception, there has been an increase in the number of hands employed and in the power and value of machinery used.

Taking the figures for 1899 it will be seen that during the last ten years there has been an increase of 20,553 males and 12,899 females, making a total of 33,452 hands. The proportionate increase in the number of females has been much greater than in the case of males, for in several years the latter showed a decrease. From 1893 to the end of 1901 the number of males steadily increased; but during the next two years there was a temporary decrease, chiefly in the hands employed in metal works, establishments dealing with pastoral products and refrigerating works. The increase during 1907 is not really so large as appears, as during that year there were included for the first time 178 establishments employing 1,044 persons, which ought to have been included in previous years, but were overlooked by the collectors. The industries affected from this cause were all in the country districts, and related to tinsmithing, aerated waters, tailoring, dressmaking, printing, coachbuilding, and saddlery.

#### EMPLOYMENT OF FEMALES.

The great increase in the number of females employed is a striking feature of the table just given, and when viewed as a proportion of the total number of hands, the result is still more marked. Taking the figures for 1896, it is found that the females represented only 13·9 per cent. of the total hands, while in 1901 the proportion had increased to 17·6 per cent., and in 1908 to 24·1 per cent. In order to indicate clearly the extent to which female labour is utilised, and the direction in which it is chiefly

applied, the following table has been prepared, showing the numbers engaged in each of the principal branches of the manufacturing industry during the three years named, and the proportion to every hundred males employed :—

Manufactory or Work.	Females employed.			No. of Females to 100 Males.		
	1896.	1901.	1908.	1896.	1901.	1908.
	No.	No.	No.	No.	No.	No.
Biscuits ... ..	136	350	631	44	71	113
Boots and Shoes ... ..	849	1,118	1,602	32	39	53
Clothing (Slop) ... ..	1,290	2,636	4,227	322	434	500
Clothing (Tailoring) ... ..	1,036	1,437	2,316	107	100	120
Clothing (Shirts, &c.) ... ..	56	337	1,399	509	1,021	1,227
Confectionery ... ..	118	225	450	33	39	60
Dressmaking and Millinery ... ..	1,738	2,526	4,397	4,138	4,141	7,453
Hats and Caps ... ..	50	198	860	217	150	238
Jam and Fruit Canning ... ..	81	140	359	22	28	80
Printing and Bookbinding ... ..	394	703	1,133	9	16	21
Paper Bags and Boxes ... ..	134	140	692	343	149	156
Tobacco ... ..	170	428	664	36	71	103
Woollen and Tweed Mills ... ..	70	72	245	43	44	117
Other Industries ... ..	810	1,364	2,507	2	3	5
Total ... ..	6,932	11,674	21,482	16	21	32

In 1908 there were 14,550 more females employed in the above industries than in 1896, and the proportion of females to every hundred males employed had risen from 16 to 32. Between 1901 and 1908 the increase in the proportion was quicker relatively than in the years prior to 1901; although the greater portion of the numerical increase has occurred in those industries which essentially belong to women's sphere, there has also been a considerable increase in other industries, and there is evidently an increasing tendency on the part of the manufacturers towards the introduction of female labour for the performance of minor duties in the work of manufacture, and in connection with the sorting, packing, and labelling of finished articles. Amongst the industries enumerated in the previous table, in nearly every instance the number of females employed to 100 males is increasing, noticeably in the biscuit and tobacco factories.

In the clothing industries, which include the manufacture of slop and waterproof clothing, tailoring, shirt and hat making, and dressmaking and millinery, the number of females employed in 1896 was 4,264, and 13,325 in 1908, an increase of 9,061 hands, equal to 212 per cent. In other industries, the numbers in each year were 2,668 and 8,157 respectively, an increase during the period of 5,489, or 206 per cent.

#### CHILD LABOUR.

Child labour is not employed in the factories of the State to any great extent, although it is gradually increasing. The law regulating primary education provides that children must attend school until they reach their fourteenth year, with the exception of those who, prior to reaching that age, have obtained exemption certificates. The Shops and Factories Act of 1896 provides that no child shall be employed in any factory, unless by special permission of the Minister, and no such special permission shall be given to a child under the age of 13 years. For the purposes of this Act, any person under 14 years of age is considered to be a child; and the children who received permits in 1908 numbered 346, of whom 225 were boys and 121 girls.

Useful information in this connection is collected under the provisions of the Factories and Shops Act, which shows the trend of the movement regarding the employment of child labour. Taking the factories in the metropolitan district, the following are the figures for the last ten years :—

Year.	Factories under Factories and Shops Act.					
	Employees under 16.		Total Hands.		Proportion of Hands under 16.	
	Males.	Females.	Males.	Females.	Males.	Females.
1899	1,224	613	25,631	8,604	per cent. 4·78	per cent. 7·12
1900	1,342	788	29,086	10,018	4·61	7·87
1901	1,545	965	31,247	11,026	4·94	8·75
1902	1,603	1,277	31,433	12,397	5·10	10·30
1903	1,560	1,352	30,539	13,464	5·11	10·04
1904	1,634	1,572	30,888	14,777	5·29	10·64
1905	1,793	1,499	33,437	15,747	5·36	9·52
1906	2,017	1,891	36,200	17,591	5·57	10·74
1907	2,233	2,082	39,157	19,063	5·70	10·92
1908	2,138	2,059	41,669	20,725	5·13	9·93

Thus it appears that the proportion of boys and girls remains fairly constant at 5 and 10 per cent. of the total employees of their respective sexes.

#### METROPOLITAN AND COUNTRY MANUFACTORIES.

The number of manufactories in the State at the end of 1908 was 4,453, and the number of hands employed 89,098, or an average of 20 per establishment. There were 145 establishments, which each employed over 100 persons, the average number of hands therein being 226. In the following table will be found a division of the manufactories in the metropolitan and country districts, according to the number of hands employed during 1908 :—

Establishments employing—	Metropolitan District.		Country Districts.		New South Wales.	
	Establishments.	Hands.	Establishments.	Hands.	Establishments.	Hands.
Under 4 hands ... ..	184	415	481	1,136	665	1,551
4 hands ... ..	124	496	331	1,324	455	1,820
5 to 10 hands ... ..	663	4,696	992	6,756	1,655	11,452
11 to 20 „ ... ..	456	6,761	356	5,056	812	11,817
21 to 50 „ ... ..	409	12,934	131	4,086	540	17,020
51 to 100 „ ... ..	146	10,109	35	2,492	181	12,601
101 and upwards ... ..	110	25,563	35	7,274	145	32,837
Total ... ..	2,092	60,974	2,361	28,124	4,453	89,098

The chief seat of the manufacturing industry is, of course, to be found where population is densest; consequently the factories of the metropolitan district, although not so numerous, are much more important than those of the country, and provide employment for twice the number of hands. The average number of hands per establishment in the metropolitan district was 29, and in the country about 12.

The disparity between the metropolitan and country districts has not been always so marked—in 1899 the hands numbered 34,216 and 21,430, respectively—therefore it appears that the chief development of the manufacturing industry within recent years has taken place in the metropolis.

The facilities for the establishment of large industries in and around Sydney are considerable—a commanding position as regards communication with the outside world, proximity to the coal-fields, easy communication by rail or sea with the chief seats of raw production in the State, density of population, and abundant water supply—these have tended to concentrate all the important industries in the metropolitan district. In the country districts the principal works are saw-mills, smelting works, sugar-mills, and flour-mills, also industries of a domestic character intended to meet a day-to-day demand, and for the treatment of perishable goods.

The following table shows the number of hands employed in the metropolitan district as compared with the remainder of the State for the last ten years :—

Year.	Hands employed.		Year.	Hands employed.	
	Metropolitan District.	Country Districts.		Metropolitan District.	Country Districts.
1899	34,216	21,430	1904	45,409	22,627
1900	38,668	22,111	1905	48,842	23,333
1901	42,415	23,815	1906	52,605	25,217
1902	43,577	22,692	1907	57,247	29,220
1903	43,752	21,881	1908	60,974	28,124

## CLASSIFICATION OF MANUFACTORIES.

The majority of the manufacturing industries may be classified as domestic industries—that is to say, industries called into existence by the natural resources of the State, or connected with the treatment of perishable products for immediate use; but there are many industries the products from which come into competition with imported goods. The number of hands engaged in these classes were—in domestic industries dependent on natural resources, 42,248; industries connected with the treatment of perishable products, 3,947; and in other industries, 42,903.

The industries are divided into nineteen classes, and the number of hands employed in each class during 1896, 1901, and each of the last three years, was as follows :—

Class of Industry.	No. of Hands Employed.				
	1896.	1901.	1906.	1907.	1908.
Raw Materials, Pastoral Products ...	3,748	2,981	3,209	3,727	3,497
Oils and Fats, Animal, Vegetable, &c. ...	410	698	681	639	662
Processes in Stone, Clay, Glass, &c. ...	2,441	3,007	3,877	3,675	3,888
Processes in Wood ...	3,934	5,108	5,205	5,896	6,300
Metal Works, Machinery, &c. ...	8,705	13,926	15,339	18,093	18,627
Food and Drink, &c. ...	10,179	11,372	11,607	12,064	12,095
Clothing and Textile Fabrics, &c. ...	9,750	14,497	19,650	21,897	22,384
Books, Paper, Printing, and Engraving ...	4,940	5,573	6,961	7,593	7,922
Musical Instruments ...	18	226	338	380	389
Arms and Explosives ...	...	11	17	16	25
Vehicles and Saddlery ...	1,592	2,541	2,667	3,464	3,532
Ship Building, &c. ...	1,132	1,541	1,595	1,705	1,924
Furniture, Bedding, and Upholstery ...	1,183	2,140	2,317	2,481	2,703
Drugs, Chemicals, and By-products ...	331	450	1,012	1,106	1,129
Surgical and other Scientific Instruments ...	35	69	86	84	85
Jewellery, Timepieces, and Plated Ware ...	102	165	457	626	579
Heat, Light, and Power ...	859	1,417	1,883	2,040	2,236
Leatherware, N.E.I. ...	33	117	240	272	316
Minor Wares, N.E.I. ...	448	391	681	709	805
Total ...	49,840	66,230	77,822	86,467	89,098



Coincident with the decrease in live stock, there was a decline in the industries dealing with pastoral products, which are, however, again showing signs of a revival. Establishments working in connection with stone, clay, glass, &c., show an increased employment, due largely to the expansion of the brickyards; and the increase in woodworkers is due mainly to the increased business of saw-mills and joinery works, indicating greater activity in the building trades. Metal works show a great advance since 1896, and almost every branch of the industry discloses an improvement, the most noticeable being smelting, railway workshops, and carriage building, ironworking and engineering. The clothing industry shows a general increase in almost all its branches. In furniture-making there has been a large increase in the number of hands; but the industry is, to a large extent, in the possession of the Chinese. The extension of electric power has led to a considerable increase of employment, and in the minor industries there is also evidence of greater activity.

The following table has been prepared to show concisely the principal details respecting each class of industry for the year 1908:—

Class of Industry.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
					Months	£	No.	£
Treating Raw Materials, &c. ...	278	3,468	29	3,497	9'32	236,651	2,954	255,266
Oils and Fats, &c. ...	37	587	125	662	11'89	51,385	387	170,786
Processes in Stone, Clay, Glass, &c. ...	261	3,827	61	3,888	11'42	352,411	5,130	474,083
Working in Wood ...	543	6,263	32	6,300	10'75	504,071	7,957	483,510
Metal Works, Machinery, &c. ...	423	18,555	72	18,627	10'73	2,042,244	11,603	2,066,233
Connected with Food and Drink, &c. ...	744	9,342	2,753	12,095	11'07	935,708	15,310	2,666,805
Clothing and Textile Fabrics, &c.	895	6,955	15,429	22,384	11'76	1,209,168	1,626	323,531
Books, Paper, Printing, &c. ...	374	6,077	1,845	7,922	11'89	663,971	1,626	801,638
Musical Instruments ...	13	359	30	389	11'94	36,628	112	7,487
Arms and Explosives ...	3	20	5	25	12'00	1,590	6	500
Vehicles, Saddlery, and Harness, &c. ...	334	3,472	60	3,532	11'83	253,087	306	66,050
Ship and Boat Building, &c. ...	38	1,924	...	1,924	11'93	236,148	1,665	354,695
Furniture, Bedding, and Upholstery ...	147	2,485	218	2,703	11'89	210,531	436	34,329
Drugs, Chemicals, and By-products ...	65	695	434	1,129	11'93	84,006	570	151,982
Surgical and other Scientific Instruments ...	9	66	19	85	12'00	5,731	2	3,238
Jewellery, Plated Ware, &c. ...	44	520	59	579	11'89	50,193	33	16,618
Heat, Light, and Power ...	173	2,185	51	2,236	11'91	276,786	38,171	1,799,813
Leatherware, N.E.I. ...	18	274	42	316	11'85	20,517	89	6,875
Minor Wares, N.E.I. ...	54	587	218	805	11'77	47,780	126	35,403
Total ...	4,458	67,616	21,482	89,098	11'51	7,218,556	88,109	9,718,842

The hands employed in the manufactories numbered 89,098, but only 74,665 were actually engaged in the different processes of manufacture, or in the sorting and packing of finished articles. The number of employees and their occupations were as follows :—

Class of Industry.	Working Proprietors, Managers, and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, Messengers, &c.	Persons regularly employed at their own homes.	Total.
Treating Raw Materials, &c. ...	416	80	188	2,656	157	...	3,497
Oils and Fats, &c. ...	60	57	18	493	26	8	662
Processes in Stone, Clay, Glass, &c.	347	114	148	3,169	110	...	3,888
Working in Wood ...	807	274	385	4,480	354	...	6,300
Metal Works, Machinery, &c. ...	841	546	379	16,670	191	...	18,627
Connected with Food and Drink, &c.	1,046	690	622	9,323	409	...	12,095
Clothing and Textile Fabrics, &c. ...	1,352	279	39	20,021	110	583	22,384
Books, Paper, Printing, &c. ...	748	516	45	6,438	175	...	7,922
Musical Instruments ...	16	16	2	353	2	...	389
Arms and Explosives ...	5	1	...	18	1	...	25
Vehicles, Saddlery and Harness, &c.	439	94	15	2,940	41	3	3,532
Ship and Boat-building, &c. ...	73	44	23	1,771	8	...	1,924
Furniture, Bedding, and Upholstery	210	49	17	2,406	21	...	2,703
Drugs, Chemicals, and By-products	103	86	21	904	15	...	1,129
Surgical and other Scientific Instruments ...	12	5	...	65	3	...	85
Jewellery, Timepieces, and Plated Ware ...	58	29	...	478	14	...	579
Heat, Light, and Power ...	158	96	446	1,522	14	...	2,236
Leatherware, N.E.I. ...	28	6	2	275	4	1	316
Minor Wares, N.E.I. ...	85	23	4	678	9	1	805
Total ...	6,804	3,010	2,359	74,665	1,664	596	89,098

As stated above, the metropolitan district is the centre of the chief manufacturing industries, particularly those connected with clothing, printing, wool-scouring, and fellmongering, ship and boat building and repairing, the manufacture of furniture, drugs, and musical instruments, and the production of light, heat, and power. The following table shows the particulars of each class of industry in the metropolitan district during the year 1908 :—

Class of Industry.	Number of Establishments.	Average number of Hands employed.			Average time worked Per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, &c.
		Males.	Females.	Total.				
Treating Raw Materials, &c. ...	99	1,776	21	1,797	Months 11 77	156,297	No. 1,488	134,602
Oils and Fats, &c. ...	18	343	101	444	11 77	35,156	253	110,171
Processes in Stone, Clay, Glass, &c.	81	2,237	93	2,275	11 74	22,743	2,070	218,148
Working in Wood ...	137	2,492	17	2,449	11 88	217,481	1,999	157,318
Metal Works, Machinery, &c. ...	262	10,683	63	10,751	11 89	1,108,513	3,227	830,500
Connected with Food and Drink, &c.	175	4,750	2,297	7,047	11 74	542,258	4,680	1,370,431
Clothing and Textile Fabrics, &c.	594	5,776	13,462	19,268	11 76	1,065,691	1,437	287,864
Books, Paper, Printing, &c. ...	194	4,700	1,767	6,467	11 88	562,591	1,366	638,432
Musical Instruments ...	13	359	30	389	11 94	36,628	112	7,457
Arms and Explosives ...	3	20	5	25	12 00	1,590	6	500
Vehicles, Saddlery, and Harness, &c.	104	1,502	55	1,557	11 99	119,265	121	24,198
Ship and Boat Building, &c. ...	28	1,834	...	1,834	11 95	226,601	1,605	350,474
Furniture, Bedding, and Upholstery ...	128	2,313	217	2,500	11 90	199,398	415	31,356
Drugs, Chemicals, and By-products	57	629	431	1,060	11 93	72,613	481	93,395
Surgical and other Scientific Instruments ...	9	66	19	85	12 00	5,731	2	3,238
Jewellery, Plated Ware, &c. ...	40	500	53	558	11 89	48,318	33	15,978
Heat, Light, and Power ...	82	1,258	49	1,307	11 88	153,733	30,550	1,288,329
Leatherware, N.E.I. ...	18	274	42	316	11 85	20,517	89	6,875
Minor Wares, N.E.I. ...	50	567	218	755	11 78	46,865	120	34,664
Total ...	2,092	42,054	18,921	63,575	11 82	4,842,119	50,154	5,613,970

## INDUSTRIES TREATING RAW MATERIALS, THE PRODUCT OF PASTORAL AND AGRICULTURAL PURSUITS.

The decrease in the number of stock depastured, following on a succession of adverse seasons, necessarily reduces the production of raw material, and consequently fewer hands are required in the treatment thereof.

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
<b>I.—TREATING RAW MATERIAL, &amp;c.</b>								
					Months	£	No.	£
Boiling-down and Tallow Refining	31	361	16	377	11·70	34,466	453	51,356
Tanneries	82	925	3	928	11·87	81,628	906	74,161
Wool-scouring and Fellmongering	64	1,461	7	1,468	8·54	92,896	1,013	92,910
Chaff-cutting, &c.	96	576	3	579	5·03	16,520	582	36,080
Sausage skins	5	145	...	145	12·00	11,141	...	759
Total	278	3,468	29	3,497	9·32	236,651	2,954	255,266

The figures do not include boiling-down and wool-washing works on stations, which are in operation only for a few weeks in each year. The number of hands employed varies considerably during the year, and in certain seasons many more persons are at work, especially at wool-scouring.

Tallow refining is not the important industry it was ten or twelve years ago, when there was a large surplus of live stock to be disposed of each year, with the price of tallow high enough to encourage the disposal of stock in this manner. With the return of good seasons, together with an increase in prices, there has been an increase in the production of tallow since 1903.

Exclusive of operations on stations and large farms, carcasses, fat, refuse, bones, etc., to the value of £416,663 were treated during 1908 in boiling-down and manure works, and produced 309,195 cwt. of raw and refined tallow, valued at £429,571; 306,355 cwt. of blood and bone manures, valued at £77,680; whilst the return from hides, oils, bones, and other by-products amounted to £23,831.

In wool-scouring works and fellmongeries 43,899,492 lb. of greasy wool and 4,115,673 skins were treated, producing 20,138,068 lb. and 13,166,005 lb., respectively, of scoured wool, valued in the aggregate at £1,890,781. The pelts obtained were valued at £83,785.

In tanneries, 468,850 hides and 2,730 cwt. of hide pieces produced 13,687,680 lb. of leather, worth £674,849. In addition, 3,610,352 pelts were operated on, 360,004, valued at £16,760 being pickled. The others were converted into 3,571,757 lb. of basils, valued at £192,378. Wattle bark to the extent of 10,578 tons was used for tanning purposes.

## OILS AND FATS—ANIMAL, VEGETABLE, &amp;c.

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
<b>II.—OILS, FATS, &amp;c.</b>								
					Months	£	No.	£
Oil and Grease	8	103	6	109	11·94	11,223	195	35,000
Soap and Candles	29	434	119	553	11·88	40,162	192	135,788
Total	37	537	125	662	11·89	51,385	387	170,788

Tallow being one of the staple products, the manufacture of soap and candles, as might be expected, is firmly established. The quantity of toilet and fancy soap made is small, and in quality it is scarcely equal to that

imported, but common soap of local make is both cheaper and better than the imported article, and practically commands the market.

With the extension of gas-lighting, which is now almost universal throughout the metropolitan district, the consumption of candles had gradually decreased, with a corresponding decrease in the production, which had been almost wholly for local use. In recent years there has been an improvement, and an export trade with the other States has been established. The following table gives particulars of the soap and candle making industry during the last ten years :—

Year.	Soap and Candle Factories.	Hands Employed.	Quantity manufactured (as returned by manufacturers).		Horse-power of Plant (full capacity).
			Soap.	Candles.	
	No.	No.	cwt.	lb.	H. p.
1899	41	287	142,526	2,675,006	614
1900	43	351	147,515	2,073,427	818
1901	44	533	233,700	3,897,468	829
1902	40	425	175,822	2,965,766	533
1903	47	520	199,807	3,231,842	744
1904	46	508	208,677	3,984,035	556
1905	40	574	212,658	4,226,082	520
1906	41	602	221,834	5,076,048	522
1907	34	547	234,022	5,656,354	489
1908	29	553	232,441	5,566,776	454

The candles manufactured include those made from paraffin also, but as they are the product of a single firm the actual quantity may not be disclosed. During 1908, in addition to the commodities shown in the above table, 281,868 lb. of soap extract and powders were made. 114,712 cwt. of tallow, 5,174,278 lb. of alkali, and £102,124 worth of other materials were used in the manufacture.

PROCESSES IN STONE, CLAY, GLASS, &c.

As the majority of these industries are closely associated with the building trade, the employment afforded reflects, to a great extent, the condition of that trade. The number of hands employed shows a substantial increase since 1899. The details of each industry for 1908 were as follow :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
III.—STONE, CLAY, GLASS, &c.								
Bricks and Tiles ... ..	189	1,900	19	1,919	11·07	175,468	2,498	229,701
Glass (including Bottles)...	7	543	...	543	12·00	44,794	21	16,102
Glass (Ornamental)...	13	199	3	202	12·00	18,046	30	6,080
Lime, Plaster, Cement, and Asphalt ... ..	22	519	...	519	11·7	55,100	2,294	17,539
Marble, Slate, &c. ... ..	12	185	...	185	10·97	19,201	114	14,400
Modelling, &c. ... ..	3	15	...	15	12·00	1,167	2	442
Pottery and Earthenware ...	15	466	39	505	11·54	38,635	171	34,819
Total ... ..	261	3,827	61	3,888	11·42	352,411	5,130	474,083

In 1891 there were 2,018 hands employed in brickworks, and the output of bricks was 184,682,000. There was then a decline in building operations, and during the two years after the crisis of 1893 the output fell below 100,000,000. There has since been an improvement, as will be seen from

the following figures, which gives the details of the industry during the last ten years :—

Year.	Brickworks.	Hands Employed.	Bricks made (as returned by makers).	Horse-power of Plant (full capacity).
	No.	No.	No.	H.-p.
1899	148	1,448	120,375,000	1,552
1900	157	1,535	128,430,000	1,639
1901	182	1,823	159,254,000	1,543
1902	182	1,973	180,727,000	1,986
1903	163	1,921	202,681,000	2,243
1904	165	1,893	154,480,000	2,701
1905	172	2,006	162,643,000	2,974
1906	187	2,147	172,010,000	3,172
1907	186	-1,844	195,594,000	3,535
1908	189	1,919	214,666,000	3,853

The manufacture of tiles, pottery, and earthenware is usually carried on in conjunction with brickmaking, although there are establishments devoted solely to this branch of the industry. The value of the tiles, pottery, and earthenware manufactured in 1908 was £96,890, of which £19,619 was produced from works principally engaged in brickmaking.

#### WORKING IN WOOD.

These industries are largely connected with the preparation and supply of building materials, and, as in the class immediately preceding, afford a reliable index to the state of the building trade.

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
IV.—WORKING IN WOOD.								
					Months	£	No.	£
Boxes and Cases ... ..	27	438	5	443	11-87	34,093	526	20,540
Cooperage ... ..	14	255	1	256	12-00	20,137	154	23,486
Joinery... ..	90	1,324	4	1,328	11-77	98,836	710	65,724
Saw-mills ... ..	385	4,107	20	4,127	10-19	308,845	6,454	367,005
Wood Turning, &c... ..	27	144	2	146	11-75	6,976	113	6,755
Total ... ..	543	6,268	32	6,300	10-75	466,832	7,957	483,510

Of the 6,300 hands employed in these industries, 2,479 were engaged in the metropolitan district, and 3,821 in the country, the employment in the latter district being almost wholly in connection with saw-mills, which provided work for 3,410 hands. The total number of hands engaged in saw-mills numbered 4,127, which shows an increase compared with the figures for recent years, but is far below the total in 1892. The details of the industry during the last ten years were as follow :—

Year.	Saw-mills.	Hands Employed.	Plant and Machinery.		Year.	Saw-mills.	Hands Employed.	Plant and Machinery.	
			Power (full capacity).	Value.				Power (full capacity).	Value.
1899	No. 259	No. 3,004	H.-p. 5,130	£ 213,477	1904	No. 324	No. 3,655	H.-p. 6,379	£ 285,935
1900	269	3,294	5,499	242,900	1905	339	3,886	6,848	286,011
1901	345	4,088	6,547	273,883	1906	338	3,642	6,587	260,810
1902	331	3,930	6,536	273,402	1907	377	3,983	8,713	332,239
1903	333	3,936	6,857	289,258	1908	385	4,127	9,367	367,005

During 1908 the output of sawn timber from locally grown logs amounted to 123,152,000 superficial feet, of which 83,341,000 superficial feet, or more than two-thirds, represented hard-woods. The number of imported logs operated on was comparatively small, and produced only 7,118,000 superficial feet of sawn timber, of which 6,783,000 feet represented soft-woods.

The growth of the employment in box factories is a testimony to the great advances made by the export trade in butter and rabbits, the former being despatched in boxes and the latter in crates. As showing the increased employment, it may be mentioned that in 1899 there were only 155 hands employed in these establishments, as compared with 443 in 1908.

METAL WORKS, MACHINERY, &C.

The industries included in this class are the most important to the industrial workers in the State, regarded from the aggregate wage aspect, although the clothing trade employs a greater number of persons.

The following table shows the employment afforded, and other particulars, for each branch of the industry during 1908 :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery and Plant.
		Males.	Females.	Total.				
V.—METAL WORKS, MACHINERY, &C.								
Agricultural Implements ...	20	431	3	434	11·83	33,497	132	16,008
Brass and Copper ...	12	243	...	243	12·00	20,225	53	13,449
Cutlery ...	5	30	...	30	12·00	2,585	16	1,665
Engineering ...	128	4,000	14	4,014	11·89	404,278	1,730	326,675
Galvanised Iron ...	35	586	11	597	11·99	47,231	103	24,156
Ironworks and Foundries ...	54	2,005	4	2,009	11·48	183,484	1,641	131,070
Railway Carriages ...	5	1,159	4	1,163	11·84	105,975	340	53,108
Railway and Tramway Workshops	21	4,513	12	4,525	12·00	561,613	833	427,226
Smelting ...	40	3,678	...	3,678	11·18	521,175	6,031	952,816
Stoves and Ovens ...	15	465	8	473	11·99	39,884	84	18,913
Tinsmithing ...	57	615	6	621	11·74	41,061	135	29,096
Wireworking ...	11	437	3	440	11·96	42,343	128	31,310
Other Metal Works (including Lead Mills)	20	393	7	400	11·74	38,927	347	40,741
Total ...	423	18,555	72	18,627	11·73	2,042,244	11,603	2,066,233

In 1899 there were only 11,901 hands engaged in works of this class, so that there has been an increase of 6,726, or 57 per cent. since that year. The chief increase is in works connected with the manufacture and repairs of railway engines and carriages, which show 2,780 more hands; but this is expected, in view of the large increase in rolling-stock, consequent upon the development of the railways and the extension of the metropolitan tramway system. Engineering works show an increase of 1,353 hands since 1899, the increase during the last two years being due partly to the local manufacture of locomotives, and in ironworks 710 more persons are employed.

In considering the figures in the above table it should be remembered that the work carried out at the railway and tramway workshops is of such a character that the particulars shown under this heading and for engineering should be taken together.

In smelting works there are now 339 more hands employed than there were in 1899. The bulk of the work done is in connection with the treatment of silver and lead ores; but there are other establishments dealing with gold, copper, tin, and other ores, which are brought from all parts of Australia, also from New Caledonia. Quartz batteries are excluded from these figures,

but establishments using a cyanide plant are included. Within recent years, zinc-extracting plants on an extensive scale have been established in the State, and at Broken Hill and elsewhere great attention is being directed to this matter. Further details in connection therewith are given in the chapter dealing with "Mining Industry."

#### INDUSTRIES CONNECTED WITH FOOD AND DRINK, AND NARCOTICS.

From the figures given in an earlier part of this chapter it would appear that industries connected with food and drink have increased but little in importance since 1899, since the hands then employed numbered only 2,739 less than in 1908. Investigation shows, however, that there have been large individual increases in several industries, but these have been counter-balanced by a decline in sugar-milling, and in meat-preserving. In 1908 there were 12,095 hands usually employed in this class, but the number fluctuates considerably during the year, as employment in establishments manufacturing aerated waters, butter, cheese, flour, sugar, and jam varies with the seasons. The following table shows the average number of hands employed in each industry during 1908:—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS VI.—FOOD AND DRINK, &c.					Months.	£	No.	£
Bacon-curing .. .. .	18	141	1	142	10-78	14,583	193	14,816
Butter Factories and Creameries	148	833	6	839	11-58	85,226	1,756	228,928
Butterine and Margarine .. .	4	39	1	40	11-03	3,058	39	5,100
Cheese Factories .. .	32	88	1	89	11-33	5,601	48	7,348
Condensed Milk .. .	3	40	11	51	12-00	3,919	32	11,402
Meat and Fish Preserving .. .	11	546	59	605	9-68	37,570	142	21,017
Biscuits .. .	7	556	631	1,187	11-95	63,003	322	84,611
Confectionery .. .	32	748	450	1,198	11-91	70,763	199	52,436
Cornflour, Oatmeal, &c. .. .	16	229	182	411	11-61	26,699	453	54,337
Flour-mills .. .	68	789	3	792	10-64	82,051	5,002	284,954
Jam and Fruit Canning .. .	18	446	359	805	9-82	39,177	165	19,568
Pickles, Sauces, and Vinegar ..	19	108	135	243	12-00	11,937	48	7,980
Sugar Mills .. .	4	541	2	543	4-43	34,369	2,578	506,542
Sugar Refinery .. .	1	479	8	487	12-00	57,722	443	397,217
Aerated Waters, Cordials, &c. .	233	1,201	82	1,283	11-77	85,644	480	120,700
Breweries .. .	37	881	4	885	12-00	109,510	542	266,975
Condiments, Coffee, Spices, &c. .	16	163	150	313	12-00	20,817	143	17,198
Distilleries .. .	2	24	..	24	12-00	2,620	3	35,446
Ice and Refrigerating .. .	58	807	4	811	10-14	79,569	2,610	390,144
Malting .. .	5	38	..	38	9-97	4,217	20	21,024
Tobacco, Cigars, &c. .. .	12	645	664	1,309	11-93	97,653	92	119,012
Total .. .	744	9,342	2,753	12,095	11-07	935,708	15,310	2,666,805

In the preparation of food and drink, machinery is largely used, as will be seen from the figures given above. There are many important industries in this class, but information regarding the materials treated, and the output of manufactured articles, is available in few instances. The industries first enumerated in the table deal wholly with dairy products. The production from these industries is not included in the value of production from manufacturing, as it belongs essentially to the dairying industry, with which it has been tabulated. Creameries are not considered as separate establishments when worked in conjunction with butter factories; but the hands employed are included in the figures given. There has been an enormous increase in the quantity of butter made in recent years, especially in the factory-made article, and particulars of the machinery in use and the number

of hands employed during each of the last ten years are given in the following table. The number of factories and of hands do not coincide with those shown in the preceding table, as they include factories on farms, the hands in which (199 males and 5 females in 1908) are not exclusively engaged in manufacturing dairy products, but in general farm labour, and are consequently included elsewhere:—

Year.	Factories.									Estimated Value of Plant and Machinery.	Machinery in use.						Persons employed.	
	Butter only.	Creameries only.	Cheese only.	Bacon and Ham only.	Butter and Cheese.	Butter and Bacon.	Butter, Cheese, and Bacon.	Total.	Engines.		Horse-power.	Butter Workers.	Churns.	Cream Separators.	Cheese Presses.	Males.	Females.	
1899	No. 168	No. 357	No. 16	No. 12	No. 7	No. 1	No. 1	No. 562	£ 255,702	No. 603	No. 3,497	No. 182	No. 267	No. 684	No. 175	No. 1,433	No. 55	
1900	164	346	19	13	7	4	3	556	255,320	605	3,456	198	272	667	177	1,378	47	
1901	158	479	21	14	12	5	1	690	260,548	734	3,753	163	269	772	116	1,586	71	
1902	163	306	31	18	6	3	1	528	263,764	576	3,207	153	274	571	147	1,304	56	
1903	153	284	31	16	4	3	3	494	246,350	552	3,094	163	262	486	146	1,373	33	
1904	145	271	28	14	4	2	1	465	251,322	525	3,066	178	257	431	96	1,364	26	
1905	153	255	36	16	3	..	..	463	277,908	546	3,179	195	289	425	104	1,342	9	
1906	170	193	57	20	4	..	1	445	255,109	511	3,453	199	311	358	105	1,420	33	
1907	176	140	36	16	6	..	..	374	278,380	447	3,413	213	321	274	113	1,309	30	
1908	160	172	42	17	3	3	..	397	287,771	466	3,526	197	283	270	123	1,301	24	

In view of the smaller number of live stock, it is only natural that the operations of meat-preserving have declined. There were only 605 hands employed in 1908, as against 753 in 1899. The carcasses of 4,078 cattle and 620,013 sheep were treated in meat-preserving works, and of 1,719 cattle and 1,196,996 sheep in freezing establishments.

For meat-preserving 3,184,388 lb. of meat were also purchased, in addition to 458 pigs. The output of tinned meat was 10,498,836 lb., valued at £260,745, and other products were valued at £236,666.

The amount of mill-power for grinding and dressing grain is ample for treating the flour consumed in the State; and the fact that New South Wales now produces more than sufficient wheat for its own requirements does not, therefore, make an increase in the number of flour mills probable, as those in existence are not kept working to their full capacity.

In consequence of the failure of the wheat crop for the 1902-3 season, the operations of the mills were much restricted; but with the return of good seasons the industry resumed its normal position. In 1908 the lessened output was due to the decrease in the yield of wheat. The following table shows various details regarding flour mills for a period of ten years:—

Year.	Flour Mills.	Hands Employed.	Wheat Used.	Flour made.	Plant and Machinery.	
					Power (full capacity).	Value.
	No.	No.	Bushels.	Tons.	H.-p.	£
1899	80	815	7,458,366	156,409	4,065	269,753
1900	86	841	8,345,063	170,423	4,368	275,910
1901	89	889	9,369,534	191,504	4,421	254,335
1902	81	812	8,853,048	185,147	4,495	267,372
1903	79	751	6,030,409	121,074	4,947	262,297
1904	81	875	10,418,979	210,137	4,851	293,328
1905	78	875	10,117,793	205,805	5,158	294,760
1906	78	873	11,151,126	225,995	5,532	297,859
1907	74	858	11,617,905	237,614	4,342	273,459
1908	68	792	8,737,228	180,843	5,609	284,954



During 1908 the output of bran and pollard amounted to 45,612 tons and 30,492 tons respectively. There does not appear to be any fixed proportion for these by-products, especially in the country districts, as the quantity of each article is regulated solely by the immediate supply and demand.

The principle articles produced in jam and pickle factories during the same year were 24,754,508 lb. of jam and preserves, 555,546 lb. of candied peel, 1,850,854, pints of pickles, 1,486,426 pints of sauces, and 446,301 gallons of vinegar.

Particulars regarding the output of aerated-water factories are now available, and show that during 1908 the following articles were produced, viz. :— 835,422 syphons and 4,274,924 dozen bottles of aerated and carbonated waters. 119,492 dozen of cordials and syrups, 179,863 dozen of hop beer, 594,960 dozen of ginger beer, and £8,561 worth of other cordials. The hands employed show an increase of 175 since 1899, but the number varies with the season of the year, the greatest number at work in 1908 being 1,580. The number of breweries is becoming less each year, although the number of persons engaged is the same as in the year 1899. The materials used in breweries for manufacturing purposes and the actual output were :—

Year.	Malt.	Hops.	Sugar.	Other Material.	Ale, Beer, &c., manufactured.
	Bushels.	lb.	Tons.	Centals.	Gallons.
1903 ... ..	466,673	601,339	3,495	10,081	14,211,888
1904 ... ..	441,844	557,400	3,252	10,133	13,651,208
1905 ... ..	458,371	558,661	3,370	6,209	13,873,239
1906 ... ..	488,982	586,438	3,405	5,530	14,032,390
1907 ... ..	533,825	636,650	3,651	4,996	15,361,227
1908 ... ..	559,950	677,884	3,842	4,291	16,202,242

The output shown above is the actual quantity manufactured, and differs from the figures in the following table, which give the quantity on which excise was paid :—

Year.	Breweries.	Hands Employed.	Ale, Beer, &c., manufactured, which paid Excise.	Horse-power of Plant (full capacity).	Year.	Breweries.	Hands Employed.	Ale, Beer, &c., manufactured, which paid Excise.	Horse-power of Plant (full capacity).
	No.	No.	Gallons.	H.-p.		No.	No.	Gallons.	H.-p.
1899	57	885	12,218,560	1,279	1904	42	968	12,877,757	961
1900	52	920	13,410,800	1,623	1905	42	1,028	13,248,336	1,089
1901	51	1,016	13,253,600	1,477	1906	39	881	13,587,336	1,087
1902	46	1,033	14,029,648	1,074	1907	38	854	14,994,537	1,253
1903	45	969	13,201,098	982	1908	37	885	15,791,878	1,426

The local malt works treated 184,381 bushels of barley during 1908, and produce 182,428 bushels of malt, valued at £72,709.

There are two distilleries in the State, one of which is a wine distillery, the output being 10,287 proof gallons of brandy from 59,777 gallons of wine ; the other establishment is worked in connection with sugar-refining, and used 163,270 cwt. of molasses in 1908 for 844,416 gallons of proof spirit.

A number of vigneron are licensed by the Customs Department to distil spirit for fortifying purposes, and during the year 113,888 gallons of wine produced 19,666 proof gallons of brandy.

The manufacture of sugar has long been an important industry, and so far back as 1878 there were 50 mills, of which 24 used steam-power, and 26 were worked by cattle, the number of workmen employed being 1,065. These had increased in the year 1886 to 83 steam-mills and 19 worked by

cattle, whilst the number of men employed and the quantity of sugar and molasses produced had correspondingly increased ; but since that time the fall in the value of sugar has caused the closing of all the smaller establishments. Almost everywhere the tendency to concentrate the manufacture of sugar in large central establishments is increasing, and the small mills are rapidly disappearing to make room for larger, where business is confined strictly to the industrial process of sugar-making, the planters attending solely to the cultivation of the cane. Many of the farmers on the North Coast have abandoned sugar-growing in favour of dairying, consequently the area under cane is much smaller than it was ten years ago, and the production has correspondingly decreased. There are at present only 4 mills in the State, and employment is afforded to little more than half the number of hands engaged ten years ago ;—

Year.	Sugar Mills.	Hands Employed.	Horse-power of Plant (full capacity).	Quantity manufactured (as returned by manufacturers).	
			Steam.	Sugar.	Molasses.
	No.	No.	H. p.	cwt.	Gallons.
1899	13	1,038	3,212	307,048	1,064,850
1900	8	690	2,988	398,760	1,179,600
1901	12	695	2,995	390,375	1,300,909
1902	8	633	3,407	430,884	1,073,640
1903	6	586	3,146	435,718	1,367,020
1904	6	643	3,146	400,150	1,296,590
1905	5	652	3,140	402,040	1,263,100
1906	5	622	3,485	479,993	1,305,466
1907	5	610	3,491	583,446	1,211,000
1908	4	543	3,196	299,920*	922,549*

\* From 144,760 tons of sugar-cane.

There is only one sugar refinery in the State, and it treats both local and imported sugars, so that its operations are extending each year. The hands employed show a great decrease since 1900, but owing to increased power and improvements in plant, the quantity of sugar treated has increased. The following table shows particulars of the industry since 1899. The sugar-cane treated in 1908 represented 1,695,080 cwt. of refined sugar :—

Year.	Sugar Refinery.	Hands Employed.	Cane Sugar Treated.	Horse-power of Plant (full capacity).	Year.	Sugar Refinery.	Hands Employed.	Cane Sugar Treated.	Horse-power of Plant (full capacity).
	No.	No.	cwt.	H. p.		No.	No.	cwt.	H. p.
1899	1	450	1,032,400	550	1904	1	390	1,313,800	974
1900	1	510	1,191,000	700	1905	1	410	1,368,000	948
1901	1	450	1,246,600	1,000	1906	1	454	1,459,400	932
1902	1	531	1,179,200	958	1907	1	431	1,554,200	1,031
1903	1	415	1,284,350	973	1908	1	487	1,732,000	982

Tobacco of local manufacture is, to a large extent, superseding the imported article ; the cigarettes made in this State now practically command the Australian market ; and the manufacture of cigars is also increasing.

A large amount of imported leaf is used in the manufacture of tobacco, the proportion of locally-grown tobacco being less than one-third. As shown in the chapter on "Agriculture," the acreage and production of tobacco declined in each year from 1897 to 1901. A decided increase is noticeable in later years, and efforts have been made to stimulate the industry, the manufacturers having arranged to take all the leaf grown, at fixed prices

according to quality. The following table shows details of the operations of tobacco factories for the last ten years. The large increase in the number of females is principally due to the extension of cigarette making:—

Year.	Establishments.		Hands Employed.		Tobacco Leaf used.		Tobacco, Cigars, and Cigarettes manufactured.			Plant and Machinery.	
	Tobacco.	Cigars and Cigarettes.	Males.	Females.	Australian grown Leaf.	Imported Leaf.	Tobacco.	Cigar-ettes.	Cigars.	Power (full capacity).	Value.
	No.	No.	No.	No.	lb.	lb.	lb.	lb.	lb.	H. p.	£
1899	9	18	544	197	1,243,580	1,167,417	2,123,196	288,509	29,285	204	44,574
1900	7	13	557	292	875,236	1,558,970	2,045,932	364,803	50,168	221	49,165
1901	6	14	621	440	883,615	2,114,456	2,524,231	457,276	67,128	302	69,124
1902	5	13	678	440	966,156	2,520,581	3,089,613	634,175	66,330	338	82,269
1903	5	18	569	426	1,009,745	2,714,578	3,329,938	790,697	45,297	462	92,355
1904	4	17	648	376	1,256,339	2,709,569	3,404,201	829,851	47,756	464	106,793
1905	4	16	573	391	1,145,923	2,606,702	3,318,719	818,400	48,850	425	104,766
1906	5	20	649	397	1,178,183	3,056,906	4,057,965	837,835	50,326	431	104,226
1907	5	23	622	497	1,050,107	3,254,656	3,899,196	972,875	54,048	435	111,346
1908	3	25	665	674	1,039,909	3,549,966	3,916,388	1,119,269	57,716	567	119,723

For the years prior to 1902 the figures, showing the Australian-grown tobacco leaf used, represent New South Wales leaf only.

#### CLOTHING AND TEXTILE FABRICS.

These industries afford the greatest employment numerically, but in point of production and wages paid they are below several of the other classes. Since 1899 the number of hands employed has increased by 11,400, of whom 2,380 were males and 9,020 females. In the earlier year males represented 42 per cent. of the total employees, and in 1908 only 31 per cent. The number of hands engaged in each branch of the industry is shown in the following table:—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery Plant, &c.
		Males.	Females.	Total.				
<b>CLASS VII.—CLOTHING AND TEXTILE FABRICS, &amp;c.</b>					Months.	£	No.	£
Woollen and Tweed Mills ..	5	210	245	455	11·78	22,102	338	43,933
Boots and Shoes ..	105	3,048	1,602	4,650	11·84	303,232	702	134,575
Slop Clothing ..	81	845	4,227	5,072	11·67	234,932	69	36,614
Clothing (Tailoring) ..	293	1,926	2,316	4,242	11·67	283,694	....	12,713
Dressmaking and Millinery (makers' material) ..	177	57	3,433	3,490	11·87	110,223	....	7,559
Dressmaking and Millinery (customers' material) ..	136	2	964	966	11·68	16,360	....	3,878
Dyeworks and Cleaning ..	7	38	35	73	12·00	4,613	16	2,115
Furriers ..	3	18	22	40	12·00	2,704	1	160
Hats and Caps ..	26	361	860	1,221	11·64	50,543	148	34,315
Waterproof and Oilskin ..	4	28	126	154	11·73	6,958	10	2,600
Shirts, Ties, and Scarfs ..	42	114	1,399	1,513	11·45	141,787	39	15,019
Rope and Cordage ..	5	165	3	168	12·00	14,347	256	22,946
Tents and Tarpaulins ..	11	143	197	340	12·00	17,673	47	7,104
<b>Total ..</b>	<b>895</b>	<b>6,955</b>	<b>15,429</b>	<b>22,384</b>	<b>11·76</b>	<b>1,209,168</b>	<b>1,626</b>	<b>323,531</b>

Although one of the greatest wool-producing countries in the world, only 455 hands find employment in the manufacture of woollen materials. Woollen-mills were amongst the earliest works established in the State, but the industry has progressed but little since its inception, and the number of hands employed until the last three years, when a decided increase took place,

has practically remained stationary for forty years. Details of the hands employed, and the output for the last ten years, are given below :—

Year.	Woollen Mills.	Hands Employed.			Woollen Cloth and Tweed manufactured.	Horse-power of Plant (full capacity).
		Males.	Females.	Total.		
	No.	No.	No.	No.	yds.	H. p.
1899	4	144	78	222	428,158	215
1900	4	163	58	221	460,187	210
1901	4	162	72	234	525,020	325
1902	4	172	104	276	566,296	305
1903	4	170	110	280	458,302	330
1904	3	148	97	245	481,289	305
1905	3	151	111	262	459,590	329
1906	5	160	178	338	498,164	327
1907	5	179	216	395	512,640	397
1908	5	210	245	455	524,885	656

During 1908 510,228 lb. of scoured wool were used in the mills, and, in addition to the cloth shown above, there were manufactured flannel, blankets, rugs and shawls to the value of £16,167. The quantity of cloth manufactured showed no signs of increase until the latter half of 1905, and it is apparent that a disinclination has existed, on the part of purchasers, to buy clothing made from locally-made tweed, although the mills are capable of producing cloth of very high quality. Since 1905 there has been an improved demand for locally-made cloth; but until the prejudice in favour of imported tweeds has been overcome, no great expansion in the industry can be expected.

The progress of the boot and shoe factories has been more satisfactory, as will be seen from the following table :—

Year.	Boot and Shoe Factories.	Hands Employed.			Output (as returned by manufacturers).	
		Males.	Females.	Total.	Boots and Shoes made.	Slippers, and Canvas and Cloth Shoes made.
	No.	No.	No.	No.	Pairs.	Pairs.
1899	79	2,602	908	3,510	3,207,196	285,365
1900	94	2,906	1,047	3,953	3,269,935	387,156
1901	100	2,861	1,118	3,979	2,821,724	512,584
1902	102	2,886	1,212	4,098	3,052,914	451,588
1903	93	2,938	1,350	4,288	3,166,475	397,531
1904	92	2,858	1,459	4,317	3,291,087	477,302
1905	98	3,021	1,444	4,465	3,250,243	435,912
1906	102	3,178	1,589	4,767	3,567,555	378,599
1907	102	3,163	1,623	4,786	3,637,868	460,132
1908	105	3,048	1,602	4,650	3,712,244	440,571

A striking feature of the above table is the large increase in the employment of females. During the ten years the number of males increased by 446, while the females increased by 694, or over 76 per cent., and now represent about one-third of the hands employed.

Of all the industries none has progressed so rapidly as that connected with the manufacture of hats and caps. Until 1898 less than 100 hands were employed, but each year has seen an increase, and in the six years from 1903 to 1908 there was an average annual increase of about 120 hands :—

Year.	Hat and Cap Factories.	Hands Employed.			Power of Machinery.	Value of Plant and Machinery.
		Males.	Females.	Total.		
	No.	No.	No.	No.	H.-p. (full capacity).	£
1899	5	63	121	184	16	4,000
1900	10	97	183	280	15	5,300
1901	10	132	198	330	27	7,034
1902	10	185	289	474	37	19,422
1903	15	225	318	543	142	22,152
1904	18	269	460	729	139	26,117
1905	21	318	586	904	120	29,650
1906	23	342	694	1,036	144	32,570
1907	22	335	759	1,094	175	35,653
1908	26	361	860	1,221	216	34,315

The hats and caps manufactured during 1908 numbered 1,805,220, valued at £172,729.

A large number of females now find employment in making shirts, ties, and scarfs. The industry is comparatively new, for in 1898 only 74 persons were thus engaged, and in 1900, before the Federal tariff came into operation, 133. In 1908 the number was 1,513.

There has been a large increase in the number of hands engaged in the clothing trade, in "slops" and order work; in the former trade more attention is being devoted to the manufacture of ready-made costumes for women.

#### BOOKS, PAPER, PRINTING, &C.

These industries give employment to 7,922 persons, who are mostly engaged in printing or bookbinding; the number engaged in manufacturing was only 1,135, the greater portion of whom were employed in making paper bags or boxes. In the process of bookbinding and in the manufacture of paper boxes and bags, girls are largely employed, and their employment is increasing; in 1899, females represented 14 per cent. of the total hands, as against 23 per cent. in 1908. The details of each industry for the latter year were as follow :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS VIII.—BOOKS, PAPER, PRINTING, &C.					Months	£	No.	£
Electrotyping and Stereotyping...	4	41	...	41	12-00	3,649	6	7,446
Paper-making, Paper-boxes, Bags, &c. ....	5	443	692	1,135	11-65	57,646	676	81,683
Photo-engraving ....	17	159	20	179	12-00	14,478	3	14,308
Printing and Binding ....	328	5,434	1,133	6,567	11-93	558,198	941	698,201
Total ...	374	6,077	1,845	7,922	11-89	663,971	1,626	801,638

## MUSICAL INSTRUMENTS.

There are thirteen establishments engaged in the manufacture and repairing of musical instruments and sewing machines, and they employed 359 males and 30 females, who received wages amounting to £36,628. The machinery in use was 112 horse-power, and the value of the machinery and plant £7,487. The most important of the industries is piano-making, and instruments of a high class are now being produced.

## ARMS AND EXPLOSIVES.

The manufacture of small arms and ammunition is a matter of national importance, which has occupied the attention of the Commonwealth Government, but up to the present no works have been established. In New South Wales there are only three establishments for the manufacture of explosives, which employed 20 males and 5 females during 1908, and paid £1,590 in wages. The machinery in use was 6 horse-power, and the value of machinery and plant £500.

## VEHICLES, SADDLERY, HARNESS, &amp;C.

The greater portion of the work done in these establishments is connected mainly with the repair of vehicles; but there are many establishments where coaches and waggons are built throughout. With the extension of the railways and tramways, and the introduction of other improvements in methods of locomotion, this industry cannot be expected to show much further development. But with a gradual increase during the last six years, the hands employed in 1908 exceeded those employed in 1903 by 695. Other industries in this class, such as cycle-building, are growing in importance, and the whole group of industries employs 1,430 hands more than in 1903. The following table shows the operations of each industry during 1908:—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XI.—VEHICLES, SADDLERY, HARNESS, &C.								
Coach and Waggon Building ...	223	2,208	5	2,213	11-77	154,076	172	42,988
Cycles ...	30	409	11	420	11-95	33,663	35	10,695
Perambulators ...	3	63	5	68	12-00	3,185	1	233
Saddlery, Harness, and Whips ...	70	701	38	739	11-94	55,055	21	6,084
Spokes, &c. ...	8	91	1	92	11-74	7,058	77	6,050
Total ...	334	3,472	60	3,532	11-83	253,037	306	66,050

## SHIP AND BOAT BUILDING AND REPAIRING, &amp;C.

In ship-building there are signs of greater development than hitherto, as, in addition to wooden vessels, it has been shown that large iron vessels can be constructed. At present, however, nearly all the ships built in the State are small wooden vessels for the river and island trades, or for passenger traffic between Sydney and its suburbs. In regard to boat-building, there is always considerable employment afforded in the Metropolitan district by the constant demand for yachts, motor-launches, and other pleasure craft. In the docking of ships, there are considerably less hands employed than formerly, although additional accommodation has been provided, and there are now three of the largest graving docks in the world at Sydney. Employment in this connection, however, is subject to great fluctuation, and

at one period of the year there were 1,161 hands employed in dockyards alone. The following table shows the details of each industry for 1908 :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XII.—SHIP AND BOAT BUILDING AND REPAIRING.								
Docks and Ships ... ..	6	762	...	762	12'00	108,053	1,362	276,150
Sailmaking ... ..	4	22	...	22	12'00	1,509	2	249
Ship and Boat Building and Repairing... ..	28	1,140	...	1,140	11'83	126,586	301	78,296
Total ... ..	38	1,924	...	1,924	11'93	236,148	1,665	354,695

#### FURNITURE, BEDDING, &C.

Industries connected with the manufacture of furniture, bedding, &c., have increased greatly in importance since 1899, when only 1,677 hands were employed. The chief increase has been in furniture making, but it is a matter for regret that the industry is, to a large extent, in the hands of the Chinese. Of the 1,951 hands engaged in this industry during 1908, 813, or nearly 42 per cent. were Chinese. The particulars relating to each industry for the year 1908 are shown in the following table :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XIII.—FURNITURE, BEDDING, &C.								
Bedding, Flock, and Upholstery ...	17	213	56	269	11'84	20,612	109	5,823
Billiard Tables... ..	3	63	1	64	12'00	5,925	24	1,822
Chair-making ... ..	7	73	12	90	12'00	7,123	34	1,655
Furniture and Cabinet-making ...	94	1,935	16	1,951	11'87	152,732	244	21,766
Picture Frames ... ..	13	106	30	136	12'00	9,173	20	1,745
Window Blinds ... ..	6	56	2	58	12'00	4,914	5	1,003
Furnishing Drapery, &c. ... ..	7	34	101	135	12'00	10,052	...	495
Total ... ..	147	2,485	218	2,703	11'89	210,531	436	34,829

#### DRUGS AND CHEMICALS AND BY-PRODUCTS.

There are several large establishments for the manufacture of drugs and chemicals, and one-third of the hands are females, who are principally engaged in packing or labelling the manufactured articles. The manufacture of by-products includes many articles such as baking powder, blue, blacking, &c., for domestic use, and the local article is gradually superseding imported goods. The following are the leading details in regards to each industry for the year 1908 :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XIV.—DRUGS AND CHEMICALS.								
Baking Powder ... ..	17	88	75	163	12'00	11,295	22	6,190
Chemicals, Drugs, and Medicines..	24	360	223	583	11'91	50,458	298	111,974
Fertilisers ... ..	3	44	...	44	12'00	5,142	25	6,792
Paints and Varnishes, &c. ... ..	21	203	136	339	11'92	17,111	225	27,026
Total ... ..	65	695	434	1,129	11'93	84,006	570	151,982

SURGICAL AND SCIENTIFIC APPLIANCES.

Most of the establishments herein are engaged in the manufacture of optical instruments, such as spectacles, &c. The total number of establishments was 9, in which 66 males and 19 females were engaged throughout the year, receiving £5,731 in wages. The average power of machinery in use was 2 horse-power, and the value of machinery and plant £3,238.

TIMEPIECES, JEWELLERY, AND PLATED WARE.

While there are, as a matter of course, numerous small establishments where timepieces are repaired, there are but few of any kind in which the articles are actually manufactured, and these are included with those engaged in manufacturing jewellery:—

Industries.	Number of Establishments.	Average Number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery in use.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XVI.—TIMEPIECES, JEWELLERY, AND PLATED WARE.								
					Months	£	No.	£
Electro-plating ... ..	10	114	3	117	11·73	9,286	33	5,906
Manufacturing Jewellery ...	34	406	56	462	11·94	40,507	...	10,712
Total... ..	44	520	59	579	11·89	50,193	33	16,618

HEAT, LIGHT, AND POWER.

Establishments connected with the supply of heat, light, and power, show an increase each year, and the number of hands employed has been doubled within the last ten years:—

Industries.	Number of Establishments.	Average Number of Hands Employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery in use.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XVII.—HEAT, LIGHT, AND POWER.								
					Months	£	No.	£
Coke-works ... ..	13	443	...	443	11·93	53,583	930	95,657
Electric Apparatus... ..	19	189	3	192	11·90	14,277	8	4,279
Electric Light and Power ...	97	747	1	748	11·79	95,541	35,597	1,012,231
Gas-works and Kerosene ... ..	41	770	...	770	12·00	106,228	1,130	657,914
Lamps and Fittings, &c... ..	2	18	47	65	12·00	4,250	6	3,150
Hydraulic Power ... ..	1	18	...	18	12·00	2,907	500	26,582
Total... ..	173	2,185	51	2,236	11·91	276,786	38,171	1,799,813

The chief development in this class has occurred in connection with the supply of electric power and light, principally owing to the establishment of the metropolitan tramway and electric lighting systems.



The value of the machinery used in furnishing electric power and light now exceeds the plant in gas-works by £401,300, and the engines have a capacity of 46,200 horse-power. The rapid progress of these establishments is shown by the following table:—

Year.	Electric Supply Works.	Hands Employed.	Plant and Machinery.	
			Power (full capacity).	Value.
	No.	No.	H.-p.	£
1899	33	147	2,779	129,027
1900	33	191	3,961	110,051
1901	53	340	12,447	282,842
1902	58	413	21,175	469,985
1903	73	434	21,994	528,587
1904	65	464	24,492	624,686
1905	67	521	31,862	778,313
1906	66	565	38,327	975,723
1907	91	634	43,215	1,109,535
1908	97	748	46,200	1,012,231

Considerable progress has been made in the installation of electric lighting plants; but the use of gas is continually extending for lighting, power, and cooking. The following table shows particulars of the operations of gas-works during each of the last ten years. The value of plant does not include mains.

The rate charged to consumers varies in different country localities between 3s. per 1,000 feet in Bathurst and 15s. in Deniliquin. The price charged by the principal company in Sydney to private consumers is at present 4s. per 1,000 feet.

Year.	Gas-works.	Hands Employed.	Gas made (as returned by manufacturers).	Plant and Machinery.	
				Power (full capacity).	Value.
	No.	No.	1,000 cubic feet.	H.-p.	£
1899	38	587	1,883,002	1,076	426,145
1900	41	620	2,007,054	1,101	463,206
1901	38	650	2,138,631	1,065	480,533
1902	42	648	2,304,814	1,011	536,338
1903	39	716	2,487,807	1,001	542,775
1904	40	692	2,598,650	1,091	601,976
1905	43	663	2,683,396	1,057	598,047
1906	46	719	2,790,494	1,361	647,339
1907	40	679	3,044,756	1,273	607,856
1908	39	689	3,307,083	1,368	610,914

During 1908 the quantity of coal used for gas was 288,338 tons, which, in addition to the gas, produced 138,056 tons of coke and 2,920,896 gallons of tar.

## LEATHERWARE.

There are 274 males and 42 females employed in the manufacture of leatherware not elsewhere included, the majority of whom are engaged in making bags and portmanteaux. The employees in this class were busily engaged throughout the year, and received £20,517 as wages. The power of the machinery in average use was 89 horse-power, and the value of the machinery and plant was £6,875.

## MINOR WARES.

Of the minor industries which cannot be classified under any of the preceding headings, the more important are broom and brush making, umbrella-making, and the manufacture of baskets, wicker-ware, and mats. The brooms are manufactured principally from millet grown in the State. An interesting feature of this industry is the employment which it affords to persons afflicted with blindness, and in 1903 there were 73 males and 21 females in the Sydney Industrial Blind Institution, who were employed in the manufacture of brushes, baskets, mats, &c. The particulars of the different industries for the year 1908 were as follows :—

Industries.	Number of Establishments.	Average number of Hands employed.			Average time worked per hand.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Plant, Machinery, &c.
		Males.	Females.	Total.				
CLASS XIX.—MINOR WARES.								
Baskets and Wicker-ware,					Months	£	No.	£
Matting, &c. ....	9	103	4	107	12·00	5,611	...	387
Brooms and Brushware ...	19	177	24	201	11·89	13,576	27	4,442
Rubber Goods ...	6	109	16	125	12·00	8,277	89	16,037
Toys ...	2	9	...	9	12·00	232	6	330
Umbrellas ...	5	65	98	163	11·74	7,595	...	1,488
Other Industries ...	13	124	76	200	11·40	12,489	4	12,719
Total ...	54	587	218	805	11·77	47,780	126	35,403

## AVERAGE TIME WORKED.

In the preceding table the average time worked per hand has been shown for each class. Taking the classes as a whole, it will be found that each employee worked, on an average, for 11·51 months of the year. It is, of course, impossible to show the actual time worked by employees; but from the figures given it will be seen that many of the workers suffered loss from broken time, the most unfortunate in this respect being those engaged in industries dealing with raw materials—the product of pastoral pursuits.

## WAGES.

The wages paid to employees in factories amounted in 1908 to £7,218,556, equal to £138,818 per week; so that their enforced idleness during part of the year caused a loss of about £307,300 to the workers.

It is impossible from the bare statements of wages supplied in these returns to give an approximation of the average wages of the workers, as there are so many matters which have a direct bearing on the subject. The ages of the workers, the quantity of skilled and unskilled labour, the relative employment of males and females, the length of time worked by each class of workers, are matters of vital importance in ascertaining the fair average wage paid, and details as to these subjects are not available.

Under the provisions of the Factories and Shops Act, however, information is collected regarding the wages paid in factories which come within its operations. The subject is too comprehensive to be dealt with in this volume; but complete information will be found in the "Statistical Register," which is published each year.

## POWER AND VALUE OF MACHINERY AND PLANT.

New South Wales has few running streams so situated as to be available for the purpose of driving machinery for manufacturing purposes, and nearly the whole of the power used is derived from steam; but in some instances, chiefly in the metropolis, gas is employed. Other power is used only to a limited extent, and although electric engines of 14,521 horse-power are shown in the following table, they are used mainly for lighting or motive purposes, and, in addition, their power is usually dependent upon some other class of engine for its development. In the table given below the number of establishments using machinery is shown, with the aggregate horse-power. By the term "full capacity" is understood the power which can be generated by the boilers or machinery, while the "average used" represents the power generally used in carrying on the processes of manufacture:—

Class of Industry.	Value of Machinery, Implements, Tools, and Conveyance Plant.	Number of Establishments using Machinery.	Horse-power of Machinery in use.									
			Full Capacity.					Average used.				
			Steam.	Gas.	Electricity.	Water.	Oil.	Steam.	Gas.	Electricity.	Water.	Oil.
Treating Raw Materials, Product of Pastoral Pursuits, &c.	255,265	254	3,597	470	50	10	39	2,566	347	43	9	32
Oils and Fats, Animal, Vegetable, &c.	170,786	22	488	...	197	...	...	387	...	160	...	...
Processes in Stone, Clay, Glass, &c.	474,683	108	6,687	445	1,178	...	32	4,823	276	588	...	31
Working in Wood	483,510	519	9,565	836	1,847	50	56	7,268	626	1,370	39	24
Metal Works, Machinery, &c.	2,066,233	348	13,775	1,510	5,411	...	178	10,418	1,066	4,347	...	119
Connected with Food and Drink, &c.	2,666,805	657	19,390	924	2,103	2	177	14,469	721	1,395	1	119
Clothing and Textile Fabrics, and Materials	323,531	244	980	1,316	533	...	6	637	983	469	...	6
Books, Paper, Printing, and Engraving	801,638	282	780	1,277	1,775	3	91	608	952	1,511	3	63
Musical Instruments	7,487	6	41	72	73	...	...	41	71	70	...	...
Arms and Explosives	500	1	6	...	...	...	...	6	...	...	...	...
Vehicles and Fittings, Saddlery and Harness, &c.	66,050	87	230	147	108	...	53	162	105	88	...	39
Ship and Boat Building, &c.	354,695	26	1,964	41	527	...	...	1,627	18	327	...	...
Furniture, Bedding, and Upholstery	34,329	68	283	229	144	...	5	250	184	118	...	2
Drugs, Chemicals, and By-products	151,982	53	460	318	216	...	...	340	230	162	...	...
Surgical and other Scientific Instruments	3,238	6	...	2	7	...	...	...	2	7	...	...
Jewellery, Timepieces, and Plated Ware	16,618	25	...	47	88	...	...	...	33	83	...	...
Heat, Light, and Power	1,799,813	157	48,454	920	102,321	38	37,199	832	93,102	38	...	...
Leatherware, N.E.I.	6,875	14	18	79	5	...	6	9	74	5	...	6
Minor Ware, N.E.I.	35,403	30	91	58	158	...	4	84	38	101	...	4
Total	9,718,542	2,907	106,809	8,691	14,521	386	685	80,894	6,578	10,937	154	483

Some explanation is necessary in connection with these figures. Although electrical power is shown in the table just given, it is excluded from consideration in the figures quoted in this chapter, as it is usually dependent on steam-engines for its development, and the power has already been credited to their agency. The value of machinery and plant includes not only the machinery and engines of which the horse-power is shown, but also all other tools and implements used in the various processes of manufacture, as well as the conveyance plant. The most powerful machinery is used in the supply of heat, light, and power, in the manufacture of metals, and in the preparation of foods and drinks, while in the clothing industries machinery enters into use only to a minor degree.

The power of machinery in average use increased from 33,080 horse-power in 1899 to 88,109 horse-power in 1908, while the value of the machinery and plant in these years was £5,640,384 and £9,718,842 respectively ; so that in this respect alone there is now an additional investment of capital to the extent of over £4,000,000.

CAPITAL INVESTED.

The capital invested in the manufacturing industry may be divided into two classes, fixed capital and active capital. Fixed capital represents the amount invested in lands, buildings, machinery and plant, tools and implements of trade, and good-will. Active capital includes the value of raw material and fuel on hand, stock in process of manufacture, finished products on hand, bills receivable, ledger accounts, cash in hand, and sundries not elsewhere included. The approximate amount of fixed capital can be readily ascertained, since the value of land and buildings occupied for manufacturing purposes, as well as the value of machinery and plant, implements and tools of trade, is obtained each year. Concerning the active capital no particulars are collected, and there are little or no data from which an estimate may be prepared.

The value of land and buildings in 1908 was £6,598,200, and of machinery, plant, &c., £9,718,800, so that the fixed capital amounted to £16,317,000.

The value of the land and buildings, machinery and plant, &c., in each industry is shown in the following table, which also contains some interesting information for the year 1908 regarding the value of materials used, and the value of goods manufactured or work done :—

Class of Industry.	Value of—						
	*Lands, Buildings, and Fixtures. (1901 figures.)	Machinery, Implements, and Conveyance Plant.	Rent Paid.	Materials used.	Fuel consumed.	Wages and Salaries paid.	Goods Manufactured or Work Done.
Treating Raw Materials, product of Pastoral pursuits, &c. ....	£ 235,197	£ 255,266	£ 6,618	£ 3,151,903	£ 27,703	£ 236,651	£ 3,762,369
Oils and Fats, Animal, Vegetable, &c. ....	142,055	170,786	1,120	433,338	9,889	51,385	656,118
Processes in Stone, Clay, Glass, &c. ....	364,841	474,083	5,972	185,375	116,470	352,411	929,351
Working in Wood ....	426,173	483,510	13,504	1,433,302	9,758	504,071	2,266,033
Metal Works, Machinery, &c. ....	1,510,023	2,066,233	25,200	3,771,520	342,574	2,042,244	8,333,250
Connected with Food, Drink, &c. ....	1,619,210	2,666,805	40,458	8,418,633	106,670	935,708	10,996,217
Clothing and Textile Fabrics and Materials. ....	272,940	323,531	61,735	2,035,559	19,046	1,209,168	3,395,722
Books, Paper, Printing, and Engraving ....	235,241	801,638	40,823	588,707	20,995	663,971	1,678,089
Musical Instruments ....	14,200	7,487	619	64,594	469	36,628	136,087
Arms and Explosives ....	4,600	500	52	6,183	19	1,590	9,126
Vehicles and Fittings, Saddlery, Harness, &c. ....	154,829	66,050	16,076	320,501	7,246	253,087	771,646
Ship and Boat Building, &c. ....	553,276	354,695	1,778	118,903	8,402	236,148	412,871
Furniture, Bedding, and Upholstery ....	42,626	34,329	12,569	312,781	2,476	210,531	642,713
Drugs, Chemicals, and By-products ....	91,029	151,982	5,471	382,439	9,042	84,006	681,177
Surgical and other Scientific Instruments ....	...	3,238	857	6,015	121	5,731	23,081
Jewellery, Timepieces, and Plated Ware ....	...	16,618	4,066	66,127	1,057	50,193	156,467
Heat, Light, and Power ....	880,757	1,799,813	3,719	354,342	164,329	276,786	1,605,676
Leatherware, N.E.I. ....	19,202	6,875	931	83,138	539	20,517	124,317
Minor Wares, N.E.I. ....	31,965	35,403	4,188	122,477	1,974	47,780	217,791
<b>Total ...</b>	<b>6,598,164</b>	<b>9,718,842</b>	<b>245,756</b>	<b>22,855,927</b>	<b>848,779</b>	<b>7,218,556</b>	<b>37,338,101</b>

\* If property of occupier. † Including value of wool treated.

Similar information regarding the factories of the Metropolitan district is given in the following table, which shows that the goods manufactured and work done in this district represents a very large proportion of the total output:—

Class of Industry.	Value of —						
	*Lands, Buildings, and Fixtures. (1901 figures.)	Machinery, Implements, and Conveyance Plant.	Rent Paid.	Materials used.	Fuel consumed.	Wages and Salaries paid	Goods Manufactured or Work Done.
	£	£	£	£	£	£	£
Treating Raw Materials, product of Pastoral pursuits, &c. ....	150,867	134,602	4,892	†1,683,845	17,499	156,297	†2,035,245
Oils and Fats, Animal, Vegetable, &c. ....	115,316	110,171	754	816,122	6,153	35,186	491,493
Processes in Stone, Clay, Glass, &c. ....	235,586	218,148	4,105	121,765	66,391	222,743	563,141
Working in Wood ....	165,527	157,318	8,221	770,085	5,652	217,481	1,139,678
Metal Works, Machinery, &c. ....	1,018,039	830,500	22,218	1,725,371	45,885	1,108,513	3,292,752
Connected with Food, Drink, &c.	890,277	1,370,431	28,066	5,777,873	58,388	542,238	7,534,212
Clothing and Textile Fabrics and Materials ...	218,048	287,884	49,282	1,830,537	15,941	1,065,691	3,462,846
Books, Paper, Printing, and Engraving ...	168,181	638,422	34,278	544,337	17,671	562,591	1,469,643
Musical Instruments ...	14,200	7,487	619	64,594	469	36,628	136,087
Arms and Explosives ...	4,600	500	52	6,183	19	1,590	9,126
Vehicles and Fittings, Saddlery, Harness, &c. ....	67,569	24,198	8,588	160,238	2,381	119,265	373,734
Ship and Boat Building, &c. ....	549,436	350,474	1,477	101,716	8,104	226,601	381,902
Furniture, Bedding, and Upholstery ...	26,076	31,356	11,918	298,875	2,413	199,398	611,280
Drugs, Chemicals, and By-products ...	69,238	93,395	5,305	341,679	4,549	72,613	603,963
Surgical and other Scientific Instruments ...	...	3,238	857	6,015	121	5,731	23,081
Jewellery, Timepieces, and Plated Ware ...	...	15,978	3,824	64,645	1,045	48,318	152,105
Heat, Light, and Power ...	670,337	1,298,329	3,248	191,664	107,346	153,733	1,010,481
Leatherware, N.E.I. ....	19,202	6,875	931	83,138	539	20,517	124,317
Minor Wares, N.E.I. ....	30,815	34,664	4,149	120,472	1,935	46,985	214,209
Total ...	4,423,394	5,613,970	192,784	14,209,104	362,501	4,842,119	23,629,295

\* If property of occupier. † Including value of wool treated.

#### VALUE OF PRODUCTION FROM MANUFACTORIES.

In stating the value of production from manufactories, the returns from factories dealing with milk products are not taken into consideration, as they have already been included in the value of production from the dairying industry.

The value of goods manufactured or work done in 1908 amounted to £37,338,101. Of this amount, £23,704,706 represent the value of materials and fuel used, leaving a balance of £13,633,395 the value added by the processes of treatment, which is the real value of production from manufactories. The sum last mentioned includes wages to the amount of £7,218,556, so that the actual amount which accrued to the proprietors was £6,414,839. It is interesting to note the proportions of the total output which the various items represent, and they are therefore, shown in the following table:—

Item.	Amount.	Proportion of total.
	£	per cent.
Value of materials used ...	22,855,927	61·2
Value of fuel used ...	848,779	2·3
Wages paid ...	7,218,556	19·3
Balance which accrued to proprietors ...	6,414,839	17·2
Value of goods manufactured or work done ...	37,338,101	100·0

From this it will be seen that out of every hundred pounds worth of goods produced in factories, materials and fuel used in the manufacture thereof cost about £64, while the employees received £19 and the proprietors £17. There are, of course, numerous other sources of expense, and the balance shown as accruing to proprietors by no means represents the actual profits. A considerable margin must be allowed for such items as renewal of plant and machinery, &c., insurance, rent, advertising, rates, taxes other than duty or income tax, and, in addition, a sum to cover the interest on invested capital; the balance being the actual reward of the manufacturers' exertions.

Moreover, it will be seen from the following table that the proportions of the items vary considerably in the different classes of industries:—

Class of Industry.	Proportionate Value of Manufactured Goods represented by—			
	Materials.	Fuel.	Wages.	Balance Accruing to Proprietors.
	per cent.	per cent.	per cent.	per cent.
Treating Raw Materials, Pastoral Products ..	83·78	·74	6·29	9·19
Oils and Fats, &c. ....	66·05	1·51	7·83	24·61
Processes in Stone, Clay, Glass, &c. ....	19·95	12·53	37·92	29·60
Working in Wood ....	63·25	·43	22·24	14·08
Metal Works, Machinery, &c. ....	57·26	4·11	24·51	14·12
Connected with Food and Drink, &c. ....	76·56	·97	8·51	13·96
Clothing and Textile Fabrics, &c. ....	51·72	·48	30·72	17·08
Books, Paper, Printing, and Engraving ....	35·08	1·25	39·57	24·10
Musical Instruments, &c. ....	47·47	·34	26·92	25·27
Arms and Explosives ....	67·75	·21	17·42	14·62
Vehicles, Saddlery, and Harness, &c. ....	41·53	·94	32·79	24·74
Ship and Boat Building, Repairing, &c. ....	28·80	2·03	57·20	11·97
Furniture, Bedding, Upholstery, &c. ....	48·67	·39	32·76	18·18
Drugs, Chemicals, and By-products ....	56·14	1·33	12·33	30·20
Surgical and other Scientific Instruments ....	26·06	·52	24·82	48·60
Timepieces, Jewellery, and Plated Ware ....	42·26	·68	32·08	24·98
Heat, Light, and Power ....	22·07	10·23	17·24	50·46
Leatherware, N.E.I. ....	66·87	·43	16·50	16·20
Minor Wares, N.E.I. ....	56·24	·91	21·94	20·91
	61·22	2·27	19·33	17·18

The table discloses some curious results, and shows that so far as two classes of industries were concerned—those engaged in treating raw pastoral products, and in the manufacture of arms and explosives—the profit gained by the proprietors on the year's operations must have been very small. As regards the first-mentioned industry, however, the receipts from the sale of by-products might reasonably be expected to increase the profits.

It is interesting to note the extent to which the value of materials is enhanced by the processes of treatment. For all industries, materials averaged 61 per cent. of the value of the output; but there was great diversity amongst the various classes, and the proportion ranged from 20 per cent. in those industries engaged in processes in stone, clay, glass, &c., to 84 per cent. in those treating raw pastoral products. These variations can be easily understood when the wide difference between the operations of the industries is considered, and the value of the plant employed taken into account. The extensive use of machinery, however, is not always the chief factor controlling the value added to materials, and the industries dealing with food, &c., and those engaged in ship-building, &c., may be cited as examples. In the former class, materials represent 77 per cent. and wages only 8 per cent. of the total value, while in the latter class, the wages amount to almost twice the value of the materials used and represent 57 per cent. of the total cost.

The most striking example of the difference between hand and machine work is, however, afforded by the clothing industries. In establishments dealing with the slop-clothing the materials represented 55 per cent. of the value of the output, and wages only 29 per cent. ; but in tailoring establishments, where the sewing is principally done by hand, the materials represented 38 per cent. and wages 35 per cent. of the value of the finished article. The general conclusion to be deduced from the figures would appear to be that the quantity of skilled labour required in the manufacture of an article is the greatest factor in adding to the value of raw material.

The following statement shows the progress of manufactories as regards value of production and wages paid in each year since 1901, except 1902, for which the information is not available :—

Year.	Value of—					Wages paid.
	Materials used.	Fuel consumed.	Goods manufactured, or work done.	Production, being value added to raw materials.	Production per head.	
	£	£	£	£	£ s. d.	£
1901	12,597,982	482,428	22,820,839	9,740,429	7 2 5	4,945,079
1903	15,121,891	*	24,721,681	9,599,790	6 15 3	4,839,557
1904	14,860,008	515,544	25,283,320	9,907,768	6 17 0	5,012,758
1905	16,662,775	556,660	27,850,158	10,630,723	7 3 9	5,191,350
1906	19,924,225	593,935	32,424,251	11,906,091	7 17 3	5,591,888
1907	23,263,766	826,498	37,571,116	13,480,852	8 13 5	6,650,715
1908	22,855,927	848,779	37,338,101	13,633,395	8 11 7	7,218,556

\* Not collected.

As stated previously, from the value of production has been excluded the value added to articles already included in the dairying industry.

The production from manufactories in 1908 represented a value of £8 11s. 7d. per head of population, an amount 1s. 10d. lower than the return for 1907, which was the highest on record.

## PUBLIC FINANCE.

### SYSTEM OF REVENUE AND EXPENDITURE ACCOUNTS.

A COMPLETE revolution in the system of keeping the public accounts was effected in the year 1895, when an Act amending the Audit Act of 1870 received the Royal assent. It was thereby declared "that all appropriations from the Consolidated Revenue Fund shall lapse at the close of the financial year to which they refer, and from the 1st day of July, 1895, the cash receipts within the financial year shall be considered as the actual income, and the cash payments during the same period the actual outlay." This introduced what is usually termed the "cash basis" which has proved to be in the interests of economy and good government.

Prior to the adoption of this system, the expenditure for the services of a year and the actual expenditure during that year could be shown only by two different methods of accounts. When a specific appropriation was made for any service, the expenditure incurred under such authorisation would be charged against the year for which the vote was taken, irrespective of the date when the payments were made; and, therefore, the public accounts for any year could not be closed until all appropriations lapsed, or were written off or exhausted. The consequence was, that when the expenditure exceeded the income, there were frequent differences of opinion between the incoming and outgoing Treasurers as to the propriety of charging items, sometimes of large amount, to particular years, with the result that conflicting statements were made, to the confusion of the inexpert and to the detriment of the public credit.

Even under the present circumstances, an inquirer may occasionally have some trouble in comprehending the most carefully prepared statement of the finances of the State, for he must ever keep before his eyes the fact that the term "expenditure" in the official statements does not possess always the same meaning. There are refunds, advances, cross entries, cancellations, &c., to be noted, so that any presentation of the accounts is rarely complete in itself.

Under the cash system, the expenditure should be debited to the year in which the payment is made, and not to the year in which the appropriation was authorised and the adjustment effected. This method has been adopted in the subsequent statements relating to expenditure from Consolidated Revenue, and an analysis of the Treasurer's Advance Account since the 1st July, 1896, and the Expenditure Suspense Account for the years ended 30th June, 1899 to 1903, has been carried out, and the payments attached to the year in which they were actually made.

From the 1st July, 1900, to the 30th June, 1909, there was expended in the public service a sum of £118,385,199, while the actual revenue obtained was £118,736,180; the total excess of revenue during the ten years being £350,981. The actual excess of expenditure in some years,



however, was considerable, as will be seen from the statement below. The figures are exclusive of advances made and repaid; but for the last three years the statements of expenditure include transfers in aid of the Public Works Fund and Closer Settlement Fund.

Year ended 30th June.	Revenue.	Expenditure.	Excess of Revenue over Expenditure.	Excess of Expenditure over Revenue.
	£	£	£	£
1900	9,973,736	10,086,186	.....	112,450
1901	10,612,422	10,729,741	.....	117,319
1902	11,007,356	11,008,173	.....	817
1903	11,295,069	11,467,235	.....	171,166
1904	11,248,328	11,319,888	.....	71,560
1905	11,336,918	11,195,075	141,843	.....
1906	12,283,082	11,386,864	896,218	.....
1907	13,392,435	12,799,797	592,638	.....
1908	13,960,763	13,700,072	260,691	.....
1909	13,625,071	14,692,168	.....	1,067,097
	118,736,180	118,385,199	1,891,390	1,540,409
		Net Excess of Revenue ...	£350,981	

The total expenditure for the year ended 30th June, 1909, includes £809,561 transferred to the Public Works Fund, and £1,000,000 transferred to the Closer Settlement Fund. It is obvious that if these amounts were not included in the expenditure there would be an excess of revenue.

Anyone unacquainted with the peculiarities of State finance might find it hard to understand how it is possible for a large deficit to have accumulated, and an expenditure in excess of revenue to have been still further allowed. The explanation is simple. Through the operation of various Acts of the Legislature, and the accumulations in the Government Savings Bank, the Treasury has had at its disposal large sums in trust, and by the use of this money the accumulated deficits have been temporarily met. When in 1889 the deficit was consolidated, and Parliament authorised the issue of Treasury Bills to pay it off, these bills were not issued to the public, but, by entries in the books of the Treasury, the necessary sum was drawn from the Trust Funds in hand, and invested in the bills. This was only a formal operation, as the money had already been lent to the revenue, and the issue of the bills simply converted a floating into a fixed debt.

#### GENERAL BANKING ACCOUNT.

The following table indicates each of the main accounts under which the Government conducts its financial business, the subsidiary accounts being included under one or other of the headings enumerated. The Audit Act of 1902 provides that the Treasurer may agree with any Bank or Banks for the transaction of the general business of the State. The accounts are kept under four headings, viz., Consolidated Revenue Account, General Loan Account, Trust Account, and Special Deposits Account; but other accounts may be opened if necessary. All moneys paid into any of the accounts mentioned are declared to be "public moneys," and for interest purposes the several accounts are treated as one account.

The Special Trust Accounts, which consist principally of "Supreme Court Moneys," are not controlled by the Audit Act, as they are operated on directly by the officials in charge of the departments interested. Until the year just closed, the Trust Funds, to which attention will be subsequently directed, largely assisted in keeping the accounts in credit. The position of the main divisions of the General Account on the 30th June, 1909, will be found in the following statement:—

Head of Account.	Ledger Balances on 30th June, 1909.		
	Invested in Securities.	Cash Balances.	Total.
Trust Account—	£	£	£
Government Savings Bank .. .. .	.....	1,145,292	1,145,292
Special Deposits Account—			
Government Savings Bank Deposits Account .. .. .	.....	370,000	370,000
State Debt Commissioners' Trust Account .. .. .	.....	93,617	93,617
State Debt Commissioners' Deposit Account .. .. .	.....	188,300	188,300
Public Works Department Store Advance Account .. .. .	.....	87,139	87,139
Other .. .. .	32,896	422,018	454,824
Consolidated Revenue Account .. .. .	.....	637,678	637,678
Colonial Treasurer's Supreme Court Moneys Accounts .. .. .	.....	236,585	236,585
Closer Settlement Account .. .. .	.....	681,873	681,873
Public Works Account .. .. .	.....	655,412	655,412
	32,896	4,517,914	4,550,720
Less Debit Balances—	£		
General Loan Account .. .. .	1,918,419		
London Remittance Account .. .. .	1,237,494		
Railway Store Suspense Account .. .. .	133,632		
	.....	3,289,545	3,289,545
Total Credit Balance in Sydney .. .. .	£ 32,896	1,228,369	1,261,175
Add—London Bank Account .. .. .	£ 600,000	637,494	1,237,494
Total .. .. .	£ 632,896	1,865,863	2,498,669

The distribution of the cash balance on the 30th June, 1909, is set forth in the following table, the London accounts being shown to the latest date available before the closing of the Public Accounts for the financial year:—

	£	£	£
Sydney Balance—30th June, 1909—			
Trust Account—Bank of New South Wales .. .. .	995,292		
" " Commercial Banking Company of Sydney .. .. .	150,000	1,145,292	
Special Deposits Account—Bank of New South Wales .. .. .	970,652		
" " " Commercial Banking Company of Sydney .. .. .	190,422	1,161,074	
Consolidated Revenue Account—Bank of New South Wales .. .. .	371,914		
" " " Commercial Banking Company of Sydney .. .. .	26,854		
" " " Cash in hands of Receiver .. .. .	238,910	637,678	
Special Accounts—Bank of New South Wales .. .. .	891,997		
" " Commercial Banking Company of Sydney .. .. .	681,873	1,573,870	
			4,517,914
Less Debit Balances—			
General Loan Account—Bank of New South Wales .. .. .	.....	1,918,419	
London Remittance Account—Bank of New South Wales .. .. .	554,527		
" " " Commercial Banking Company of Sydney .. .. .	682,967	1,237,494	
		133,632	
Railway Store Account—Bank of New South Wales .. .. .	.....		3,289,545
Total Cash in Sydney .. .. .	£ .....	.....	1,228,369
Total Cash in London .. .. .	£ .....	.....	637,494
Total .. .. .	£ .....	.....	1,865,863

Prior to 1906 the Public Accounts included all the invested assets of the Government Savings Bank. Upon the passing of the Government Savings Bank Act, 1906, these assets were vested in the Commissioners appointed under that Act, and are no longer included in the statements relating to the Public Accounts. These securities amounted to £10,627,632 at the 31st December, 1908, and the figures in the last two statements would have been increased by that amount but for the new procedure. It will be seen above, however, that the Colonial Treasurer still holds moneys belonging to the Government Savings Bank. Such moneys are the sums not invested when the Act came into force.

#### CONSOLIDATED REVENUE FUND.

It was difficult, even for a well-equipped and patient student, to obtain more than a general idea of the state of the finances during the existence of the old system of account-keeping which came to an end in 1895. Now that the system of keeping accounts on a cash basis is properly in operation, we have, in estimating the financial position of the country, still to consider the Old Deficiency Account, the New Account under the Audit Act Amendment Act, which form the Consolidated Revenue Account, as well as the Loans Account and the various Trust Accounts not forming part of the Consolidated Revenue Account. The Old Deficiency Account proper began in 1885; but it was only in 1897, when the last obligation under the old system of account-keeping was met, that the position of this account for each year could be accurately stated. Until all obligations had been met, only an approximation could be made, the accuracy of which rested on the correctness of the Treasurer's estimate of the liabilities outstanding for previous years.

The confusion which had attended the presentation of the public accounts of the State no longer exists now that operations on the Old Deficiency Accounts have been closed. The following table shows the Accumulated Deficiency on the Consolidated Revenue Account for each of the last ten years. The Treasury Bills issued have been included in the statement, as they became part of the Consolidated Revenue Account proper:—

Financial Year.	At the close of each Year.				Accumulated Deficiency. †
	Treasury Bills Current.	Cash.		Suspense Accounts and recoup to Rail- way Loan Redemption Fund.	
		Credit.	Overdraft.		
	£	£	£	£	£
30 June, 1900...	2,022,447	17,742	.....	767,498	2,772,203
30 " 1901...	1,872,447	.....	152,187	755,179	2,779,813
30 " 1902...	2,477,626	.....	236,781	.....	2,714,407
30 " 1903...	2,227,626	.....	484,356	.....	2,711,982
30 " 1904...	1,977,626	.....	524,064	.....	2,501,690
30 " 1905...	1,727,626	.....	336,891	.....	2,064,517
30 " 1906...	1,814,516	896,124	.....	.....	918,392
30 " 1907...	1,561,632	1,471,344	.....	.....	90,288
30 " 1908...	1,214,516	1,676,924	.....	.....	*462,408
30 " 1909...	914,516	637,678	.....	.....	276,838

\* Surplus.

† Includes cash balances not actually used in reduction

Treasury Bills to the amount of £914,516 were current on the 30th June, 1909, and the credit balance of the Consolidated Revenue Fund was £637,678—leaving a deficiency of £276,838. The liability on account of these bills is being reduced by annual instalments of £300,000. Should this arrangement be followed, and no further issues take place in the meantime, three years must elapse before the debt will be extinguished. The immediate liquidation of the remaining liability would effect a considerable saving in interest, but the same result is practically attained, as shown later on, by the manner in which it is proposed to use surpluses.

The "Treasury Bills Deficiency Act, 1905," by which authority was given for the issue of Treasury Bills to liquidate the overdraft on the Consolidated Revenue, provides that, in the event of a surplus on the year's transactions of the Consolidated Revenue, the Treasurer shall pay to the State Debts Commissioners the sum of £50,000, with a view to extinguishing the liability of the Bills. This amount is in addition to that of £250,000 already made a charge on the revenue, for a similar purpose, by prior enactments, and makes up the amount of £300,000 per annum mentioned above.

## REVENUE AND EXPENDITURE.

The gross and net revenue proper at intervals since 1880 were as follow:—

Year ended 30th June.	Gross Revenue (exclusive of Advances).	Refunds.	Net Revenue proper.	
			Total.	Per Inhabitant.
	£	£	£	£ s. d.
*1880	4,904,230	97,841	4,806,389	6 11 11
*1890	9,494,584	188,893	9,305,691	8 8 11
1900	10,203,931	230,195	9,973,736	7 8 5
1901	10,805,543	193,121	10,612,422	7 15 6
1902	11,178,214	170,858	11,007,356	7 19 7
1903	11,532,231	236,162	11,296,069	8 0 6
1904	11,453,745	205,417	11,248,328	7 17 2
1905	11,514,324	177,406	11,336,918	7 15 2
1906	12,471,473	188,391	12,283,082	8 4 2
1907	13,570,380	177,945	13,392,435	8 14 11
1908	14,195,357	234,594	13,960,763	8 17 6
1909	13,844,642	219,571	13,625,071	8 9 9

\* Twelve months ended 31st December.

Under the provisions of the Commonwealth of Australia Constitution Act, the control of Customs and Excise and the administration of the Post and Telegraph and Defence Departments were transferred to the Federal Government, the first-named on the 1st January, 1901, and the others on the 1st March, 1901. The Patents Office was transferred on the 1st June, 1904. The revenue derived from those sources, since the transfer, has been included only to the extent of the balance paid over to the State after deducting the expenditure incurred in connection with transferred services, and the proportion of other or new expenditure for which the State was liable.

The figures relating to revenue, both above and in subsequent tables, are exclusive of "Advances repaid"; and in dealing with expenditure, "Advances made" have been excluded from consideration, as transactions under these heads do not affect the ordinary revenue and the expenditure therefrom. The terms "net revenue" and "net expenditure," used both here and in subsequent pages, are to be taken as meaning revenue and expenditure freed from the transactions just mentioned as well as from refunds.

The net expenditure for years corresponding with those in the revenue statement is given in the subjoined table, it being assumed that the accounts are on a cash basis—that is, that each year's business is complete within that year. The term used in the table, "Expenditure from revenue of current year," must not be taken in a literal sense, as in only four years during the last decade has the revenue sufficed for the expenditure. This will be seen by comparing the annual expenditure given below with the revenue for the corresponding years shown in the preceding table:—

Year ended 30th June.	Net Expenditure, exclusive of Advances.			Per Inhabitant.		
	From Revenue of current year.	From Accumulated Surplus.	Total.	From Revenue of current year.	From Accumulated Surplus.	Total.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
*1880	5,129,028	331,287	5,460,315	7 0 9	0 9 1	7 9 10
*1890	9,385,669	3,677	9,389,346	8 10 3	0 0 1	8 10 4
1900	10,086,186	.....	10,086,186	7 10 1	.....	7 10 1
1901	10,729,741	.....	10,729,741	7 17 3	.....	7 17 3
1902	11,008,173	.....	11,008,173	7 19 7	.....	7 19 7
1903	11,467,235	.....	11,467,235	8 2 11	.....	8 2 11
1904	11,319,888	.....	11,319,888	7 18 2	.....	7 18 2
1905	11,195,075	.....	11,195,075	7 13 2	.....	7 13 2
1906	11,386,864	.....	11,386,864	7 12 3	.....	7 12 3
1907	12,799,797	.....	12,799,797	8 7 3	.....	8 7 3
1908	13,700,072	.....	13,700,072	8 14 2	.....	8 14 2
1909	14,692,168	.....	14,692,168	9 3 1	.....	9 3 1

\* Twelve months ended 31st December.

The apparently large increase in expenditure during the last three years is due to the transfers from the Consolidated Revenue Fund of large sums to the Public Works Fund and the Closer Settlement Fund which have been in operation during those years only. Excluding these transfers the expenditure, per inhabitant, was £7 15s. 4d. in 1907, £7 13s. 9d. in 1908, and £8 0s. 6d. in 1909. In the year ended 30th June, 1909, the transfers increased the expenditure per inhabitant by £1 2s. 7d. As the moneys so transferred are applied to public works previously charged to the General Loan Account, the practice means that smaller loans will be required, and the State will escape the interest and flotation charges. The advantages of the new system are obvious, and will be especially apparent when the current liability on Treasury Bills shall have been liquidated.

With a view of obtaining a proper conception of the sources from which the revenue is derived, and the objects upon which expenditure is made, the subjoined table has been prepared, covering the last triennial period.

In the table a separation has been effected between receipts and expenditure for purely Government purposes and for the business undertakings of the State. The figures are exclusive of advances made and repaid :—

	1906-7.	1907-8.	1908-9.
<b>REVENUE AND RECEIPTS.</b>			
<i>Governmental.</i>			
Surplus Revenue returned by Commonwealth .. .. .	£ 3,022,351	£ 3,591,371	£ 3,356,158
Taxation—			
Stamp Duties .. .. .	633,567	565,242	506,703
Land Tax .. .. .	345,497	178,889	80,794
Income Tax .. .. .	283,422	215,283	202,369
Licenses .. .. .	118,819	118,120	117,383
Total .. .. .	£ 1,381,305	1,077,534	907,249
Land Revenue—			
Alienation .. .. .	1,128,768	995,069	998,532
Occupation .. .. .	616,539	619,426	628,333
Miscellaneous .. .. .	138,749	169,899	151,137
Total .. .. .	£ 1,884,056	1,784,394	1,778,002
Services rendered (other than Business Undertakings) .. .. .	328,501	305,674	310,882
General Miscellaneous .. .. .	342,746	348,475	274,600
Total Governmental .. .. .	£ 6,958,959	7,107,448	6,626,891
<i>Business Undertakings of the State.</i>			
Receipts, Corporate Bodies—			
Railways and Tramways .. .. .	5,596,428	5,978,060	6,132,018
Sydney Harbour Trust .. .. .	298,087	327,579	334,694
Metropolitan Board of Water Supply and Sewerage .. .. .	496,794	504,092	486,393
Hunter District Water Supply and Sewerage .. .. .	42,217	43,584	44,175
Total Business Undertakings .. .. .	£ 6,433,476	6,858,315	6,998,180
Grand Total .. .. .	£ 13,392,435	13,960,763	13,625,071
<b>EXPENDITURE.</b>			
<i>Governmental.</i>			
Interest on Public Debt and on Trust Funds (excluding proportion chargeable to the four corporate bodies) .. .. .	907,026	730,043	755,058
Old-age and Invalidity Pensions and Administration .. .. .	515,177	538,131	627,213
Other Pensions, Retiring Allowances, &c. .. .. .	167,947	205,599	189,442
Parliamentary Electorates and Elections Act, including Electoral Office .. .. .	20,426	40,966	4,648
Parliamentary Allowances and Postage .. .. .	29,503	26,295	31,236
Local Government—			
Endowments, &c., to Municipalities .. .. .	65,805	17,242	7,637
Endowments, &c., to Shires .. .. .	114,494	169,865	193,136
Administration, &c. .. .. .	12,090	9,980	3,715
Agricultural, Pastoral, and Horticultural Societies .. .. .	17,390	19,627	13,096
Hospitals and Charities (including expenditure on account of bubonic plague) .. .. .	328,885	330,114	343,961
Lunacy, including Master-in-Lunacy .. .. .	135,728	144,523	156,559
Public Instruction, including Reformatories and Grants to Educational and Scientific Institutions .. .. .	946,044	1,038,620	1,088,328
All other Services of the State .. .. .	2,542,190	2,350,569	2,473,405
Total Governmental .. .. .	£ 5,802,705	5,621,574	5,897,434
Sinking Funds Instalments—Total .. .. .	405,000	406,145	478,791
Public Works Fund—Transfers in Aid .. .. .	718,051	1,404,479	809,561
Closer Settlement Fund—Transfers in Aid .. .. .	200,000	200,000	1,000,000
<i>Business Undertakings of the State.</i>			
Working Expenses—			
Railways and Tramways .. .. .	3,221,145	3,503,905	3,372,865
Sydney Harbour Trust .. .. .	82,764	90,836	104,208
Metropolitan Board of Water Supply and Sewerage .. .. .	127,419	139,896	152,846
Hunter District Board of Water Supply and Sewerage .. .. .	12,916	14,721	15,464
Total .. .. .	£ 3,444,244	3,749,358	4,145,383
Interest on Capital—			
Railways and Tramways .. .. .	1,717,378	1,781,153	1,825,936
Sydney Harbour Trust .. .. .	181,531	187,907	179,119
Metropolitan Board of Water Supply and Sewerage .. .. .	317,150	331,172	336,880
Hunter District Board of Water Supply and Sewerage .. .. .	13,648	18,284	19,064
Total .. .. .	£ 2,229,707	2,318,516	2,360,999
Total Business Undertakings .. .. .	£ 5,673,951	6,067,874	6,506,382
Grand Total .. .. .	£ 12,799,797	13,700,072	14,692,168

## SOURCES OF REVENUE.

The Revenue is classified under four heads—Taxation, Land Revenue, Receipts for Services Rendered, and General Miscellaneous Receipts. The net revenue derived under each of these four heads and the equivalent per inhabitant during the last nine years are shown below:—

Year ended 30th June.	Taxation.		Land Revenue.		Receipts for Services rendered.		General Miscellaneous Receipts.	
	Total.	Per Inhabitant.	Total.	Per Inhabitant.	Total.	Per Inhabitant.	Total.	Per Inhabitant.
1901	£ 1,980,885	£ s. d. 1 9 0	£ 2,066,545	£ s. d. 1 10 3	£ 5,316,832	£ s. d. 3 17 11	£ 1,248,160	£ s. d. 0 18 4
1902	1,108,770	0 16 1	2,001,574	1 9 0	5,025,066	3 12 10	2,371,946	2 1 8
1903	1,108,781	0 15 9	1,805,227	1 5 8	4,807,641	3 8 4	3,574,420	2 10 9
1904	1,100,193	0 15 5	1,860,570	1 6 0	5,012,401	3 10 0	3,275,164	2 5 9
1905	1,114,408	0 15 3	1,761,027	1 4 1	5,355,418	3 13 4	3,106,065	2 2 6
1906	1,297,776	0 17 4	1,733,074	1 3 2	5,954,668	3 19 7	3,297,564	2 4 1
1907	1,351,305	0 18 0	1,834,056	1 4 8	6,463,940	4 4 4	3,663,134	2 7 11
1908	1,077,534	0 13 8	1,784,394	1 2 8	6,831,410	4 6 11	4,267,425	2 14 3
1909	907,249	0 11 4	1,778,002	1 2 2	6,974,368	4 6 10	3,965,462	2 9 5

In considering the foregoing figures it must be borne in mind that the revenue from Posts and Telegraphs is included to the 28th February, 1901, and from Patents to the 31st May, 1904, only, when these services were taken over by the Commonwealth Government. For the purpose of comparison with previous years, the receipts from Railways and Tramways and the Metropolitan and Hunter District Water Supply and Sewerage Boards are included under the heading "Services rendered," and those from the Sydney Harbour Trust under "General Miscellaneous Receipts." The general miscellaneous receipts, however, include the balance of revenue collected within New South Wales by the Commonwealth Government and returned to the State.

## TAXATION.

License Fees, Land and Income Taxes, and Stamp Duties represent the various forms of taxation in force in the State. In the subjoined statement the revenue derived from each source during the period 1907-1909 is shown:—

Head of Revenue.	1906-7.	1907-8.	1908-9.
<i>Indirect Taxation—</i>			
Licenses:—	£	£	£
To retail fermented and spirituous liquors ...	87,043	86,566	85,417
Other ... ..	33,031	32,195	32,392
Total, Licenses ... ..	120,074	118,761	117,809
<i>Direct Taxation—</i>			
Income Tax ... ..	292,523	223,856	209,237
Land Tax ... ..	351,038	184,208	82,660
Total, Land and Income Tax ... ..	643,561	408,064	291,897
Stamp Duties:—			
Impressed and adhesive stamps ... ..	308,302	222,285	157,081
Probate, administration, and settlement duty ...	289,901	310,704	301,681
Other ... ..	51,678	73,545	51,205
Total, Stamp Duties ... ..	649,881	606,534	509,967
Gross Revenue from Taxation ... ..	1,413,516	1,133,359	919,673
Refunds ... ..	32,211	55,825	12,424
Net Revenue from Taxation ... ..	1,381,305	1,077,534	907,249

The control of Customs and Excise having passed to the Commonwealth Government on the 1st January, 1901, the foregoing statement does not include any figures relating to the taxation thereunder. In a publication of this character, however, it is desirable that the actual amount to which

the people of the State are subjected by way of taxation, whether direct or indirect, should be clearly set forth. In the following statement is shown in detail the net revenue derivable from each source of taxation for the decennial period ended 30th June, 1909, after deducting refunds, but not allowing for cost of collection :—

Year ended 30th June.	Indirect Taxation.			Direct Taxation.			Total Taxation.
	Customs.	Excise.	Licenses.	Income Tax.	Land Tax.	Stamp Duties.	
	£	£	£	£	£	£	£
1900	1,398,105	338,272	120,299	166,051	286,226	309,116	2,618,069
1901	1,574,592	383,752	123,527	205,304	288,369	424,349	2,999,893
1902	2,324,000	488,732	124,438	190,315	301,981	492,036	3,921,502
1903	2,861,710	617,032	122,409	199,159	314,104	473,109	4,587,523
1904	2,604,048	625,738	122,137	193,240	322,246	462,570	4,329,979
1905	2,390,735	642,882	122,606	195,252	323,267	473,283	4,148,025
1906	2,563,552	670,370	121,387	266,233	329,998	580,158	4,531,698
1907	2,845,786	727,527	118,819	283,422	345,497	633,567	4,954,618
1908	3,672,072	842,590	118,120	215,283	178,889	565,242	5,592,196
1909	3,465,922	797,756	117,383	202,369	80,794	506,703	5,170,927

A marked increase in the aggregate amount of taxation is disclosed in the foregoing table, ranging as it does from £2,618,069 in the opening year of the period to £5,170,927 in the closing year. The imposition of uniform customs and excise duties by the Commonwealth Parliament from the 9th October, 1901, largely contributed to this increase, and in the two last years there was a further increase in Customs collections, due to the introduction of an amended tariff, as from 8th August, 1907, by which duties in most instances were increased largely, as compared with the tariff of 1901.

There was a noticeable decrease, however, in the revenue derived from Income, Land, and Stamp Duty Taxation during the years ended 30th June, 1908 and 1909. This was due to amending legislation under Acts Nos. 7 and 8 of 1907, so far as Income Tax and Stamp Duties are concerned, whereby, from the 1st January, 1908, any income won by personal exertion, up to £1,000 a year, is exempt from direct taxation. Stamp duties on bills of exchange, promissory notes, drafts, and receipts have been repealed. The decline in revenue from land tax is attributable to the operation of the Taxation Amending Acts of 1905 and 1906, and the Sydney Corporation (Amendment) Act of 1908, which provide for the allotment to Shires and Municipalities of land taxation collected within their area. These Taxation Amending Acts are a necessary corollary to the Local Government Extension Act of 1906.

The figures would be incomplete without corresponding information respecting the taxation per head of population, which is set forth hereunder :—

Year ended 30th June.	Indirect Taxation.			Direct Taxation.			Total Taxation.
	Customs.	Excise.	Other.	Income Tax.	Land Tax.	Stamp Duties.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1900	1 0 10	0 5 0	0 1 10	0 2 5	0 4 3	0 4 7	1 18 11
1901	1 3 1	0 5 8	0 1 10	0 3 0	0 4 3	0 6 2	2 4 0
1902	1 13 8	0 7 1	0 1 10	0 2 9	0 4 4	0 7 2	2 16 10
1903	2 0 8	0 8 9	0 1 9	0 2 10	0 4 5	0 6 9	3 5 2
1904	1 16 4	0 8 9	0 1 9	0 2 8	0 4 6	0 6 6	3 0 6
1905	1 12 10	0 8 10	0 1 8	0 2 8	0 4 5	0 6 6	2 16 11
1906	1 14 4	0 9 0	0 1 7	0 3 7	0 4 5	0 7 9	3 0 8
1907	1 17 2	0 9 6	0 1 7	0 3 8	0 4 6	0 8 3	3 4 8
1908	2 6 8	0 10 8	0 1 6	0 2 9	0 2 3	0 7 2	3 11 0
1909	2 3 2	0 9 11	0 1 6	0 2 6	0 1 0	0 6 4	3 4 5



The receipts from licenses show very little fluctuation from year to year, although those from licenses to retail fermented and spirituous liquors, &c., have declined during the last three years, the result, apparently, of the recent liquor legislation. The amount received during the year ended 30th June, 1909, under the different heads, was as follows:—

Licenses.	Amount.	Licenses.	Amount.
	£		£
Wholesale spirit dealers ... ..	5,580	Explosives Act of 1905... ..	1,108
To retail fermented and spirituous liquors, Colonial wine, cider, and perry ... ..	85,417	Sale of tobacco and cigars ... ..	3,299
Billiard and bagatelle ... ..	7,547	Metropolitan Traffic Act ... ..	2,871
Auctioneers ... ..	6,258	Other ... ..	2,522
Hawkers, pedlars, and pawn- brokers ... ..	3,207	Refunds ... ..	117,809
		Total net Receipts ... ..	£ 117,383

The receipts from licenses by the Mines Department, and from those issued under the Fisheries Department, are not included in the table.

#### LAND AND INCOME TAXATION.

The land tax of the State is levied on the unimproved value at the rate of 1d. in the £. A sum of £240 is allowed by way of exemption, and where the unimproved value is in excess of that sum a reduction equal to the exemption is made; but where several blocks of land within the State are held by a person or company, only one amount of £240 may be deducted from the aggregate unimproved value. In cases where land is mortgaged, the mortgagor is permitted to deduct from the tax payable a sum equal to the income-tax paid by the mortgagee on the interest derived from the mortgage of the whole property, including improvements. The lands exempt from taxation comprise Crown lands not subject to the right of purchase, or held under special or conditional lease, or as homestead selections; other lands vested in His Majesty, or His representative; lands vested in the Railway Commissioners; lands belonging to or vested in local authorities; public roads, reserves, parks, cemeteries, and commons; lands occupied as public pounds, or used exclusively for or in connection with public hospitals, benevolent institutions, and other public charities, churches and chapels, the University and its affiliated colleges, the Sydney Grammar School, and mechanics' institutes and schools of art; and lands dedicated to and vested in trustees and used for zoological, agricultural, pastoral, or horticultural show purposes, or for other public or scientific purposes.

Under the Local Government Act, 1906, when the Council of a shire or municipality makes and levies a general rate, not less than 1d. in the £ on the unimproved value of land within its area, land tax ceases to be collected by the State therein. A similar provision now extends to the City of Sydney under the operation of the "Sydney Corporation (Amendment) Act, 1908."

An income-tax of 6d. in the £ is imposed upon so much of every income as may be in excess of £1,000, if the income is derived by personal exertion, otherwise the exemption is only £200. Incomes are altogether exempt which are derived from the ownership or use or cultivation of land upon which land tax is payable. The exemptions include the revenues of local authorities, the income of life assurance societies, and of other societies and companies not carrying on business for purposes of profit or gain, and not being income derived from mortgages; the dividends and profits of the Savings Bank of New South Wales and the

Government Savings Bank; the funds and income of registered friendly societies and trades unions; the incomes and revenues of all ecclesiastical, charitable, and educational institutions of a public character; and income accruing to foreign investors from Government Stock. The regulations provide that, in the case of every company, its income shall be taken as the income of the company in New South Wales and from investments in the State. Public companies are not allowed the exemption of £200.

The variations in regard to the number and amount of incomes liable to taxation are shown in the following table, which relates to the last eleven years. The first year for which the information is available is 1899:—

Year.	Number of Incomes.	Net Income.	Year.	Number of Incomes.	Net Income.
		£			£
1899	19,775	11,123,343	1905	22,814	13,769,828
1900	20,051	12,140,569	1906	23,832	14,937,906
1901	19,991	12,065,842	1907	24,091	16,410,484
1902	20,299	12,127,129	1908	5,591	14,014,275
1903	22,234	13,415,760	1909	5,409	12,422,857
1904	22,299	12,482,094			

The number of incomes taxed in 1908 and 1909 is very much reduced, for the reason given above, and the figures quoted for these years in the statement are exclusive of incomes from personal exertion under £1,000.

A distribution of the incomes subject to taxation according to the amounts taxable is set forth in the following statement. The particulars are based on the experience of the nine years ended 30th June, 1907, the years 1908 and 1909 being excluded; as the source of taxation was restricted considerably. These, however, represent only a portion of the incomes derived from New South Wales, as incomes derived from land, or the use and occupancy of land, are not taxable. The net earnings are given in the table:—

Categories.	Average of Nine Years.		Proportion in each category.	
	Number of Incomes.	Amount of Incomes.	Of Number of Incomes.	Of Amount of Incomes.
		£	per cent.	per cent.
£200 and under £250...	6,371	1,430,269	29·60	11·00
250 „ 300...	4,074	1,109,310	18·93	8·54
300 „ 400...	4,140	1,416,527	19·23	10·90
400 „ 500...	2,028	904,974	9·42	6·96
500 „ 700...	1,949	1,126,764	9·06	8·67
700 „ 1,000...	1,200	984,712	5·57	7·58
1,000 „ 1,200...	392	426,930	1·82	3·29
1,200 „ 2,000...	708	1,068,940	3·29	8·23
2,000 „ 5,000...	462	1,354,765	2·15	10·43
5,000 „ 10,000...	122	819,303	0·57	6·31
10,000 „ 20,000...	47	643,381	0·22	4·95
20,000 and upwards ...	31	1,707,889	0·14	13·14
Total ...	21,524	12,993,764	100·00	100·00

The revenue from land and income taxes since 1896, the year in which they were first imposed, is shown hereunder. The amounts exclude refunds rendered necessary through correction of errors by the taxpayer or adjustments by the Department, but include refunds brought about through the income of the year of assessment falling short of the amount of income of the preceding year on which the assessment was made; a provision which was repealed by the "Land and Income Tax Amendment Act, 1904":—

Year.	Land Tax.	Income Tax.	Year.	Land Tax.	Income Tax.
	£	£		£	£
1896	.....	27,658	1903	314,104	214,686
1897	139,079	295,537	1904	322,246	211,831
1898	364,131	166,395	1905	323,267	195,252
1899	253,901	178,032	1906	329,998	266,233
1900	236,227	183,460	1907	345,497	283,422
1901	288,369	215,893	1908	178,889	215,283
1902	301,981	203,625	1909	80,794	202,369

The fluctuations shown in the first three years are due to the difficulties inseparable from the introduction of a system of direct taxation; the returns for 1899 and subsequent years, however, are under normal conditions, which have been varied recently, as already shown, by the increased exemption for the majority of taxpayers, in the case of the income tax, and by the transfer to shires and municipalities of the land tax.

#### LAND REVENUE.

The receipts from the sale and occupation of Crown land are treated as public income. While the proceeds from occupation, being rent, can be reasonably regarded as an item of revenue, the inclusion of the proceeds of auction, conditional purchase, and other classes of sale in the ordinary revenue is open to serious objection. It has been urged in justification of the course that the sums so obtained have enabled the Government either to construct works, which enhance the value of the remaining public lands and facilitate settlement, or to endow municipalities, and thus enable them to carry out local works. Under the Act passed in 1906, instituting the Public Works Fund previously mentioned, two-thirds of the net proceeds of the sale of Crown Lands, less 20 per cent., equivalent to a clear 53½ per cent., are paid to that fund.

The revenue derived from lands may be grouped under three main heads—(a) auction sales and other forms of unconditional sale; (b) conditional sales, or lands disposed of under the system of deferred payments; (c) rents from pastoral, mining, and other classes of occupation. The first two sources have been amalgamated under the head of Alienation; while the last is classed as Occupation.

More than half the annual receipts from land are obtained from alienation, as will be seen from the following table, which gives in detail the revenue from 1907 to 1909, but as about 40 per cent. of the amounts shown as instalments and interest represents interest on the balance of

conditional purchases outstanding, to that extent the receipts from sales may be legitimately viewed as income:—

Head of Revenue.	1906-7.	1907-8.	1908-9.
<i>Alienation—</i>			
Sales, etc. :—	£	£	£
Auction sales ... ..	90,367	90,986	79,576
Other ... ..	14,413	10,048	13,077
<b>Total ... ..</b>	<b>104,780</b>	<b>101,034</b>	<b>92,653</b>
<i>Conditional Purchases :—</i>			
Deposits and improvements... ..	72,082	78,866	93,060
Instalments and interest ... ..	649,440	579,161	551,141
Interest (under Act of 1861) ... ..	33,036	25,756	25,194
Balances ... ..	228,305	156,531	183,861
Homestead Selections ... ..	66,295	75,179	72,856
<b>Total ... ..</b>	<b>1,049,158</b>	<b>915,493</b>	<b>926,112</b>
<b>Total, Alienation... ..</b>	<b>1,153,938</b>	<b>1,016,527</b>	<b>1,018,765</b>
<i>Occupation—</i>			
<i>Pastoral :—</i>			
Pastoral leases ... ..	4,420	2,779	829
Conditional leases ... ..	202,450	206,016	207,918
Occupation licenses ... ..	47,879	40,484	35,080
Homestead leases ... ..	5,038	4,498	2,226
Annual leases ... ..	45,343	48,477	42,982
Settlement leases ... ..	100,381	103,120	109,076
Improvement leases ... ..	58,151	49,018	51,997
Western Land Division leases ... ..	50,626	65,521	74,758
Other leases ... ..	25,058	29,332	37,122
<b>Total ... ..</b>	<b>539,346</b>	<b>549,245</b>	<b>561,988</b>
<i>Mining—</i>			
Mineral leases ... ..	24,924	19,142	17,347
Leases of auriferous lands ... ..	6,342	2,174	1,680
Miners' rights... ..	4,018	3,636	3,259
Royalty on minerals ... ..	58,671	69,912	66,542
Other ... ..	13,770	12,004	9,495
<b>Total ... ..</b>	<b>107,725</b>	<b>106,868</b>	<b>98,323</b>
<b>Total, Occupation ... ..</b>	<b>647,071</b>	<b>656,113</b>	<b>660,311</b>
<i>Miscellaneous Land Receipts—</i>			
Survey fees ... ..	49,558	50,456	45,177
Rents, special objects ... ..	30,570	33,428	36,265
Timber licenses, royalty, etc. ... ..	47,265	54,205	55,041
Quit rents and other receipts ... ..	30,969	49,979	37,432
<b>Total ... ..</b>	<b>158,362</b>	<b>188,068</b>	<b>173,915</b>
<b>Gross Revenue from Lands ... ..</b>	<b>1,959,371</b>	<b>1,860,708</b>	<b>1,852,991</b>
<b>Refunds ... ..</b>	<b>75,315</b>	<b>76,314</b>	<b>74,989</b>
<b>Net Revenue from Lands ... ..</b>	<b>1,884,056</b>	<b>1,784,394</b>	<b>1,778,002</b>

The revenue from land sales has declined year by year, both absolutely and as compared with population. The revenue from this source is now some £1,323,000 less than was the case in 1881. In regard to occupation, a different condition of things is disclosed; the gross receipts in 1908-9 were £789,049, or an increase of £451,399 as compared with 1881.

The gross revenue derived from alienation and occupation, and the gross and net land revenue, from 1900 to 1909, were as follows:—

Year ended 30th June.	Alienation.		Occupation.		Gross Revenue from Lands.	Refunds.	Net Revenue from Lands.
	Sales, etc.	Conditional Purchases. *	Pastoral. †	Mining, etc. ‡			
	£	£	£	£	£	£	£
1900	127,829	1,227,870	737,114	88,153	2,180,966	64,890	2,116,076
1901	135,046	1,234,172	679,315	74,830	2,123,363	56,818	2,066,545
1902	120,202	1,173,090	694,099	70,286	2,057,677	56,103	2,001,574
1903	119,770	1,008,998	658,696	83,227	1,870,691	65,464	1,805,227
1904	117,518	1,058,345	661,904	98,194	1,935,961	75,391	1,860,570
1905	102,316	1,005,839	636,057	101,255	1,845,467	84,440	1,761,027
1906	95,582	1,049,796	546,904	128,318	1,820,600	87,526	1,733,074
1907	104,780	1,098,716	600,885	154,990	1,959,371	75,315	1,884,056
1908	101,034	965,949	632,652	161,073	1,860,708	76,314	1,784,394
1909	92,653	971,289	635,685	153,364	1,852,991	74,989	1,778,002

\* Includes Survey Fees. † Includes all Miscellaneous Receipts except Survey Fees and Timber Licenses.  
‡ Includes Timber Licenses.

The land policy of the State, though largely connected with public finance, has been more fully discussed in the part of this work dealing with land settlement.

The reappraisal of the leases in the Western Division, under the provisions of the Western Lands Act of 1901 caused a considerable shrinkage in revenue. Radical reductions were necessary to prevent the abandonment of enormous tracts of country, which would thereby become worse than non-productive, inasmuch as they would form breeding-grounds for rabbits and other noxious animals. The loss of revenue, however, will be counterbalanced by the benefit resulting from the occupation of this large territory, under conditions which will encourage enterprise and the expenditure of capital in the proper development of the country, and in effectually coping with the rabbit scourge.

As a result of the reappraisal of conditional purchases and conditional leases, made under the Crown Lands (Amendment) Act of 1899, the revenue from these lands has been considerably reduced.

#### RECEIPTS FOR SERVICES RENDERED.

The receipts from the Railways and Tramways and from Water Supply and Sewerage comprise the greater part of the revenue received from services, the balance under this heading being made up chiefly of dues and fees of various kinds.

After making provision for working expenses and interest on loan capital, the Railways and Tramways, during the financial year just closed, produced a surplus of £434,117, while the operations of the Metropolitan Board of Water Supply and Sewerage show a deficit of £3,333, and the Hunter District Water Supply and Sewerage Board a surplus of £9,647.

The gross receipts under each head during the period 1907-9 were as follow:—

Service.	1906-7.	1907-8.	1908-9.
	£	£	£
Railways ... ..	4,730,203	5,044,791	5,154,197
Tramways ... ..	910,323	1,020,727	1,102,517
Water Supply and Sewerage—			
Metropolitan—Water Supply ... ..	277,829	287,442	272,005
Sewerage ... ..	219,660	217,151	214,931
Hunter District Water Supply ... ..	42,253	45,363	44,279
Public school fees ... ..	34,422	4,716	6,875
Pilotage, harbour and light rates, and fees ... ..	94,470	106,297	91,395
Mint receipts ... ..	17,639	10,261	11,369
Miscellaneous services ... ..	187,129	186,704	203,153
Gross revenue from Services ... ..	6,513,928	6,923,452	7,100,721
Refunds ... ..	49,988	92,042	126,353
Net revenue from Services ... ..	6,463,940	6,831,410	6,974,368

The gross revenue derived annually from each of the principal services, and the net revenue from all sources during the last ten years were as shown in the following statement:—

Year ended 30th June.	Railways and Tramways.	Posts and Telegraphs.	Water Supply and Sewerage (Metropolitan and Hunter).	Other Services.	Total Revenue from Services.		
					Gross.	Refunds.	Net.
	£	£	£	£	£	£	£
1900	3,640,450	819,460	350,897	278,970	5,089,777	97,256	4,992,521
1901	4,158,016	580,539	355,441	306,747	5,400,743	83,911	5,316,832
1902	4,390,951	.....	377,019	324,661	5,092,631	67,565	5,025,066
1903	4,197,789	.....	409,019	320,008	4,926,816	119,175	4,807,641
1904	4,322,162	.....	418,087	331,742	5,071,991	59,590	5,012,401
1905	4,556,541	.....	513,940	320,712	5,391,193	35,775	5,355,418
1906	5,114,497	.....	532,812	371,359	6,018,668	64,000	5,954,668
1907	5,640,526	.....	539,742	333,660	6,513,928	49,988	6,463,940
1908	6,065,518	.....	549,956	307,978	6,923,452	92,042	6,831,410
1909	6,256,714	.....	531,215	312,792	7,100,721	126,353	6,974,368

The net revenue just given should be read with the rates per inhabitant for the same years, which will be found on a previous page. The revenue of the Sydney Harbour Trust is not included in the above table but under "General Miscellaneous Receipts." The income derived by the Government from services has, with little interruption, been steadily increasing; this, however, is only what would naturally be expected in a growing community. It will be seen from the table giving the rates per head that, notwithstanding the transfer of the Post Office and Telegraph Department to Federal control on the 1st March, 1901, the rate per head in 1908-9 was £4 6s. 10d., as compared with £3 14s. 4d. in 1899-1900. The increase in the return from services is undoubtedly largely due to the construction of railways and tramways, from which 88 per cent. of such revenue was derived during 1908-9. Compared with the population, the income derived from the services of the State is enormous.

With the exception of 81½ miles of private railways, 6¾ miles of private tramways, and a number of short lines, in extent 189½ miles, in mining districts connecting the mines with the main lines, all railways and tramways within the State belong to, and are controlled by, the Government.

The collections under the head of Water Supply and Sewerage include the returns of the Boards operating in the metropolitan area and in the Hunter River district. These Boards form part of the local government scheme, and it is an open question whether the receipts and expenditure connected with them should be included in the general account. The loans from which the works have been constructed, however, form part of the public debt; and the interest payable is, therefore, rightly included as an item of the general accounts.

The balance of the revenue collected under the head of services consists of fees of office, pilotage and harbour dues, and other minor items. The revenue derived from these services, however, is merely nominal, as the cost of the work performed in nearly every case far exceeds the receipts. The gross amount received under each head during the year ended 30th June, 1909, was:—

	£
Fees of office ... ..	116,398
Public school and training fees ... ..	6,875
Pilotage and harbour dues ... ..	91,395
Other fees ... ..	98,124
<b>Total ... ..</b>	<b>£312,792</b>

Up to the 30th June, 1906, public school fees amounted annually to about £80,000. Since October, 1906, fees in primary and superior public schools have been abolished under the "Free Education Act, 1906," and from that date the revenue consists of the fees from High Schools and from the Training College, and is inconsiderable in amount.

#### GENERAL MISCELLANEOUS RECEIPTS.

All items which cannot be placed rightly under one of the three great classes (Taxation, Land Revenue, and Services) are grouped under the heading of "General Miscellaneous Receipts," which consist of "Rents, exclusive of land," "Forfeitures," "Balances, Transfers, and Repayments," and similar accounts. For the last nine years also the figures include collections in connection with the Sydney Harbour Trust and the Darling Harbour resumptions, as well as balances of revenue collected by the Commonwealth and returned to the State. The gross amount received under each of the main sub-heads, and the gross and net revenue received under the general head since 1900 are shown in the following statement:—

Year ended 30th June.	Rents, exclusive of Land.	Balances, Transfers, and Repayments.	Revenue collected by the Commonwealth and returned to the State.	Other Miscellaneous Receipts.	Revenue from Miscellaneous Receipts.		
					Gross.	Refunds.	Net.
	£	£	£	£	£	£	£
1900	80,739	44,112	.....	131,586	256,437	9,367	247,070
1901	227,774	57,625	883,273	99,279	1,267,951	19,791	1,248,160
1902	303,732	58,053	2,385,905	131,273	2,878,963	7,017	2,871,946
1903	344,456	51,655	3,053,133	140,248	3,589,492	15,072	3,574,420
1904	345,610	112,610	2,683,417	158,104	3,299,741	24,577	3,275,164
1905	339,219	97,583	2,529,070	146,544	3,112,416	6,351	3,106,065
1906	344,445	99,534	2,742,770	120,563	3,307,312	9,748	3,297,564
1907	365,460	26,364	3,022,351	269,390	3,683,565	20,431	3,663,134
1908	390,158	41,305	3,591,371	255,004	4,277,838	10,413	4,267,425
1909	397,510	45,363	3,356,158	172,226	3,971,257	5,805	3,965,452

Since 1901 the collections in connection with the Sydney Harbour Trust and the Darling Harbour resumptions have been included under the heading of "Rents exclusive of Land."

## HEADS OF EXPENDITURE.

The following table gives the net expenditure under the more important heads since 1900. The amounts given are exclusive of transactions under "Advances made," which, as mentioned previously, are not items of expenditure in the proper sense of the term:—

Year ended 30th June.	Net Expenditure on—						Total Net Expenditure.
	Railways and Tramways.	Post and Telegraphs	Water Supply and Sewerage (Metropolitan and Hunter).	Public Instruction.	Interest on Public Debt (Funded and Unfunded).	Other Services.	
	£	£	£	£	£	£	£
1900	2,102,793	726,569	89,627	769,572	2,310,271	4,087,354	10,086,186
1901	2,474,376	527,254	98,921	785,279	2,346,852	4,497,059	10,729,741
1902	2,806,161	.....	115,193	856,622	2,498,750	4,731,447	11,008,173.
1903	2,948,554	.....	126,432	899,918	2,619,766	4,872,565	11,467,235.
1904	2,921,026	.....	121,570	905,975	2,745,348	4,625,969	11,319,888.
1905	2,917,702	.....	136,279	912,832	2,856,872	4,371,390	11,195,075.
1906	2,972,473	.....	132,039	928,884	2,941,059	4,412,409	11,336,864.
1907	3,221,145	.....	140,335	946,044	3,136,733	5,355,540	12,799,797
1908	3,503,905	.....	154,617	1,038,620	3,048,559	5,954,371	13,700,072.
1909	3,872,865	.....	168,310	1,088,328	3,116,057	6,446,608	14,692,168.

The annual expenditure for the services named has increased on the whole; the revenue has likewise grown, but not in a corresponding ratio. To establish the relative position of each service, it will be necessary to place the accounts side by side, together with the per capita presentment. This is shown in the next table. The figures given for the public debt apply only to interest expenditure; the amount paid for redemptions, which in point of volume is unimportant, and the expenditure incurred in the management and inscription of stock in London are included under the head of "Other Services."

## EXPENSES OF GENERAL GOVERNMENT.

In the figures already given regarding the revenue of the State, the amount received on account of the business undertakings of the State—that is, the earnings of the railways, the tramways, the boards of water supply and sewerage, and the Sydney Harbour Trust—are included in the general revenue. This is almost a matter of necessity so long as the expenditure includes interest on the public debt incurred to promote these services. In consequence of this system the annual cost of maintaining the services referred to is also included in the expenditure. The figures given in the table above do not admit of a ready distinction between these two kinds of expenditure; but as the information is necessary for the explication of the public accounts, the following statement has been compiled. It shows the progress of expenditure as classified under two headings—ordinary expenditure of general government, including interest on capital liability of services connected therewith; and expenditure on services practically outside the administration of general government, such as railways, tramways, water supply and sewerage, and the Sydney Harbour Trust, and the interest on capital liability of the services



enumerated. The figures for the five years ended 30th June, 1909, and the rates per inhabitant, are as follow:—

Year ended 30th June	Total Net Expenditure.							
	Governmental.				Business Undertakings.			
	Public Instruction.	Interest on Public Debt.	Other Services.	Total.	Railways and Tramways.	Water Supply and Sewerage.	Sydney Harbour Trust.	Total.
	£	£	£	£	£	£	£	£
1905	916,071	883,236	4,096,160	5,895,467	5,299,608			5,299,608
1906	938,640	938,398	4,188,350	6,065,388	4,616,305	443,916	261,255	5,321,476
1907	946,044	907,026	5,272,776	7,125,846	4,938,523	471,133	264,295	5,673,951
1908	1,038,620	730,043	5,863,535	7,632,198	5,285,058	504,073	278,743	6,067,874
1909	1,088,328	755,058	6,342,400	8,185,786	5,698,801	524,254	283,327	6,506,382

Net Expenditure per Inhabitant.								
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1905	0 12 7	0 12 1	2 16 0	4 0 8	3 12 6			3 12 6
1906	0 12 6	0 12 7	2 16 0	4 1 1	3 1 9	0 5 11	0 3 6	3 11 2
1907	0 12 4	0 11 10	3 8 11	4 13 1	3 4 6	0 6 2	0 3 6	3 14 2
1908	0 13 3	0 9 3	3 14 6	4 17 0	3 7 3	0 6 4	0 3 7	3 17 2
1909	0 13 7	0 9 5	3 19 0	5 2 0	3 11 0	0 6 6	0 3 7	4 1 1

For the year 1905 the figures for each department under Business Undertakings cannot be given exactly, as during that year the proportion of the Public Debt attributable to each service had not been determined.

Under the heading of the expenses of general government are included civil and legal expenditure, and the cost of Education and such public works as are constructed out of the ordinary revenue, as also the interest payable where the proceeds of loans have been used to defray the cost of their construction, together with the sinking fund instalments. The expenditure per head of population on account of some of these services, viz., educational and others of less importance, has either been stationary or declining until last year, when the cost of public instruction increased both in the total and per inhabitant more than at any other time during the quinquennium. The increase in other services during the last three years, as previously explained, is due to the transfers from the Consolidated Revenue in aid of the Public Works and Closer Settlement Funds, as shown in the following table. Excluding the transfers, the total governmental expenditure in 1909 was £3 19s. 5d. per head.

Year ended 30th June.	Transfers from Consolidated Revenue.			
	Public Works Fund.	Closer Settlement Fund.	Total.	Per Inhabitant.
	£	£	£	£ s. d.
1907	718,051	200,000	918,051	0 11 11
1908	1,404,479	200,000	1,604,479	1 0 5
1909	809,561	1,000,000	1,809,561	1 2 7

## TRUST FUNDS AND SPECIAL DEPOSITS.

The Trust Funds and Special Deposits form a very important division of the public finances, not only from the nature of the transactions and the volume of accumulated funds, but also by reason of the manner in which the accounts are operated upon in conjunction with the general finances of the State. To show the importance of the Account, the following table has been compiled. In 1871 the amount of credit was £213,340; in 1886, £2,702,486; and in 1906, £10,007,626.

Year ended 30th June.	Amount.	Year ended 30th June.	Amount.	Year ended 30th June.	Amount.
	£		£		£
*1871	213,340	1900	10,103,940	1905	10,562,513
*1876	854,571	1901	10,823,128	1906	10,007,626
*1881	1,671,183	1902	11,720,889	1907	2,359,665
*1886	2,702,486	1903	10,564,026	1908	1,867,442
*1891	4,997,055	1904	10,191,160	1909	2,575,757
1896	7,657,741				

\* Year ended 31st December.

The decreased amounts shown for the last three years are due to the removal of the securities belonging to the Government Savings Bank to the control of the Savings Bank Commissioners. As these securities are no longer vested in the Colonial Treasurer they are excluded from the Public Accounts. The Treasurer still holds certain balances, however, which belong to that bank, namely, the moneys which were not invested at the time the securities were transferred to the Commissioners, the amount so held at 30th June, 1909, being £1,145,292.

The Trust Funds subject to the Audit Act of 1902 are divided into two classes, viz. :—Trust Accounts and Special Deposits. The former is defined by the Act to mean funds of which the Treasurer is, by statutory obligation, a trustee and custodian, and moneys that have been placed to the Trust Fund under previous Audit Acts, or which may be paid thereto by the authority of the existing Act. The Special Deposits Account consists of sums deposited with the Treasurer for Store Accounts, Advance Accounts, and moneys not included in the Consolidated Revenue Account, General Loan Account, or Trust Account, which the Treasurer may direct to be placed to the Special Deposits Account.

The Special Trust Accounts consist of funds established by statute for particular objects, the principal being the Supreme Court Accounts and Sinking Funds for extinction of indebtedness on works not of a reproductive character. These accounts are controlled by the officers in charge of the departments, and are not directly subject to the provisions of the Audit Act, but, for general purposes, they form part of the Public Banking Account.

The total of all moneys under these headings on the 30th June, 1909, was £2,575,757, of which £1,145,292 were classed as Trust Accounts, £1,193,880 as Special Deposits, and £236,585 as Special Trust Accounts. The funds of the Government Savings Bank which have not been handed over to the Commissioners of that institution account for the whole of the first-mentioned item. Of the Special Deposits, the largest items were:—Government Savings Bank Deposit Account, £370,000; State Debt Commissioners' Deposit Account, £188,300; State Debt Commissioners' Trust Account, £93,617; Public Works Department Store Advance Account, £87,139; and Sundry Deposits Account, £325,704. The

balance of £129,120 comprises items which are each under £20,000 in amount. The Special Trust Accounts were Supreme Court moneys, which amounted to £236,585.

The existence of a large account upon which the Treasury was free to operate has been of great assistance to the Consolidated Revenue in times past, the Trust Funds forming a strong reserve on which the Government drew in time of need. The great bulk of the funds bore interest, whether invested or not; but the power to use those funds enabled the Government to effect a large saving of the interest, which would have been charged for accommodation from the banks. At the same time, the existence of the funds has been a strong temptation to extravagance, as without them it would not have been possible to cope with the large excess of expenditure over revenue that was so marked a feature of public finance between 1885 and 1905.

Of the total sum of £2,575,757 at credit of the Trust Funds on 30th June, 1909, £32,806 were invested in securities; £2,029,587 were uninvested, but used in Advances and on Public Account at interest; while the remainder, £513,364, was similarly used, but without interest charge.

With the exception of the sum deposited in the Treasury by the Savings Bank of New South Wales, which was invested at  $3\frac{1}{2}$ ,  $3\frac{3}{4}$ , and 4 per cent., a general rate of 4 per cent. was allowed to 31st December, 1894, on all funds entitled to interest. On the 1st January, 1895, the rate was reduced to 3 per cent. on all accounts except those on which the old rates could not be altered till the terms of the existing arrangements had expired. The rate of interest now paid is 3 per cent., with the following exceptions:—Government Savings Bank Trust Account and Crown Leases Security Deposit Account,  $3\frac{1}{2}$  per cent.; Government Savings Bank Deposit Account,  $3\frac{1}{2}$  and  $3\frac{3}{4}$  per cent.; Fixed Deposits and the Sinking Funds of the Municipal Council of Sydney, 4 per cent.; the Master in Equity and Master in Lunacy Accounts, 1 per cent.; Curator of Intestate Estates and Registrar of Probates Accounts, 2 per cent.

On the 30th June, 1909, the Trust Funds in the custody of the Colonial Treasurer were held thus:—

	£
In Banks at current account ... ..	2,542,951
In New South Wales Funded Stock ... ..	14,500
In miscellaneous securities ... ..	18,306
Total ... ..	£2,575,757

The total amount of £2,575,757 is exclusive of the sums to the credit of the Public Works and Closer Settlement Funds—that is to say, the credit balance, £4,550,720, on page 385, less £1,974,963, the sum of the amounts to the credit of the Consolidated Revenue, the Closer Settlement, and the Public Works Accounts, gives the amount of £2,575,757.

The total amount of interest received by the Treasury during the year ended June, 1909, on Bank deposits and other temporary investments, was £42,006, of which part was earned by moneys belonging to the Trust Account.

All Trust Funds under the Audit Act remaining unclaimed for a period of two years, and balances of intestate and probate estates unclaimed after a lapse of six years, are transferred and surrendered to the Consolidated Revenue, and no person may legally claim moneys so vested; nevertheless, the Treasury invariably recognises and pays in all cases where an otherwise valid claim can be shown.

Under the provisions of the "State Debt and Sinking Fund Act, 1904," a Board called the "State Debt Commissioners," was constituted, consisting of the State Treasurer, the Chief Justice, the Speaker of the Legislative Assembly, and the Under Secretary to the Treasury, to administer, from the 1st July, 1905, various Trust Accounts and balances at credit of certain Special Accounts. The Sinking Funds created by the Loan Acts of 1894 (No. 2), 1895, 1896, 1897, 1898, and 1899 were also transferred to, and are administered by, the Commissioners.

## LOAN APPROPRIATIONS.

All items of expenditure to be met by loan are authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue, and under the Inscribed Stock Act of 1883 (46 Vic. No. 12), the passing of the Loan Estimates confers the power of raising the money required without the necessity of a special Loan Act. There is a further restriction to the expenditure of money, whether from loans or revenue, in the operation of the Public Works Act of 1888. Under the provisions of this Act, the question of the propriety of constructing all works estimated to cost more than £20,000, except those connected with the maintenance of Railways, is referred by resolution of the Legislative Assembly to the Parliamentary Standing Committee appointed during the first Session of each Parliament. The Committee investigates and reports to Parliament, and the Assembly declares whether it is expedient to carry out the proposed work; if the declaration be favourable, a Bill based thereon must be passed before the authorisation is absolute. The Loan Act of 1909 authorised the raising of a loan of £6,112,912 for services shown in the subjoined table:—

Services.	Total.
	£
Railways ... ..	1,164,000
Tramways ... ..	165,000
Railways and Tramways—Stores, &c. ... ..	50,000
Railway Construction... ..	831,125
Tramway Construction ... ..	117,791
New Street ... ..	12,350
Sydney Harbour Trust ... ..	160,796
Metropolitan Board of Water Supply and Sewerage ... ..	226,300
Hunter District Water Supply and Sewerage Board ... ..	24,200
Water Supply and Sewerage Construction, including Country Towns ... ..	444,650
Abattoirs, Homebush Point... ..	38,000
Newcastle Harbour North Breakwater ... ..	15,000
Repayment of Loans ... ..	2,863,700
Total ... ..	£ 6,112,912

No provision is made for redeeming a portion of the proposed loan by a Sinking Fund. The principle of redemption from revenue was applied, under the Loan Acts of 1894 to 1899, to expenditure on works whose value will disappear by the time the loan, out of the proceeds of which they were constructed, falls due, but was discontinued in the Loan Acts of 1900 to 1906.

The Loan Appropriations, in quinquennial periods since 1875, are given in the subjoined table, the amounts proposed to be expended on Public Works being distinguished from those required for redemption of previous loans :—

Year.	Amount authorised—		
	For Public Works and Services.	For Redemption of Loans.	Total.
	£	£	£
1875-9	10,708,768	.....	10,708,768
1880-4	26,457,803	.....	26,457,803
1885-9	11,123,394	2,113,800	13,237,194
1890-4	15,927,993	2,910,800	18,838,793
1895-9	13,661,046	2,275,200	15,936,246
1900-4	17,690,893	2,841,612	20,532,505
1905	968,430	.....	968,430
1906	1,130,800	550,000	1,680,800
1907	2,470,981	1,500,000	3,970,981
1908	2,690,167	2,566,354	5,256,521
1909	3,249,212	2,863,700	6,112,912

Loan Appropriations are invariably in excess of the amount actually required for expenditure; and it has frequently happened that, beyond obtaining Parliamentary sanction, no further action has been taken in regard to loans authorised.

#### LOAN ACCOUNT.

The following figures show the amount of loans raised from the commencement of the Loan Account to the 30th June, 1909, and the proceeds available for expenditure:—

Treasury Bills, Debentures, Inscribed and Funded Stock sold from 1842 to 30th June, 1909 ... ..	£126,241,736
Discount, interest bonus, and charges ... ..	6,989,665
Net amount realised ... ..	£119,252,071
Add net amount transferred from Consolidated Revenue to make good amount short-raised ... ..	176,767
Add Advances to Settlers in excess of loans floated... ..	258,858
	<u>£119,687,696</u>
Less Treasury Bills in aid of Revenue not placed to Loan Account	4,769,653
Less proceeds of old loans not included in Loan Accounts ... ..	724,733
Less Municipal Debentures taken over and still outstanding ... ..	57,533
Less amounts over-raised and not placed to Loan Account ... ..	48,760
	<u>5,600,679</u>
Sum available for works, &c.... ..	£114,087,017

As the above statement shows, a sum of £126,241,736 has been raised by loan to the 30th June, 1909, in connection with which the discount, interest, bonus, and other charges amounted to £6,989,665, leaving £119,252,071 available for expenditure. The effective value of this latter amount was reduced by the sum of £5,600,679 (utilised as shown above). Thus, taking account of £435,625 transferred from Consolidated Revenue and Advances to Settlers in excess of loans floated, the net amount available for works, &c., was £114,087,017.

At the 30th June, 1909, £35,934,317 had been redeemed, £7,725,887 being a charge on the Consolidated Revenue, Advances to Settlers Stock being cancelled to the amount of £305,000, and the balance, £27,903,430, representing the proceeds of new loans, leaving £90,307,419 outstanding at the close of the last financial year. The aggregate amount of interest paid by the State on its loans to the 30th June, 1909, was £68,419,460, of which the charge during the last financial year was £3,039,539.

The uses to which the available sum of £114,087,017 was applied are shown in the following table. The sum of £27,903,430 for redemption of loans is included in the total; this amount was not, of course, an item of expenditure, but its inclusion is necessary to fully account for the total of £114,087,017, in which the original loans, as well as the redemption loans were included:—

Expended on—	£	£
<b>Reproductive Works :—</b>		
Railways... ..	48,704,395	
Tramways ... ..	4,774,654	
Water Supply and Sewerage ... ..	11,812,643	
Sydney Harbour Trust and Darling Harbour Wharves Resumptions ... ..	6,132,054	
	<hr/>	£71,423,746
<b>Partly Productive Works :—</b>		
Water Conservation, Artesian Boring, &c.... ..	1,358,892	
Harbours and Rivers Navigation ... ..	4,696,029	
Roads and Bridges ... ..	1,801,497	
	<hr/>	7,856,418
<b>Other :—</b>		
Advances to Settlers ... ..	683,308	
Public Works and Buildings ... ..	4,463,601	
Immigration ... ..	194,430	
Works in Queensland prior to separation .. ..	49,856	
Commonwealth Services ... ..	3,430,647	
	<hr/>	8,821,842
		<hr/>
		£88,102,006
<b>Redemptions :—</b>		
Loans repaid under various Acts ... ..	£14,037,930	
Treasury Bills for Loan Services repaid ... ..	13,490,000	
Debt due by Territorial Revenue for Immigration ... ..	375,500	
	<hr/>	27,903,430
		<hr/>
		£116,005,436
<i>Less</i> Debit Balance of Loan Account on 30th June, 1909		1,918,419
		<hr/>
Total (as shown previously) ... ..		£114,087,017

The sum actually expended from loans on public services was, therefore, £88,102,006, the balance to make up the total of £116,005,436 being represented by redemptions. The difference of £1,918,419 over the sum available for expenditure is the amount by which the General Loan Account was overdrawn at the 30th June, 1909. Analysing the above amounts the following shows the allocation of the items of expenditure:—

Reproductive Works ... ..	81 per cent.
Partly productive Works ... ..	9 „
Other ... ..	10 „
	<hr/>
	100

The loan expenditure on account of the various services during the last three years has been as follows:—

Head of Service.	1906-7.	1907-8.	1908-9.
	£	£	£
Railways ... ..	439,449	1,132,689	1,709,658
Tramways ... ..	.....	230,625	417,975
Water Supply and Sewerage—			
Water Supply ... ..	215,089	176,019	420,396
Sewerage ... ..	115,375	161,250	200,602
Water Conservation and Irrigation ... ..	.....	33,550	.....
Harbours and Rivers Navigation ... ..	172,410	140,890	125,197
Roads and Bridges ... ..	436	1,690	.....
Public Works, Buildings, &c. ... ..	91,810	14,563	1,418
Advances to Settlers ... ..	35,685	.....	.....
Roads of access to Crown Lands... ..	10,726	671	.....
Promotion of Agriculture... ..	9,838	.....	.....
Loans to Pastures Protection Boards ... ..	25,733	.....	13,609
Abattoirs—Homebush ... ..	.....	85,000	30,000
Other Services ... ..	.....	1,202	3,798
Total Expenditure on Public Works, &c. £	1,116,551	1,978,149	2,922,653
Less Excess Repayments to Credit of Votes over Expenditure ... ..	22,313	12,820	15,307
	£ 1,094,238	1,965,329	2,907,346
Loans repaid by New Loans (including Treasury Bills)	2,077,500	3,617,600	3,239,962
Total ... ..	£ 3,171,738	5,582,929	6,147,308

Most of the foregoing items were for services likely to be permanently revenue-producing, or deemed necessary for the proper development of the State; but there has been some expenditure on works and services for which there will be in a few years no substantial assets remaining. It is intended in future either to pay for such items out of revenue, or, if out of loans, to provide for their ultimate payment out of revenue by means of a sinking fund.

In the early stages of Australasian borrowing the expenditure was moderate, the stocks were not popular, and consequently interest was high; but latterly, as the conditions under which loans could be contracted became favourable, especially after 1875, few of the States set any bounds to their requirements. But when every allowance has been made for unwise or improvident expenditure, it will be found that the bulk of the proceeds of loans has been well utilised; since, apart from the certainty that the works constructed will be self-supporting, they have already materially assisted in developing the country's resources, and have largely enhanced the value of the public estate.

The loan expenditure, exclusive of payments on account of redemptions, between 1842 and 1890, thereafter every five years up to 1905, and then annually to 1909, is shown below:—

Year.	During each period.		At the end of each period.	
	Amount.	Per Inhabitant.	Amount.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.
1842-1890	.....	.....	43,955,551	39 3 7
1891-1895	11,683,598	9 18 10	55,639,149	43 17 6
1896-1900	8,832,106	6 15 0	64,471,255	47 7 4
1901-1905	16,297,655	11 12 11	80,768,910	54 12 9
1906	1,367,022	0 18 3	82,135,932	54 4 10
1907	1,094,238	0 14 3	83,230,170	54 7 3
1908	1,965,329	1 5 0	85,195,499	54 3 3
1909	2,907,346	1 16 3	88,102,006	54 5 10

The rate of borrowing which so marked the quinquennium 1901-1905 has been stopped; and loan expenditure will, in the future, be confined mainly to perfecting the various railway systems in operation, and to the gradual extension of the coast lines north and south.

It has been shown that while the public debt of the State on the 30th June, 1909, was £90,307,419, there has been an expenditure of £88,102,006 on public services; the difference, £2,205,413, being the difference between the face value of the stock and the net amount received, and the amount of Deficiency Treasury Bills outstanding. The receipts and expenditure in connection with the business undertakings or trading concerns of the State, namely, the Railways and Tramways, the Metropolitan and Hunter District Water and Sewerage Boards, and the Sydney Harbour Trust, for the past five years, are shown below. The transactions of the first year cannot be considered as normal, inasmuch as the greater part of the State, and certainly that portion involving the most vital interest, had not recovered from the effects of a severe drought; and, therefore, not only were the sources of revenue restricted, but the working expenditure necessary to obtain the results secured was greatly increased:—

Year ended 30th June.	Receipts.	Working Expenses.	Amount available to meet Interest on Capital Cost.	Interest Obligations on Capital Cost.	Deficiency.	Excess.
	£	£	£	£	£	£
1905	5,288,948	3,131,826	2,157,122	2,167,782	10,660	.....
1906	5,854,595	3,184,816	2,669,779	2,136,660	.....	533,116
1907	6,433,476	3,444,244	2,989,232	2,229,707	.....	759,525
1908	6,853,315	3,749,358	3,103,957	2,318,516	.....	785,441
1909	6,998,180	4,145,383	2,852,797	2,360,999	.....	491,798

Thus, during the last four years there has been a substantial surplus, after meeting the interest, on the capital cost of the above-mentioned undertakings; and during 1908 the net earnings of these bodies were almost sufficient to pay the interest on the whole public debt of the State.

#### THE PUBLIC DEBT.

The public debt outstanding at each quinquennial period is given in the subjoined table. From 1850 to 1860 the average annual increase of indebtedness was £370,000; from 1860 to 1870, £585,000; from 1870 to 1880, £522,000; from 1880 to 1890, £3,348,000; from 1890 to 1900, £1,695,000; and from 1901 to 1909, £2,774,900:—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1865	5,749,630	1890	48,383,333
1845	97,900	1870	9,631,130	*1895	58,220,933
1850	132,500	1875	11,470,637	*1900	65,332,993
1855	1,000,800	1880	14,903,919	*1905	82,321,998
1860	3,830,230	1885	35,564,259	*1909	90,307,419

\* 30th June.

The increase has been most marked since 1880. Between that year and 1885 the indebtedness per head nearly doubled, and between 1885 and 1893 increased by 30 per cent; but between 1893 and 1899 it showed a decrease of £1 ls. per head. During the last ten years it has increased by



15 per cent. The following table, which contains the more important particulars of the public loan accounts, shows the growth of the public debt during the last ten years. The amount of bonds or stock sold has been placed against the year in which the sales were effected, and not, as is the practice of the Treasury, against the year in which they were brought to account:—

Year ended 30th June.	Treasury Bills, Debentures, and Stock at close of each year—						
	Authorised.	Sold.	Redeemed.			Unredeemed (Outstanding Public Debt).	
			From Consolidated Revenue.	By New Loans.	Total.	Total.	Per Inhabitant.
	£	£	£	£	£	£	£ s. d.
1900	101,165,508	81,535,373	4,420,850	11,781,530	16,202,380	65,332,993	48 4 9
1901	107,868,893	84,575,126	4,570,850	12,643,030	17,213,880	67,361,246	49 6 0
1902	111,621,285	90,429,602	4,725,987	14,111,130	18,837,117	71,592,485	51 6 0
1903	120,200,858	97,201,004	4,975,987	14,532,030	19,508,017	77,692,987	54 14 3
1904	123,047,542	100,793,398	5,750,987	15,008,830	20,759,817	80,033,581	55 7 2
1905	125,615,192	105,455,015	6,000,987	17,132,030	23,133,017	82,321,998	55 13 9
1906	123,660,513	110,860,251	6,250,987	18,967,530	25,218,517	85,641,734	56 11 2
1907	130,341,313	113,686,633	6,728,771	21,350,030	28,078,801	85,607,832	55 0 11
1908	139,512,294	120,029,343	7,425,887	24,967,630	32,393,517	87,635,826	55 5 7
1909	140,192,315	126,241,736	7,725,887	28,208,430	35,934,317	90,307,419	55 13 0

The next table shows the annual payments under each head for interest and expenses of the public debt since 1900:—

Year ended 30th June.	Interest.	Redemptions (including premium on purchase of Debentures on account of Railway Loan, 31 Vic. No. 11).	Expenses connected with management of Irredeemable Stock, Bank of England.	Commission paid to Financial Agents in England and New South Wales.	Annual Interest and Charges paid.	
					Total.	Per Inhabitant.
	£	£	£	£	£	£ s. d.
1900	2,310,271	264,561	19,206	1,397	2,595,435	1 18 8
1901	2,346,852	269,412	19,207	2,233	2,637,704	1 18 8
1902	2,498,750	274,530	19,250	2,825	2,795,375	2 0 6
1903	2,619,766	369,413	20,211	2,876	3,012,266	2 2 10
1904	2,745,348	369,412	20,637	2,479	3,137,876	2 3 10
1905	2,856,872	319,413	20,640	1,766	3,198,691	2 3 9
1906	2,941,059	360,016	20,643	3,137	3,324,855	2 4 5
1907	3,047,618	400,000	21,143	1,645	3,470,406	2 5 4
1908	2,986,844	400,000	21,143	5,641	3,413,628	2 3 5
1909	3,039,539	478,791	20,501	3,046	3,541,877	2 4 2

At present the net revenue from the public works of the country is derived from railways, tramways, water supply and sewerage, and the Sydney Harbour Trust. The water and sewerage works of the Metropolitan area are not yet completed, and are now self-supporting—that is, the revenue is sufficient to meet the amount required to be expended on

account of maintenance, management, depreciation, and interest on capital liability. The same remarks apply to the works under the control of the Hunter District Board. In connection with these works it must, however, be borne in mind that, in the absence of a complete and compulsory reticulation, there must be a large outlay of capital expenditure on which no return is received.

The public debt is partly funded and partly unfunded, the funded debt comprising debentures, inscribed and funded stocks, and Treasury bills constituting the unfunded portion. The two classes are defined by the difference in currency, the funded debt being long-dated loans, and the unfunded, short-dated loans. Originally the term "funded" was applied only to interminable stocks, the amount of which, £530,190, is, as compared with the total debt, unimportant; but it is now the practice to apply this term also to redeemable debts. The amount outstanding on the 30th June, 1909, under each class, and the total debt, were as follow:—

Description of Stock.	Amount outstanding, 30th June, 1909.		Annual Interest
	£	£	£
<b>Funded Debt—</b>			
<b>Debentures—</b>			
Matured, which have ceased to bear interest...	13,750	.....	.....
Still bearing interest ... ..	5,057,500	.....	202,327
N. S. Wales 4 per cents. (Interminable)...	530,190	.....	21,208
"  Funded Stock ... ..	19,085,693	.....	673,529
"  1924 Stock ... ..	198,065	.....	5,942
"  1925 " ... ..	222,255	.....	6,668
Inscribed Stock (in London) ... ..	61,012,500	.....	2,121,369
"  Advances to Settlers Act ... ..	120,050	.....	3,602
<b>Total, Funded Debt</b> ... ..		£86,240,003	.....
<b>Unfunded Debt—</b>			
<b>Treasury Bills (for Loan Services)—</b>			
For Public Works—discounted... ..	1,250,000	.....	.....
Redemption of previous loans ... ..	1,902,900	.....	68,616
Treasury Bills (Deficiency in Revenue) ... ..	914,516	.....	28,369
<b>Total, Unfunded Debt...</b> ... ..		£4,067,416	.....
<b>Total Public Debt</b> ... ..		£90,307,419	3,131,630

The following table shows the total amount of stock under each rate of interest. There were, however, overdue, 5 per cent. debentures to the amount of £1,350 outstanding on the 30th June, 1909, which have ceased to bear interest:—

Interest—Per cent.	Amount of Stock.	Annual Interest thereon.
	£	£
5 ... ..	*4,050	135
4 ... ..	† 20,053,294	801,616
3½ ... ..	1,500,000	56,250
3¼ ... ..	‡ 50,975,377	1,740,388
3 ... ..	17,774,698	533,241
<b>Total</b> ... ..	£90,307,419	£3,131,630

\* Includes £1,350 matured debentures.

† Includes £12,400 matured debentures and £500 matured Funderd Stock.

‡ Includes £1,250,000 Treasury Bills discounted pending issue of debentures or Stock.

The 3 per cents. comprise £1,500,000 Inscribed Stock, floated in London during January, 1898, and Inscribed Stock, floated in London, Funderd Stock raised locally, and Treasury Bills representing Trust Funds in the hands of the Government, and so invested. The whole of the Treasury Bills bore interest at the rate of 4 per cent. to 31st December, 1894, but the rate of interest on a large proportion was reduced to 3 per cent. from the 1st January, 1895.

## DATES OF MATURITY.

The dates of repayment extend from 1909 to 1950; the sums repayable in the different years vary considerably in amount, the largest sum in any year being £16,698,065 in 1924. The redemption of such a large amount in one year is well deferred, and before it arrives a more satisfactory procedure in dealing with loans falling due must be devised than now obtains. The question of the consolidation of loans has received some attention, and any scheme of consolidation adopted will probably provide for the principle of redemption over a specified period, at the option of the Government, and not on a given date as is the present practice.

The following table shows the due dates and the amount repayable in each year:—

Class of Security.	Interest Rate.	Amount raised in—		Total Out-standing.	Year when Due.
		London.	Sydney.		
Debentures .. .. .	5	£ 1,350	£ .....	£ 1,350	Overdue.
Funded Stock .. .. .	4	.....	500	500	Overdue.
Debentures .. .. .	4	12,400	816,854	12,400	Overdue.
" .. .. .	4	.....	.....	816,854	1909.
" .. .. .	4	2,863,700	.....	2,863,700	1910.
" .. .. .	4	60,000	.....	.....	.....
N.S.W. Funded Stock .. .. .	4	.....	2,549,350	.....	.....
" .. .. .	3½	.....	1,500,000	9,884,508	1912.
" .. .. .	3½	.....	1,768,456	.....	.....
" .. .. .	3	.....	4,006,702	.....	.....
Inscribed and Funded Stock .. .. .	4	.....	1,000,000	.....	.....
Debentures .. .. .	3½	.....	499,981	.....	.....
" .. .. .	4	.....	131,100	3,881,081	1915.
Inscribed and Funded Stock .. .. .	4	2,000,000	.....	.....	.....
" .. .. .	3½	.....	250,000	.....	.....
" .. .. .	3½	12,826,200	.....	12,826,200	1918.
" Stock .. .. .	3	.....	120,050	120,050	1919.
Inscribed and Funded Stock .. .. .	3½	.....	2,999,758	4,872,843	1921.
" .. .. .	3½	.....	1,873,085	.....	.....
" .. .. .	3½	.....	1,821,007	1,821,007	1923.
" .. .. .	3½	16,500,000	.....	16,698,065	1924.
N.S.W. 1924 Stock .. .. .	3	.....	198,065	.....	.....
" .. .. .	3	.....	222,255	222,255	1925.
Inscribed Stock .. .. .	4	9,686,300	.....	9,686,300	1933.
" .. .. .	3	12,500,000	.....	12,500,000	1935.
" .. .. .	3½	9,500,000	.....	9,500,000	1950.
N.S.W. 4 per cents. Permanent .. .. .	4	.....	530,190	530,190	Interminable.
" .. .. .	5	.....	2,700	2,700	Permanent.
Funded Debt .. .. .	£	65,949,950	20,290,053	86,240,003	
Treasury Bills—					
Deficiency of Revenue .. .. .	3	.....	672,447	672,447	£150,000 re-deemed annually.
" .. .. .	3	.....	55,179	55,179	£100,000 re-deemed annually.
" .. .. .	3½	.....	186,890	186,890	Redeemed up to £50,000 annually from surpluses.
Discounted .. .. .	.....	1,250,000	.....	1,250,000	1909.
Redemptions .. .. .	4	.....	402,900	402,900	.....
" .. .. .	3½	.....	500,000	500,000	1910.
" .. .. .	3½	.....	1,000,000	1,000,000	1911.
Unfunded Debt .. .. .	£	1,250,000	2,817,416	4,067,416	
Total Public Debt .. .. .	£	67,199,950	23,107,469	90,307,419	

As will be seen in this table, New South Wales is indebted to the London market for nearly three-fourths of the money raised under loan. This dependence on the English market was due originally to the lack of local capital; but of late years, when such capital has been fairly abundant, the Government has still turned to London, where the rate of

interest at which it could borrow was much lower than would have been demanded by the local capitalists. The local and English rates are now much nearer than at any period in the history of Australia, and it is probable that the Government could place small loans almost as advantageously in Sydney as in London.

## CHARGES ON FLOATING LOANS.

The charges incidental to the floating of an inscribed stock loan in England are heavy, the chief expenses being the underwriting charge of  $1\frac{1}{4}$  per cent., and the composition duty of 12s. 6d. per cent. to the British Government. The other charges are:—Bank commission,  $\frac{1}{4}$  per cent.; brokerage,  $\frac{1}{4}$  per cent.; and minor expenses, which amount to about 1s. per cent.

The expenses incurred for the inscription and management of stock by the Bank of England are £350 per million, and for similar services by the London and Westminster Bank £150 per million.

The subjoined statement gives the charges of negotiation of the last two debenture loans, and of the inscribed and funded stock loans floated during the period from 1895 to 1909:—

Year when Floated.	Amount of Principal.	Gross Proceeds.	Charges.				Expenses per £100 of—	
			Stamp Duty.	Bank Commission.	Brokers' Commission, Postage, and Petty Expenses.	Total.	Principal.	Gross Proceeds.
	£	£	£	£	£	£	£ s. d.	£ s. d.
Issued (in London) as Debentures.								
1904-5	1,000,000	1,990,000	2,500	5,000	*30,272	37,772	1 17 9	1 18 0
1904-5	1,000,000							
1909	1,500,000	1,462,500	9,375	3,750	*23,302	36,427	2 8 7	2 9 3
	3,000,000	2,955,000	18,750	7,500	*45,393	71,648	2 7 9	2 8 6
Issued (in Sydney) as Debentures.								
1904-5	131,100	131,100	nil.	nil.	nil.	nil.	nil.	nil.
Issued (in Sydney) as Funded Stock.								
1907-8	6,169,092	6,169,092	.....	.....	14,724	14,724	0 4 9	0 4 9
1908-9	462,393	462,393	.....	.....	77	77	0 0 4	0 0 4
Issued (in London) as Inscribed Stock.								
1895	4,000,000	3,876,605	25,000	20,000	10,721	55,721	1 7 10	1 8 9
1898	1,500,000	1,506,269	9,375	7,500	4,441	21,316	1 8 5	1 8 4
1901	4,000,000	3,760,000	25,000	20,000	*60,347	105,347	2 12 8	2 16 0
1902	3,000,000	2,835,000	18,750	15,000	*45,608	79,358	2 12 11	2 16 0
1905-6	2,000,000	1,990,000	12,500	5,000	*32,062	49,562	2 8 0	2 8 3
1908	3,000,000	3,000,000	18,750	7,500	*45,858	72,108	2 8 1	2 8 1

\* Includes underwriting commission of  $1\frac{1}{4}$  per cent.

## REDEMPTIONS AND SINKING FUNDS.

At maturity, loans are either redeemed or renewed, the latter being the more usual operation. The State Debt and Sinking Fund Act was brought into operation on the 1st July, 1905. Under the provisions of this Act a general sinking fund was created, and an annual appropriation of £350,000 is made to the credit of the fund, and such further amount as Parliament may provide, while under the Treasury Bills Deficiency Act, 1905, an additional £50,000 must be transferred to the fund whenever the operations of a financial year leave a sufficiently large surplus to

enable this to be done. The Commissioners are directed from time to time to apply the amount at credit of the fund in purchasing, redeeming, or paying-off Government stock, debentures, or Treasury bills; and they are empowered to invest the moneys under the Act. The whole amount of £400,000, however, is not available for general purposes, inasmuch as a sum of £300,000 is required yearly to retire matured Revenue Deficiency Bills in accordance with the terms of the Acts under which they were issued. The residue (£100,000), together with credits, interest on stocks, fixed deposits in banks of issue, and any balance brought forward from the previous period constitutes the amount available for application to redemptions in any one year. The balance at credit of the fund on the 1st July, 1908, was £223,001. During the following twelve months the amount of £300,000 was used in redemption of Treasury Bills. On the other hand, the withdrawal was counteracted by a credit of £400,000 out of the Consolidated Revenue Fund, in accordance with the provisions of the Treasury Bills Deficiency Act of 1905, and of the Act under which the fund was created. The transactions under the Act for the financial year ended 30th June, 1909, were as follow:—

		<i>Dr.</i>			
				£	£
To Balance, 30th June, 1908—					
Cash...	...	...	...	50	
Bank Fixed Deposits	...	...	...	200,250	
In other Securities	...	...	...	22,701	
				<hr/>	223,001
Country Towns Water Supply—Repayments	...	...	...		1,656
Country Towns Sewerage—Repayments	...	...	...		132
To promote settlement under Crown Lands Act of 1895—					
Repayments	...	...	...		5,691
Sydney Harbour Trust Loan Sinking Fund	...	...	...		73,100
Annual Contribution from Consolidated Revenue Fund	...	...	...		350,000
Contribution under Treasury Bills Deficiency Act, 1905	...	...	...		50,000
Interest on Investments	...	...	...		1,693
Premium on remittance to London	...	...	...		375
				<hr/>	£705,648
Total		...	...		
		<i>Cr.</i>			
				£	£
By Redemptions—					
Treasury Bills Deficiency Act, 1905	...	...	...	50,000	
Treasury Deficiency Bills Act, 59 Vic. No. 22	...	...	...	150,000	
"Edw. VII No. 8" ...	...	...	...	100,000	
				<hr/>	300,000
By Balance at credit of Commissioners—					
On Fixed Deposit	...	...	...	121,350	
Invested in N.S.W. Funded Stock	...	...	...	41,535	
On Deposit with Colonial Treasurer	...	...	...	188,301	
On Account Current	...	...	...	54,462	
				<hr/>	405,648
Total		...	...		£705,648

Under the provisions of the "State Debt and Sinking Fund Act, 1904," various balances at credit of Special Accounts established by the Treasury Bills Deficiency Act, 1889, were transferred to and administered by the State Debt Commissioners from the 1st July, 1905. The Special Accounts were as follows:—The Treasury Bills Deficiency Act of 1895; the Treasury Bills Deficiency Act, 1900; the Treasury Bills Deficiency (Amendment) Act, 1901; the Railway Loan Redemption Act of 1889; and the Sinking Funds constituted by the Loan Acts of 1894 (No. 2), 1895, 1896, 1897, 1898, and 1899.

## CHARACTER OF STOCK ISSUED.

As previously stated, loans have been raised by Treasury bills, debentures, and stock.

The Treasury bills are of a temporary character, and will in the course of a few years disappear from the statement of the public debt, either by substitution of ordinary stock when the temporary purpose for which they were issued has been served, or by redemption on maturity. The practice of issuing Treasury bills, either in anticipation of, or to make good, deficiencies in revenue, is of long standing; but, as will be seen later on, they have been made to serve another purpose, and money has been raised by their sale to meet certain obligations for public works and redemptions. This is an innovation which could not be well avoided in the disturbed markets of late years. The Treasury bills are like the British Treasury bills in name only; but they have some points in common with the British Exchequer bills. The amount current on the 30th June, 1909, was £4,067,416, of which sum £914,516 represents bills in aid of revenue, £1,902,900 those issued for redemptions, and £1,250,000 for public works, discounted pending the issue of debentures or stock.

From 1842 to 1883 the practice followed was to raise loans by debenture bonds. In the latter year the Inscribed Stock Act was passed, in conformity with the provisions of the Imperial "Colonial Stock Act of 1877," and the system of raising loans by debentures terminated for the time being. During the financial year ended 30th June, 1905, however, debentures to the amount of £131,100 were raised locally under Act 64 Vic. No. 60, and under that Act and Act 1 Edw. VII No. 62, debentures to the amount of £2,000,000 were raised in London, both amounts maturing in 1915, and bearing interest at the rate of 4 per cent. per annum. The amount of debentures outstanding on the 30th June, 1909, was £5,071,250, which is less than one-twelfth of the inscribed stock current.

The issue of funded stock, which may be more appropriately termed registered stock, is regulated by four Acts passed in the years 1873, 1892, 1894, and 1895. Stock issued under the Act of 1873 is interminable, but that issued under the more recent Acts may be redeemed at the option of the Government, at the expiration of twenty years from the dates on which the Acts were passed, on the Treasurer giving twelve months' notice of his intention to redeem.

## SECURITY FOR THE PUBLIC DEBT.

In the foregoing pages much has been said of the indebtedness of the State. It is, therefore, only fair to say something of the resources on which the State's creditors may rely as security for repayment; but before examining the nature of these resources it may be well to recapitulate the liabilities outstanding. On the 30th June, 1909, these were as follows:—

Public Debt, including Treasury Bills for loan services.....	£89,392,903
Treasury Bills in aid of Revenue ... ..	914,516
Total... ..	£90,307,419

The total amount of Public Debt might reasonably be lessened by the sum of £898,656 shown below, representing the amount spent on services,

which is to be repaid in annual instalments of principal and interest by the parties benefited by the expenditure:—

Country Towns Water Supply ... ..	£731,016
Country Town Sewerage... ..	51,446
Water and Drainage Trusts ... ..	93,950
Other Advances ... ..	22,244
Total ... ..	<u>£898,656</u>

The principal assets of the State are its business undertakings (railways, water supply, &c.), which in the last financial year yielded a net return, after paying working expenses, of £2,852,797, or almost enough to pay the interest on the whole of the debt; and the public lands, of which 128,390,868 acres are leased for pastoral or mining purposes, and 14,475,553 acres sold on deferred payments. The annual rent from the former is £698,000, and the balance due in respect of the latter amounts to £7,951,000.

The following statement shows how the public debt has been expended, and gives an approximate valuation of the resources on which the State may rely as security for the public creditors. The debt has been incurred principally on works of a reproductive character, 79 per cent. being on reproductive works; 9 per cent. on indirectly productive works for the facilitation of traffic; and 12 per cent. on unproductive works.

The value of the securities has been calculated by taking first the actual average net return of the business undertakings for the three years ended 30th June, 1909, and capitalising at 3½ per cent. The value of the public lands has been estimated on the basis only of the annual revenue capitalised at 3½ per cent., and the amount still outstanding on land alienated (conditional purchases). The 18 million acres still unalienated have not been taken into account, as no valuation has been made by the Lands Department. There is, therefore, little doubt that the value quoted is greatly under-estimated. Finally, the actual amount of the Sinking Fund and cash in hand on 30th June, 1909, has been included.

Public Debt.		Estimated Value of Securities.	
<b>Reproductive Works—</b>		<b>Business Undertakings—</b>	
Railways and Tramways .. ..	£ 53,479,049	Railways and Tramways .. ..	£ 67,710,000
Water and Sewerage .. ..	11,812,643	Water and Sewerage .. ..	10,990,000
Sydney Harbour Trust .. ..	4,961,945	Sydney Harbour Trust .. ..	6,500,000
Darling Harbour Resumptions .. ..	1,170,109	Darling Harbour Resumptions .. ..	900,000
	<u>£71,423,746</u>		<u>£86,100,000</u>
<b>Indirectly Productive Works—</b>		<b>Public Lands—</b>	
Conservation of Water, &c. .. ..	1,358,892	Leased .. ..	13,278,000
Roads and Bridges .. ..	1,801,497	Amount outstanding on C.P.'s .. ..	7,951,000
Harbours and Rivers .. ..	4,696,029		<u>£21,229,000</u>
	<u>£7,856,418</u>		
<b>Unproductive Works—</b>		<b>Cash in hand .. ..</b>	
Public Buildings and Offices .. ..	4,463,601	Sinking Fund .. ..	406,000
Handed over to Commonwealth .. ..	3,430,647		<u>£2,890,000</u>
Other Works .. ..	3,133,007		
	<u>£11,027,255</u>		
Total Debt .. ..	<u>£90,307,419</u>	Total Estimated Value of Securities	<u>£110,219,000</u>

Thus the value of the securities exceeds the debt by nearly 20 millions sterling. State properties can hardly be valued on the basis of private business undertakings, as they are not expected to earn as a maximum a much higher net return than is necessary to meet the

interest on the capital expended. When the results are much in excess of the interest due, public opinion at once demands that reductions be made in the rates and charges.

It should also be borne in mind that, in valuing the securities, account has not been taken of works not directly producing revenue, such as harbour works, roads, bridges, and others, although these works have been of great service in developing the country. Latent power of taxation forms a further and inestimable security.

#### FINANCIAL RELATIONS BETWEEN STATES AND COMMONWEALTH.

One of the most difficult problems to be solved in formulating a constitution for the Commonwealth of Australia was met in the determination of the relative shares of the Commonwealth and States respectively in the proceeds of taxation from Customs and Excise. Each of the two governing powers was invested with authority to levy direct taxation, consequently no difficulty arose in this respect, but the power to impose tariffs through Customs and Excise duties was vested in the Commonwealth Parliament. Hence it became necessary to decide some proportion of the revenue derivable from these sources of indirect taxation which should constitute by legal right the share of the States *quo States* in these imposts.

By the Act under which the Commonwealth Constitution was founded it was decided by section 87, popularly known as the "Braddon" section, that during the first ten years of the existence of the newly-created Australian Commonwealth there should be returned to the States three-fourths of the net revenue from Customs and Excise; also, that such proportion should continue to be returnable after the ten-year period until the Commonwealth Parliament should decide what other disposition of these revenues should be made.

It was perceived prior to the foundation of the Commonwealth that this conventional arrangement, assigning one-fourth of the Customs and Excise duties to the Commonwealth and three-fourths to the States, would prove not only cumbersome in practical working, but would create most difficult conditions in the Federal financial arrangements, in that it would be necessary, in levying indirect taxation at any future period, to raise in reality four pounds whenever one pound might be required, thus taking from the citizens three pounds on each occasion, which might in general be unnecessary.

After the inception of the Commonwealth, it also became clear by practical experience, first, from the Commonwealth standpoint, that of the total revenue, which the public policy of the Commonwealth declared to be the limit of indirect taxation which it was desirable to place on the people, the amount represented by one-quarter of the impost was insufficient for performing the functions of the Federal Government.

Secondly, from the State standpoint, it was found that for the State Treasurers a very disturbing factor constantly existed, inasmuch as it was impossible to forecast within reasonable time for their annual financial arrangements what would be the money-value of their three-quarter share of the Federal taxation. The Federal and State systems of finance were so intertwined and interdependent as to provide a ready and practically certain means of friction between two powers each with clearly distinct functions, which in all other respects it should be possible to control and perform without interference or disputation the one with the other.



During the early years of the experience of the Commonwealth the question of the policy to be pursued at the expiry of the period of ten years named in the Braddon section was not immediately pressing, because (1) the needs of the Federation had not become sufficiently urgent to cause a necessity for appropriating the full quarter allocated for Commonwealth requirements, and (2) the fact that a term of years had yet to ensue before a fresh arrangement could be made under the Constitution tended to the postponement of the determination of a question which was fully recognised to be intricate and difficult of solution.

The following statement will serve to show the degree in which one-fourth of the Customs and Excise taxation served to fulfil the Commonwealth requirements, and how, with the progression of time and the development of national needs, the amount available became insufficient for such purposes:—

Year.	Net Revenue, Customs and Excise. (1)	One-fourth of net Customs and Excise revenue. (2)	Portion of one-fourth of net Revenue needed for Common- wealth Expenditure. (3)	Balance of the one-fourth not used by Common- wealth, and returned to States. (4)=(2)-(3)	Three-fourths due to States under Constitution. (5)	Total returned to States. (6)=(4)+(5)
	£	£	£	£	£	£
1901-2 ...	8,633,996	2,158,499	1,269,757	888,742	6,475,497	7,364,239
1902-3 ...	9,412,442	2,353,110	1,207,876	1,145,234	7,059,332	8,204,566
1903-4 ...	8,844,195	2,211,049	1,465,716	745,333	6,633,146	7,378,479
1904-5 ...	8,543,310	2,135,827	1,400,541	735,286	6,407,483	7,142,769
1905-6 ...	8,739,298	2,184,825	1,354,915	829,910	6,554,473	7,384,383
1906-7 ...	9,386,097	2,346,524	1,540,523	806,001	7,039,573	7,845,574
1907-8 ...	11,363,220	2,842,055	2,511,315	330,740	8,526,165	8,856,905
1908-9 ...	10,573,860	2,643,465	2,643,465	Nil.	7,930,395	7,930,395
Total ...	75,501,418	18,875,354	13,394,108	5,481,246	56,626,064	62,107,310

From the above table it is apparent that during the first seven years the Commonwealth was entitled to receive as its share more than sufficient for its declared needs, and that since 1908 there have been commitments devolving on the Federal authorities exceeding the moneys at their disposal. Consequently, it has become seriously evident towards the close of the ten-year period that more revenue will be required in the future than has been available in the past to enable the Federal Government to fulfil its assigned functions.

During the period of negotiation amongst the States antecedent to the creation of the Commonwealth, attempts were made to devise an acceptable plan relating to the allocation of the Customs and Excise revenue, and the compromise known as the Braddon section was adopted tentatively to avoid the risk of failure in the formative stages of the Federation. And during the succeeding years eight conferences have been held by the Premiers of the several States to endeavour to secure finality, but until the year 1909 no definite agreement was reached. In August, 1909, a Conference of Premiers met at Melbourne in conjunction with the Prime Minister of the Commonwealth, and after prolonged

discussion *in camera* an agreement was signed by all the parties to the following effect:—

“ In the public interests of the people of Australia, to secure economy and efficiency in the raising and the spending of their revenues, and to permit their Governments to exercise unfettered control of their receipts and expenditure, it is imperative that the financial relations of the Federal and State Governments—which, under the Constitution, were determined only in part, and for a term of years—should be placed upon a sound and permanent basis.

“ It is therefore agreed by the Ministers of State of the Commonwealth and the Ministers of the component States in conference assembled, to advise:—

- “ 1. That to fulfil the intention of the Constitution by providing for the consolidation and transfer of State debts, and in order to ensure the most profitable management of future loans by the establishment of one Australian stock, a complete investigation of this most important subject shall be undertaken forthwith by the Governments of the Commonwealth and the States. This investigation shall include the question of the actual cost to the States of transferred properties as defrayed out of loan or revenue moneys.
- “ 2. That in order to give freedom to the Commonwealth in levying duties of Customs and Excise, and to assure to the States a certain annual income, the Commonwealth shall, after the first day of July, one thousand nine hundred and ten, pay monthly to the States a sum calculated at the rate of one pound five shillings per annum per head of population according to the latest statistics of the Commonwealth.
- “ 3. That in recognition of the heavy obligations incurred in the payment of Old-Age Pensions, the Commonwealth may, during the current financial year, withhold from the moneys returnable to the States such sum (not exceeding six hundred thousand pounds) as will provide for the actual shortage in the revenue at the end of the said year. If such shortage amounts to six hundred thousand pounds the basis of contribution by the States shall be three shillings per head of population in the Pension States (*viz.*, New South Wales, Victoria, and Queensland), and two shillings per head of population in the Non-Pension States (*viz.*, South Australia, Western Australia, and Tasmania). If such shortage be less than six hundred thousand pounds the contributions shall be reduced proportionately per head of population as between the Pension and Non-Pension States.
- “ 4. That in view of the large contribution to the Customs revenue *per capita* made by the State of Western Australia, the Commonwealth shall (in addition to the payment provided for in paragraph No. 2) make to such State special annual payments, commencing at two hundred and fifty thousand pounds in the financial year one thousand nine hundred and ten and one thousand nine hundred and eleven, and diminishing at the rate of ten thousand pounds per annum. The Commonwealth shall in each year deduct on a *per capita* basis from the moneys payable to the States of the Commonwealth an amount equal to one-half of the sum so payable to the State of Western Australia.

“ 5. That the Government of the Commonwealth bring before the Parliament during this session the necessary measure to enable an alteration of the Constitution (giving effect to the preceding paragraphs, Nos. 2, 3, and 4) to be submitted to the electors.”

The necessary steps were taken by the Prime Minister of the Commonwealth to give effect to the agreement, which was done by the passage in the Commonwealth Parliament of the “ Constitution Alteration (Finance) Act.” This Act was passed in December, 1909, and if ratified by the electorates at the referendum during the Federal General Election early in 1910 will become an inherent part of the Commonwealth Constitution.

#### RELATIVE REQUIREMENTS—COMMONWEALTH AND STATES.

It is a valuable and interesting study to dissect the expenditure of the Commonwealth and of the combined States, and from this analysis to ascertain the requirements of the respective responsible bodies.

The functions undertaken by Government are divided into two classes, viz., Productive and Non-Productive. Productive are such as can be rendered self-supporting, and Non-Productive are those which do not readily admit of that advantageous treatment, such as prisons, or those which it is not considered politic to make revenue-producing, such as the education and old-age pensions systems.

Obviously, where a service is, or under wise administration should be, self-supporting, it is unnecessary to include it in a scheme involving necessary revenue and expenditure, the items on the two sides of the account balancing; hence, in this discussion, services of that description are excluded. In this category are placed the Postal, Railway, Water Supply, and Lands Departments.

Also, it might be fairly claimed that, except for fundamental civilising work such as the mooted transcontinental railways, &c., no loans should be negotiated in the future except for self-supporting works. For the last reason it is evident that, except for Commonwealth works of a “genesis” description, it is unnecessary, in determining the problem, to provide for interest and sinking fund of future loans out of the ordinary State revenues; and that the works undertaken in respect of such future loans may be left to provide for the interest and redemption moneys automatically.

From the above consideration, it is clear that it only remains to decide the respective requirements of the Commonwealth and States with regard to the purely administrative functions of Government, apart from the business or trading concerns which it has been the public policy of the several States to undertake.

If the expenditure be dissected and there be allocated to the Commonwealth the cost of all the functions which can be assumed by it under the Constitution, whether such cost has been borne in part by the States or by the Commonwealth during the past, the ratio which the commitments of the Commonwealth bear to those of the States can be determined.

Proceeding on these lines, the following table has been prepared to show the expenditure (governmental and business) for Commonwealth and the combined States respectively, which have been actually borne by the two parties. The period covered by the table extends from July, 1901, to June, 1909, that is, practically for the term of the entire existence of the Commonwealth.

*Expenditure by States.*

Head of Expenditure.	1901-2.	1902-3.	1903-4.	904-5.	1905-6.	1906-7.	1907-8.	1908-9. †
<b>Governmental—</b>								
Administrative and Departmental	£ 10,611,120	£ 10,099,472	£ 10,130,775	£ 9,880,033	£ 10,118,453	£ 10,585,181	£ 11,082,699	£ 11,487,757
Interest on Debt, Sinking Fund, and Redemptions	2,941,265	3,297,519	3,320,255	3,421,156	3,538,978	3,607,578	3,555,924	3,619,116
Services transferable to Commonwealth under Constitution, viz.—								
Old-age Pensions; Lighthouses, Beacons, and Buoys; Quarantine; Census; Patents and Copyright; Astronomy and Meteorology*	908,915	895,849	854,725	828,275	821,023	819,725	874,426	1,150,386
Total Governmental	£ 14,461,300	£ 14,292,840	£ 14,305,755	£ 14,129,464	£ 14,478,454	£ 15,012,484	£ 15,513,049	£ 16,257,259
<b>Business Undertakings—</b>								
Railways, including approximate Interest on Loan Capital. †	13,080,148	12,722,598	12,868,649	13,079,612	13,204,215	13,786,356	14,484,921	15,028,867
Other Works, including approximate Interest on Loan Capital †	1,000,162	1,291,877	1,249,733	1,310,382	1,266,680	1,268,378	1,332,245	1,362,709
Lands Department	678,856	666,267	703,455	686,248	695,062	729,884	794,037	855,739
Total Business Undertakings	£ 14,759,166	£ 14,680,742	£ 14,821,837	£ 15,076,242	£ 15,165,957	£ 15,784,818	£ 16,561,203	£ 17,247,315
Grand Total	£ 29,220,466	£ 28,973,582	£ 29,127,592	£ 29,205,706	£ 29,644,411	£ 30,797,302	£ 32,074,252	£ 33,504,574

*Expenditure by Commonwealth.*

<b>Governmental (excluding New Works) —</b>								
Customs and Excise	£ 263,365	£ 278,753	£ 269,856	£ 275,884	£ 286,091	£ 297,251	£ 321,149	£ 330,574
Defence	956,438	742,245	742,521	734,339	798,710	840,636	893,826	949,570
All other	240,387	261,368	415,120	410,701	454,629	687,010	1,136,371	1,408,434
Total Governmental	£ 1,460,190	£ 1,302,366	£ 1,417,497	£ 1,420,924	£ 1,539,430	£ 1,824,897	£ 2,351,346	£ 2,686,578
<b>Business Undertakings—</b>								
Posts and Telegraphs (excluding New Works)	£ 2,430,645	£ 2,451,095	£ 2,509,644	£ 2,567,837	£ 2,638,090	£ 2,690,362	£ 2,993,835	£ 3,069,869
New Works (all Departments)	£ 41,911	£ 147,911	£ 325,379	£ 334,068	£ 320,022	£ 472,058	£ 876,948	£ 667,187
Grand Total	£ 3,632,746	£ 3,901,372	£ 4,252,520	£ 4,322,829	£ 4,497,542	£ 4,987,317	£ 6,162,129	£ 6,423,634

\* In a few minor instances the actual amounts expended were not available, and the sums appropriated have, therefore, been used instead.

† The approximate interest on the loan capital of Business Undertakings has been estimated in the majority of the States, but it is believed the figures quoted are substantially correct.

‡ In some of the States the figures used for 1908-9 are preliminary, the finally audited Public Accounts thereof not being available.

Leaving out business undertakings, this table shows, firstly, the extent to which the States have relieved the Commonwealth of part of its assigned burdens under the Constitution; and, secondly, the proportions of the total burden of administration which have been borne by the Commonwealth and States respectively, and the following shows the comparison.

Firstly, as to the services which are transferable to the Commonwealth under the Constitution Act, it is found by adding the amounts paid for various Commonwealth functions by the States during the period 1901-9—for Old-Age Pensions, Lighthouses, Beacons and Buoys, Quarantine, Census, Patents and Copyrights, Astronomy and Meteorology, &c., that the following relief has been given:—

Year.	Cost of Commonwealth functions paid by States.	Year.	Cost of Commonwealth functions paid by States.
	£		£
1901-2	908,915	1906-7	819,725
1902-3	895,849	1907-8	874,426
1903-4	854,725	1908-9	1,150,386
1904-5	828,275		
1905-6	821,023	Total...	£7,153,324

That is, assistance has been given to the Commonwealth by the States to the extent of upwards of seven million pounds during the eight years which have elapsed to 30th June, 1909.

In the second place, with regard to the proportion of the total administrative expenditure of the whole of the Australian Governments, it appears by rearranging the items displayed in the previous tables, on the assumption that services transferable to the Commonwealth under the Constitution and paid for by the States, had actually been paid for by the Commonwealth, that the following are the expenditures for each of the eight years for purely governmental functions, and that the percentage ratios as to the charges properly assignable to the two bodies are as shown in the last two columns.

Year.	Governmental Expenditure by—		Proportion of total Governmental Expenditure by States and Commonwealth combined borne by—	
	States.	Commonwealth.	States.	Commonwealth.
	£	£	per cent.	per cent.
1901-2 ...	13,552,385	2,369,105	85·1	14·9
1902-3 ...	13,396,991	2,198,215	85·9	14·1
1903-4 ...	13,451,030	2,272,222	85·5	14·5
1904-5 ...	13,301,189	2,249,199	85·5	14·5
1905-6 ...	13,657,431	2,360,453	85·3	14·7
1906-7 ...	14,192,759	2,644,622	84·3	15·7
1907-8 ...	14,638,623	3,225,772	81·9	18·1
1908-9 ...	15,106,873	3,836,964	79·7	20·3

Thus it appears that the State commitments, according to the strict letter of the Constitution, have ranged from 85 per cent. of the total in the first year (1901-2) down to 80 per cent. in the latest period, while the Commonwealth charges are properly represented by percentage values ranging from 15 per cent. of the total up to 20 per cent., and as at the most recent date, 30th June, 1909, the relative proportions are 80 and 20 per cent. for the combined States and for the Commonwealth.

Turning from relative values to the absolute, it is to be noted that the Commonwealth charges proper for the year 1908-9 were £3,836,964. If to this sum be added the extra cost, £782,000, being the approximate charge for old-age pensions under the Commonwealth law, to be added to the amount which was previously borne by the three States—New South Wales, Victoria, and Queensland—and which amount is included in the total £3,836,964, a value £4,619,000 is obtained as the amount of the charges for which the Commonwealth is now liable.

Now, the amount to be retained by the Commonwealth out of the Customs and Excise revenue, according to the new agreement, is £5,499,860, being the amount collected, less 25s. *per capita* of the whole of Australia (the latter amount reaching a total of £5,344,125 on 4,275,300, the estimated population for Australia at 31st December, 1908), so that the difference between this amount, £5,499,860, and the amount, £4,619,000, stated above as the Commonwealth charges, leaves £880,860 as the extra revenue available to the Commonwealth authorities to meet immediately accruing extra charges, such as Defence, &c. From this, however, must be deducted £125,000, being half of the special payment of £250,000 to Western Australia.

Moreover, it must be observed that all future increments of Customs and Excise revenue will enure to the advantage of the Commonwealth, since the States are restricted entirely to the benefit arising from the sum of 25s. *per capita*; and since the total rate of Customs receipts derivable in any civilised State varies directly with the relative wealth of the community, there is every reason to expect that Australia, with its immense natural wealth, both evidenced and latent, will develop an increasing, rather than a decreasing, *per capita* yield from the Customs House; hence the Commonwealth aspect, being unbounded by a *per capita* consideration (as in the case of the States) will reveal a progressively improving rate of revenue from this source.

It has been shown in a previous table that during the eight years under review the States expended £7,153,324 on services which, under the Constitution Act, are transferable to the Commonwealth. In another table it is shown that during the same period the Commonwealth returned to the States £5,481,246 more than the three-fourths to which they were entitled under the Constitution. A comparison of these two amounts shows a balance of over a million and a half in favour of the States. Moreover, if the Commonwealth (as it is bound to under section 85 of the Constitution) had compensated the States for the properties which passed to it on the inauguration of the Commonwealth, the balance would have been still more in favour of the States. The properties transferred to the Commonwealth are valued at £9,648,449, and if only 3 per cent. interest had been paid to the States an annual sum of £289,453 would have been due, and in eight years the payment would have amounted to £2,315,624.

Setting out these amounts in the form of a rough statement of the States in account with the Commonwealth, the following is the experience of the eight years 1901-2 to 1908-9:—

	£		£
By Services transferable to Commonwealth ... ..	7,153,324	To portion of one-fourth net Customs and Excise revenue not expended by Commonwealth ... ..	5,481,246
„ Interest on transferred properties ... ..	2,315,624	„ Balance due to States ...	3,987,702
	£ 9,468,948		£ 9,468,948

It is seen from this that if the Commonwealth had been responsible for all the functions which it may constitutionally acquire from the States, and if it had paid interest on the transferred properties, it would have been obliged to pay the States during the last eight years an additional sum amounting to nearly four millions sterling.

## PRIVATE FINANCE.

### BANKING.

FOURTEEN banking institutions are transacting business within the State, four of which have their head offices in Sydney, two in Melbourne, two in Brisbane, one in Wellington, N.Z., four in London, and one in Paris. Of the four local banks, three have branches outside the State, but the fourth confines its operations to New South Wales. Two of the local banks—the Bank of New South Wales and the City Bank of Sydney—carry on their business under the provisions of special Acts of Incorporation, and the liability attached to the shareholders is limited by the Acts to double the amount subscribed; the Commercial Banking Company of Sydney (Limited) and the Australian Bank of Commerce (Limited) are registered as limited companies. The latter bank was registered in September, 1909, and came into operation on the 1st January, 1910; previously it was registered as the Australian Joint Stock Bank (Limited), under which title it is treated in the following pages.

Considerable improvement might be made in the laws relating to banks and banking at present in force in the State. The failure of several financial institutions, called banks, during the crisis of 1893, showed the absolute necessity for a complete revision of the conditions under which deposits may be received from the general public, but up to the present no new legislation has been enacted. Institutions which transact the business of banking are required under the existing law to furnish, in a prescribed form, quarterly statements of their assets and liabilities, and from these statements and from the periodical balance-sheets, the information here collated has been prepared. The provisions of the law are observed by the banks, but the returns furnished are unsuited to the modern methods of transacting banking business, and they cannot be accepted without question as disclosing the stability or otherwise of the institutions by which they are issued.

As a rule, no information can be elicited beyond that set forth in the half-yearly or yearly balance-sheets. A want of uniformity is exhibited in respect of the dates of closing the accounts, and the methods of presentation are very diverse. Important items which should be stated specifically are included with others of minor import, and in some cases current accounts are blended with other accounts instead of being shown separately. The limited value of the information afforded to the public is evidenced by the fact that it was impossible to obtain an account of their liabilities from the publications of several institutions which suspended payment in 1893, and these particulars have never been disclosed.

### CAPITAL OF BANKS.

According to the latest information available, the paid-up capital of the fourteen banks doing business in the State, including the Comptoir National d'Escompte de Paris, is £19,649,757, of which £1,977,710 carry a preferential claim on the profits of the companies.



In the following table is a statement of the ordinary and preferential capital of each bank at the date shown, with the amount of the reserve fund of the institution. In the case of some of the companies which were reconstructed, certain reserves are held in suspense pending realisation of assets, of which no account has been taken in the table:—

Bank.	Date of Balance-sheet.	Capital Paid up.			Reserve Fund.
		Ordinary.	Preferential.	Total.	
HEAD OFFICE, SYDNEY.					
		£	£	£	£
Bank of New South Wales	Mar., 1909	2,500,000	.....	2,500,000	1,600,000
Commercial Banking Co. of Sydney (Limited)	June, 1909	1,250,000	.....	1,250,000	1,240,000
Australian Joint Stock Bank (Limited)	June, 1909	154,570	.....	154,570	10,000
City Bank of Sydney	June, 1909	400,000	.....	400,000	11,500
HEAD OFFICE, MELBOURNE.					
Commercial Bank of Australia (Limited)	June, 1909	1,146,188	.....	1,146,188	Nil.
National Bank of Australasia (Limited)	Mar., 1909	1,192,440	365,780	1,498,220	180,000
HEAD OFFICE, BRISBANE.					
Queensland National Bank (Limited)	June, 1909	413,322	.....	413,322	74,000
Bank of North Queensland (Limited)	June, 1909	100,000	.....	100,000	20,000
HEAD OFFICE, WELLINGTON.					
Bank of New Zealand	Mar., 1909	500,000	1,500,000	2,000,000	650,000
HEAD OFFICE, LONDON.					
Bank of Australasia	Oct., 1908	1,600,000	.....	1,600,000	1,610,000
Union Bank of Australia (Limited)	Feb., 1909	1,500,000	.....	1,500,000	1,270,000
London Bank of Australia (Limited)	Dec., 1908	376,000	171,930	548,020	20,000
English, Scottish, and Australian Bank (Limited)	June, 1908	539,437	.....	539,437	166,904
HEAD OFFICE, PARIS.					
Comptoir National d'Escompte de Paris	Dec., 1908	6,000,000	.....	6,000,000	828,804
Total		£ 17,672,047	1,977,710	19,649,757	7,681,208

Three of the banks had made small calls on their shareholders, which will increase their paid-up capital by an aggregate of £5,555.

The following table shows the amount of the paid-up capital and reserve funds of all banks operating in the State, at intervals since 1890:—

Year.	Number of Banks.	Capital Paid up.		Total.	Reserve Funds.
		Ordinary.	Preferential.		
		£	£	£	£
1890	17	.....	.....	13,929,326	7,832,047
1895	13	14,610,177	5,094,780	19,704,957	4,175,912
1900	13	12,212,129	4,594,940	16,807,060	4,529,109
1905	13	9,870,871	4,095,060	13,965,931	5,474,199
1906	13	10,084,856	4,095,060	14,179,916	5,818,412
1907	14	16,615,104	4,095,060	20,710,164	7,498,130
1908	14	17,672,047	1,977,710	19,649,757	7,681,208

The alteration in amounts of paid-up capital for 1908 is due to the transference of preferential capital by the Commercial Bank of Australia (Limited) to the Special Assets Trust Co. (Limited), and to ordinary capital.

## LIABILITIES AND ASSETS OF BANKS.

The aggregate liabilities to the public of the banks enumerated, as at the given dates, were £194,594,512, against which there were assets amounting to £223,714,749. The following table gives the liability for each institution, notes in circulation and deposits being separated from other liabilities. In some cases small items which should be classed with "other liabilities" are included with deposits, as they cannot be distinguished in the balance sheets, and in the case of the Commercial Bank of Australia (Limited), the accounts of the Assets Trust of the old bank have been excluded:—

## LIABILITIES TO THE PUBLIC.

Bank.	Notes in Circulation.	Deposits.	Other Liabilities.	Total.
	£	£	£	£
Bank of New South Wales. . . . .	1,016,806	27,297,304	4,501,939	32,816,049
Commercial Banking Co. of Sydney (Limited). . . . .	499,612	15,971,760	785,011	17,256,383
Australian Joint Stock Bank (Limited) . . . . .	81,525	5,296,726	211,302	5,589,553
City Bank of Sydney . . . . .	87,984	1,272,733	Nil.	1,360,717
Commercial Bank of Australia (Limited) . . . . .	181,322	4,636,654	2,522,989	7,340,965
National Bank of Australasia (Limited) . . . . .	309,530	3,559,609	951,620	9,820,750
Queensland National Bank (Limited) . . . . .	Nil.	7,894,185	176,908	8,071,093
Bank of North Queensland (Limited) . . . . .	Nil.	586,440	57,920	644,360
Bank of New Zealand . . . . .	930,852	12,547,232	1,491,420	14,969,504
Bank of Australasia . . . . .	510,547	15,205,569	2,458,769	18,174,885
Union Bank of Australia (Limited) . . . . .	474,072	19,322,079	2,052,003	21,848,154
London Bank of Australia (Limited) . . . . .	131,309	4,328,010	720,327	5,179,646
English, Scottish, and Australian Bank (Limited) . . . . .	63,449	6,307,499	345,330	6,716,278
Comptoir National d'Escompte de Paris . . . . .	Nil.	39,013,510	5,792,665	44,806,175
Total . . . . .	£ 4,287,008	168,239,301	22,068,203	194,594,512

The assets which each bank shows against its liabilities to shareholders and the public are given in the following table:—

Bank.	Coin and Bullion and Cash Balances.	Advances.	Other Assets.	Total Assets.
	£	£	£	£
Bank of New South Wales. . . . .	7,185,267	20,918,150	9,035,974	37,139,391
Commercial Banking Co. of Sydney (Limited) . . . . .	3,342,988	11,168,583	5,657,367	20,168,938
Australian Joint Stock Bank (Limited) . . . . .	538,541	4,385,243	830,375	5,804,159
City Bank of Sydney . . . . .	264,692	1,275,640	242,477	1,782,809
Commercial Bank of Australia (Limited) . . . . .	1,049,572	4,313,296	3,163,976	8,526,844
National Bank of Australasia (Limited) . . . . .	1,794,263	7,443,054	2,324,083	11,566,400
Queensland National Bank (Limited) . . . . .	1,339,362	5,565,221	1,678,812	8,583,415
Bank of North Queensland (Limited) . . . . .	127,403	515,195	126,220	768,818
Bank of New Zealand . . . . .	2,539,278	3,972,637	5,924,838	17,736,753
Bank of Australasia . . . . .	4,034,013	15,496,183	1,983,484	21,513,680
Union Bank of Australia (Limited) . . . . .	4,084,907	14,348,287	6,327,966	24,761,160
London Bank of Australia (Limited) . . . . .	793,022	3,838,130	1,177,254	5,808,406
English, Scottish, and Australian Bank (Limited) . . . . .	950,986	4,793,054	1,764,358	7,508,398
Comptoir National d'Escompte de Paris . . . . .	4,073,371	45,920,332	2,051,375	52,045,678
Total . . . . .	£ 32,418,185	148,958,005	42,338,559	223,714,749

Both the assets and liabilities represent the total of the various banks, wherever situated, not merely those in New South Wales, which are treated subsequently. The difference between the assets and liabilities shown in the table amounts to £29,120,237, and consists of the paid-up capital and reserves (£27,330,965), dividends paid (£1,043,606), and undivided profits (£745,666).

## LOCAL BUSINESS OF BANKS.

The absence of uniformity in the returns submitted has made certain adjustments necessary in order to render comparable the figures of the various banks. The alterations consist of the exclusion, from the assets of two of the banks, of the balances due by branches and agencies outside New South Wales to the head office in Sydney. The following table shows the assets and liabilities and the surplus assets of the banks, at intervals from 1860 onwards. These figures represent the averages for the quarter ended 31st December in each year:—

Year.	Assets within the State.	Liabilities within the State.	Surplus assets.
	£	£	£
1860	8,053,463	6,480,642	1,572,821
1870	9,863,071	7,198,680	2,664,391
1880	21,658,317	19,485,862	2,172,455
1890	52,436,977	37,248,937	15,188,040
1900	43,036,427	33,969,731	9,066,696
1905	43,694,137	38,860,062	4,834,075
1906	44,457,957	41,416,737	3,041,220
1907	49,345,915	44,937,466	4,408,449
1908	51,428,158	46,140,027	5,288,131

In New South Wales the assets of the banks reached their highest point in 1891 and 1892; in the latter year the excess over liabilities was £16,146,513. From this sum the excess of assets fell in 1901 to £8,359,727, and in June, 1906, to £3,041,220; in December, 1908, the excess was £5,288,131. In the last three years there has been a decided expansion in the amount of banking business within the State, in conformity with the general progress and development.

It is apparent from the next table that the deposits in banks have vastly increased in volume, so also have advances, but to a less degree. Ten years ago the deposits in the banks of the State reached a total of £31,000,000, and the advances were nearly £34,000,000; and in June, 1909, the deposits were £44,680,346, while the advances were only £37,109,453. Prior to the financial crisis of 1893 the banks were accustomed to receive large deposits from the United Kingdom. At present they receive very little from that source, but considerable sums of money of Australian origin are held on deposit in London. These amounts form a source of profit to the institutions naturally, and it is regrettable that they cannot be used for investment locally. Expansion of banking in a country depends on the sufficiency of safe sources of investment for the accumulating deposits, otherwise the banks must lower the rates of interest.

The classification, both of assets and liabilities, required by the schedule to the Act is too general to admit of detailed analysis; thus under the term "deposits not bearing interest," most of the banks are accustomed to return interest accrued and all debts due by them other than deposits at interest, notes, and bills. In this respect the returns are misleading, and it unfortunately happens that there are no means of correcting the figures.

As the coin and bullion together represent only 18·7 per cent. of the assets of the banks, it is unfortunate that no dissection is made of the various classes of advances, which represent in the aggregate 76·2 per cent. of the total assets which the banks hold against all their liabilities. The tables

show the preponderance of deposits among the liabilities, and of advances among the assets, and it may perhaps assist to a fuller realisation of the extent to which the banking business of the State depends on these two factors, to emphasise the fact that deposits represent 95·2 per cent. of liabilities (exclusive of shareholders), while advances are 76·2 per cent. of assets, as quoted above. These items call for more extensive discussion in the returns.

The assets show coin and bullion separately, but 93 per cent. of the other assets are placed together under the term "notes and bills discounted, and all other debts due to the bank." The following statement of liabilities refers to local business only:—

## AVERAGE LIABILITIES WITHIN NEW SOUTH WALES.

(Exclusive of Liabilities to Shareholders.)

Year.	Notes.	Deposits.			Other Liabilities.	Total Liabilities.
		At Interest.	Without Interest.	Total Deposits.		
	£	£	£	£	£	£
1881	1,390,376	11,869,979	7,719,236	19,589,215	446,537	21,426,126
1885	1,714,095	18,387,705	8,819,979	27,207,684	923,843	29,845,622
1890	1,503,404	25,114,127	9,932,310	35,046,437	278,792	36,828,633
1895	1,223,864	20,406,822	10,222,437	30,629,259	183,929	32,037,052
1900	1,447,641	20,009,081	12,224,510	32,233,591	288,499	33,969,731
1905	1,430,335	22,211,627	14,859,427	37,071,054	358,673	38,860,062
1906	1,564,670	22,585,802	16,834,690	39,420,492	431,575	41,416,737
1907	1,756,696	24,034,857	18,729,709	42,764,566	416,204	44,937,466
1908	1,759,020	25,958,298	17,951,589	43,909,887	471,120	46,140,027

Against these liabilities, in which the growth of deposits is the most noticeable feature, as already mentioned, the average assets were as follows:—

Year.	Coin and Bullion.	Advances.	Landed Property.	Other.	Total.
	£	£	£	£	£
1881	3,674,982	19,038,386	585,224	3,183,395	26,481,987
1885	4,233,109	30,556,628	958,349	2,067,490	37,815,576
1890	5,659,057	41,623,049	1,601,589	2,796,100	51,679,795
1895	7,516,278	35,707,153	1,919,017	479,881	45,622,329
1900	6,126,126	34,385,388	1,874,099	650,814	43,036,427
1905	8,823,260	32,447,659	1,799,231	623,987	43,694,137
1906	7,507,363	34,415,596	1,819,417	715,581	44,457,957
1907	9,552,085	37,244,216	1,746,940	802,674	49,345,915
1908	9,600,866	39,213,472	1,793,518	820,302	51,428,158

## METALLIC RESERVES OF BANKS.

The proportion of metallic reserves which banking institutions should keep constantly in stock is not fixed by any enactment. Compared with the total liabilities, and with deposits at call and note circulation, the amount of coin and bullion has varied very considerably from year to year, as indicated below:—

Year.	Coin.	Bullion.	Total.	Proportion of Metallic Reserves—	
				To Total Liabilities.	To Deposits at Call and Note Circulation.
	£	£	£	per cent.	per cent.
1860	1,578,424	90,052	1,668,476	25·7	*
1870	1,291,177	86,744	1,377,921	19·1	*
1880	3,488,554	75,008	3,563,562	18·3	49·5
1890	5,619,111	87,659	5,706,770	15·3	49·1
1900	5,933,076	193,050	6,126,126	18·0	44·8
1901	5,814,180	171,545	5,985,725	17·1	41·7
1902	6,329,551	223,172	6,552,723	18·8	46·7
1903	5,824,539	226,307	6,050,846	17·7	43·3
1904	6,175,911	276,446	6,452,357	18·5	46·1
1905	8,624,083	199,177	8,823,260	22·7	54·2
1906	7,247,347	260,016	7,507,363	18·1	40·8
1907	9,342,631	209,454	9,552,085	21·3	46·6
1908	9,350,942	249,924	9,600,866	20·8	48·7

\* Amount of deposits at call unobtainable.

In the foregoing table the figures represent the weekly average amounts during the quarter ended 31st December in each year; and, for the last two years only, include the Comptoir National d'Escompte de Paris.

## PAPER CURRENCY.

The note circulation in New South Wales, in conformity with the general tendency throughout the financial world, has not increased in recent years, either in proportion to population or to the volume of transactions, the principal cause operating to curtail it is the increase of facilities for operating on deposits by cheques, as evidenced by the growing volume of business in the Banks Exchange Settlement Office. A secondary cause of the restricted note currency is apparent in the note tax which is imposed, being a composition at the rate of 2 per cent. per annum, by which the State benefited to the extent of £34,193 for the year 1908-9.

From previous tables it is seen that of the fourteen banks operating in New South Wales, three have no note issue whatever, being simply banks of discount and deposit; while in the remainder the note circulation in proportion to the deposit liability is only 2½ per cent.—almost a negligible quantity in the total liabilities. Against this note liability no special reserve is required by law, but the issue is many times covered by the reserves. The following figures will show the decline in the note circulation:—

Year.	Circulation in—		Total.	Per capita.
	Notes.	Bills.		
	£	£	£	£
1860	949,849	62,505	1,012,354	2·95
1870	695,366	50,515	745,881	1·52
1880	1,260,772	51,698	1,312,470	1·80
1890	1,557,805	127,442	1,685,247	1·53
1900	1,447,641	209,905	1,657,546	1·21
1908	1,759,020	294,998	2,054,018	1·28

The present purpose of the note issue is mainly to obviate the necessity for keeping gold reserves in branch banks, and the circulation is confined practically to country districts in which the note of the bank probably inspires more confidence than the cheque of an individual. The lowest value for which notes are issued is £1.

## ADVANCES BY BANKS.

Under the head of advances are included bills and promissory notes discounted, cash credits, and miscellaneous debts. The bulk of the advances are secured by the mortgage of real estate or by the depositing of deeds over which the lending institution acquires a lien; but the extent of the discounting of trade bills is not apparent. The most interesting summary that can be made is that which the following table supplies:—

Year.	Advances.	Ratio of Advances to Deposits.	Advances per cent. of Total Assets.	Amount of Advances per Inhabitant.
	£	per cent.		£ s. d.
1860	5,780,700	111·9	71·8	16 17 6
1870	7,814,116	127·9	79·2	15 18 11
1880	17,210,205	96·2	79·5	23 12 4
1890	43,009,559	121·3	84·7	39 0 8
1900	34,385,388	101·2	79·9	25 4 0
1905	32,447,659	87·5	74·3	21 18 11
1905	34,415,596	87·3	77·4	22 9 7
1907	37,244,216	87·1	75·5	23 13 6
1908	39,213,472	89·3	76·2	24 8 7

The utility of the banking system may be realised readily from the foregoing statement; the shrinkage or expansion of the ratio of advances to total assets clearly reflects the variations in financial transactions due to good or bad seasons, and fluctuations in the money market.

## DEPOSITS IN BANKS.

The total amount of money deposited with the fourteen banks operating in New South Wales during 1908 was, approximately, £168,239,301, and of this sum £43,909,887 were received locally. The excess of the total over local deposits was employed in the various countries to which the banks' business extended, some of course being used in New South Wales; but, from the very nature of the transactions of the banks, it is possible only to surmise the amount so used. Dealing only with local deposits, the following statement shows the average amount of money deposited at various periods commencing with 1860; the distinction between interest-bearing deposits and those at call was first made in 1875:—

Year.	Deposits bearing Interest.	Deposits not bearing Interest.	Total Deposits.	Proportion of Deposits not bearing interest to Total Deposits.	Proportion of Deposits to Liability (to Public).
	£	£	£	per cent.	per cent.
1860	.....	.....	5,164,011	.....	79·7
1870	.....	.....	6,107,999	.....	84·8
1880	11,948,383	5,934,641	17,883,024	33·2	91·8
1890	25,395,600	10,064,518	35,460,118	28·4	95·2
1900	20,009,081	12,224,510	32,233,591	37·9	94·9
1905	22,211,627	14,859,427	37,071,054	40·1	95·4
1906	22,585,802	16,834,690	39,420,492	42·7	95·2
1907	24,034,857	18,729,709	42,764,566	43·8	95·2
1908	25,958,298	17,951,589	43,909,887	40·9	95·2

The deposits reached their highest level in December, 1908, when there was entrusted to the banks an average total of £43,909,887. In the year 1891 the deposits amounted to £35,659,690, but in subsequent years fully five millions were withdrawn, the reduction being entirely in interest-bearing deposits. Since 1894 there has been a tendency to restrict fixed deposits, and to extend the operations in current accounts, which have increased by over eight millions during the interval; the total deposits have increased to nearly £44,000,000, while fixed deposits now show a slight increase on the high-water mark of 1890.

The interest offered for fixed deposits is 3 per cent. for sums deposited for twelve months; for six months' deposits the interest allowed is at the rate of  $1\frac{1}{2}$  per cent., occasionally rising to 2 per cent. The practice of allowing interest on money fixed for less than six months was discontinued in May, 1894. The rates quoted are much the lowest that have been offered since banks were first opened for business, and the strength of deposits shows that money equal to requirements is freely offered. The following is a statement of the average rates for twelve months' deposits from 1860 onwards. The figures do not include interest payable on deferred deposits by reconstructed banks:—

Year.	Bank Interest on Deposits for twelve months.	Year.	Bank Interest on Deposits for twelve months.
	per cent.		per cent.
1860	5	1905	3 to $3\frac{1}{2}$
1870	5	1906	3 to $3\frac{1}{2}$
1880	5	1907	3
1890	$4\frac{1}{2}$	1908	3
1900	3		

Under normal conditions the annual rate of interest paid on fixed deposits is uniform for all banks, and discount and overdraft rates should move down with the interest rates paid to depositors; it is evident, from a consideration of the profit and loss accounts of the various institutions, that the business of the banks is in a healthy condition.

The rates for overdrafts and discounts during the years from 1890 to 1908 were as follow:—

Year.	Overdraft Rates.	Discount Rates.	
		Bills at 3 months.	Bills over 3 months.
	per cent.	per cent.	per cent.
1890	9	7	8
1895	7 to 8	6 to $6\frac{1}{2}$	7
1899	6 ,, 7	5 ,, $5\frac{1}{2}$	$5\frac{1}{2}$ to $6\frac{1}{2}$
1900	6 ,, 7	5 ,, $5\frac{1}{2}$	$5\frac{1}{2}$ ,, $6\frac{1}{2}$
1905	6 ,, $7\frac{1}{2}$	$5\frac{1}{2}$ ,, 6	6 ,, $6\frac{1}{2}$
1906	6 ,, $7\frac{1}{2}$	$5\frac{1}{2}$ ,, 6	6 ,, $6\frac{1}{2}$
1907	6 ,, 8	5 ,, 6	6 ,, 7
1908	6 ,, 8	5 ,, 6	6 ,, 7

The bank exchange rate on London, at sixty days' sight, averages about 1 per cent., but is subject to some fluctuation. In May, 1893, it was 3½ per cent., the banks at that date requiring all their available assets. The rates from 1890 to 1908 were:—

Year.	Exchange rate on London at 60 days' sight.	
	Buying.	Selling.
	per cent.	per cent.
1890	99¾ ,, 100	100¾ to 101¼
1895	99½ ,, 99¾	100¾ ,, 100¾
1900	98¾ ,, 99½	100¼ ,, 100¾
1905	99¼ ,, 99½	100¾ ,, 100½
1906	99¼ ,, 99½	100¾ ,, 100½
1907	98¾ ,, 99¾	99¾ ,, 100
1908	98¾ ,, 99¾	99¾ ,, 100¼

PROFITS OF BANKS.

The results of the transactions of each bank for the latest period for which information is available, are given in the following table. With the exception of the Bank of New Zealand, the English, Scottish, and Australian Bank (Limited), the London Bank of Australia (Limited), and the Comptoir National d'Escompte de Paris, for which the figures refer to twelve months' operations, the amounts given cover a period of six months. The dates of the balance-sheets are as shown previously:—

Bank.	Class of Shares.	Amount brought forward.	Net Profits.	Dividend Paid.		Amount transferred to Reserve Fund, &c.	Amount carried forward.
				Rate per cent. per annum.	Amount.		
Bank of New South Wales	Ordinary	£ 36,916	£ 186,426	10	£ 125,900	£ 60,000	£ 38,342
Commercial Banking Company of Sydney (Limited)	Ordinary	41,452	104,437	10	74,776	40,000	31,113
Australian Joint Stock Bank (Limited)	Ordinary	35,751	14,285	..	Nil.	Nil.	50,036
City Bank of Sydney	Ordinary	1,953	7,055	3	6,000	1,000	2,008
Commercial Bank of Australia (Ltd.)	Preferential	11,118	53,573	3	31,700	25,000	7,931
	Ordinary						
National Bank of Australasia (Limited)	Preferential	6,259	61,171	5	37,455	22,000	7,975
	Ordinary						
Queensland National Bank (Limited)	Ordinary	Nil.	44,158	..	20,000	24,158	1,500
Bank of North Queensland (Limited)	Ordinary	144	4,314	5	2,500	153	1,500
Bank of New Zealand	Preferential	54,098	313,151	8¾	106,250	200,000	60,999
	Ordinary						
Bank of Australasia	Ordinary	16,104	187,691	12½	112,000	75,000	16,795
Union Bank of Australia (Limited)	Ordinary	37,444	135,562	10	105,000	30,000	38,006
London Bank of Australia (Limited)	Preferential	26,527	34,212	5½	24,172	15,000	21,567
	Ordinary						
English, Scottish, and Australian Bank (Limited)	Ordinary	25,274	75,505	5	38,893	35,991	26,095
Comptoir National d'Escompte de Paris	Ordinary	26,367	410,599	6	360,000	31,879	45,087

In the matter of management expenses the banks are reticent, and the net profits are, therefore, the only data on which a comparative statement can be based; the ratio of profits to paid-up capital, reserves, and fixed



deposits for the years 1907-8 and 1908-9, in comparison, will be found in the subjoined statement:—

Bank.	Net Profits for twelve months, 1908-9.	Ratio of Net Profit to Paid-up Capital, Reserves and Deposits.	
		1907-8.	1908-9.
	£	per cent.	per cent.
Bank of New South Wales .. .. .	354,354	·774	1·128
Commercial Banking Co. of Sydney (Limited) .. .. .	203,839	·725	1·104
Australian Joint Stock Bank (Limited) .. .. .	30,061	·293	·550
City Bank of Sydney .. .. .	14,633	·739	·869
Commercial Bank of Australia (Limited) .. .. .	96,451	1·017	1·668
National Bank of Australasia (Limited) .. .. .	116,188	1·098	1·135
Queensland National Bank (Limited) .. .. .	87,895	·501	1·049
Bank of North Queensland (Limited) .. .. .	8,334	1·063	1·187
Bank of New Zealand .. .. .	313,151	·947	2·061
Bank of Australasia .. .. .	399,710	1·176	2·170
Union Bank of Australia (Limited) .. .. .	271,948	·933	1·289
London Bank of Australia (Limited) .. .. .	34,212	·689	·699
English, Scottish, and Australian Bank (Limited) .. .. .	75,505	·899	1·076
Comptoir National d'Escompte de Paris .. .. .	410,599	·881	·896
All Banks .. .. .	.....	·929	1·242

In the above table the net profits are exclusive of amounts transferred to Reserve and Contingency Funds.

It is apparent that the year 1908-9 has been considerably more advantageous to the banks both individually and as a whole.

#### WORKING EXPENSES.

The cost of conducting banking institutions in Australia is undoubtedly high. This is partly due to the wide and sparsely-populated area over which operations extend, and partly to the class of business in which banks are engaged. The expenses of management of the four local banks and those of the Comptoir National d'Escompte de Paris are not disclosed even to their shareholders, so that reference to the cost of banking business is incomplete.

The following statement may be taken as approximately correct:—

Total assets .. .. .	£223,714,749
Capital and Reserve Funds and Deposits .. .. .	194,570,266
Net earnings .. .. .	2,416,930

Compared with the total assets, the net earnings represent 1·8 per cent., and compared with the banks' available resources—*i.e.*, capital and reserved profits and fixed deposits—1·242 per cent., as previously shown.

The amount of interest paid on deposits is not available.

The following table affords a comparison of the working of New South Wales banks with the joint stock banks in the United Kingdom which publish profit and loss accounts. The figures relate to the year 1908:—

Banks in—	No. of Banks.	Capital and Reserves.			Total Deposits.	Total Advances.	Percentage of Advances to Deposits.
		Paid-up Capital.	Reserves and Undivided Profits.	Total.			
England ..	53	£ 62,753,888	£ 40,641,003	£ 103,395,491	£ 697,726,737	£ 464,243,832	66·53
Scotland ..	10	9,241,070	8,989,774	18,230,844	108,722,904	73,023,467	67·16
Ireland ..	9	7,309,231	4,470,298	11,779,529	57,486,546	44,225,663	76·93
N. S. Wales..	14	19,655,312	7,681,208	27,336,520	168,239,301	148,958,005	88·54

Most of the banks doing business in this State reduced their working expenses during the years following 1893, mainly by closing unprofitable branches. The number of banks including branches open in New South Wales on 30th June, 1909, was 531. This gives a proportion of one bank

to every 3,022 persons. The extension of operations since 1895 is shown in the following figures:—

Year.	Number of Banks and Branches.	Population per Bank.
1895	455	2,774
1900	411	3,320
1905	436	3,431
1909	531	3,022

In England the proportion in 1905 was one bank to 7,600 persons; in Scotland, one to every 4,100; and in Ireland, one to every 7,100.

#### BANKS' EXCHANGE SETTLEMENT.

The Banks' Exchange Settlement Office, which was established in Sydney on the 18th January, 1894, is not a clearing-house in the accepted meaning of the term, since the exchanges are effected daily at the banks by clerks of each institution; the results of the daily operations being notified to the secretary of the Banks' Exchange Settlement, who establishes the daily credit of each bank with the "pool." The "pool" is placed in the hands of three trustees, and consists of £700,000 in gold, which is deposited in the vaults of three of the banks, and may not be circulated or disturbed. The contributions to the "pool" are according to the volume of the operations of each bank. The secretary notifies each bank daily of the amount of its credit with the "pool," and it is not permissible for any balance to remain below 25 per cent. of the fixed contribution. In the event of its credit reaching this margin, the bank is required to make up its deficiency with gold; this payment, however, is not made to the "pool," but to such other banks as may happen to have at their credit with the "pool" a larger sum than is required by the agreement. This arrangement retains intact the £700,000 comprising the "pool."

The growth in the volume of exchanges is shown in the following table:—

Year.	Amount of Exchanges.	Year.	Amount of Exchanges.
	£		£
1895	108,509,860	1905	189,826,381
1900	144,080,314	1906	220,860,512
1901	167,676,707	1907	234,169,822
1902	178,637,708	1908	227,736,243
1903	180,961,406	1909	240,645,737
1904	177,797,335		

#### SAVINGS BANKS.

The savings banks are on a very different footing to ordinary banks of issue and deposit, and are under State control and otherwise safeguarded, so as to ensure public confidence. The institutions classed as savings banks may be divided into two kinds—those which, previous to the federation of the Australian States, were conducted in conjunction with the Post Office, but are now under the control of Commissioners appointed by the State, and those under trustees nominated by the Government. The declared objects of these banks are to encourage thrift, and to provide a safe investment for the funds of charitable institutions, friendly societies, &c. They have become so popular that all classes of the community are represented amongst their depositors.

In both institutions sums over one shilling may be deposited; but, with the exception of the funds of charitable institutions and friendly societies, deposits exceeding £500 do not bear interest on such excess in the Government Savings Bank; and in the Savings Bank of New South Wales, deposits made by any one individual exceeding the sum of £200 do not bear interest on the excess, but interest on the full deposit is allowed on funds of any charitable institution, or of any friendly society. During the year ended 31st December, 1908, the Government Savings Bank allowed 3 per cent., and the Savings Bank of New South Wales 3½ per cent. on balances.

The returns show an enormous development since 1861, although there has been a decline in the amount per depositor since that period; but this is no sign of retrogression, for the large increase in the number of depositors indicates that the less affluent classes of the community are represented in the books of the banks to a greater extent than formerly. The following statement shows the number of depositors and amount of deposits at the end of each year [for the Government Savings Bank since 1880; and since 1860 for the Savings Bank of New South Wales], together with the average amount of deposit per depositor:—

Year ended 31st December.	Government Savings Bank.		Savings Bank of New South Wales.		Total.		Average Amount per Depositor.
	Number of Depositors.	Amount of Deposits.	Number of Depositors.	Amount of Deposits.	Number of Depositors.	Amount of Deposits.	
	No.	£	No.	£	No.	£	£ s. d.
1860 ...	*	*	12,027	557,197	12,027	557,197	46 6 7
1870 ...	*	*	23,570	936,465	23,570	936,465	39 14 7
1880 ...	24,602	586,496	36,929	1,489,360	61,531	2,075,856	33 14 9
1890 ...	83,312	1,875,905	60,514	2,854,564	143,826	4,730,469	32 17 10
1900 ...	198,014	6,045,622	84,629	4,855,760	282,643	10,901,382	38 11 5
1905 ...	‡270,982	‡8,883,651	101,383	5,545,367	372,365	14,429,018	38 15 0
1906 ...	283,401	9,322,923	108,649	5,997,609	392,050	15,320,532	39 1 7
1907 ...	305,265	11,128,495	116,663	6,401,662	421,928	17,530,157	41 10 11
1908 ...	309,982	12,118,772	121,745	6,686,508	431,727	18,805,280	43 11 2

\* Not open.

‡ At 30th June, 1906.

At the 31st December, 1908, the liabilities of the Government Savings Bank amounted to £12,180,648, of which £12,118,772 represented deposits, and £8,769 balance of profit and loss account. The reserve fund and other liabilities amounted to £53,107. The investments made on behalf of the bank, and other assets, including accrued interest, were as follows:—

Government Stocks—	£
New South Wales ... ..	7,920,810
Other States ... ..	108,076
Treasury Bills—New South Wales ... ..	1,413,516
Treasury—at Call ... ..	150,000
Debentures—	
Government Savings Bank—Advance Department ...	465,000
Sydney Municipal Council... ..	57,210
Waverley " " ... ..	48,804
Lithgow " " ... ..	6,000
Bank Fixed Deposits ... ..	320,000
Accrued Interest... ..	156,835
Uninvested funds in Treasury ... ..	1,145,292
Mortgage Securities ... ..	154,562
Bank Premises ... ..	9,323
Sundry accounts due to Bank ... ..	1,877
Advance Department ... ..	7,828
Cash at Head Office and Branches ... ..	149,697
Balances in other Banks ... ..	65,818
<b>Total ... ..</b>	<b>£12,180,648</b>

The value of assets per £1 liability was £1 Os. 1d.

The Savings Bank of New South Wales was originally administered by nine trustees; but under its present constitution the number may be increased, but cannot exceed eighteen. The trustees have power to nominate a managing trustee, who, if not already a trustee, becomes so *ex-officio*. The number of trustees at the end of 1908 was thirteen, exclusive of the managing trustee. The funds of this institution are applied to investments of a general nature, such as mortgages, Government and municipal securities, and deposits with banks of issue and the Treasury. The amount invested under each head, including interest accrued, at the close of 1908, was as follows:—

Investment.	Amount.
	£
Mortgages ... ..	1,098,362
Government and Municipal Securities ... ..	4,219,838
Fixed Deposits in Banks of Issue... ..	1,570,580
“ Working Account ” (Bank of New South Wales) ... ..	62,415
Land and Banking Houses ... ..	74,630
Uninvested ... ..	32,813
Total... ..	£ 7,058,638

The reserve fund, depreciation account, and profit and loss account, on the 31st December, 1908, amounted to £370,582. According to the published statements of this institution, it could pay £1 ls. 1½d. for every £1 liability. The classification of the deposits on the 1st January, 1909, was as follows:—

Classification.	Depositors.	Deposits.	Average per Depositor.		
			£	s.	d.
	No.	£	£	s.	d.
£20 and under ... ..	67,616	275,851	4	5	11
Over £20 and under £50 ... ..	15,757	504,944	32	0	11
£50 and under £100 ... ..	11,605	817,179	70	8	4
£100 „ £200 ... ..	12,675	1,792,033	141	7	7
£200 „ £300 ... ..	13,292	2,826,746	212	13	4
£300 and upwards ... ..	800	469,755	587	3	11
Total ... ..	121,745	6,686,508	54	18	5

The following table shows the number of depositors in the savings banks of the other Australian States, the total amount standing at their credit, and the average amount per depositor.

Country.	Depositors.	Amount of Deposits in Savings Banks.	Average Amount per Depositor.		
			£	s.	d.
	No.	£	£	s.	d.
New South Wales ... ..	431,727	13,805,280	43	10	1
Victoria ... ..	532,425	14,101,710	26	9	8
Queensland ... ..	92,912	4,543,104	48	17	11
South Australia ... ..	139,670	5,304,704	37	19	7
Western Australia... ..	67,695	2,879,882	42	10	10
Tasmania ... ..	54,618	1,560,951	28	11	7
New Zealand ... ..	364,422	12,825,063	35	3	10

#### REGISTERED COMPANIES.

Land, Building, Investment, and Trading Companies established with the object of making profit and doing general business, may be registered under the Companies Act which was passed in 1874 and amended under the Consolidating Act of 1901. Benefit-Building, Investment, Co-operative,

and Industrial Societies, worked for the mutual benefit and advantage of the subscribing members only, were registered under the Friendly Societies Act of 1873 until 1902, when the Building and Co-operative Societies Act, 17 of 1902, was passed. Mining Companies in which the shares carry no liability are formed under the No-liability Mining Companies Act of 1896.

The provisions of the Companies Act, and of the Building and Co-operative Societies Act, are so framed that they are applicable to nearly all classes of financial institutions, very few of which are now carried on under special Acts.

The registrations under the Companies Act for the five years ended 1908. were:—

Registrations.	1904.	1905.	1906.	1907.	1908.
New Companies registered .. .. .	127	170	189	189	196
Companies wound-up .. .. .	64	53	67	62	63
Amount of fees received .. .. .	£ 1,567	1,901	2,239	2,302	2,487

Certain of these companies carry on bank deposit business in addition to their ordinary business, but the number of such companies and the extent of their deposit business is steadily declining, indicating a preference on the part of the public for such institutions, as receivers of money on deposit, as make banking their sole business. The number of such deposit companies is ten, and their liabilities, assets, and paid-up capital for the quarter ended June, 1909, were as follows:—

Companies.	Number.	Liabilities (excluding Shareholders).			Assets.			Paid-up Capital.
		Deposits.	Other Liabilities.	Total.	Landed Property.	Other Assets.	Total.	
		£	£	£	£	£	£	£
Investment .. .. .	8	154,347	134,569	288,916	410,638	253,176	763,814	499,429
Trading .. .. .	2	44,770	733,594	878,364	588,799	3,643,653	4,237,432	2,950,000
Total .. .. .	10	193,117	868,163	1,167,280	999,437	4,001,809	5,001,246	3,449,429

#### BENEFIT BUILDING AND INVESTMENT SOCIETIES.

According to the provisions of the Friendly Societies Act of 1873, since consolidated under the Building and Co-operative Societies Act (No. 17 of 1902), any number of persons may form themselves into a Benefit Building and Investment Society for the purpose of raising money by subscription to enable members to erect or purchase dwellings, &c., the loans for which must be secured to the society by mortgage until the amount of the shares has been fully paid. These institutions are established solely for the benefit and advantage of the subscribing members, and their operations are confined, as a rule, to the subscriptions. There were, however, 17 institutions in 1908 receiving money on deposit from the general public, the aggregate amount of which was £411,100. At the close of 1908 the Benefit-Building and Investment Societies which had been registered under the Friendly Societies Act and the Building and Co-operative Societies Act (17 of 1902) numbered 185, of which only 67 remained in existence at that date. Of the remainder, some had ceased to exist, being Terminating Societies; others had become Limited Companies, under the Companies Act, and consequently ceased to operate under the Friendly Societies Act; and a large proportion had become defunct.

Returns have been received from 62 institutions, and the liabilities and assets, &c., of these societies at the date of their latest balance-sheets were as follow:—

Societies.	Number.	Liabilities.				Assets.			Profit and Loss Credit.
		Deposits.	Subscriptions and Shares.	Other Liabilities.	Total.	Advances.	Other Assets.	Total.	
		£	£	£	£	£	£	£	£
Starr-Bowkett ...	45	....	192,864	23,299	216,163	202,427	32,938	235,365	19,202
Land, Building, and Investment.	17	411,100	293,225	76,564	780,889	704,431	110,685	815,116	34,227
Total ...	62	411,100	486,089	99,863	997,052	906,858	143,623	1,050,481	53,429

CO-OPERATIVE TRADING SOCIETIES.

The provisions of the Act relating to Co-operative Societies have been used by the public to a very limited extent, since of 110 societies registered to the end of 1908, only 39 remained in existence. There, is however, evidence of increasing activity in the co-operative movement, as denoted by the number of new societies formed, viz., 7 in 1908, and 24 in the four years 1905-1908. The purposes for which the 39 existing societies were formed are as follows:—General (trading) purposes, 30; produce, 1; bakery, 2; dispensaries, 2; confectionery, 1; timber-cutting, 1; journalism, 1; and butchering, 1.

The workings of the Co-operative Societies during the years 1907 and 1908. will be seen below:—

Liabilities.	1907.	1908.	Assets.	1907.	1908.
	£	£		£	£
Share Capital ...	74,882	90,690	Freeholds ...	40,636	45,624
Reserves ...	35,471	37,676	Stocks ...	96,759	107,660
Other Liabilities ...	42,355	48,479	Other Assets ..	50,861	60,895
Profits ...	35,548	37,334			
Total ...	188,256	214,179	Total ...	188,256	214,179

The progress during the year 1908 was eminently satisfactory. Share capital increased by 21 per cent., and reserves by 6 per cent. Freeholds with plant and fixed stock, increased by 12 per cent., and stocks by 11 per cent. The proportion of profits to capital and reserves combined was 33 per cent. in 1906, 32 per cent. in 1907, and 29 per cent. in 1908. Considering the small amount of capital invested, the results obtained were surprisingly good, and afford liberal inducements for the further development of these institutions.

CURRENCY.

The British sovereign is the standard of currency in Australia; the silver and bronze current, being money token. The banks make use of bank notes, but these are not legal tender in any State. 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

in the following statement. The least current weight of a sovereign is 122·5 imperial grains, and of a half-sovereign 61·125 grains:—

Denomination of Coin.		Standard Weight.	Standard Fineness.
		Imperial grains. Troy.	
Gold	{ Sovereign ... ..	123·27447	} Eleven-twelfths fine gold, or decimal fineness 0·91666, and one-twelfth alloy.
	{ Half-sovereign ... ..	61·63723	
Silver	{ Crown ... ..	436·36363	} Thirty-seven-fortieths fine silver, or decimal fineness 0·925, and three-fortieths alloy.
	{ Double Florin ... ..	349·09090	
	{ Half-crown ... ..	218·18181	
	{ Florin ... ..	174·54545	
	{ Shilling ... ..	87·27272	
	{ Sixpence ... ..	43·63636	
		21·81818	
		Avoirdupois.	
Bronze	{ Penny ... ..	145·83333	} Mixed Metal:—Copper, 95 parts; tin, 4 parts; and zinc, 1 part.
	{ Halfpenny ... ..	87·50000	
	{ Farthing ... ..	43·75000	

The only coins struck at the Sydney Mint are of gold, though silver and bronze of English coinage are also issued. In 1909 authority was given under the Coinage Act to the Federal Treasurer to issue Australian silver and bronze coins of the following denominations:—Silver: florin, shilling, sixpence, and threepence; and bronze: penny and halfpenny. The dimensions and designs of these coins are determined by the Governor-General by proclamation.

Standard or sovereign gold has a fineness of 22 carat, and is worth £3 17s. 10½d. per oz.; pure gold, or 24 carat, is worth £4 4s. 11⅙d. per oz. The whole of the gold contained in deposits sent to the Sydney Branch of the Royal Mint for melting, assaying, and coining is valued at the rate of £3 17s. 10½d. per oz. standard or sovereign gold.

Standard silver is 0·925 fine. Owing partly to its greatly increased production, and still more to its demonetisation in a large part of Europe, and the restrictions placed upon its free coinage in countries which still have a double standard of coinage, its value has decreased by nearly 57 per cent. since 1875. The average price of standard silver in the London market for various years since that year is given in the annual reports of the Deputy Master of the Royal Mint as follows:—

Year.	Price per standard oz.	Year.	Price per standard oz.	Year.	Price per standard oz.
	d.		d.		d.
1875	56½ <sup>13</sup> / <sub>16</sub>	1900	28 <sup>5</sup> / <sub>16</sub>	1905	27½ <sup>3</sup> / <sub>8</sub>
1880	52½	1901	27½	1906	30 <sup>7</sup> / <sub>8</sub>
1885	48 <sup>5</sup> / <sub>8</sub>	1902	24 <sup>3</sup> / <sub>8</sub>	1907	30 <sup>3</sup> / <sub>16</sub>
1890	47 <sup>3</sup> / <sub>4</sub>	1903	24 <sup>3</sup> / <sub>4</sub>	1908	24 <sup>3</sup> / <sub>8</sub>
1895	29 <sup>5</sup> / <sub>8</sub>	1904	26 <sup>3</sup> / <sub>8</sub>		

The fluctuations in its value during 1908 are shown in the following table of average monthly prices:—

Month.	Price per standard oz.	Month.	Price per standard oz.	Month.	Price per standard oz.
January ...	d. 25 $\frac{1}{8}$	May ...	d. 24 $\frac{3}{8}$	September ...	23 $\frac{7}{8}$
February ...	26	June ...	24 $\frac{1}{2}$ $\frac{3}{8}$	October ...	23 $\frac{1}{2}$
March ...	25 $\frac{3}{8}$	July ...	24 $\frac{1}{2}$	November ...	22 $\frac{3}{4}$
April ...	24 $\frac{1}{8}$	August ...	24	December ...	22 $\frac{9}{16}$

The nominal value of one pound (avoirdupois) of bronze coined into pence is 4s., and into halfpence or farthings 3s. 4d.

The Sydney Branch of the Royal Mint was opened on the 14th May, 1855, and the weight of gold sent for coinage to the 31st December, 1908, was 33,075,751 oz., valued at £122,188,778. Of this quantity New South Wales produced 11,000,515 oz., of the value of £40,948,323, the amount from each source being:—

Where produced.	Weight.	Value.
	oz.	£
New South Wales ...	11,000,515	40,948,323
Victoria ...	1,443,417	5,925,907
Queensland ...	15,683,130	55,684,096
South Australia ...	90,218	313,959
Tasmania ...	135,771	476,666
New Zealand ...	4,353,874	17,434,911
Other Countries ...	70,464	247,174
Old Coin, &c. ...	298,362	1,157,742
Total ...	33,075,751	122,188,778

Nearly the whole of the gold won in New South Wales and Queensland, and also a proportion of the produce of the other States and New Zealand, is received at the Sydney Mint for coinage. The total value of the gold raised in Australasia to the end of 1908 amounted to £566,913,686, of which £122,188,778, or 21.55 per cent., passed through the Mint of this State. The value of gold coin and bullion issued up to the end of 1908 was £121,958,577, of which £115,867,500 worth was coin, the value of sovereigns and half-sovereigns being:—

Year.	Sovereigns.	Half-sovereigns.	Total.
	£	£	£
1855 to 1898	83,831,500	2,672,500	86,504,000
1899	3,259,000	65,000	3,324,000
1900	3,586,000	130,000	3,716,000
1901	3,012,000	.....	3,012,000
1902	2,813,000	42,000	2,855,000
1903	2,806,000	115,500	2,921,500
1904	2,986,000	.....	2,986,000
1905	2,778,000	.....	2,778,000
1906	2,792,000	154,000	2,946,000
1907	2,539,000	.....	2,539,000
1908	2,017,000	269,000	2,286,000
Total ...	112,419,500	3,448,000	115,867,500



The first issue of bronze from the Sydney Mint took place in 1868, but it was not until 1879 that silver coin was issued, the values of each to the end of the year 1908 being—bronze, £92,450, and silver, £1,206,600. The value of the coins issued is shown in the following table:—

Year.	Silver Coin.							Bronze Coin.
	Crowns and Double Florins.	Half-crowns.	Florins.	Shillings.	Six-pences.	Three-pences.	Total.	
1868 to 1898	£ 1,300	£ 148,400	£ 107,600	£ 137,000	£ 48,800	£ 73,300	£ 516,400	£ 49,380
1899	.....	19,200	17,000	10,000	8,000	7,600	61,800	2,830
1900	.....	50,000	40,000	25,000	13,000	11,400	139,400	4,100
1901	.....	25,000	23,000	24,000	5,000	6,400	83,400	5,500
1902	.....	200	1,000	1,000	4,800	4,800	11,800	3,000
1903	.....	2,400	4,200	2,800	1,400	5,200	16,000	3,720
1904	.....	23,600	6,800	200	5,600	7,000	43,200	2,320
1905	.....	3,800	.....	.....	3,600	3,400	10,800	2,000
1906	.....	35,000	15,000	12,000	8,600	8,000	78,600	4,000
1907	.....	68,000	55,000	30,000	14,800	10,000	177,800	10,000
1908	.....	7,000	22,600	20,000	7,000	10,800	67,400	5,600
Total	... £ 1,300	£ 382,600	£ 292,200	£ 262,000	£ 120,600	£ 147,900	£ 1,206,600	£ 92,450

It has already been stated that standard silver consists of .925 pure metal and .075 alloy. Standard silver of the weight of one pound troy is coined into sixty-six shillings—that is to say, 11·1 oz. of fine metal produces coin to the value of £3 6s. The average price of silver during 1908 was 2s. 0½d. per oz., which for 11·1 oz. gives the sum of £1 2s. 6⅞d.; and as the difference between the nominal value of silver and the average price per standard oz. represents the seigniorage or gross profit, it will be seen that after full allowance had been made for mint expenses and the loss incurred by the purchase of worn silver at its nominal value, the British Government has derived a fairly large profit from the silver coin issued in the Commonwealth. The demand for silver is, however, necessarily limited, the average annual issue of silver coin by the Sydney Mint for the ten years ended 31st December, 1908, being about £69,000. Australian silver and bronze coins will be issued in 1910.

The gold bullion issued by the Mint is partly pure gold in small quantities for the use of jewellers, chemists, and others, but the bulk consists of small fine gold bars for export to India. The amount of gold bullion issued during 1908 was valued at £244,266, and the total to the end of 1908 at £6,091,077.

Worn gold coins have been received at the Mint for recoinage since 1876, and silver coins since 1873. The nominal value of gold coin withdrawn from circulation during 1908 was £146,974, and for the whole period since the opening of the Mint, £975,312.

Silver coin of the value of £11,182 was withdrawn during 1908. The aggregate value of silver coin withdrawn was £257,283, and this was forwarded to London for recoinage.

The expense of the Sydney Branch of the Royal Mint is borne by the local Government, £15,000 being set apart annually for that purpose. Special votes for limited amounts for construction, repairs, and furniture have been passed occasionally.

The receipts of the Mint, which are paid into the Consolidated Revenue, comprise charges for coining gold, fees for assays, &c., and profits on sale

of silver. The Mint pays for all silver contained in deposits in excess of 8 per cent. of the gross weight at a rate fixed by the Deputy Master from time to time. On the 12th May, 1902, the rate was proclaimed at 1s. 6d. per oz. fine, and this is still ruling.

From the 1st January, 1901, amended regulations have been in force for the coinage of gold, by which the charges are considerably reduced. No distinction is made between gold raised in New South Wales and that raised in any of the other States.

The total receipts of the Mint since its establishment in 1855 are shown below:—

Year.	Charges on Gold.	Profit on Sale of Silver.	Fees for Assays and Crushings, and Proceeds of Sweep.	Total Mint Receipts (paid into Consolidated Revenue).
1855 to 1898	£ 468,996	£ 94,431	£ 79,932	£ 643,359
1899	7,289	5,391	2,930	15,610
1900	7,538	7,855	3,464	18,857
1901	9,623	6,572	2,016	18,211
1902	8,108	5,254	2,034	15,396
1903	8,793	8,499	2,116	19,408
1904	11,145	8,869	1,725	21,739
1905	10,158	8,196	1,068	19,422
1906	9,083	7,846	2,565	19,494
1907	6,836	4,884	2,136	13,856
1908	6,484	3,440	922	10,846
Total.	554,053	161,237	100,908	816,198

#### LIFE ASSURANCE.

The particulars relating to life assurance institutions are obtained from the reports published and circulated by the companies themselves, not from official returns, and, unfortunately, such statements do not sufficiently separate local from foreign business. During 1908 there were eighteen institutions operating in the State. Of these, seven were local, five had their head offices in Victoria, one in New Zealand, one in the United Kingdom, one in Canada, and three in the United States. The volume of the local business of those last mentioned, proportionately to the total, is, however, so small that returns relating to the American offices have been omitted from the following comparisons, except where their local business can be stated. Several companies, uniting life with other classes of insurance, have local branches or agencies, but their transactions in life risks in the State are unimportant.

Of the seven local institutions the Australian Mutual Provident Society is incorporated under a special Act; and the following are registered under the Companies Act—the City Mutual Life Assurance Society (Limited) in 1879, the People's Prudential Assurance Company (Limited) in 1896, the Standard Life Association (Limited) in 1899, the Phoenix Mutual Provident Society (Limited) in 1902, and the Mutual Life and Citizens' Assurance Co. (Limited), formed by amalgamation, in January, 1908.

Two societies, the Phoenix Mutual Provident Society (Limited) and the Provident Life Assurance Company, transact only Industrial business.

The ordinary life assurance business of the institutions operating in the State, in comparison with their Australasian business, may be summarised thus:—

	Number of Societies.	Policies in Force.	Amount Assured.	Bonus Additions.	Total Assurance and Bonuses.	Annual Premium Income.
Australasian Business ..	16	No. 526,608	£ 127,768,268	£ 15,829,867	£ 113,598,135	£ 4,349,753
New South Wales Business	16	137,852	32,993,481	4,157,440	37,150,921	1,080,236

The local business thus represents 26·2 per cent of the policies in force, and 25·8 per cent. of the total sum assured in Australasia by the companies operating in the State.

The results of the latest actuarial investigation of each society are given in detail in the Statistical Register.

Ten of the companies are mutual, and the remainder are "mixed"—that is, proprietary companies, dividing profits with the policy-holders. Eight of the institutions also transact industrial business, and one company, the Australian Alliance Assurance Company, conducts fire, marine, and guarantee insurance; and the Liverpool, London, and Globe, fire insurance. Most of the offices have representatives in all the Commonwealth States and New Zealand, four institutions have extended their operations to London, and two also to South Africa.

The following table gives the total business in force in the ordinary branch, in detail, for each society at the close of 1908. The item "Sums assured" means the sums payable, exclusive of reversionary bonuses, at death, or on attaining a certain age, or at death before that age:—

Institution.	Policies in Force.	Sums Assured.	Bonus Additions.	Total, excluding Annuities.	Annual Premium Income.
<i>Head Office in New South Wales.</i>					
	No.	£	£	£	£
Australian Mutual Provident Society ..	226,058	63,077,094	12,735,202	75,812,296	2,057,462
Mutual Life and Citizens' Assurance Company (Ltd.)	79,983	14,162,430	698,536	14,860,966	517,275
City Mutual Life Assurance Society (Ltd.) ..	14,547	1,904,425	76,764	1,981,189	78,381
The Standard Life Association (Ltd.)*	4,533	580,286	5,247	585,533	26,397
Australian Metropolitan Life Assurance Company (Ltd.)	2,044	172,396	1,596	173,992	8,141
People's Prudential Assurance Company (Ltd.)††	1,927	95,123	1,173	96,296	4,835
<i>Head Office in Victoria.</i>					
Australian Alliance Assurance Company ..	624	208,424	18,560	226,984	5,773
National Mutual Life Association of Australasia (Ltd.)	82,877	20,190,154	1,529,277	21,719,431	691,571
Australian Widows' Fund Life Assurance Society (Ltd.)†	27,207	5,785,256	365,074	6,150,330	208,791
Colonial Mutual Life Assurance Society (Ltd.)	39,255	11,082,027	309,810	11,391,837	372,110
Australasian Temperance and General Mutual Life Assurance Society (Ltd.)‡	26,813	2,900,936	75,697	2,976,633	109,614
<i>Head Office in Canada.</i>					
Independent Order of Foresters ¶	1,124	203,900	....	203,900	
<i>Head Office in United Kingdom.</i>					
Liverpool, London, and Globe Insurance Company ..	448	219,591		219,591	6,154
<i>Head Office in United States.</i>					
Equitable Life Assurance Society of the United States ¶	7,761	2,762,357	12,931	2,775,288	100,929
Mutual Life Insurance Company of New York ¶	4,421	1,778,998		1,778,998	62,069
New York Life Insurance Company ¶	6,986	2,644,371	**	2,644,371	100,251

|| Not available. \* 30th June, 1909. † 31st October, 1908. ‡ 30th September, 1908.  
 ¶ Australasian business only. \*\* Included in previous column. †† 31st August, 1908.

The business in force at the end of 1908 in the State of New South Wales only, under similar headings to the preceding table, is given below:—

Institution.	Policies in Force, exclusive of Annuities.	Amount Assured, exclusive of Bonuses.	Bonus Additions.	Total.	Annual Premium Income.
	No.	£	£	£	£
Australian Mutual Provident Society	63,708	18,560,336	3,774,235	22,334,571	601,846
Mutual Life and Citizens Assurance Company (Ltd.)	22,071	3,853,677	213,740	4,067,417	136,620
City Mutual Life Assurance Society (Ltd.)	8,180	1,050,287		1,050,287	
*Standard Life Association (Ltd.)	2,551	291,423	3,535	294,958	13,121
Australian Alliance Assurance Company	5	1,500	91	1,591	43
National Mutual Life Association of Australasia (Ltd.)	13,667	2,905,658		2,905,658	102,015
†Australian Widows' Fund Life Assurance Society (Ltd.)	7,633	1,687,229	107,580	1,794,809	60,239
Colonial Mutual Life Assurance Society (Ltd.)	4,325	950,520	36,376	986,896	33,415
†Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	5,679	616,694	16,096	632,790	23,782
Australian Metropolitan Life Assurance Company (Ltd.)	986	83,822	632	84,454	3,850
Equitable Life Assurance Society of the United States	1,985	796,554	3,982	800,536	27,270
Mutual Life Insurance Company of New York	2,305	1,041,092		1,041,092	35,539
New York Life Insurance Company	2,433	940,555	††	940,555	35,356
Liverpool and London and Globe Insurance Company	176	75,911		75,911	2,305
Independent Order of Foresters	221	43,100	.....	43,100	
§People's Prudential Assurance Co., (Ltd.)	1,927	95,123	1,173	96,296	4,835
Total	137,852	32,993,481	4,157,440	37,150,921	1,080,236

\* 30th June, 1909. † 30th September, 1908. ‡ 31st October, 1908. § 31st August, 1908.  
 || Information not available. †† Included in previous column.

The following table gives a summary of the new business completed in each of the past ten years by the Australian offices represented in New South Wales. The assurance and endowment policies (ordinary branch) only are dealt with, as the annuity transactions are unimportant:—

Year.	New Policies.	Amount Assured.		Annual Premiums.	
		Total.	Per Policy.	Total.	Per £100 of Assurance.
	No.	£	£	£	£ s. d.
1899	39,434	9,039,315	229	294,476	3 5 2
1900	42,855	9,237,454	216	321,172	3 9 6
1901	43,004	9,069,130	211	323,086	3 12 4
1902	43,865	9,164,636	209	334,627	3 13 0
1903	44,504	9,624,405	216	349,410	3 12 7
1904	48,308	10,238,366	212	372,133	3 12 8
1905	49,736	10,731,768	216	398,565	3 14 3
1906	54,843	12,105,063	221	440,466	3 12 9
1907	60,716	13,143,741	216	474,069	3 12 2
1908	67,033	13,646,727	204	484,223	3 11 0

The average sum assured was £204 in 1908, compared with £229 in 1899, while the annual premium for £100 has increased. It would seem from these two facts that the proportion of policies for large amounts has

diminished, while the increase in the premium is accounted for by the growth of the endowment-assurance business. At the present time, about 50 per cent. of the total assurance business is of this description, and it is evident that the combination of investment with insurance thus afforded has obtained a strong hold on the assuring public. The average sum assured per endowment policy is below that of the whole-life policies, while the average annual premium is higher, as many of the policies are for short terms. The new assurances effected during the year, less the void business or discontinuances, represent the annual additions to the sums assured; this is shown in the following comparison for the ten years ended 1908:—

Year.	New Assurances.	Void Business.	Net yearly increase to sums assured.
	£	£	£
1899	9,039,315	5,053,752	3,985,563
1900	9,237,454	5,673,224	3,564,230
1901	9,069,130	5,712,665	3,356,465
1902	9,164,636	5,804,255	3,360,381
1903	9,624,405	6,007,494	3,616,911
1904	10,238,366	6,364,307	3,874,059
1905	10,731,768	7,139,977	3,591,791
1906	12,105,063	8,251,768	3,853,297
1907	13,143,741	6,268,404	6,875,337
1908	13,466,727	10,058,891	3,407,836

The receipts of the societies are represented chiefly by the collections from premiums on policies and by the interest arising from investments of the accumulated funds; while payments on account of policies matured and surrendered, cash bonuses, and expenses of management constitute the bulk of the disbursements.

The excess of receipts over expenditure represents the annual additions to the reserves. The general direction of business of the Australasian societies is shown in the following table:—

Year.	No. of Societies.	Policies in Force.	Receipts.	Expenditure.	Excess.	Excess per Policy.
			£	£	£	£
1895	10	268,242	3,392,423	2,334,481	1,057,942	3.94
1900	11	331,868	4,093,376	2,648,303	1,445,073	4.35
1905	14	†756,585	5,437,589	3,834,272	1,603,317	2.12
1906	14	†776,970	5,780,943	3,959,541	1,821,402	2.34
1907	14	†857,364	6,143,067	4,070,350	2,072,717	2.42
1908	13	†915,452	6,376,051	4,323,264	2,052,787	2.24

† Includes Industrial business.

The aggregate receipts and disbursements for the thirteen institutions for 1908 were as follow, both ordinary and industrial branches being included:—

Receipts.		Expenditure.	
	£		£
Premiums—		Claims ... ..	2,512,383
New ... ..	469,125	Surrenders ... ..	513,609
Renewal ... ..	*4,010,112	Annuities ... ..	84,010
Consideration for Annuities	114,712	Cash Bonuses and Dividends ...	95,007
Interest ... ..	1,764,845	Expenses ... ..	992,771
Other Receipts (Rents, &c.)	17,257	Amount written off to Depreciation, Reserves, &c. ...	125,484
<b>Total</b> ... ..	<b>£ 6,376,051</b>	<b>Total</b> ... ..	<b>£ 4,323,264</b>

\* Includes Industrial premiums.

The additions to the funds have shown a considerable increase. The amount of funds and the interest received thereon were as follow:—

Year.	Accumulated Funds.		Interest.	
	Additions during year.	Total Amount.	Amount received.	Average Rate realised.
	£	£	£	per cent.
1890	1,404,215	14,580,210	827,909	5·97
1895	1,057,942	20,438,224	1,037,477	5·21
1900	1,445,073	26,491,025	1,161,696	4·51
1905	1,603,317	34,915,842	1,527,690	4·48
1906	1,821,402	37,486,144	1,565,611	4·32
1907	2,072,717	39,558,861	1,679,440	4·36
1908	2,052,787	41,611,648	1,764,845	4·24

The decrease in earning power over the period reviewed is noticeable, but comparison with the bank rate of interest on fixed deposits, given on page 430, show that diminished rates are general, and that the fall in interest earned by the insurance companies is in steady proportion to the general decline.

#### EXPENSES OF MANAGEMENT.

The expenses of management for 1908 in the aggregate represent 15·57 per cent. of total receipts, or 22·96 per cent. of total expenditure. The ratio between management expenses and premium income must necessarily vary with the volume of new business transacted and the age of the society, quite apart from the intensity of competition for the new business. The following figures show the cost of management per policy and per cent. of premium income and gross income:—

Year.	Management Expenses.	Premium Income.	Gross Receipts.	No. of Policies.	Management Expenses.		
					Per Policy.	Per cent. of—	
						Premium Income.	Gross Receipts.
	£	£	£	No.			
1895	438,524	2,380,167	3,392,423	268,242	1·635	18·42	12·93
1900	565,380	2,799,512	4,093,376	331,868	1·703	20·19	13·81
1905	†858,741	3,500,448	5,437,589	756,585	1·130	24·53	15·79
1906	†878,299	3,840,504	5,780,943	776,970	1·133	22·87	15·19
1907	†941,695	4,330,701	6,143,067	857,364	1·098	21·74	15·33
1908	†992,771	4,554,211	6,376,051	915,452	1·034	21·80	15·57

† Includes Industrial business.

## ASSETS AND LIABILITIES OF ASSURANCE COMPANIES.

The aggregate assets and liabilities are shown in the subjoined table:—

Year.	No. of Societies.	Liabilities.			Assets.		
		Paid-up Capital and Accumulated Funds.	Other Liabilities.	Total.	Loans on Mortgages and on Policies.	Freeholds.	Total.
		£	£	£	£	£	£
1895	10	21,497,059	.....	21,497,059	15,600,229	5,896,830	21,497,059
1900	11	27,471,223	.....	27,471,223	19,013,579	8,457,644	27,471,223
1905	14	35,867,362	.....	35,867,362	22,072,061	13,795,301	35,867,362
1906	14	37,486,144	88,272	37,574,416	24,618,651	12,955,765	37,574,416
1907	14	39,015,198	638,889	39,654,087	25,710,088	13,943,999	39,654,087
1908	13	40,710,897	1,035,323	41,746,220	27,071,098	14,675,122	41,746,220

About 65 per cent. of the total assets are represented by loans on mortgage, and on the policies of the societies. In former years insurance companies adhered almost entirely to these forms of investment, but recently attention has been given to Government securities, loans to municipalities, and investments in shares; also considerable sums are deposited with the banks, or sunk in freehold and leasehold property. Investments on personal security are unusual in Australasia, and the advances are generally combined with life policies. In some of the States the companies are obliged by law to deposit certain sums with the Treasury as a guarantee of good faith, and the amount so lodged is included in their balance-sheets, under the head of Government securities or of deposits. The ratio of loans to total liabilities over the years quoted in the previous table is as follows:—

1895	...	...	...	72·57	per cent.
1900	...	...	...	69·21	„
1905	...	...	...	61·54	„
1906	...	...	...	65·52	„
1907	...	...	...	64·83	„
1908	...	...	...	64·85	„

## ASSURANCE IN VARIOUS COUNTRIES.

The average amount assured per policy for each State, and for New Zealand, the United Kingdom, Canada, and the United States, is given in the following table. The figures relate to the ordinary branch only, and in some instances are probably somewhat overstated, as all the companies do not show complete returns of the business in each State, but the results may be taken as a fair estimate. The Australasian business of the American institutions, excluded from the previous returns, has been included for the purpose of establishing the Australian averages shown herewith:—

Country.	Average sum assured per Policy.
	£
Commonwealth of Australia ... ..	246
New South Wales ... ..	239
Victoria ... ..	224
Queensland ... ..	262
South Australia ... ..	216
Western Australia ... ..	285
Tasmania ... ..	251
New Zealand ... ..	246
United Kingdom ... ..	292
United States ... ..	463
Canada ... ..	323

The average amount of assurance per head of population was, in Australasia, £26; in Canada, £21; in the United Kingdom, £16; and in the United States, £26; and the average number of policies per thousand of population was, in Australasia, 106; in Canada, 63; in the United Kingdom, 51; and in the United States, 66.

The average policy is scarcely a fair measure of thrift, as the growth of the industrial business will extend the area covered, while steadily reducing the amount of the policy; and furthermore, in these States mutual assurance is the rule, and members of the various societies have acquired large bonus additions.

It would seem that the practice of assuring life is much more prevalent in Australasia than in any of the other countries instanced; and although the average sum assured by each policy is less, the number of policies is so much greater, as compared with the population, that the amount assured per inhabitant is considerably higher.

#### INDUSTRIAL ASSURANCE.

In addition to the ordinary life transactions, a large industrial business has grown up during recent years. The policies in this class are usually for small amounts, and the premiums, in most cases, are payable weekly or monthly. The assurances may be effected on the lives of infants and adults, and the introduction of this class of business has proved of great benefit to the industrial population.

Six of the Australasian companies combine industrial with ordinary business, while two limit their operations to industrial and medical benefit transactions. The balance-sheets of these companies, however, do not admit of a satisfactory comparison of the business transacted, as the two branches are not always treated separately. For the year 1908 the total and local business of the eight companies showing transactions in the industrial branch, are contrasted in the following table:—

Institution.	Total Business.			Local Business.		
	Policies in Force.	Amount Assured.	Annual Premium Income.	Policies in Force.	Amount Assured.	Annual Premium Income.
	No.	£	£	No.	£	£
Australian Mutual Provident Society	34,901	1,066,251	65,456	10,576	322,484	20,015
Mutual Life and Citizens' Assurance Company (Ltd.)	205,395	3,989,873	191,055	61,804	1,183,019	60,063
Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	106,888	2,176,698	130,094	22,556	487,765	32,636
The Standard Life Association (Ltd.)	23,585	641,687	29,002	14,515	388,850	17,816
Provident Life Assurance Company	18,247	467,810	26,611	1,879	42,546	2,306
Australian Metropolitan Life Assurance Company (Ltd.)	15,715	523,547	24,485	9,293	349,796	15,266
People's Prudential Assurance Company (Ltd.)	4,718	104,008	6,941	4,718	104,008	6,941
Phoenix Mutual Provident Society	135	2,949	217	135	2,949	217
	409,584	8,972,813	473,861	125,476	2,881,417	155,260

The operations in New South Wales represent 30·6 per cent. of the total number of policies in force; and both the amount assured and the annual premium income per policy are slightly in excess of the averages of the total business, viz.:—

		Total.	Local.
Amount assured for Policy	...	£21·9	£23·0
Annual Premium Income per Policy	...	1·15	1·24



The full extent of the local business, ordinary and industrial, is shown in the following figures:—

Business.	Policies in Force.	Amount Assured (excluding Bonus).	Annual Premium Income.
	No.	£	£
Ordinary ...	137,852	32,993,481	1,030,236
Industrial ...	125,476	2,881,417	155,260
Total ...	263,328	35,874,898	1,235,496

These figures show that industrial policies represent 47·7 per cent. of policies and that one out of every six persons in the State is the holder of a policy in one or other of these forms; the total sum assured represents £22·35 per capita of population, and the annual premium income 15s. 5d. per capita.

If the total of assurance policies is considered in conjunction with the figures for friendly societies, given later, it is apparent that one person out of every four in the State, on the average, is covered by an insurance in some form.

The total receipts and disbursements relating to industrial assurance of such companies as publish the information separately are given below, as derived from the latest balance-sheets in 1908:—

Institution.	Receipts.	Expenditure.		Excess (Reserves Additions).	Management Expenses per cent. of Receipts.
		Manage- ment.	Total.		
Australian Mutual Provident Society ...	£ 54,284	£ 36,018	£ 38,602	£ 15,682	per cent. 66·3
Mutual Life and Citizens' Assurance Company (Ltd) ...	217,371	81,992	184,072	33,299	37·7
Standard Life Association (Ltd.) ...	27,065	19,263	28,760	(—) 1,695	71·2
Australian Temperance and General Mutual Life Assurance Soc. (Ltd.)	134,723	64,402	86,722	48,001	47·8
Phoenix Mutual Provident Society (Ltd.) ...	1,994	930	1,895	99	46·6
Provident Life Assurance Company	34,675	14,790	19,994	14,681	42·7
Total ...	470,112	217,395	360,045	110,067	46·2

The two companies which have not separated the receipts and expenditure of their ordinary and industrial business, viz., Australian Metropolitan Life and People's Prudential Assurance, together hold 11 per cent. of the local industrial policies, but on the available information it is apparent that expenses of management represent 60·4 per cent. of the total expenditure, including claims, surrenders, and cash dividends, or 46·2 per cent. of receipts, being slightly in excess of last year, when management expenditure was 44 per cent. of total income. For the year 1908 this represents 11s. 2d. per policy spent in collecting and handling the total premium income of £1 3s. per policy, for the six societies concerned.

#### FIRE INSURANCE.

A new and comprehensive measure, the Fire Brigades Act, 1909, will operate, from 1st January, 1910, over a wider area than the existing Act, which, in practice, applied only to the metropolitan area of Sydney, though it was

permissible to extend its provisions to any borough or municipal district of New South Wales. The new Act will apply to the city of Sydney, to suburban municipalities numbering 41, to 85 country municipalities, and to 6 shires, but other municipalities and shires may be included by proclamation.

The Board of Fire Commissioners will consist of a representative elected by each of the various interests—*i.e.*, the city and suburban area, the country area, the volunteer brigades, and the insurance companies—with a President appointed by the Government. The Board has control over every fire in a declared district, with power to recover charges for attendance at fires outside such districts. The funds of the Board are to be maintained by contributions of one-third each of estimated requirements for each district by insurance companies, municipalities, and the Government; and responsibility for a pro rata contribution is cast upon each owner of property assured in any company, as defined, which is not registered within the State. Returns to ensure efficient operation of these provisions are required by the Board from municipalities, insurance companies, and property owners.

The amount of the net risks held in the metropolitan area has been obtainable under the 22nd clause of the Fire Brigades Act of 1902, which requires each company holding risks within the proclaimed area under the Fire Brigades Board to furnish annually to the Board the amount held at risk on the preceding 31st December within that area, less the sum reinsured with other contributory companies under the Act. This information was for assessment purposes only, the companies having been obliged to contribute one-third of the total annual expenditure of the Board, the sum subscribed by each being proportionate to the amount of net risks held within the said area. The total amount levied on the companies towards the expenses of the Board during 1908 was £19,100, from 63 companies.

The declared amount of risks held in the metropolitan district since the Fire Brigades Act was first enacted is shown below. The figures are as at the 31st December in each year:—

1884 ...	£36,691,000	1893 ...	£59,844,701	1902 ...	£71,750,461
1885 ...	41,631,582	1894 ...	59,340,096	1903 ...	73,083,028
1886 ...	46,253,370	1895 ...	59,720,282	1904 ...	75,147,807
1887 ...	49,209,395	1896 ...	53,907,953	1905 ...	78,108,749
1888 ...	53,583,000	1897 ...	60,426,170	1906 ...	81,364,129
1889 ...	57,148,388	1898 ...	61,861,909	1907 ...	86,563,304
1890 ...	58,207,183	1899 ...	63,689,331	1908 ...	89,971,992
1891 ...	58,415,945	1900 ...	66,427,642		
1892 ...	61,185,715	1901 ...	69,495,391		

A summary of the receipts and disbursements of 43 of the fire insurance companies for the year 1908 is shown below. Eleven of these have their head offices in the Commonwealth, 4 in New Zealand, 1 in Canada, 26 in the United Kingdom, and 1 outside the British Empire. With regard to the remainder of the companies which contribute to the maintenance of the Fire Brigades Board, the purely marine offices, which carry fire risks on goods in transit, have been omitted, while in three cases the information is not available. The life assurance figures of those institutions which combine fire and life business have also been excluded where possible:—

Receipts.		Disbursements.	
	£		£
Premiums (less reinsurances) ...	34,391,567	Claims paid ...	18,928,494
Interest, rent, fees, &c. ...	1,858,671	Expenses of management, &c. ...	12,252,989
Total ...	36,250,238	Total ...	31,179,483

The total liabilities and assets of the same companies were as follows:—

Liabilities.			Assets.		
			£		
Paid-up Capital	...	9,757,974	Investments, including accrued interest	...	77,994,610
Reserve Funds, &c.	...	22,866,180	Real Estate	...	12,637,021
Other Liabilities	...	63,419,932	Other Assets	...	12,852,293
Balance of Profit and Loss Account	...	7,439,838			
<b>Total</b>	...	<b>103,483,924</b>	<b>Total</b>	...	<b>103,483,924</b>

#### MONEY ORDERS AND POSTAL NOTES.

The money order and postal note systems are conducted by the Post and Telegraph Department. Under the money order system, money may be transmitted from the principal post offices of New South Wales to any part of the world. The orders are sent either direct to the place of payment or through intermediary agencies, all places within New South Wales or the neighbouring States being dealt with directly, while to places outside Australia the intermediary system is applied. Under the postal note system exchanges are effected throughout the Commonwealth; its original object was to afford means of transmitting small amounts of less than £1 to places within the State. The money order and postal note systems cover somewhat the same ground, so far as small remittances within the State are concerned; but as the public convenience is amply met by the postal note, it is anticipated that the money order system will be confined almost entirely to business involving amounts exceeding £1.

The money order system was adopted in January, 1863. In that year there were three orders issued for every hundred persons in the State, and the total value of the orders was £53,862; in 1908 the number was 638,648, or 39 per 100 inhabitants, and the total value £2,539,265. The growth of the business has been due mainly to the extension of the sphere of operations in and beyond the State, and to the greater appreciation of the system, especially by the wage-earning class of the community. Appended is a statement of the business transacted in 1908 by means of money orders:—

Issued in New South Wales.			Paid in New South Wales.		
Payable in—	Number	Value.	Issued in—	Number	Value.
Commonwealth of Australia—		£	Commonwealth of Australia—		£
New South Wales	519,529	2,106,085	New South Wales	501,686	2,110,765
Victoria	29,362	127,217	Victoria	18,230	78,970
Queensland	13,197	60,659	Queensland	29,984	136,544
South Australia	12,809	48,625	South Australia	8,160	33,734
Western Australia	4,049	24,775	Western Australia	13,763	66,101
Tasmania	3,014	14,536	Tasmania	6,398	23,764
New Zealand	8,097	25,645	New Zealand	38,156	93,942
United Kingdom	38,704	90,628	United Kingdom	14,798	46,347
Germany	1,071	3,477	Germany	486	2,786
Italy	827	3,733	Italy	56	247
Canada	381	1,332	Canada	694	3,256
United States	3,991	9,431	United States	2,706	13,867
India	1,523	15,274	India	527	2,333
Cape Colony	590	1,753	Cape Colony	782	2,474
German New Guinea	3	25	German New Guinea	212	2,145
Hong Kong	614	2,319	Hong Kong	353	811
Samoa	14	26	Samoa	496	5,097
Natal	124	433	Natal	388	1,471
Tonga	20	81	Tonga	246	2,383
Fiji	132	512	Fiji	2,929	9,283
Transvaal	242	1,015	Transvaal	1,232	5,910
Other	350	1,184	Other	727	3,820
<b>Total</b>	<b>638,648</b>	<b>2,539,265</b>	<b>Total</b>	<b>643,009</b>	<b>2,646,050</b>

The following table distinguishes orders drawn on New South Wales from those drawn on other countries. The amount of money transmitted to countries outside New South Wales was exceeded by the money received from other countries in every year of the last decennium. The value of money orders issued and paid in the State at intervals since 1895 is shown in the following table:—

Year.	Issued in New South Wales.			Paid in New South Wales.		
	Drawn on New South Wales.	Drawn on other Countries.	Total.	Issued in New South Wales.	Issued in other Countries.	Total.
	£	£	£	£	£	£
1895	985,771	283,429	1,269,200	984,509	262,726	1,247,235
1900	1,182,554	325,413	1,507,967	1,178,713	362,822	1,541,535
1905	1,746,866	329,280	2,076,146	1,757,229	425,400	2,182,629
1906	1,915,896	351,241	2,267,137	1,910,183	440,115	2,350,298
1907	2,015,332	418,565	2,433,897	2,012,735	493,699	2,506,434
1908	2,106,055	433,180	2,539,265	2,110,765	535,285	2,646,050

A commission is paid to those countries to which money is transmitted in proportion to the amount of the orders forwarded to each, the rate of commission varying from  $\frac{1}{2}$  to 1 per cent., and a similar allowance is made to the State by countries doing a return business.

The maximum amount allowable for a single order is £40 in respect of the United Kingdom, Germany (including Samoa and other German protectorates), Canada, Fiji, New Zealand, Cape Colony, Orange River Colony, Transvaal, Natal, Hongkong, India, Ceylon, Straits Settlements, Egypt, Peru, and the British Protectorate of Somaliland; but no single order payable in Italy, or the United States is issued for more than £20; to all other places the limit is £10. The rates of commission on money orders payable in the Commonwealth and Papua are respectively 6d. and 9d. for every £5. The charges on those payable in New Zealand and Fiji are—not exceeding £2, 6d.; £2 to £5, 1s.; £5 to £7, 1s. 6d.; £7 to £10, 2s.; and in the same proportion up to £40. The commission on orders payable in the United Kingdom, other British Possessions, and foreign countries, is at the rate of 6d. for each pound.

The total amount of commission collected from the public for the same periods is given below, and also the excess of receipts over payments as shown in the preceding table:—

Year.	Commission received.	Net Receipts from Other Countries.	Net Collections.
	£	£	£
1895	14,863	(-) 234	14,629
1900	16,296	51	16,347
1905	19,313	419	19,732
1906	19,377	438	19,815
1907	20,251	316	20,567
1908	20,839	350	21,189

Postal notes were first issued in New South Wales on the 1st October, 1893. The transactions for interval years were as follow:—

Year.	New South Wales Postal Notes.			Postal Notes of other States of Australia paid in New South Wales.					Total Value.
	Paid in New South Wales.	Paid in other States.	Total Value.	Issued in—					
				Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	
	£	£	£	£	£	£	£	£	£
1895	243,188	16,369	259,557	7,627	3,863	1,431	....	441	13,862
1900	462,087	26,396	488,483	12,207	9,899	2,209	....	1,047	25,362
1905	637,465	85,703	723,168	35,034	28,535	8,752	9,170	5,712	87,203
1906	710,053	98,706	808,759	36,672	34,616	10,092	10,347	6,193	97,920
1907	776,931	117,343	894,274	37,282	38,177	11,893	11,083	6,694	105,129
1908	817,213	113,909	931,122	39,162	41,409	12,337	11,014	7,184	111,106

The poundage collected in New South Wales during the same years was as follows:—

Year.	Amount.	Year.	Amount.
	£		£
1895	6,317	1906	15,961
1900	11,850	1907	17,615
1905	14,262	1908	18,116

#### BANKRUPTCY.

Prior to the 1st January, 1888, the transactions in insolvency were conducted by the Commissioner of Insolvent Estates, but under the Act of 1887, and subsequent amending Acts, which were consolidated under the Act of 1898, the law is administered by a Supreme Court Judge in Bankruptcy. On the passage of the Act of 1887 it was anticipated that a much healthier tone in trade would ensue, and that there would be a considerable reduction in the number of debtors who would have recourse to the law to obtain relief. The impression then formed was not realised in the earlier years of the operation of the Act, and sequestrations were quite as numerous as under the repealed Act, but are now diminishing. The following statement shows the number of bankruptcy petitions for each of the last five years:—

Year.	Petitions in Bankruptcy.			Petitions withdrawn, refused, &c.	Sequestration Orders granted.
	Voluntary.	Compulsory.	Total.		
1904	352	139	491	30	461
1905	332	106	438	17	421
1906	337	91	428	22	406
1907	256	111	367	34	333
1908	272	84	356	24	332

A regular decrease in the number of sequestrations has taken place since 1893, and, taken in conjunction with the increase in the savings of the people, as evidenced by the growth of bank deposits, and the position disclosed by the life assurance returns, there are undoubted indications of the growing prosperity of the State.

The estates in respect of which certificates of discharge or release have been granted during the time the Act has been in force number 2,312, or more than 13 per cent. of the total sequestrations. In some cases application is made for a certificate and refused; taking these into consideration it would appear that out of 100 bankrupts, 86 are unable, or too indifferent, to take the necessary steps to free themselves from bankruptcy. The property of an uncertificated bankrupt, even if acquired subsequently to sequestration, is liable to seizure on behalf of unsatisfied creditors, and as applications for certificates of discharge are apparently the exception rather than the rule, it would appear that the great majority of bankrupts do not attain a position in which they are likely to be disturbed by unsatisfied creditors. The number of sequestrations for the years the Act has been in force is 17,245, and of these 14,824 remain uncertificated. During 1908 the total number of sequestrations was 332; the liabilities, according to bankrupts' schedules, were £322,850, and the assets amounted to £185,507. The qualification "according to bankrupts' schedules" is necessary, as the returns of assets and liabilities established after investigation by the Court differ widely from those furnished by bankrupts:—

Quinquennial Period.	Sequestrations.	Nominal—		
		Liabilities.	Assets.	Ratio of Assets per £1 of Liability.
	• No.	£	£	£ s. d.
1888-1892	5,730	5,682,689	2,644,382	0 9 4
1893-1897	6,235	5,760,282	3,406,148	0 11 10
1898-1902	2,864	2,159,659	994,803	0 9 3
1903-1907	2,084	1,359,121	781,108	0 11 6
1908	332	322,850	185,507	0 11 6
Total ...	17,245	15,284,601	8,011,948	0 10 6

The dividend rates paid on the amount of proved liabilities of estates which have been wound-up are not given, as it would involve an investigation of the transactions in each estate; and even this operation would not result in complete returns, as there are estates which remain unsettled over many years.

There are official assignees to assist the Court in winding-up the estates. Each official pays all money received by him to the Registrar in Bankruptcy, who places the amount to the credit of the Bankruptcy Estates Account, from which all charges, fees, and dividends are met. The official assignees are required to furnish quarterly statements of the transactions in each estate.

District Registrars in Bankruptcy have been appointed throughout the State, the positions generally being filled by Police Magistrates or other court officials. District Registrars have the same powers and jurisdiction as the Registrar in respect to examinations of bankrupts and the technical business of the court.

## TRANSACTIONS IN REAL ESTATE.

The Real Property or Torrens Act was passed in 1862, transactions in real estate previously having been regulated by the Deeds Registration Act of 1843. The Real Property Act completely altered the procedure in regard to land transfers, and was modelled on the lines of legislation in South Australia, adopted at the instance of Sir R. R. Torrens. The main features of the Act are the transfer of real property by registration of title instead of by deeds; the absolute indefeasibility of the title when registered; and the protection afforded to owners against possessory claims, as a title issued under the Act stands good notwithstanding any length of adverse possession. From the passing of Torrens Act all lands sold by the Crown have been conveyed to the purchasers under its provisions, and the provisions of the old law have been restricted to transactions in respect of grants already issued. The area for which grants under the old system had been issued prior to 1862 was 7,478,794 acres; of these grants, 1,878,076 acres have since been brought under the provisions of Torrens Act, so that the area still under the old Deeds Registration Act is 5,600,718 acres.

Lands may be placed under Torrens Act only when their titles are unexceptional; and as thousands of acres are brought under the Act during the course of every year, it is merely a question of time when the whole of the lands of the State will be under a uniform system. The areas of Crown lands conveyed, and of private lands brought under the Real Property Act during the decade ended 1908, were as follows:—

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1899	551,585	59,644	611,229	396,315	776,863	1,173,178
1900	526,331	47,224	573,605	427,285	837,315	1,264,600
1901	764,431	56,877	821,303	641,361	692,641	1,334,002
1902	897,591	46,678	944,269	813,015	1,089,235	1,902,250
1903	1,403,994	56,492	1,460,486	1,181,102	1,045,780	2,226,882
1904	1,557,667	33,890	1,596,557	1,109,688	907,371	2,017,059
1905	1,834,802	55,251	1,890,053	1,390,255	725,508	2,115,763
1906	1,743,210	98,722	1,841,932	1,486,489	968,449	2,454,938
1907	1,750,597	54,205	1,804,802	1,552,049	1,349,351	2,901,400
1908	1,604,062	85,917	1,689,979	1,502,640	1,173,042	2,675,682

For the whole period during which the Real Property Act (Torrens) has been in operation, 30,600,451 acres, valued at £30,674,376, have been conveyed under its provisions; and 1,878,076 acres, valued at £31,309,301, have been brought under it, the deeds under the old Act having been cancelled.

The transfers and conveyances of private lands which take place during ordinary years indicate in some measure the condition of business in real estate; the volume of these transactions, however, in some years cannot be relied upon as giving more than an indication of speculation or inflation. In the following table, which covers ten years, the money consideration paid on sales of private lands during each year is shown excluding, of course, lands sold on long terms. During 1888 land to the value of £11,068,873

changed hands, but in 1905 the amount had fallen to £6,865,053, and in 1908 the total for the year was £12,760,132. The records of recent years, as shown below, indicate that there is an upward tendency in transactions in real estate, of a permanent character.

Year.	Conveyances or Transfers.		
	Under Old System.	Under Real Property (Torrens) Act.	Total.
	£	£	£
1899	1,873,076	3,099,279	4,972,355
1900	2,265,901	3,444,209	5,710,110
1901	2,263,853	3,986,229	6,250,082
1902	2,519,247	4,350,050	6,869,297
1903	3,316,360	4,025,286	7,341,646
1904	2,524,799	4,133,994	6,663,793
1905	2,197,031	4,668,022	6,865,053
1906	2,820,456	7,346,558	10,167,014
1907	3,342,526	9,366,063	12,708,589
1908	2,879,955	9,880,177	12,760,132

As already mentioned, the Real Property Act provides that on the issue of a certificate the title of the person named on the certificate is indefeasible. Provision is made, however, for error in transfer, by which persons might be deprived of their property; as, should the transfer be made to the wrong person, the holder of the certificate cannot be dispossessed of his property unless he has acted fraudulently. To enable the Government to compensate persons who, through error, may have been deprived of their properties, an assurance fund was created by means of a contribution of one half-penny in the pound on the declared capital value of property when first brought under the Act, and upon transmissions of titles of estates of deceased proprietors. It is a sterling testimony of the value of the Act, and of the facility of its working, that payments from the assurance fund to the 31st December, 1907, in respect of titles improperly granted, amounted to £16,326 only.

In 1907 the assurance fund, as a separate account, was closed, and the balance at credit, £157,569, was transferred to the Closer Settlement Account in accordance with the provisions of section 6 of the Public Works and Closer Settlement Funds Act, 1906. All assurance contributions under section 119 of the Real Property Act, 1900, and claims for compensation in pursuance of that Act, are now respectively paid to and discharged from the Closer Settlement Fund.

#### MORTGAGES.

All mortgages, except those regulated by the Bills of Sale Act of 1898 and the Merchant Shipping Act of 1894, are registered at the Registrar-General's Office, and it is a fair assumption that the number recorded represents the bulk of the mortgages effected. Where more than one mortgage has been effected on the same property, the mortgages take priority according to the time of registration, and not in accordance with the respective dates of the instruments. The amount of consideration for which a mortgage stands as security is not always stated in the deeds, the words "valuable consideration" or "cash credit" being inserted instead of a specific sum in many of the



transactions of banks and other loan institutions, in cases where the advances made are liable to fluctuation; and as this frequently occurs when the property mortgaged is of great value, an exact statement of the total advances against mortgages cannot be given. Consequently the figures in the tables given below relate only to cases in which a specific amount is stated in the deeds, whether that amount be the sum actually advanced or not. The same remark applies also to discharges, the amount of which, as shown in the tables, is still further reduced by the exclusion of mortgages which have been satisfied by foreclosure or seizure, a record of which is not available. Many mortgages, therefore, appear in the official records as current, although the property which they represent has passed away from the mortgagor.

#### MORTGAGES OF REAL ESTATE.

Mortgages of land are registered either under the Deeds Registration Act or the Real Property Act, according to the Act under which the title of the property stood at the date of mortgage. The mortgages registered for each of the five years ended 1908 were:—

Year.	Number.			Consideration.		
	Under Deeds Registration Act.	Under Real Property Act.	Total.	Under Deeds Registration Act.	Under Real Property Act.	Total.
	No.	No.	No.	£	£	£
1904	3,906	6,387	10,293	3,714,248	6,292,235	10,006,483
1905	3,921	7,220	11,141	3,207,238	6,437,963	9,645,201
1906	3,996	8,062	12,058	3,953,679	7,814,309	11,767,988
1907	4,642	8,783	13,425	5,621,296	8,885,375	14,506,671
1908	5,160	9,726	14,886	6,062,147	10,490,957	16,553,104

The consideration given generally represents the principal owing; in some cases, however, it stands for the limit within which clients of banks and of other loan institutions are entitled to draw, though many of these clients may be in credit while their property is mortgaged and unreleased.

The amount of mortgages discharged has always been much less than the amount registered, since the discharges do not include foreclosures, which, if not formally registered as discharges, are nevertheless mortgages cancelled. The volume of the releases is also reduced by mortgages paid off in instalments, as the discharges may be given for the last sum paid, which might happen to bear a very small proportion to the total sum borrowed; and further, the total of discharges is reduced owing to the practice, now largely followed, of allowing mortgages maturing on fixed dates to be extended for an indefinite period.

#### MORTGAGES ON LIVE STOCK AND WOOL.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under special Acts, the first two under a temporary measure passed in 1847, which was continued from time to time and became permanent by a special enactment in 1860, and the liens on growing crops under the law of 1862. The mortgages on live stock are current till discharge, and the liens on wool mature at the end of each season, and terminate without formal discharge. Mortgages under each Act are valid without

delivery of the stock or crops to the mortgagees. The figures relating to live stock are given in some detail, as they throw considerable light on the condition of the great pastoral industry of the country. They must, however, be taken with this qualification, that the amount stated represents in many cases merely nominal indebtedness, and the advances are not in every instance made to persons financially embarrassed. But with full allowance on this score, the figures given below reveal the large degree of assistance required by the pastoralists. In the table, amounts secured both by lien on the wool and by mortgage of the sheep, are included under the head of mortgages only:—

Year.	Liens on Wool.			Mortgages on Live Stock.				
	Number.	No. of Sheep.	Consideration.	Number.	No. of Sheep.	No. of Horned Cattle.	No. of Horses.	Consideration.
1904	1,473	3,363,069	£ 699,742	2,354	2,457,303	99,610	12,697	£ 1,076,967
1905	1,618	3,704,577	643,953	2,465	2,604,613	80,020	15,627	1,188,076
1906	1,634	3,444,400	658,292	2,518	3,054,033	94,893	15,937	1,243,972
1907	1,751	3,931,620	834,747	3,176	3,401,888	139,091	13,481	1,723,708
1908	1,755	3,750,145	799,172	3,318	3,014,031	137,003	18,926	1,952,210

## DISCHARGES OF MORTGAGES.

The number of discharges registered amounted to rather more than one-third of the number of mortgages of live stock registered during last year. The figures for the ten years ended 1908 were:—

Year.	Discharges.	Amount.	Year.	Discharges.	Amount.
	No.	£		No.	£
1899	432	957,082	1904	410	402,398
1900	521	687,787	1905	509	644,569
1901	438	960,453	1906	768	1,184,201
1902	387	751,455	1907	914	1,236,705
1903	397	532,868	1908	873	838,609

## LIENS ON GROWING CROPS.

Under the provisions of the Act, liens, the duration of which may not exceed one year, are made on agricultural and horticultural produce. Such advances do not ordinarily reach large sums, either individually or in their total, as there is an element of uncertainty in the security offered. During the last ten years the advances ranged from £96,363 to £181,234 per annum. The liens registered in 1908 were 921 in number, covering advances to the extent of £111,320:—

Year.	Number.	Consideration.	Year.	Number.	Consideration.
		£			£
1899	1,712	158,359	1904	1,406	159,620
1900	1,514	161,887	1905	1,520	172,368
1901	1,390	131,814	1906	1,264	142,567
1902	1,077	109,342	1907	917	96,363
1903	1,607	181,234	1908	921	111,320

## MORTGAGES ON SHIPS.

Mortgages of registered British vessels are arranged under the Merchant Shipping Act of 1894. The mortgages are divided into two classes, one in which the ship is the sole security, and the other in which the advances are made on the security of "the account current," which may consist of ships, wharfage appliances, &c. Registrations are effected at the two ports of registry, Sydney and Newcastle; and the returns are given in the subjoined statement:—

Year.	Mortgage on ships only.				Mortgage on account current.			
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
1904	8	£ 4,127	27	£ 29,433	10	£ 7,703	7	£ 24,200
1905	5	1,975	7	33,581	23	78,317	11	90,351
1906	15	14,150	21	65,907	3	3	17	16,781
1907	3	990	11	18,240	2	2,001	9	20,008
1908	4	1,705	14	7,906	3	4,001	16	15,712

## BILLS OF SALE.

All mortgages on personalty other than ships and shipping appliances, wool, live stock, and growing crops, are filed at the Supreme Court under the Bills of Sale Act of 1855, as consolidated by Act No. 10 of 1898. This Act provides that each document shall be filed within thirty days after it is made or given, otherwise the transaction is illegal; also that the registration shall be renewed every twelve months; and to prevent fraud and imposition the records are open to the inspection of the public. The total amount of advances annually made on bills of sale is not readily available; but, judging from the number of bills filed, the sum must be considerable. All classes of the community participate in the advantages of the Act, but brewers and money lenders appear conspicuously among the transferees. No complete record is made of the bills terminated voluntarily or by seizure, the official records showing only those discharged in the ordinary way. Seizures of the security given, which generally consists of household furniture and stock-in-trade, are common occurrences, and it is to be regretted that no record of them is kept; but, as previously stated, the neglect in the registration of foreclosures is a weakness in the procedure under all Acts regulating mortgage transactions. The bills filed and the discharges registered for the five years ended 1908 are as follow:—

Year.	Registrations.		Renewals under Bill of Sale Act of 1898.
	Filed in Supreme Court.	Satisfied or orders for discharge made.	
1904	3,039	261	2,221
1905	2,728	224	2,187
1906	2,428	268	2,069
1907	2,238	304	1,894
1908	2,481	251	1,725

## DISTRIBUTION OF PROPERTY.

In making estimates of the wealth of a country the probate value of estates has frequently been taken as the basis of the calculations. This, however, is hardly correct, as the probate returns give only the apparent property left by deceased persons, irrespective of debts. To assume that the average amount of property left by each adult who dies during a given period represents the average possessed by each living adult is open to two objections. First, the average age of adults who die is greater than that of those still surviving; and secondly, the wealth of an individual increases with years, and, generally speaking, is greater at death than at any period during life.

The valuations of estates for stamp duty purposes are, however, on a different plane. Such valuations are far below those exhibited in the probate returns, approximating to 21 per cent. less. If it were possible to obtain the ages of persons dying, the stamp duty returns would possess considerable value in estimating the wealth of the community, but as matters stand it has not been practicable to utilise them. Some useful statistical comparisons may, however, be drawn from a consideration of the probate returns. A table is annexed showing the number of estates and amount entered for probate in each of the calendar years 1899 to 1908, the number of estates and amount on which stamp duty was paid during the corresponding financial years ended 30th June following in each case, being given in the last two columns:—

Year.	* Probate Court Returns.		† Stamp Duty Returns.	
	No. of Estates.	Amount.	No. of Estates.	Amount.
		£		£
1899	2,505	5,063,552	2,327	3,529,580
1900	2,452	4,731,032	2,410	4,628,547
1901	2,657	7,033,459	2,726	5,570,718
1902	2,782	5,807,620	2,740	5,385,467
1903	2,767	7,179,882	2,750	5,205,045
1904	2,850	6,155,963	2,712	5,297,552
1905	2,804	7,714,416	2,802	6,066,182
1906	2,852	7,529,437	2,797	6,400,392
1907	3,084	7,563,499	3,172	6,655,673
1908	3,094	7,838,572	3,239	7,215,018
Total ...	27,847	66,617,432	27,675	55,954,174

\* Year ended 31st December.

† Year ended 30th June following.

As the table shows, the number of estates during the ten years reached 27,847, the total assessed value for probate being £66,617,432. According to these figures, the average value of estate left by each person who died possessed of property was £2,392. A much better guide, however, is furnished by the net value of estates on which stamp duty is paid. According to these figures, as shown in the above table, stamp duty was paid from 1st July, 1900, to 30th June, 1909, on 27,675 estates, valued at £55,954,174. This gives an average value per estate of £2,022.

The following figures gleaned from returns collected by the Stamps Office in Sydney, in connection with assessment of estates of deceased persons, show approximately the proportion of residents to non-residents, and the aggregate values of their estates for the last five years:—

Resident in—	£	Proportion per cent.
New South Wales .....	30,895,536	86·12
Europe, including Great Britain .....	2,646,525	7·33
Victoria .....	1,816,544	5·06
Other Australian States and New Zealand .....	417,231	1·17
Elsewhere .....	97,146	0·27
Total .....	35,870,982	100·00

From the above distribution it appears that 13·9 per cent. of the private property in New South Wales is possessed by absentee owners, Europe, including Great Britain, holding 7·4 per cent.; Victoria, 5·0 per cent.; other Commonwealth States and New Zealand, 1·2 per cent.; other countries, 0·3 per cent.

Some idea of the proportion of the whole population possessing estates of sufficient value to be the subject of specific bequest may be gained from a comparison of the number of persons leaving property at death, with the total number of persons dying during a fixed period. In the following table such a comparison has been instituted for quinquennial periods since 1880, the figures showing the proportion of persons dying possessed of property per hundred of the total deaths in each quinquennium:—

Period.	Proportion of Estates per 100 deaths of total population.
	per cent.
1880-84 .....	11·0
1885-89 .....	11·6
1890-94 .....	13·2
1895-99 .....	14·9
1900-04 .....	17·0
1905-08 .....	18·4

Such a distribution of wealth as the above figures show betokens a widely diffused basis of prosperity, which, fortunately, is being continually enlarged.

A still more convincing illustration of the wide distribution of property in New South Wales is afforded by the next table, which shows the proportion of estates per 100 deaths of adult males, as well as the proportion per 100 deaths of adult males and females. The latter method of comparison is frequently neglected; but since large numbers of females are possessors of valuable property, the fact should certainly be taken into consideration in order to arrive at a fair estimate of the distribution of private wealth. The figures are given for quinquennial periods, commencing with the year 1880:—

Period.	Proportion of Estates per 100 deaths of adult Males.	Proportion of Estates per 100 deaths of adult Males and Females.
1880-84 .....	34·6	22·3
1885-89 .....	37·5	23·8
1890-94 .....	41·2	25·8
1895-99 .....	42·7	26·2
1900-04 .....	46·0	27·8
1905-08 .....	48·5	29·0

The same weakness, however, exists in these figures as in the case of those previously given in regard to the values, for approximately three in every hundred estates, concerning which probate or letters of administration are granted, prove to be without assets, so that the proportions must be somewhat reduced.

The statement that there is a wide distribution of property in New South Wales must be taken relatively. On the basis of adults who died, the property owners represent about 51·8 per cent., the remaining 48·2 per cent. being without property. The following table is of interest as showing the distribution of property amongst the persons who died during the ten years 1900-1909 inclusive:—

Category.	Number of Persons with Property, Deceased.	Proportion per 10,000 in each Group.	Value of Estates of Deceased.	Proportion per cent. in each Group.
			£	
£50,000 and over ...	142	51	17,178,327	30·70
£25,000 to £50,000 ...	179	65	6,163,262	11·02
£12,500 to £25,000 ...	402	145	6,917,761	12·36
£5,000 to £12,500 ...	1,019	368	7,861,333	14·05
£200 to £5,000 ...	16,847	6,088	16,994,337	30·37
Under £200 ...	9,086	3,283	839,154	1·50
Total ...	27,675	10,000	55,954,174	100·00

## EMPLOYMENT AND ARBITRATION.

A FAIR approximation of the number of persons engaged in various occupations is available only at the Census, and the particulars then obtained are not wholly satisfactory, as in many cases the number engaged in any stated industry cannot be ascertained owing to the vagueness of the replies, but it is important that the occupations should be classified in as simple and systematic a manner as possible; and the classification adopted in New South Wales, and throughout Australia generally, was drawn up for the Census of 1891, and adopted with a few minor modifications for use at the Census of 1901.

By this system the people are divided into eight great classes, and these again into orders and sub-orders. The first seven classes include all breadwinners, and the eighth all dependents. Class I, which is called the Professional, includes those ministering to General and Local Government, Defence, Law and Order, to Religion, Charity, Education, Art, Science, and Amusement. All persons employed by the General and Local Government, whose occupations properly belong to the Producing, Industrial, or Commercial Classes, are included therewith, as the value of the classification is evidently the knowledge as to *how* these persons are employed, and not *by whom*. Class II, the Domestic, includes all persons supplying board and lodging, and performing domestic duties for which remuneration is paid. Class III relates to Distributors and Sellers; Class IV to those engaged in the many and varied occupations in connection with Carriage and Transport; all artificers or makers are included in Class V; and Class VI contains all producers of raw material in whatever industry. Thus it may be said that the great working or mechanical classes are included in the four classes III to VI.

The classes may be briefly defined as follows:—

### SECTION A.—BREADWINNERS.

#### Class.

- I.—Professional.
- II.—Domestic.
- III.—Commercial.
- IV.—Transport and Communication.
- V.—Industrial.
- VI.—Agricultural, Pastoral, Mineral, and other Primary Producers.
- VII.—Indefinite.

### SECTION B.—DEPENDENTS—NON-BREADWINNERS.

- VIII.—Dependents.

The main object of the classification is to obtain the total number of workers in any capacity whatever in any particular industry or business, not only those directly related to the industry or business, but those holding subordinate positions who assist in its conduct, and who would not otherwise be in the same sub-order as the principal workers.

The population, distributed into the classes described above, and the proportion per cent. in each at the Census of 1901 were as follow:—

Classes.	Number.			Proportion per cent.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
I.—Professional ... ..	26,855	14,529	41,384	3·79	2·26	3·06
II.—Domestic ... ..	20,128	52,690	72,818	2·84	8·17	5·39
III.—Commercial ... ..	67,097	10,567	77,664	9·48	1·64	5·74
IV.—Transport and Communica- tion.	42,822	1,045	43,867	6·05	·16	3·24
V.—Industrial ... ..	122,692	23,996	146,688	17·33	3·72	10·85
VI.—Primary Producers ... ..	168,212	4,642	172,854	23·75	·72	12·78
VII.—Indefinite ... ..	3,597	5,927	9,524	·51	·92	·70
Breadwinners ... ..	451,403	113,396	564,799	63·75	17·59	41·76
VIII.—Dependents ... ..	256,634	531,164	787,798	36·25	82·41	58·24
Occupation not stated ... ..	1,968	281	2,249	...	...	...
Total Population ... ..	710,005	644,841	1,354,846	100·00	100·00	100·00

It will be seen that the Dependents, both male and female, comprise the largest class, owing to the fact that children are included therein, and also that wives engaged in household concerns materially add to the females in this class. Of the males who are breadwinners, the greatest number are employed in primary pursuits, which comprise 23·75 per cent. of the population; those engaged in the Industrial Class, 17·33 per cent., come next; and then the Commercial Class, 9·48 per cent. Of those in the Industrial Class over 27,000 are general labourers. Among females by far the largest proportion is in the Domestic Class. Next comes the Industrial Class, which includes over 18,000 dressmakers and tailoresses.

#### BREADWINNERS AND DEPENDENTS.

The population may be resolved into the two broad divisions, breadwinners and dependents, and from the above table it is seen that at the Census of 1901, 564,799, or 41·76 per cent., of the population were breadwinners, and 787,798, or 58·24 per cent., were dependents. The proportions, however, differed widely in the two sexes, only 17·59 per cent. of the females being breadwinners, as against 63·75 per cent. of the males.

The term "dependent" has a specific meaning. Under this heading are included married women and others who perform domestic duties; but it is justified on the ground that for such services no money-wages are paid. The dependents are divisible into four subdivisions, viz.:—(a) Persons employed in household duties without receiving wages;—of these there were 282,718 females, and only 128 males; (b) persons of tender years unable to earn their own livelihood;—of these there were 145,965 males and 145,441 females; (c) relatives and others not performing household duties;—of these there were 99,736 males and 97,336 females; and (d) persons dependent on charity, or under legal detention;—of these there were 10,805 males and 5,669 females. The persons performing household duties without receiving wages were chiefly the wives and daughters of breadwinners. The relatives and others not performing household duties were aged persons, the parents or grandparents of the breadwinners; and children beyond the school age. Under the latter category were also included all persons under 20 years of age whose occupation was not returned.



Grouped in the two great divisions of breadwinners and dependents, and excluding those whose occupation was not recorded, the proportion of population in each class per cent of the total population at each Census from 1861 to 1901 was as follows:—

Census Years.	Breadwinners.			Dependents.		
	Males.	Females.	Total.	Males.	Females.	Total.
1861	67.58	19.07	46.46	32.42	80.93	53.54
1871	63.19	16.01	41.67	36.81	83.99	58.33
1881	64.37	16.29	42.61	35.63	83.71	57.39
1891	63.13	17.36	42.09	36.87	82.64	57.91
1901	63.75	17.59	41.76	36.25	82.41	58.24

These figures show very little change in the division of the population. In 1861 the high proportion of breadwinners was due to the relatively small number of young persons. In the later years the greater proportion of dependents was largely due to the increased number of the aged.

#### PRIMARY PRODUCERS.

It has already been observed that the largest occupation-class of the population is employed in primary pursuits. The following statement shows the various branches of primary industries followed at the Census of 1901. For comparative purposes, the Census figures of 1891 are also shown, that being the first year when reliable particulars relating to occupations were obtained:—

Engaged in—	1891.		1901.	
	Males.	Females.	Males.	Females.
Agriculture ... ..	66,483	7,022	75,884	1,735
Pastoral Pursuits ... ..	27,212	334	31,312	595
Dairying ... ..	4,996	4,758	15,850	2,285
Mining ... ..	30,936	1	33,378	4
Forests ... ..	1,653	.....	2,431	1
Fisheries ... ..	793	.....	1,238	3
Other Primary Pursuits.	2,773	3	3,119	19
Total ... ..	134,846	12,118	168,212	4,642.

Agriculture claims the largest number of followers; then mining, pastoral, and dairying pursuits. The rural industries are the most important to any State, and the following statement shows at each Census from 1871 to 1901 the number and proportion of the whole population engaged in primary pursuits:—

Census.	Number.			Proportion of whole Population.
	Males.	Females.	Total.	
1871	81,431	8,027	89,458	per cent. 17.95
1881	96,091	8,905	104,996	14.09
1891	134,846	12,118	146,964	13.11
1901	168,212	4,642	172,854	12.78

The decrease in the proportion from 1891 to 1901 was due to the decrease in the number of females employed. The number of women engaged in agricultural and dairying pursuits varies with the time of the year. Beside the 1,735 women shown as employed in agriculture at the Census of 1901, there were some 2,500 others employed partly in connection with agriculture, and partly in domestic duties. The majority of these were relatives of the farmers, and appear in the classification as engaged in domestic duties, and therefore as dependents. Similarly, some 10,000 women who were engaged partly in dairying and partly in domestic duties are classified as performing domestic duties. If the women partly employed in agriculture and dairying be included with those mainly so employed, the total women engaged in agriculture would be 4,267, and in dairying 12,156.

## THE INDUSTRIAL CLASS.

The persons engaged in industrial pursuits numbered 146,688, and of this number 94,119 were employed in manufacturing. The following table shows the numbers employed in the different branches of industry, and for purposes of comparison similar information is given for the year 1891:—

Engaged in—	1891.		1901.	
	Males.	Females.	Males.	Females.
Manufacture of Art and Mechanic Productions .....	23,108	623	26,346	1,157
Manufacture of Textile Fabrics, Dress, and Fibrous Materials ... ..	7,709	16,892	9,451	21,644
Manufacture of Food, Drinks, Narcotics, and Stimulants .. ...	7,699	240	11,638	875
Manufacture, &c., of Animal and Vegetable Substances ... ..	5,193	7	5,546	50
Manufacture, &c., relating to Metals and Mineral Matters ... ..	12,032	8	15,336	60
Working in Fuel, Light, and other forms of Energy	1,639	.....	2,012	4
Construction or repair of Buildings, Roads, Railways, &c. ... ..	37,590	2	36,898	11
Disposal of the Dead or of Refuse ... ..	386	5	1,278	15
Industrial Workers imperfectly defined ... ..	23,642	42	14,187	180
Total, Industrial Classes ... ..	118,998	17,819	122,692	23,996

The largest number in the industrial classes is employed in the construction or repair of buildings, railways, &c. Of the males in the manufacturing branches, the number engaged in art and mechanic productions is the largest; this order includes 5,432 working in engineering and iron works, 4,641 in books and printing, and 4,206 in building materials and other manufactures of timber. Practically all the females are engaged in the manufacture of textile fabrics, dress and fibrous materials, although a small proportion is employed in connection with book-binding and printing.

## THE COMMERCIAL CLASS.

The persons engaged in commercial callings numbered 77,664, of whom 66,299 were engaged in trade. The persons engaged in the various branches of trade at the Census of 1891 and 1901 are shown below:—

Dealing in—	1891.		1901.	
	Males.	Females.	Males.	Females.
Art and Mechanic Productions ... ..	2,602	226	4,144	564
Textile Fabrics and Dress and Fibrous Materials...	4,965	857	6,957	2,269
Food, Drinks, Narcotics, and Stimulants ... ..	12,720	1,066	19,522	2,581
Animals, and Animal and Vegetable Substances ...	3,313	59	5,984	154
Coal and other substances mainly used for Fuel and Light ... ..	1,339	10	2,084	25
Minerals other than for Fuel and Light ... ..	1,503	26	2,136	60
Mercantile Pursuits not elsewhere classed...	16,587	1,887	16,689	3,130
Total engaged in Trade ... ..	43,029	4,131	57,516	8,783

The sale of food, drink, &c., gives employment to most persons in this class, and the increase from 1891 to 1901 among those so employed was large. Those dealing in textile fabrics, &c., chiefly drapers, came next, and then those dealing in animal and vegetable substances. The other groups are comparatively small. The last group includes many persons who were so imperfectly defined that they could not be classed elsewhere.

The persons engaged in all branches of commerce were as follows:—

Engaged in--	1891.		1901.	
	Males.	Females.	Males.	Females.
Finance and Property ... ..	7,262	650	8,985	1,783
Trade ... ..	43,029	4,131	57,516	8,783
Chance Events ... ..	233	.....	424	.....
Storage ... ..	313	1	172	1
Total, Commercial Class ... ..	50,837	4,782	67,097	10,567

## TRANSPORT AND COMMUNICATION.

This class embraces all persons engaged in the transport of passengers or goods, or in effecting communication. The number so employed in 1891 and 1901 was as follows:—

Engaged in--	1891.		1901.	
	Males.	Females.	Males.	Females.
Railway Traffic (not construction) ... ..	7,114	143	9,493	238
Road Traffic (including Tramways) ... ..	12,256	24	13,050	56
Sea and River Traffic and the regulation thereof ...	10,456	57	15,318	107
Postal Service ... ..	1,875	253	2,644	517
Telegraph and Telephone Service ... ..	1,598	22	1,789	127
Delivery of Documents, Parcels, and Messages by hand ... ..	909	1	528	.....
Total, Transport and Communication ... ..	34,208	500	42,822	1,045

The persons engaged in railway and tramway traffic are practically all Government employees, as private railways only employed 218 men in 1901. The number included in the second group, as working in connection with tramways, in 1901, was 2,226. Among those engaged in sea and river traffic in 1901 were 4,929 wharf labourers.

#### THE DOMESTIC CLASS.

The Domestic Class embraces all persons employed in the supply of board and lodging, and in rendering personal services for which remuneration is usually paid. The numbers in each branch in 1891 and 1901 were as follows:—

Engaged in—	1891.		1901.	
	Males.	Females.	Males.	Females.
Supply of Board and Lodging... ..	7,777	10,132	8,258	15,622
Domestic Service and attendance (for which remuneration is paid) ... ..	9,927	28,117	11,870	37,068
Total, Domestic Class ... ..	17,704	38,249	20,128	52,690

This class contains the largest number of females, and includes nearly one-half the total number of female breadwinners. Among those engaged in the supply of board and lodging in 1901 were 15,326 hotelkeepers and servants, and 6,088 boarding-house keepers and servants. The second group included 33,904 house servants and 4,043 laundry workers and washerwomen.

#### THE PROFESSIONAL CLASS.

The persons in this class consist of those engaged in the Government and defence of the country, and in satisfying the moral, intellectual, and social wants of the people. The numbers engaged in these directions at the Census of 1891 and 1901 were as follows:—

Engaged in—	1891.		1901.	
	Males.	Females.	Males.	Females.
General Government ... ..	1,185	6	1,545	31
Local Government... ..	265	7	349	5
Defence ... ..	1,237	.....	3,511	.....
Law and Order ... ..	4,564	84	5,404	74
Religion, Charity, Health ... ..	4,015	3,027	5,580	4,817
Education, Art, Science ... ..	9,920	7,293	10,466	9,602
Total, Professional Class ... ..	21,186	10,417	26,855	14,529

It should be noted that the number shown as employed by the General Government does not represent the whole number in its service. As explained previously, the principle of the classification is to include Government employees in the orders to which they are most nearly related. The total number of those in the Government service in 1901 was about 32,000.

## CHANGING RATIOS IN OCCUPATIONS.

A very general idea may be obtained from the preceding pages of the changes which have taken place in the distribution of labour during the ten years from 1891 to 1901. But a better idea of the way in which the classes of labour have fluctuated will be obtained from the following statement, which shows, at the two periods mentioned, the proportion of males per 1,000 breadwinners in each of the specified occupations, embracing the majority of trades in New South Wales:—

Occupation.	Males per 1,000 Breadwinners.	
	1891.	1901.
Supply of board and lodging ... ..	20	18
Domestic service and attendance ... ..	26	26
Engaged in finance and property ... ..	19	20
Dealers in textile fabrics, dress, &c. ... ..	13	15
Dealers in food, drinks, narcotics, &c. ... ..	33	43
Makers of art and mechanic productions ... ..	60	58
Makers of textile fabrics, dress, &c. ... ..	20	21
Makers of food, drinks, narcotics, &c. ... ..	20	26
Workers in metals and minerals ... ..	31	34
Construction of houses and buildings ... ..	62	52
Agricultural pursuits ... ..	174	168
Pastoral pursuits ... ..	71	69
Dairying pursuits ... ..	13	35
Mining pursuits ... ..	81	85

The above table shows that the number of males working in connection with food, drinks, &c., both as makers and sellers, increased largely, and that contemporaneously the number engaged in dairy-farming increased. The number of workers in metals and minerals increased slightly, but those engaged in agricultural and pastoral pursuits, and in the building trades, declined.

## GRADES OF OCCUPATIONS.

For purposes of comparison, and for distinguishing employers from employees, breadwinners were divided into five grades, viz.:—(a) employers of outside labour; (b) persons engaged on their own account but not employing others for salary or wages; (c) relatives assisting in a business, but not receiving salary or wages; (d) wage-earners; and (e) unemployed. It was, however, found necessary to record those to whom the grade in the Census schedule was not applicable, as well as those who omitted to state whether they were employed or not.

The total number of the people in 1901, classified according to these grades, was as follows:—

Grade.	Males.	Females.	Persons.
Employers ... ..	48,920	4,933	53,853
Persons working on their own account ... ..	65,577	16,780	82,357
Relatives assisting ... ..	17,635	6,077	23,712
Wage-earners ... ..	290,203	72,190	362,393
Persons to whom classification according to grade does not apply ... ..	264,910	540,911	805,821
Unemployed ... ..	21,110	3,639	24,749
Not specified ... ..	1,650	311	1,961
Total ... ..	710,005	644,841	1,354,846

Employers, which term does not include mistresses of domestic servants, numbered 53,853. Wage-earners consisted of 362,393 persons; and if from these be deducted those engaged in purely domestic duties, Government employ, and naval and military service, the results indicate a considerable number of small employers. The average ratio of employers to workers was about 1 to 6.

Persons working on their own account (82,357) were exceedingly numerous, especially among the farming classes and those engaged in transport and commercial pursuits. Relatives returned as assisting were engaged mainly in agricultural and pastoral pursuits, and do not form a very numerous class. Unemployed numbered 24,749, or about 4½ per cent. of total breadwinners. At the Census a person was returned as unemployed if out of work for more than a week immediately prior to the Census, but cases of leave of absence were naturally excepted. Of the unemployed males, 2,753 were out of work through sickness, and 1,656 through old age; the remaining 16,701 could not be classified under either of these heads.

The proportion per cent. of breadwinners of each sex classified in each grade in 1901 was as shown below. The proportions in 1891, the first year in which this information was obtained, are also shown:—

Grade.	1891.		1901.	
	Males.	Females.	Males.	Females.
Employer ... ..	14·0	3·0	10·9	4·3
Engaged on own account ... ..	13·0	15·8	14·5	14·8
Relative assisting... ..	2·3	8·4	3·9	5·4
Wage-earner ... ..	64·2	61·3	64·3	63·7
Not applicable ... ..	1·7	8·4	1·8	8·6
Unemployed ... ..	4·8	3·1	4·6	3·2
Total ... ..	100·0	100·0	100·0	100·0

AGES OF WORKERS.

A great advantage attaching to the record of the age of the workers is the information it affords regarding the employment of young persons. Of the male breadwinners, rather less than one-sixth were under the age of 20 years; while of the female breadwinners about one-fourth were under that age. Of the whole population under 20, more than four-fifths were dependents. The following table gives the number of breadwinners of each sex in various age-groups, their proportion per cent. to the total number in each group, and the proportion of each group to the total number of breadwinners:—

Age-groups.	Number of Breadwinners.		Proportion per cent. of total in each group.		Proportion per cent. of total Breadwinners.	
	Males.	Females.	Males.	Females.	Males.	Females.
Under 15 ... ..	9,142	2,785	3·72	1·16	2·03	2·46
15—19 ... ..	61,963	26,381	87·99	37·29	13·80	23·30
20—24 ... ..	61,268	24,784	98·64	38·26	13·64	21·89
25—44 ... ..	202,152	38,740	98·39	21·81	45·02	34·22
45—64 ... ..	92,076	15,358	97·42	21·67	20·50	13·56
65 and over ... ..	22,496	5,181	84·07	26·57	5·01	4·57
Not stated ... ..	2,306	167	.....	.....	.....	.....
Total ... ..	451,403	113,396	63·75	17·59	100·00	100·00

Under the age of 15, less than 4 per cent. of males and about 1 per cent. of females are breadwinners; between 15 and 20 the number of workers increases rapidly, and between 20 and 25 the largest proportion of breadwinners of both sexes is found. Among males the proportion of breadwinners to the total in each group does not vary greatly between 20 and 65, but after 65 the number of breadwinners falls away. The largest proportions of female breadwinners are between 15 and 25; after 25 more women are married and the proportion decreases. The increase in the number of female breadwinners after 65 is more apparent than real, being due to the large number, probably widows, included therein who are proprietors of houses and land or are of independent means.

The statement below shows for males the proportion per 1,000 in each age-group who were dependents or breadwinners, the latter being separated into primary producers, industrial workers, and all others:—

Age-group.	Breadwinners (Males).				Dependents.
	Primary Producers.	Industrial Workers.	All Others.	Total.	
Under 15 ... ..	16	9	12	37	963
15—19 ... ..	338	260	282	880	120
20—24 ... ..	365	268	353	986	14
25—44 ... ..	345	273	366	984	16
45—64 ... ..	384	262	328	974	26
65 and over ... ..	378	172	290	840	160
All ages ... ..	238	173	227	638	362

The proportion of primary producers is about the same at all ages from 15 to 65. Among industrial workers and all others a maximum is reached between 25 and 45, the smallest proportion of industrial workers being at ages 65 and over, and of other workers at the extreme ages from 15 to 20 and over 65. The lowest proportion of dependents is at ages between 20 and 25, after which it rises slowly to age 65, and then increases largely.

The next statement shows the proportion of females per 1,000 in each age-group who are dependents and breadwinners, the latter being divided into those in the domestic class, and all others:—

Age-group.	Breadwinners (Females).			Dependents.
	Domestic Class.	All Others.	Total.	
Under 15 ... ..	8	4	12	988
15—19 ... ..	191	182	373	627
20—24 ... ..	197	186	383	617
25—44 ... ..	101	117	218	782
45—64 ... ..	80	137	217	783
65 and over ... ..	47	219	266	734
All ages ... ..	82	94	176	824

At ages from 15 to 25, women in the domestic class are more numerous than all other workers combined, but from 25 to 45 the difference is not great, and after 45 the number of domestics decreases considerably. The proportion of dependents is at a minimum at ages between 20 and 25, after which it increases up to age 65, and then declines.

## INDUSTRIAL LEGISLATION.

During the last twenty years much attention has been given, by means of Parliamentary enactments, to economic measures for the advancement of the industrial classes of the community. The history of industrial legislation in New South Wales may be reviewed, according to the stages of life concerned, in four groups, affecting infancy, youth, manhood (specific and general), and old-age. Legislation affecting other than the years of manhood, having only a remote influence upon industry, the prominent and essential enactments which regulate industrial conditions will naturally be found in the classification relating to manhood, and embracing the working years of life. Following the lines of this classification, a brief statement is given of the number of enactments in each group, and of the particular subjects which have received attention.

*Infancy.*—Ten enactments are included in this section; they relate to the protection and custody of children generally, the care of neglected and destitute children, and the control and education of juvenile offenders against the law.

*Youth.*—Five enactments are included, which relate to the control and supervision of apprentices and young people generally, and to the establishment of reformatories and industrial schools.

*Manhood (Specifically).*—This is a section of considerable importance, which is best reviewed under the headings of the various industries which embrace the principal classes of labour, as shown in further detail below:—

- (a) *Agriculture.*—Five enactments relate to the financial assistance of settlers, and the supervision of fruit pests.
- (b) *Pastoral.*—Four enactments embrace regulations in regard to the acquisition of land, and to the promotion of closer settlement.
- (c) *Mining.*—Enactments, numbering eight, are concerned with the regulation of mining on private and Crown lands, the promotion and control of mining companies, the relief of persons injured in accidents, the inspection of mines, and the safeguarding of miners' interests.
- (d) *Shipping.*—Only one enactment, which relates to the duties of masters, and the rights and privileges of apprentices and seamen.
- (e) *Trading.*—Three enactments contain regulations for shopkeeping; the closing of shops, and the hours of work of assistants.

*Manhood (Generally).*—This section is of primary importance, and embraces all matters relating to the health, food, drink, and general welfare of the community. Considered in these aspects the sixty-three enactments included are distributed in the following subsections:—

- (a) *Food, Drink, Health.*—Fifteen enactments regulate the sale and supply of meat, milk, bread, liquors, poisons, &c., the spread of disease, control of inebriates, and other such matters which have material influence on the health of the community.
- (b) *Industrial Conditions.*—Nineteen enactments relate to points of primary importance in the promotion of trade. The legislation affects immigration, the restriction of Chinese and other alien races, the liability of employers, settlement of trade disputes, limitation of working hours, compensation for injuries and accidents, and the accommodation and protection of employees.



(c) *General Welfare and Protection.*—The twenty-nine enactments contained in this section relate to the formation and regulation of labour settlements, erection of trade institutes, provision of working-men's homes, protection of wages of workmen, control of gaming and wagering, limitation of vagrancy, prevention of crime, regulation of debts and loans, extension of local government, and adult suffrage, &c.

*Old-Age.*—Provision for this stage of life is met by ten enactments, dealing with sustentation in sickness and old-age by pensions, with the supervision of friendly societies, and the extension of subventions to friendly societies; the regulation of insurance societies—fire, life, and marine; and of building and co-operative societies.

A chronological enumeration of the particular laws enacted reveals the fact that the earliest subjects to receive treatment were such as related to industrial conditions and safeguards in trade. The sequence of treatment of individual trades placed shipping in the first rank, followed in order by retail trading, mining, agricultural, and pastoral industries. In regard to the helpless stages of life, youth received consideration as being proximate to the working years, before the extremes of infancy and old-age, which were more remotely concerned with the industrial problems.

The scope of the reforms affected by recent laws is considerable; and the extent to which the citizen is educated and tended has afforded material assistance to the deterrent forces which diminish crime and promote good citizenship and industrial peace.

*Recent Legislation.*—An enumeration of the enactments affecting industrial life passed during the last five years is given below under the headings referred to in the previous section:—

				Acts.
<i>Infancy and Youth</i>	...	...	1905	Neglected Children and Juvenile Offenders.
"	"	...	1906	Free Education.
<i>Manhood (Specifically)—</i>				
<i>Agriculture</i>	...	...	1906	Barren Jack Dam and Murrumbidgee Canals Construction, Vine and Vegetation Diseases (Fruits.Pests).
"	...	...	1907	Department of Agriculture Establishment.
"	...	...	1908	Crown Lands (Amendment), Grass-tree Licenses.
<i>Pastoral</i>	...	...	1906	Careless use of Fire (Amendment), Closer Settlement (Amendment), Government Savings Bank, Pastures Protection (Amendment), Water and Drainage and Artesian Wells (Amendment).
"	...	...	1907	Closer Settlement (Amendment).
"	...	...	1909	Do do do
<i>Mining</i>	...	...	1905	Coal Mines Regulation (Amendment).
"	...	...	1906	Mining.
"	...	...	1907	Do (Amendment).
"	...	...	1908	Coal Mines Regulation (Amendment).
<i>Trading</i>	...	...	1906	Companies (Amendment), Second-hand Dealers and Collectors.
"	...	...	1907	Companies (Amendment).

*Manhood (Generally)—*

Acts.

<i>Food, Drink, Health</i>	...	...	1905	...	Country Town Water and Sewerage (Amendment), Habitual Criminals, Liquor (Amendment), Sydney Abattoir Construction, Sydney Stock Driving.
" "	...	...	1907	...	Liquor (Amendment).
" " "	...	...	1908	...	Private Hospitals, Pure Foods.
<i>Industrial Conditions</i>	...	...	1905	...	Explosives, Industrial Arbitration (Temporary Court).
" "	...	...	1906	...	Early Closing (Hairdressers' Shops).
" "	...	...	1908	...	Industrial Disputes and Amendment, Minimum Wage, Scaffolding and Lifts (Amendment).
<i>General Welfare and Protection</i>	...	...	1905	...	Crimes (Amendment), Local Government (Shires), Money Lenders and Infants Loans, Small Debts Recovery (Amendment), Vagrancy.
" "	...	...	1906	...	Friendly Societies (Amendment), Gaming and Betting, Local Government and Local Government Extension.
" "	...	...	1907	...	Invalidity and Accident Pensions, Poor Prisoners' Defence.
" "	...	...	1908	...	Local Government (Amendment), Police Offences (Amendment), Prisoners Detention, Theatres and Public Halls.
" "	...	...	1909	...	Inebriates (Amendment), Motor Traffic.
<i>Old Age</i>	...	...	1908	...	Subventions to Friendly Societies.

## WAGES.

The period from 1880 to 1887 was, perhaps, the brightest in the State from the industrial standpoint, as at no period, except in the five golden years, 1853-57, were wages so high, and at no period was the purchasing power of money so great. During the interval to the end of 1891 there was little reduction in the nominal rate of wages in skilled trades, though for unskilled labour the rates experienced a decided decline. In 1893 there was a heavy fall generally, and the second half of that year marks the beginning of a new industrial period under vastly changed conditions. Prior to the banking crisis of that year wages had shown falling tendencies, and after the first shock there was a fall of about 10 per cent. in the wages of mechanics, and a somewhat greater fall in the wages of unskilled labourers. In 1894 there was no further fall, but employment becoming more restricted, there was a still further decline in 1895, the wages of the year for skilled workmen being 22 per cent. below the rates of 1892, and for unskilled labourers about 17½ per cent. During 1896 wages in several trades rose, and since then there have been some further advances, and generally more regular employment than at any time since the bank crisis. In 1898, 1899, and 1900, employment in the building trades was plentiful, and the wages of masons, bricklayers, and allied trades rose to a point which they had not reached since 1889.

During the period under review there was a stoppage of nearly all forms of speculative activity; on the other hand, there was a marked

extension of agriculture and important mining developments. The following were the average wages for the more important trades:—

Trade or Calling.	1893 (second half and 1894.	1895.	1896.	1897.	1898.	1899.	1900.
<i>Males, per day, without board and lodging.</i>							
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters ... ..	9 6	8 0	8 0	8 6	9 0	9 0	9 6
Blacksmiths ... ..	8 0	6 8	8 6	9 0	9 0	8 6	9 0
Bricklayers ... ..	9 6	8 6	9 0	9 0	9 0	9 8	11 0
Masons ... ..	8 6	7 8	9 0	9 0	9 0	10 3	11 0
Plasterers ... ..	8 6	7 0	7 0	8 0	8 0	8 6	9 6
Painters ... ..	8 0	7 0	7 0	8 0	8 0	7 0	9 0
Boilermakers ... ..	9 0	8 0	8 6	10 0	10 0	10 1	10 3
Labourers and navvies ..	6 0	6 0	6 0	6 0	6 6	6 9	6 10
<i>Males, per week, with board and lodging.</i>							
Farm labourers ... ..	12 6	12 6	12 6	13 6	14 0	13 6	16 3
<i>Females, per week, with board and lodging.</i>							
Housemaids ... ..	10 0	10 0	10 0	11 0	11 0	11 6	11 3
Laundresses ... ..	14 0	14 0	14 0	15 0	15 0	18 6	18 9
Nursemaids ... ..	7 6	7 6	7 6	7 6	7 6	7 0	7 0
General servants ... ..	11 6	11 6	11 6	11 6	11 6	11 0	11 0
Cooks ... ..	14 0	14 0	14 0	14 0	15 0	20 0	20 0

The federation of the States in 1901 gave greater opportunities both to capital and labour, and thus led to increased production. At the close of the year 1901 the Industrial Arbitration Act was passed, and under the awards of the Court many industrial workers now enjoy a fixed hourly or daily wage. With these advantages, and the beneficial influence exerted by good seasons, wages have been well maintained, the rate for unskilled labour—the lowest in the list—having risen to 7s. per day, as shown in the following table:—

Trade or Calling.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.
<i>Males, per day, without board and lodging.</i>								
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters ... ..	10 0	9 6	9 6	9 0	9 4	10 0	10 0	10 0
Blacksmiths ... ..	9 0	9 0	9 0	9 0	10 0	10 0	10 0	10 0
Bricklayers ... ..	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0
Masons ... ..	11 0	11 0	11 0	11 0	11 0	11 0	11 0	11 0
Plasterers ... ..	10 0	10 0	10 0	10 0	10 0	10 0	10 0	10 0
Painters ... ..	9 0	9 0	9 4	9 4	9 4	9 4	10 0	10 0
Boilermakers ... ..	10 4	10 3	10 3	10 3	10 3	10 3	10 3	10 3
Labourers and navvies	6 10	7 0	7 1	7 1	7 0	7 0	7 0	7 0
<i>Males, per week, with board and lodging.</i>								
Farm labourers ... ..	17 6	16 0	16 0	16 0	16 0	15 0	15 to 20	20 0
<i>Females, per week, with board and lodging.</i>								
Housemaids ... ..	12 6	12 6	12 0	12 0	12 0	12 0	12 to 15	13 to 15
Laundresses ... ..	17 6	17 6	17 6	15 0	18 0	20 0	15 ,, 20	17 ,, 20
Nursemaids ... ..	7 0	11 0	11 0	10 0	10 0	10 0	6 ,, 12	6 ,, 12
General servants ... ..	14 0	14 0	13 0	10 0	15 0	15 0	10 ,, 20	10 ,, 20
Cooks ... ..	22 6	22 6	19 0	17 0	17 0	17 0	15 ,, 20	15 ,, 20

## MINIMUM WAGE.

Towards the end of 1908 the Minimum Wage Act was passed, which provides that from the 1st January, 1909, in respect of any person employed in any factory under the "Factories and Shops Act," or in preparing or manufacturing any article for trade or sale, or any shop-assistant as defined by the Early Closing Act, the minimum wage shall be not less than 4s. per week.

Overtime for the workman is any time worked beyond forty-eight hours per week, or after 6 o'clock in the evening, and for a shop-assistant after half an hour after the closing time of the shop.

When any boy under 16 years of age or any female is employed overtime after 6 o'clock, a sum, not less than 6d., must be paid as tea money on the day such overtime is worked.

An amount not less than 3d. per hour must be paid for overtime to any boy under 16 years of age or any female; the full rate of time and a half, however, is to be paid in cases where, under the Factories and Shops Act, the overtime pay would exceed 3d. per hour.

Every employer must keep a record of overtime worked by such of his workmen or shop-assistants as are males under 16 years of age or females, and must produce such record and furnish extracts therefrom to an inspector appointed under this Act.

No person may pay or give or receive any consideration, premium, or bonus for the employing by him of any female in the manufacture of any article of clothing or wearing apparel.

Contraventions or breaches of the Act, or of the regulations, are reported to the Minister by inspectors, and punitive proceedings may not be instituted without the authority of the Minister.

Penalties may be recovered before a stipendiary or police magistrate, or before any two justices of the peace in petty sessions. Proceedings for recovery of any penalty must be commenced within three months after such contravention or breach.

The Act does not apply where all the persons employed as workmen and shop-assistants are members of the employer's family, related in the first or second degree by blood or first degree by marriage to the employer.

## IMMIGRATION.

State-assisted immigration was inaugurated in New South Wales in the year 1832, and continued until 1885. After an interval of twenty years, the policy was reinstated in 1905, and inducements are now offered to farmers, agricultural labourers, and domestic servants from Great Britain to emigrate to the State. The selection of assisted immigrants is made mainly from the populations of England, Scotland, Ireland, and Wales; but a proportion may be drawn from Canada, South Africa, and other parts of the British Empire, also from the United States of America, and European countries other than the United Kingdom, provided they are eligible under the Regulations of the Commonwealth Immigration Restriction Acts. The assisted immigrants must be under 50 years of age, of good character, and in general must afford satisfactory evidence that they are likely to prove suitable settlers. Assistance is given also in respect of their wives and families.

Arrangements have been made with various steamship companies for reductions in the ordinary rates for second and third class passages from the United Kingdom, Germany, Belgium, Italy, and other European

countries. Besides these reductions a Government contribution of £4 is made on each full fare and £2 on each half fare, which may be increased to £6 on each full fare and £3 on each half fare in the cases of persons who settle on the soil, or engage in farm work or domestic service, immediately after arrival in New South Wales.

Nominees for assisted passages by friends or relatives in the State are granted a reduction of £4 on each full fare, which may be increased to £6 on their taking up farm employment. In the case of wives and families nominated in the State, a reduction of £9 per adult is made if the nominator is a farmer or farm labourer. Nominators are required to lodge the reduced steamer fare, with an undertaking that employment awaits the nominees or that adequate provision will be made for their maintenance. Any assisted immigrant who settles upon the land as owner, lessee, or labourer, within a reasonable time of his arrival, may be granted a remission of one-half the railway fare for himself and family when travelling to the district in which he has settled, and of one-half of the railway freight charged on his household furniture, stock, and agricultural implements. These concessions may be granted also to nominated immigrants proceeding to the homes of their nominators, or travelling to take up farm work or domestic service.

Since the 1st January, 1906, the following assisted immigrants have arrived:—

Class of Immigrant.	From United Kingdom.	From other British Possessions.	From other Countries.	Total.
Farmers ... ..	78	28	4	110
Farm labourers ... ..	3,280	88	1	3,369
Domestic servants ... ..	1,396	9	.....	1,405
Others ... ..	631	245	.....	876
Families of above... ..	1,148	128	7	1,283
Nominated immigrants ... ..	3,628	134	58	3,820
Total ... ..	10,161	632	70	10,863

Of the unassisted immigrants, 3,146 have been placed in employment through the agency of the Immigration and Tourist Bureau.

Under the Commonwealth Contract Immigrants Act of 1905, any contract immigrant may land in Australia if the terms of the contract are in writing and have been previously approved by the Minister for External Affairs. Contract immigrants are prohibited only when, in the opinion of the Minister, the remuneration and other conditions of employment in the contract are not as advantageous to the immigrant as those current for workers of the same class at the place where the work is to be performed, or if the contract is made in respect of contingencies connected with an industrial dispute.

#### TRADE UNIONS.

Under the Trade Union Act of 1881 the term "Trade Union" is defined to mean "any combination, whether temporary or permanent, for regulating the relations between workmen and employers, or between workmen and workmen, or between employer and employers, for imposing restrictive conditions on the conduct of any trade or business, whether such combination would or would not, if this Act had not been passed, have been deemed to have been an unlawful combination by reason of some one or more of its purposes being in restraint of trade."

After the passing of the Act of 1881, the advantages of registration began to be realised by the existent unions, and on an average about ten unions per annum applied for enrolment during the first eight years. In 1890 the State experienced great industrial disturbances, and the trades were roused to activity, so that during the next two years 59 unions came into existence, 38 in 1890 and 21 in 1891. The force of the movement had then, however, spent itself, and during the nine years ended 1900, only 30 new bodies sought registration. In 1901 the Industrial Arbitration Act was passed, with the consequence that the unions once more became active, and during the years 1901 to 1908 no less than 169 new unions were formed. The total number of unions formed up to the end of 1908 was 341. Of these there were on that date 153, or 45 per cent., in existence, and 188, or 55 per cent., had disappeared by amalgamation, cancellation, or dissolution. It may be mentioned that out of 169 unions formed during the last eight years, 66, or 39 per cent., have already disappeared. The average duration of extinct unions has been about eight years.

The unions in existence at the end of 1908 are classified as follows, according to the industries or callings to which they are related:—

Group.	No. of Unions.	No. of Members.	Membership per cent. of Total.
Pastoral ... ..	2	28,052	24·6
Mining ... ..	23	22,936	20·2
Shipping and sea transport ... ..	12	11,513	10·1
Railways ... ..	6	11,056	9·7
Other land transport... ..	6	2,834	2·5
Food and drink ... ..	19	7,616	6·7
Clothing ... ..	11	6,521	5·7
Building trades ... ..	20	5,366	4·7
Engineering and iron trades ... ..	12	7,050	6·2
Other manufacturing ... ..	22	5,379	4·7
Other trades ... ..	20	5,595	4·9
Total ... ..	153	113,918	100·0

These figures show that the pastoral industry has by far the largest number of union members, their strength, relative to the total force of union workers, being 24·6 per cent., or almost one-quarter of the whole; and, if the mining group, containing 22,936 members, or 20·2 per cent. of the total, be added to the pastoral group, to cover the primary producers, the resultant group represents 50,988 workers, or 44·8 per cent. of the union strength. Naturally, the strongest unions are found in these two groups, viz., pastoral and mining. The largest union of all is the Australian Workers' Union, with 22,472 members, and next in order of strength are the Colliery Employees' Federation, with 8,979 members, and the Machine Shearers' Union, with 5,580 members. Following the primary industries, but embracing only about one-half the working force, is the transport group, including 25,403 workers, or 22·3 per cent. of the total; but this group has three subdivisions, viz., Sea Transport, including 10·1 per cent., Railways, 9·7 per cent., and Other Land Transport, 2·5 per cent.

The manufacturing trades, relatively to the total, are small. Primary production and transport together absorb 77·1 per cent. of the workers; 22·9 per cent. are distributed over all manufacturing and other trades; and the fact that no less than 53 out of 153 unions possess less than 100 members each emphasises, when compared with the Census distribution

of population shown in the first table, the absence of consolidating forces and economy of administration, and the necessity for amalgamation of kindred interests.

The following statement shows the position of the unions at the end of the last three years, as regards finances and membership:—

	1906.	1907.	1908.
Unions existing, end of year ... ..	136	138	153
Total income ... ..	£72,502	£98,508	£105,003
Total expenditure ... ..	£65,209	£93,024	£102,402
Total funds ... ..	£82,053	£91,701	£90,278
Membership ... ..	88,478	95,701	113,918
Income per member ... ..	16s. 9d.	£1 1s. 5d.	18s. 5d.
Expenditure per member ... ..	15s. 0d.	£1 0s. 2d.	18s. 0d.
Amassed funds per member ... ..	18s. 7d.	19s. 2d.	17s. 10d.

#### INDUSTRIAL UNIONS.

For the purposes of the Industrial Arbitration Act, passed on the 10th December, 1901, industrial unions of employers and of employees could be formed. The employment of not less than fifty persons entitled an employer or group of employers to registration, and any registered trade union or association of trade unions was entitled to registration as an industrial union of employees. The Industrial Arbitration Act remained in force until the 1st July, 1908, when the Industrial Disputes Act, 1908, commenced; but the expiration of the earlier Act did not affect the incorporation of industrial unions which had been registered under that Act. The following statement shows the membership of the registered unions, both employers and employees, during the currency of the Act of 1901:—

Year.	Employers' Unions.	Employees' Unions.
	Membership.	Membership.
1902	2,302	58,203
1903	2,916	63,510
1904	3,204	71,031
1905	3,343	78,665
1906	3,172	85,199
1907	3,229	96,581

#### INDUSTRIAL ARBITRATION.

The Parliament of New South Wales has given much attention to legislation having for its object the improvement of the industrial conditions of the people, settling trade disputes, and regulating the hours of employment, rates of wages, &c.

In the year 1892 the Trades Disputes Conciliation and Arbitration Act became law, and, as the preamble of the Act declares, it was believed the establishment of Councils of Conciliation and of Arbitration for the settlement of disputes between employers and employees would conduce to the cultivation and maintenance of better relations and of more active sympathies between employers and their employees, and be of great benefit in the public interest by providing simple methods for the prevention of strikes and disputes, from the effects of which industrial operations may suffer serious and lasting injury and the welfare and peaceful government of the country be imperilled.

As this Act did not require either party to a dispute to submit its case to the Council of Arbitration and Conciliation, nor even to abide by the

award if a case were submitted, the desired objects were not attained, and although the Act remained in force four years very few cases were decided under its provisions.

The Conciliation and Arbitration Act of 1899 provided for the prevention and settlement of trade disputes. It authorised the Minister, in cases where a difference existed or was probable between an employer and employees, to direct inquiry into the causes and circumstances of the difference, and to take steps to enable the parties to meet together under the presidency of a chairman mutually selected, with a view to an amicable settlement. In the event of failure the Minister could direct a public inquiry into the causes of the difference, and on the application of either employers or employees, or of both, could appoint a board of conciliation. On the application of both parties an arbitrator could be appointed.

Parties to a dispute could not be compelled to submit their cases, and very few instances are recorded in which this Act was used.

The Industrial Arbitration Act, 1901, provided for the registration and incorporation of industrial unions and the making and enforcing of industrial agreements; constituted a court of arbitration for the hearing and determination of industrial disputes and matters referred to it; defined the jurisdiction, powers, and procedure of such court, and provided for the enforcement of its awards and orders. This Act remained in force until the 30th June, 1908.

In the year 1905 the Industrial Arbitration (Temporary Court) Act was passed. Under the provisions of this Act, if the Registrar, or in cases of appeal the Court, was satisfied that compliance had been made with the Act there could be registered, as an industrial union, any person or association of persons, or any incorporated company or any association of incorporated companies, who, or which had employed on an average taken per month not less than fifty employees; and any trade union or association of trade unions.

The industrial union could make an agreement in writing relating to any industrial matter with another industrial union or with an employer.

The Court had jurisdiction to hear and determine, according to equity and good conscience, industrial disputes and industrial matters, and to make orders or awards in pursuance of such hearing and determination. An industrial dispute was defined to be a dispute in relation to industrial matters arising between an employer or industrial union of employers and an industrial union of employees or trade union, including a dispute arising out of an industrial agreement.

The Act, in providing for the prevention of strikes and lock-outs, made it a misdemeanour for any person who, before a reasonable time had elapsed for a reference to the Court of the matter in dispute, or during the pendency of any proceedings in the Court in relation to an industrial dispute, did any act or thing in the nature of a lock-out or strike; or suspended or discontinued employment or work in any industry; or instigated to or aided in any of the above-mentioned acts.

With regard to industrial agreements a large number of employers and employees' unions entered into agreements under the provisions of this Act, and in some cases where disputes were not filed the Court made the agreements common rules of the industries.

It may be stated that the common rule was made to apply to persons other than the parties after notice to all known employers engaged in the industry.



The object of the common rule is to place all employers on a similar footing, thus equalising conditions of employment and preventing unfair competition.

The Industrial Arbitration Act, 1901, was a tentative measure which was to remain in operation for seven years. Principally on account of the slowness of the Court in dealing with disputes, and the consequent congestion of cases, it was superseded on its effluxion by the Industrial Disputes Act, 1908.

#### INDUSTRIAL DISPUTES.

The Industrial Disputes Act, 1908, together with the Industrial Disputes Amendment Act, 1908, and the Industrial Disputes (Amendment) Act, 1909, provides that all awards, orders, and directions of the Court of Arbitration, and all industrial agreements current and in force at the commencement of the Act, are binding on the parties, and on the employers and employees concerned for the period fixed by the Court, or by the award, order, or agreement, and where no period is fixed, for one year from the 1st July, 1908. Any industrial agreement may be rescinded or varied in writing by the parties, and if filed with the Registrar is binding as part of the agreement.

Provision is made under this Act for the registration of trade unions, and the expiration of the Industrial Arbitration Act, 1901, does not affect the incorporation of industrial unions registered under that Act.

With regard to industrial agreements, any trade union registered under this Act may make a written agreement with an employer relating to any industrial matter.

The Industrial Court consists of a judge sitting with or without assessors.

#### *Constitution and powers of Boards.*

On application to the Industrial Court by—

- (a) an employer or employers of not less than twenty employees in the same industry; or
- (b) a trade union registered under the Act having a membership of not less than twenty employees in the same industry; or
- (c) an industrial union whose members are such employers or employees; or
- (d) where there is no trade or industrial union of employees in an industry having membership and registered as aforesaid, or where such union fails to make application, then not less than twenty employees in such industry;

the Court may recommend the Minister that a board be constituted for such industry, and the Minister may direct a board to be constituted accordingly.

The Minister, on the recommendation of the Industrial Court, but without any application, may also direct that a board be constituted.

Each board consists of a chairman and not less than two nor more than four other members as determined by the Industrial Court, one half of whom shall be employers and the other half employees who have been or are actually engaged in any industry or group of industries for which the board has been constituted. Where the employers or employees consist largely of females, the Court may order that all or any specified number of the members of a board need not have the qualifications.

Wherever it appears necessary, the chairman of a board may appoint two or more assessors representing employers and employees respectively, to advise the board on technical matters, but such assessors may not take part in the deliberations of the board.

Each member of a board and each assessor, upon appointment, must take an oath not to disclose any matter or evidence relating to trade secrets; to the profits or losses or the receipts and outgoings of any employer; to the books of an employer or witness produced before the board; nor to the financial position of any employer or of any witness.

*Jurisdiction of Boards.*

Proceedings before a board are commenced by—

- (a) reference to the board by the Industrial Court of any dispute; or
- (b) application to the board by employers or employees in the industry or group of industries for which the board has been constituted.

Such applications must contain the particulars prescribed and be signed by—

- (a) an employer or employers of not less than twenty employees in the same industry; or
- (b) not less than twenty employees in the same industry; or
- (c) the secretary of a trade union registered under this Act, having a membership of not less than twenty employees in the same industry; or
- (d) an industrial union whose members are such employers or employees.

A board with respect to the industry or group of industries for which it has been constituted may—

- (a) decide all disputes;
- (b) fix the lowest prices for piece-work, and the lowest rates of wages payable to employees;
- (c) fix the number of hours and the times to be worked in order to entitle employees to the wages so fixed;
- (d) fix the lowest rates for overtime and holidays and other special work, including allowances as compensation for overtime, holidays, or other special work;
- (e) fix the number or proportionate number of apprentices and improvers, and the lowest prices and rates payable to them. Such prices and rates may be according to age and experience;
- (f) appoint a tribunal, other than the board itself, for the granting of permits allowing aged, infirm, or slow workers, who are unable to earn the lowest rates of wages fixed for other employees, to work at the lowest rates fixed for aged, infirm, or slow workers. If no such tribunal is provided by the board, the Registrar has jurisdiction to grant such permits;
- (g) determine any industrial matter;
- (h) rescind or vary any of its awards;

subject to the right of appeal under the Act, and to such conditions and exemptions as the board is authorised to determine. The award of a board is binding on all persons engaged in the industry or group of industries within the locality specified for the period fixed—not less than one nor more than three years. Every award of a board takes effect on its publication in the *Government Gazette*.

*Procedure of Boards.*

Where reference to a board is made it is the duty of the chairman to endeavour to bring about a settlement of the dispute, and to this end the board must expeditiously and carefully inquire into the dispute and all matters affecting it.

A board or any two or more of its members may enter and inspect any premises used in any industry the subject of a reference or application to the board and any work being carried on there.

The board may admit and call for such evidence as in good conscience it thinks to be the best available, whether strictly legal evidence or not. The question as to the admissibility of evidence is decided by the chairman alone.

Unless by consent of the chairman, no person may appear as an advocate or agent unless he is actually and *bonâ-fide* engaged in the industry or in one of the industries for which the board has been constituted.

*Appeal from Board.*

At any time within a month after publication of any award by a board, any trade or industrial union or any person bound by the award may apply to the Industrial Court for leave to appeal to such Court.

*Enforcement of Awards and Penalties.*

Where an employer employs any person to do any work for which the price or rate has been fixed by a board or by the Industrial Court, or for which the price or rate has been fixed by an award of the Court of Arbitration or by an industrial agreement, he is liable to pay in full to such person the price or rate so fixed.

If any person does any act or thing in the nature of a lock-out or strike, or takes part in such, or suspends or discontinues work in any industry, or instigates to or aids in any of the abovementioned acts, he is liable to a penalty not exceeding one thousand pounds or in default to imprisonment not exceeding two months.

If any person commits a breach of an award of a board, Court of Arbitration, or of the Industrial Court, or a breach of an industrial agreement, he is liable to a penalty not exceeding fifty pounds or, in default, imprisonment.

An employer is liable to a penalty should he dismiss an employee by reason merely of the fact that the employee is a member of a board or of a trade union or an industrial union, or has absented himself from work through being engaged in other duties as member of a board. When a member of a trade or industrial union is convicted of an offence against the Act, the Industrial Court may order the trustees of the trade union or of a branch thereof, or the industrial union, to pay out of the funds of the union or branch any amount not exceeding twenty pounds of the penalty imposed.

Every employer in an industry in respect of which an award of a board or of the Court of Arbitration, or an industrial agreement is in force must keep time-sheets and pay-sheets of the employees in such industry, and such time-sheets, etc., may be examined by an inspector who reports to the Registrar.

At the end of the year 1909, 119 boards had been constituted under the Act.

## OPERATIONS OF INDUSTRIAL LEGISLATION.

The operations of the Industrial Court for the year ended 30th June, 1909, cover applications for the constitution of 105 boards, of which 100 were recommended. Industrial boards thus constituted made 45 awards, and the Industrial Registrar dealt with 163 cases incidental to awards. In the Industrial Court, for breaches of awards, 148 convictions were obtained, and 158 cases were withdrawn or settled. In two cases convictions were obtained in regard to lock-outs, and in five cases in regard to strikes. The expenditure for boards, apart from administration, for the year ended 30th June, 1909, amounted to £3,498, including £1,336 for chairmen's fees, and £1,862 for members' fees.

The statement below shows the principal boards constituted under the Industrial Disputes Act, 1908, to 31st December, 1909, and the duration of the awards made. Full details of these awards are to be found in the "Statistical Register."

Industry and Class of Employee.	Duration of Award.	
	From.	Period.
Aerated Waters Employees	Sept., 1909	years. 2 $\frac{3}{4}$
Baking—		
Bakers	July, "	1
Bread-carters, County of Cumberland	Aug., "	2 $\frac{1}{2}$
" Newcastle	Oct., "	3
" Makers, Clickers, Operators, &c.	July, "	1
Brewery Employees	Dec., 1908	3
Brickmaking—County of Cumberland, Bulli and Woonona	June, 1909	1
Butchering—		
Retail Employees, Sydney and District	Jan., 1909	3
" Newcastle and District	Mar., 1909	2
Wholesale Carters	Nov., "	2 $\frac{5}{8}$
Cement Workers—Portland	Dec., "	3
Cigar Trade Employees	Sept., "	1
Clothing—		
Cutters and Trimmers	" "	3
Male Pressers	July, "	2
Tailors and Tailoresses	Aug., "	3
Coachmaking (Road)—Coachmakers' Painters and Wheelwrights	Dec., "	3
Coke-works—Illawarra	June, "	2
Cold Storage Employees	July, "	1 $\frac{3}{4}$
Cold Storage and Ice Manufacturers—Metropolitan	Aug., "	1 $\frac{3}{4}$
Confectionery	Mar., "	3
Engine Driving and Firing (Coast)	Oct., "	3
Farriers—Metropolitan District	July, "	3
Fellmongering, Fellmongers, Wool and Basil Workers	Mar., "	2
Furniture Trade	Sept., "	1 $\frac{1}{2}$
Glass Workers	Jan., "	2
Government Tramway Employees—		
Car	Oct., "	3
Examiners	June, "	3
Electrical Staff Branch	Dec., 1908	3
Locomotive Labourers	Aug., 1909	3
Permanent Tramway Employees	July, "	2
Quarry	Sept., "	3
Running Staff	Dec., 1908	3
Traffic Wages Staff	Dec., 1909	2
Hairdressers and Wig-makers—Cumberland	Aug., "	3
Hotel, Club, and Restaurant Employees	April, "	3
Iron Trades—Lithgow	Mar., "	2
Ironworkers' Assistants	July, "	1
Stove and Piano Frame-makers	" "	1 $\frac{1}{2}$

Industry and Class of Employee.	Duration of Award.	
	From.	Period.
Jam-making ... ..	Feb., 1909	2 years.
Laundering—		
Newcastle ... ..	May, "	1
Metropolitan ... ..	July, "	3
Milling (Grain) ... ..	Dec., "	2
Milk Industry—		
Carters ... ..	Oct., "	3
Dairy Employees ... ..	When price of prime lucerne hay remains £4 per ton for one week.	
Musicians ... ..	Aug., 1909	3
Painting—		
County of Cumberland ... ..	July, "	2
Newcastle ... ..	Oct., "	3
Paper-mills' Employees ... ..	Dec., "	3
Pastrycooks ... ..	Aug., "	3
Plasterers ... ..	July, "	1
Plumbers and Gasfitters—Cumberland	Dec., "	3
Printing—		
Compositors ... ..	July, "	2
Bookbinders and Paper-rulers ... ..	Mar., "	2
Letterpress Machinists ... ..	July, "	2
Saddlery and Harnessmaking ... ..	" "	2
Saw-mill Employees—		
Metropolitan and Newcastle	Dec., "	1½
Rous and Richmond ... ..	" "	3
Shipping (Ferry) Employees ... ..	" "	2½
Shop Assistants—		
Metropolitan Drapers ... ..	July, "	1½
" Retail Grocers ... ..	Sept., "	3
Pharmaceutical ... ..	" "	3
Soap and Candle Making ... ..	" "	3
Southern Collieries—Engine Drivers, Firemen, and Pumpers	Aug., "	3
Stone-cutters, Monumental Workers and Assistants	June, "	2
Stonemasons ... ..	Oct., "	3
Storemen and Packers—		
Metropolitan Skin and Hide ... ..	Sept., "	2½
Wool and Station Produce ... ..	" "	3
Sydney Municipal Council Employees—Labourers...	July, "	3
Tanning ... ..	Sept., "	3
Tip-carters ... ..	Jan., "	2
Trolley Draymen—		
Newcastle ... ..	Jan., "	2
Cumberland ... ..	Oct., "	3
Trolley and Draymen—		
Coal Carters ... ..	Mar., "	2
Timber " ... ..	July, "	1½
Undertakers—		
Undertakers ... ..	Nov., "	3
Cab and Livery Stables ... ..	" "	3
Unskilled Labourers—Building	" "	3
Western Collieries and Shale Mines—Miners	Dec., "	2½
Wine and Spirit Stores ... ..	Aug., "	2½
Wire-mattress Makers ... ..	" "	2
Wire-netting—		
Galvanizing ... ..	Dec., "	2½
Weavers and Carriers ... ..	Sept., "	3
Wood Workers—Carpenters and Joiners	Aug., "	3

There are 83 awards shown in the above statement, and the periods of duration vary as follows:—1 year and under 2, 14 awards; 2 years and under 3, 28 awards; and three years, 40 awards. In the award of the Dairy Employees' Board, the period is not defined.

The object of all the industrial legislation which has been enacted in New South Wales is to render strikes unnecessary, but though a large measure of success has resulted from the operation of the various Acts, the absolute elimination of strikes from industrial operations has not been secured, as during 1909 two strikes of some importance were declared, one by miners of Broken Hill and the other by the coal-miners in the State.

Stringent provisions are embodied in the Industrial Disputes Act, 1908, and its amendments, notably that of 1909, which was introduced towards the close of the year to cope with the extensive strike in the coal-mining industry. Heavy penalties attached to any offence against the 1908 Act, as has been shown, but its discipline met with opposition from a section of the community to whom strikes appeal as the readiest means of redress of all grievances, and in spite of the prohibition and penalising of strikes and lock-outs, a strike was declared which involved all the coal-fields of the State—Northern, Southern, and Western—thus temporarily paralysing the industry.

Negotiations for a conference proved abortive, and to cope with the position the 1909 amendment of the Industrial Disputes Act was passed, providing for the heavier penalty of twelve months' imprisonment for any attempt to instigate or aid in anything in the nature of a strike or lock-out or discontinuance of work in any industry; power is given to officers of police to enter buildings, by force if necessary, and to seize documents, when there is reasonable ground for the belief that such buildings are being used for the purpose of fostering the continuance of a strike or lock-out. Where the strike or lock-out relates to a necessary commodity, which is defined as including coal, gas, water, or any article of food the deprivation of which may tend to endanger human life or cause serious bodily injury, the Act provides that meetings intended to foster such a strike or lock-out shall be illegal, and persons taking any part in such meeting are liable to imprisonment for twelve months.

Further, a penalty of £500 attaches to any attempt to restrain the trade of the State in a necessary commodity, or to monopolise or combine against it to the detriment of the public. These regulations have been enacted with a view of rendering strikes impossible, and of eliminating them entirely as disturbing factors in industrial relations.

In this connection it may be of interest to quote the measures which have been taken similarly in other countries, as Canada and the United States, to secure industrial peace and to settle disputes.

In Canada a coal-miners' strike at Lethbridge, Alberta, lasted from March till December, 1907, resulting in a general dislocation of industry and of transport facilities. As the result of investigations, in this and previous disputes in other industries, concerning the effect of intervention in settling differences, the Industrial Disputes Investigation Act was passed in 1907, to promote the interests of the whole people and provide machinery for the settlement of disputes, and the prevention of strikes and lock-outs primarily in mines and public utility industries. The prominent feature of this Act is its recognition of strikes and lock-outs as necessary accompaniments of industrial differences, and its insistence that before such a strike or lock-out can be legally declared in a dispute affecting any industry connected with a mine or public utility, the differences in question must be submitted to a Board of Conciliation and Investigation established under the Act. By this means the parties to a dispute are brought face to face, and a conference and discussion

secured. The administration of the Act is in the control of the Minister of Labour, and its provisions, which prescribe penalties for infringement of its various requirements, may be made applicable to disputes other than those affecting mines or public utilities. The awards of the board are made obligatory and binding on the parties, and the measure is giving considerable satisfaction, having secured the settlement of many disputes without loss of time or money or disturbance of industries.

For the United States, Bureaux of Mediation exist, of which the Bureau of Mediation and Arbitration in the State of New York is an example. From the State Bureau, whenever a strike or lock-out threatens or occurs, an officer, or the Board of Mediation, is sent to endeavour to effect an amicable settlement of the difference. Disputes may be submitted for arbitration and mediation, and the board has the powers of a court of record. Controversies may also be submitted to local arbitration, by a board endowed with power to summon and hear witnesses, and to submit decisions to the Bureau. The Bureau aims at preventing disputes by promoting such industrial relations as will make their rupture impossible. It is recognised that once a rupture occurs it can rarely be remedied till one or other of the disputants is exhausted, and the experience of the Bureau teaches that the best method of establishing and maintaining friendly relations between employers and employees is a system of joint conferences or trade agreements, based on mediation. Till 1907 arbitration was regarded as the possible panacea for all industrial evils, but since that date the composition of the board has been changed, and it now lays emphasis upon mediation and conciliation. Compulsory arbitration it regards as useless without compulsory obedience to awards; it is argued that men will not voluntarily abide by an adverse judgment of arbitration, and enforcement of awards entails loss of liberty alike for workmen and employers. Therefore, this reasoning, which is the basis of every form of conciliation, is adapted to local conditions in each State, in Canada, and in other countries.

#### UNEMPLOYMENT.

Unemployment in any community may be traced to one of three causes:—

- (a) Disability to perform work.
- (b) Inability to find employment.
- (c) Compulsory cessation of work, arising from trade disputes.

In the first category are found those who from incapacity incidental to extreme youth or old age must necessarily be dependent on others for subsistence, also those of other ages who are mentally or physically deficient. These types necessarily must be relegated to either national or eleemosynary sustentation.

The third cause involves considerations of strikes and lock-outs, concerning which many theories and plans have been broached and ventilated since labour questions have become the subject of scientific inquiry. The most modern method of treatment of this cause is to be found in legislative enactments constituting authoritative tribunals for free inquiry and awards in settlement.

The above two causes present problems which admit of solution, although a remedy has not yet been found which is acknowledged universally to be successful, and only with respect to the other cause, dearth of work, is it

to be admitted that real difficulty exists as to resolution of the problem. The more the question is studied, the more plainly does it appear that a multitude of factors are at work in our civilisation, of which the existence is readily admitted, but the remedial measures are not so readily perceptible. And while the much desired means of prevention of this cause of unemployment are being sought, it is eminently desirable to relieve the sufferers from its effects.

To afford relief to those who are able-bodied, but who cannot obtain employment, the State has instituted a Labour Bureau, which commenced operations in the year 1900. The scope of the operations of this Bureau is such as to secure a proper distribution of labour according to the urgency of the requirements of the employer and of the employee, thus relieving the congestion in one place by regarding the scarcity in another locality.

Free registry offices have been established in Sydney and in the principal country centres. Thus the supply of labour is regulated, and assistance is given to applicants to proceed to employment available in other parts.

Labour is graded under three heads—Professional, Skilled Labourers, and General (or unskilled) Labourers, the last class being further divided into three classes or grades. On the 31st December, 1909, the books of the Bureau showed the following members registered as seeking employment:—

Professional and Clerical	...	...	...	...	...	203
Skilled Labourers and Artisans	...	...	...	...	...	4,042
Unskilled Labourers—First Grade	...	...	...	...	...	2,075
"    "    Second	...	...	...	...	...	2,145
"    "    Third	...	...	...	...	...	41
Total	...	...	...	...	...	8,506

These figures scarcely represent a condition of unemployment, as many names remain on the books for some time after the applicants have found suitable employment outside the limits of the Bureau. Men who actually and urgently require work must renew their registrations once during each month, and from this list of eligible persons the labour wanted is drawn as required.

On the 31st December, 1909, the numbers on the list of persons eligible were as follows:—

Professional and Clerical	...	...	...	...	...	8
Skilled Labourers and Artisans	...	...	...	...	...	214
Unskilled Labourers	...	...	...	...	...	297
Total	...	...	...	...	...	519

During the year 1909, 3,570 persons were sent to employment; the following figures indicate on broad general lines the species of employment found for them:—

Private Work	...	...	...	...	...	2,045
Government Work	...	...	...	...	...	374
Casual Labour Farm	...	...	...	...	...	341
Labour Dépôt	...	...	...	...	...	810
Total	...	...	...	...	...	3,570

The functions of the Labour Bureau extend to the provision of a Labour Dépôt and a Casual Labour Farm, as the above statement shows. At these establishments, maintained at Pitt Town and near Randwick,



destitute men may be provided with work, lodging, food, and a small money allowance, varying according to their capabilities, till they are fitted physically to seek their proper labour sphere.

The statement previously given shows that, though the Bureau is prepared to deal with all classes of labour, its main business concerns the distribution of manual labour, skilled or unskilled. A private institution endeavours to regulate clerical labour, to which body the greater portion of the unemployed of the professional class would naturally gravitate.

The following figures show the extent of out-of-employment benefits granted to members of the institution:—

Year.	Mean Membership.	Aggregate Benefits.
		£
1905	362	261
1906	456	245
1907	491	212
1908	579	330

The meagreness of the detailed information available in regard to unemployment, and the difficulty in relating the facts to each other, render the above particulars unsatisfactory, but they serve to show that, viewed absolutely, the degree of real unemployment in the State is very small.

## FOOD AND PRICES.

## FOOD SUPPLY.

THE soil of New South Wales is capable of producing in abundance most of the things essential to the sustenance of human life, and so far as actual necessities are concerned the State is not only practically independent of outside assistance, but is even in a position to export them in many instances. 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 in New South Wales largely consumed by all classes of the people. The main articles of consumption in the State are meat, bread, and potatoes.

The annual consumption per capita of the principal articles of diet, based on the average of the last three years, is as follows:—

Flour ... ..	225·6 lb.
Oatmeal ... ..	6·2 „
Rice ... ..	8·2 „
Meat { Beef ... 138·1 lb.	} ... .. 239·7 „
{ Mutton 89·1 „	
{ Pork, &c. 12·5 „	
Potatoes ... ..	171·4 „
Sugar ... ..	98·7 „
Butter ... ..	24·6 „
Cheese ... ..	3·4 „
Tea ... ..	7·3 „
Coffee ... ..	9·3 oz.
Cocoa and chocolate ... ..	22·1 „
Salt ... ..	37·3 lb.

These figures are approximate; the classification of articles in the Customs returns of imports, on which they are based, does not allow in every case a satisfactory dissection of the items. For instance, the cocoa and chocolate comprise a large amount of prepared confectionery in which a quantity of sugar and the weight of the wrappings are included.

The average consumption of wheat is  $5\frac{1}{2}$  bushels per head, so that about nine million bushels are required annually for home consumption as food. In addition there are the requirements for seed, &c., to be met, but the production is sufficient to cover the whole and leave a large surplus for exportation. The surplus, which varies with the seasons, has reached 10,464,000 bushels, but the annual average export since 1900 has been 4,928,000 bushels.

Oatmeal, corn-flour, and rice are the only other articles of cereal produce largely consumed. Rice is not grown in the State, being imported from Burmah, Straits Settlements, China, and Java. Oatmeal has been extensively manufactured in the State for some years, but information as to the actual output is not available as the industry is usually carried on in conjunction with others of a similar character.

The consumption of fresh meat, which would be considered enormous in other countries, is far below the average of earlier years. The chief cause of the diminished consumption was the sudden increase in prices during 1901, when the retail values rose 50 per cent. above those of the preceding year. As prices have not since fallen to their former level, being stimulated to a great extent by the large export trade, a certain portion of the population has been unable to indulge in the former liberal consumption of animal

food, and has substituted vegetables, and cereal foods. The requirements of the State for fresh meat alone in 1908 were 377,000 head of cattle and 3,383,000 sheep.

The swine slaughtered during 1908 numbered 210,319. The quantity of bacon and hams made, according to the returns collected, was 9,488,299 lb., and the quantity imported for home consumption during the year was 2,255,000 lb. The annual consumption of pork and its manufactured products is about 12.5 lb. per inhabitant.

The consumption of potatoes is subject to considerable fluctuation. In 1904 it apparently amounted to 125,000 tons, but fell to 87,000 tons in the succeeding year when prices became higher. In 1908 it reverted to the figure of 1904. The local production varies greatly, but is seldom equal to the demand, and the State is usually compelled to import largely from the neighbouring States.

Sugar is freely consumed, reaching the average consumption of 98.7 lb. per head of population. The northern rivers district is well adapted to the growth of sugar-cane, and during the four years ended with 31st March, 1899, the average area cut was over 15,000 acres. With the growth of dairy-farming the industry has declined, and now less than 10,000 acres of cane are cut annually. The local mills produced 15,000 tons of sugar in 1908. The average production of the past five years has been 21,600 tons per annum, and as the total requirements of the State are about 70,000 tons an import of 48,000 tons is necessary each year.

The consumption of butter is increasing, on account of the great improvement in the quality of the article, and its comparative cheapness. The whole of the butter and most of the cheese used are of local manufacture, and almost every year there is an increase in the quantity exported. The butter required for local consumption now exceeds 40 million pounds per annum, and 5½ million pounds of cheese are necessary.

Tea enters largely into consumption, the average being slightly in excess of 7 lb. per head. The annual consumption of coffee is 9.3 oz. per head.

The quantity of tobacco consumed in 1908 was 4,683,300 lb., the figures including tobacco, cigars, and cigarettes. This is equivalent to 2.95 lb. per inhabitant, and is a little above the average of 1907, which was 2.89 lb. per head. The consumption is gradually increasing, as ten years ago the average per head was just over 2½ lb., and from 1900 to 1904 not quite 2¼ lb. per head. The figures for 1908 are as follows:—

Description.	Consumption of Tobacco, 1908.			Per head of Population.
	Imported.	Australian.	Total.	
	lb.	lb.	lb.	lb.
Tobacco ... ..	465,600	3,282,200	3,747,800	2.36
Cigars ... ..	108,800	136,000	244,800	.15
Cigarettes ... ..	44,000	646,700	690,700	.44
Total ... ..	618,400	4,064,900	4,683,300	2.95

In regard to the description of tobacco used there has been a large increase in the quantity of cigarettes. In 1890 about 88 per cent. of the total consumption was of ordinary tobacco, in 1908 the proportion had fallen to 80 per cent.; of cigars the consumption was about 8.5 per cent., compared with 5 per cent. at present; and of cigarettes 3.1 per cent. in 1890, compared with 15 per cent. in 1908.

The consumption of tobacco during the last six years is shown below:—

Year.	Total Consumption.			Per head of Population.		
	Tobacco.	Cigars.	Cigarettes.	Tobacco.	Cigars.	Cigarettes.
	lb.	lb.	lb.	lb.	lb.	lb.
1903	3,365,500	180,400	440,100	2·37	·13	·31
1904	3,199,200	184,000	512,000	2·21	·13	·35
1905	3,426,200	189,100	525,400	2·32	·13	·36
1906	3,603,000	202,900	558,800	2·38	·13	·37
1907	3,607,700	271,400	622,000	2·32	·17	·40
1908	3,747,800	244,800	690,700	2·36	·15	·44

CONSUMPTION OF INTOXICANTS.

The volume of spirits consumed in the State during 1908 was 1,188,200 gallons (proof), of which 99,900 gallons were Australian, and 1,088,300 gallons were imported. The average consumption, 0·75 gallon per head, was below the average, as will be seen from the following table:—

Year.	Consumption of Spirits.		Year.	Consumption of Spirits.	
	Total.	Per Inhabitant.		Total.	Per Inhabitant.
	gallons.	gallons.		gallons.	gallons.
1891	1,268,368	1·11	1903	1,127,222	0·79
1895	921,468	0·73	1904	1,126,400	0·78
1898	986,325	0·74	1905	1,131,500	0·77
1899	1,005,799	0·75	1906	1,163,600	0·77
1900	1,103,969	0·82	1907	1,419,900	0·91
1901	1,245,652	0·90	1908	1,188,200	0·75
1902	1,260,438	0·90			

The average consumption of beer per head of population has declined considerably since 1891, when the rate was 11·43 gallons per capita, and in 1905 was lower than in any previous year for which information is available, namely, 8·92 gallons per head. The rate has since risen in each year, and now amounts to about 10 gallons annually for each inhabitant. The consumption of imported beer is becoming less, although not to the extent indicated in the table, as until the last seven years the figures included the imports from the other Australian States:—

Year.	Consumption of Beer.			
	Locally brewed.	Imported.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1899	12,106,000	1,629,000	13,735,000	10·21
1900	13,274,734	1,618,966	14,893,700	11·00
1901	13,118,339	1,757,907	14,876,246	10·84
1902	13,441,275	1,121,277	14,562,552	10·45
1903	12,571,758	1,011,465	13,583,223	9·55
1904	12,079,400	940,900	13,020,300	9·00
1905	12,327,900	867,800	13,195,700	8·92
1906	12,716,800	812,400	13,529,200	8·93
1907	14,278,800	945,700	15,224,500	9·79
1908	14,856,900	906,800	15,763,600	9·92

The consumption of beer and spirits can be determined fairly accurately; but as there is no excise duty on wine the consumption can be gauged only on the basis of the production, and the results apparently are not very reliable in view of the great variations shown in successive years.

The wine entering into consumption in New South Wales is chiefly the produce of Australian vineyards; but the quantity produced in the State is much less than might be expected in a country so eminently adapted for viticulture. The quantity of Australian and foreign wines consumed during each of the past ten years is shown below:—

Year.	Consumption of Wine.			
	Australian.	Foreign.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1899	831,765	75,493	907,258	0·67
1900	816,908	87,026	903,934	0·67
1901	700,017	93,984	794,001	0·58
1902	851,539	167,921	1,019,460	0·73
1903	845,333	107,551	952,884	0·67
1904	941,100	40,500	981,600	0·68
1905	1,075,500	29,100	1,104,600	0·75
1906	1,094,600	39,400	1,134,000	0·75
1907	927,000	43,000	970,000	0·62
1908	850,800	41,800	892,600	0·56

New South Wales compares favourably with other countries as regards the average consumption per head of population as will be seen from the following table. The figures are based on the latest available data:—

Country.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	galls.	galls.	galls.
United Kingdom ... ..	0·9	0·3	27·6
Canada ... ..	1·0	0·1	6·5
New Zealand ... ..	0·8	0·2	10·0
Denmark... ..	2·4	...	20·5
Sweden ... ..	1·4	...	11·6
Belgium ... ..	1·1	1·0	48·8
Germany... ..	1·4	1·6	26·3
France ... ..	1·4	33·9	7·5
Italy ... ..	0·3	18·5	0·2
United States ... ..	1·3	0·4	16·8
<i>New South Wales</i> ... ..	0·7	0·6	9·9

Denmark consumes more spirits per head than any other country, France more wine, and Belgium more beer.

#### PRICES OF COMMODITIES.

The area of New South Wales is so extensive, and the population, except on the sea-board, so scattered, that the determination of the average prices of the various articles of food is a difficult matter. Consequently no attempt has been made to ascertain the average for the State, and in the following pages the prices refer to the Metropolitan markets alone.

The following table exhibits the average retail prices of eight standard commodities at intervals since 1870:—

Year.	Bread per 2-lb. loaf.	Fresh Beef per lb.	Butter per lb.	Cheese per lb.	Sugar per lb.	Tea per lb.	Potatoes per cwt.	Maize per bushel.
	d.	d.	s. d.	s. d.	d.	s. d.	s. d.	s. d.
1870	3½	3½	1 3	0 6	4	2 0	5 0	3 4
1875	3	3½	1 3	0 9	4½	1 9	5 6	4 3
1880	3	3½	0 10	0 7	4	2 0	4 3	2 6
1885	3	4½	1 9	1 0	3	1 9	5 6	3 11
1890	3½	4	1 0	0 8	3½	1 6	6 0	3 10
1895	2¾	3	1 0	0 8	2½	1 6	4 3	2 9
1900	3	3½	0 11	0 7½	2¼	1 4	6 9	3 0
1901	3	5	1 0	0 8	2¼	1 3	7 6	3 6
1902	3¼	6	1 2	0 10	2½	1 3	7 6	5 10
1903	3¼	5½	0 11	0 9	2½	1 3	5 10	4 6
1904	2¾	5	0 10½	0 8	2½	1 3	4 0	2 9
1905	2¾	5½	1 1	0 8	2½	1 3	10 6	4 0
1906	2¾	5½	1 1	0 8½	2½	1 3	10 6	3 9
1907	3	5½	1 1	0 8	2½	1 3	4 6	3 10
1908	3¼	5½	1 2½	0 10	2½	1 3	7 3	5 3
1909	3½	5½	1 1	0 10	2¾	1 3	7 3	4 9

While these tables are useful for comparative purposes, in regard to the cost of living, the figures do not disclose the most interesting feature in a history of prices, namely, the fluctuations during each year, which are very pronounced in the case of perishable produce.

Potatoes show a remarkable range in prices. The lowest average since 1870 for a whole twelvemonth was 3s. 6d. per cwt. in 1873; and the highest, 10s. 6d., in 1905 and 1906, when the price was higher than at any previous period since 1858.

In the list are included quotations for bread at per 2-lb. loaf. In most years the price has varied directly with that of wheat. In recent years inferior bread has been sold for 2d. per loaf, but the usual price is from 2½d. to 3d. per loaf.

In addition to the eight commodities which are given in the above statement, the following list of the average retail prices of articles largely used is of interest:—

Year.	Bacon per lb.	Eggs per doz.	Rice per lb.	Oat-meal per lb.	Coffee per lb.	Salt per lb.	Beer (col.) per gal.	Soap per lb.	Starch per lb.	Tobacco per lb. (local.)	Tobacco per lb. (imp.)
	s. d.	s. d.	d.	d.	s. d.	d.	s. d.	d.	s. d.	s. d.	s. d.
1870	0 10½	1 4	3	4	1 2	1	1 4	4	0 7	1 3	3 6
1875	0 9½	1 6	3	3	1 2	1½	3 0	3	0 5	2 0	3 9
1880	0 7½	1 4	3	3	1 5	0¾	2 0	3	0 5½	2 0	4 0
1885	0 10½	1 10	3	3	1 5	0¾	2 0	3	0 6½	3 0	6 0
1890	1 0½	1 6	4	3	2 0	1	2 0	3½	0 5	4 0	6 0
1895	0 7½	1 0	2½	2	1 9	0¾	2 0	2	0 4	4 0	6 0
1900	0 7½	0 11	2½	2¼	1 6	0½	2 0	3	0 3½	4 0	6 0
1901	0 8½	1 3	2½	2¼	1 6	0½	2 0	3	0 4	4 0	6 0
1902	0 10	1 6	2½	2¼	1 6	0½	2 0	3	0 4	4 0	6 0
1903	0 10	1 6	3	2½	1 6	0¾	2 0	4	0 5	4 0	6 0
1904	0 8	1 0	2½	2½	1 6	0¾	2 0	4	0 5	4 0	6 0
1905	0 9	1 0	2½	2½	1 6	0¾	2 0	3½	0 5	4 3	6 0
1906	0 9½	1 1	2½	2½	1 6	0¾	2 0	3½	0 5	4 3	6 0
1907	0 10	1 0	2½	2½	1 6	0¾	2 0	4	0 5	4 3	6 0
1908	0 10	1 0	2½	3	1 6	0¾	2 0	4	0 5	4 3	6 0
1909	0 11½	1 0	2½	3	1 6	0¾	2 0	4	0 5	4 3	6 0

In the above quotations the figures are those charged in the shops throughout the metropolitan district. It is possible that produce may have been bought at cheaper rates than those stated; but the figures will be found to

represent the fair average rates, having regard to the class of goods consumed. A mere consideration of prices, however, gives but little idea of the change in the economic condition of the people, for the great improvement in the quality of the articles should also be taken into account.

## WHOLESALE PRICES.

The average wholesale prices of the principal kinds of farm and dairy produce are given in the following statement for the seven years, 1903 to 1909. The average for the year represents the mean of the prices ruling during each month, and does not take into account the quantity sold during the month. The figures are those quoted by the middleman and not those obtained by the producers:—

Farm and Dairy Produce.	1903.			1904.			1905.			1906.			1907.			1908.			1909.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Wheat ...bush.	0	5	1 <sup>3</sup> / <sub>4</sub>	0	3	2 <sup>3</sup> / <sub>4</sub>	0	3	5	0	3	3	0	3	10	0	4	3 <sup>1</sup> / <sub>4</sub>	0	4	9 <sup>1</sup> / <sub>4</sub>
Flour ... ton	12	6	0	9	19	0	7	19	6	7	11	6	8	15	0	9	11	0	11	2	0
Bran ...bush.	0	0	11 <sup>1</sup> / <sub>2</sub>	0	0	6 <sup>1</sup> / <sub>2</sub>	0	0	9 <sup>3</sup> / <sub>4</sub>	0	0	9 <sup>3</sup> / <sub>4</sub>	0	0	11 <sup>1</sup> / <sub>2</sub>	0	1	3	0	0	11 <sup>3</sup> / <sub>4</sub>
Pollard ... "	0	1	2	0	0	7 <sup>1</sup> / <sub>4</sub>	0	1	0 <sup>3</sup> / <sub>4</sub>	0	0	10 <sup>3</sup> / <sub>4</sub>	0	0	11 <sup>1</sup> / <sub>2</sub>	0	1	3 <sup>3</sup> / <sub>4</sub>	0	1	1
Barley ... "	0	3	11	0	2	2 <sup>3</sup> / <sub>4</sub>	0	2	8 <sup>3</sup> / <sub>4</sub>	0	3	5 <sup>1</sup> / <sub>2</sub>	0	3	5	0	4	9	0	3	1
Oats ... "	0	2	7 <sup>1</sup> / <sub>2</sub>	0	2	2 <sup>3</sup> / <sub>4</sub>	0	2	7 <sup>3</sup> / <sub>4</sub>	0	2	10 <sup>1</sup> / <sub>2</sub>	0	2	10	0	3	3	0	2	5 <sup>1</sup> / <sub>2</sub>
Maize ... "	0	3	7 <sup>3</sup> / <sub>4</sub>	0	2	2	0	3	2 <sup>3</sup> / <sub>4</sub>	0	3	0	0	3	2 <sup>1</sup> / <sub>2</sub>	0	4	7	0	4	2 <sup>1</sup> / <sub>2</sub>
Potatoes... ton	4	5	0	3	8	9	7	7	6	7	10	0	3	5	0	5	15	0	5	17	0
Onions ... "	3	18	6	3	10	3	14	8	3	6	9	0	4	8	3	6	5	0	6	16	6
Hay—																					
Oaten or																					
Wheaten ..	4	19	6	2	19	6	3	5	9	3	12	0	4	6	6	6	5	9	4	2	0
Lucerne... "	3	14	0	2	6	3	3	0	10	3	17	0	4	19	0	5	4	0	3	19	0
Straw ... "	2	16	6	1	19	0	1	14	3	2	4	0	2	19	0	4	2	9	4	2	0
Chaff ... "	5	3	9	3	6	0	3	11	3	3	13	6	4	8	0	6	1	3	4	10	6
Butter ... lb.	0	0	11	0	0	8	0	0	10	0	0	10	0	0	9 <sup>3</sup> / <sub>4</sub>	0	1	0 <sup>1</sup> / <sub>4</sub>	0	0	10
Cheese(loaf) ..	0	0	7	0	0	4 <sup>3</sup> / <sub>4</sub>	0	0	6 <sup>1</sup> / <sub>2</sub>	0	0	6	0	0	6 <sup>1</sup> / <sub>2</sub>	0	0	8	0	0	7
Bacon ... "	0	0	9	0	0	7	0	0	6	0	0	7	0	0	8 <sup>3</sup> / <sub>4</sub>	0	0	8 <sup>3</sup> / <sub>4</sub>	0	0	8 <sup>1</sup> / <sub>2</sub>
Eggs ... doz.	0	1	2 <sup>1</sup> / <sub>2</sub>	0	1	0 <sup>1</sup> / <sub>2</sub>	0	0	10 <sup>1</sup> / <sub>2</sub>	0	0	11	0	1	0 <sup>1</sup> / <sub>2</sub>	0	1	1 <sup>1</sup> / <sub>4</sub>	0	1	2
Poultry—																					
Fowls ... pair	0	4	0	0	3	6	0	2	8	0	3	3	0	3	9	0	3	9	0	4	3
Ducks ... "	0	4	0	0	3	3	0	2	6	0	3	3	0	3	0	0	3	0	0	4	3
Geese ... "	0	6	5	0	5	9	0	4	6	0	5	3	0	5	9	0	6	3	0	5	3
Turkeys... "	0	12	3	0	10	6	0	12	0	0	11	6	0	11	9	0	11	3	0	14	0
Bee produce—																					
Honey ... lb.	0	0	3	0	0	2 <sup>1</sup> / <sub>2</sub>	0	0	2 <sup>5</sup> / <sub>8</sub>	0	0	3 <sup>1</sup> / <sub>2</sub>	0	0	3	0	0	2 <sup>3</sup> / <sub>4</sub>	0	0	3
Wax ... "	0	1	1	0	1	1 <sup>1</sup> / <sub>2</sub>	0	1	1 <sup>1</sup> / <sub>2</sub>	0	1	2	0	1	3 <sup>1</sup> / <sub>2</sub>	0	1	2 <sup>1</sup> / <sub>2</sub>	0	1	2

The figures call for little comment beyond the caution already given in regard to the prices of commodities generally—that the averages are irrespective of the quantities sold. As regards most of the articles in the list, the lower the price the larger the consumption. The exception to this rule is poultry, which is most in demand before the Christmas season, when prices are correspondingly high.

For locally grown wheat the quotations during 1909 ranged from 5s. 4<sup>1</sup>/<sub>2</sub>d. in June to 3s. 9<sup>1</sup>/<sub>2</sub>d. in January. Barley and oats are for the most part imported, and the prices of these cereals during the year call for little notice. Maize, on the contrary, is largely of local growth, and its price varied from 4s. 5<sup>1</sup>/<sub>2</sub>d. in January to 3s. 10<sup>1</sup>/<sub>2</sub>d. in September. Prices for the various kinds of fodder were very high during the greater part of the year 1908, but showed a considerable decrease during the last three months; in 1909 they did not vary greatly. Root crops show very great range; thus, potatoes varied between £4 6s. in June and £7 16s. per ton in November, when the prices were raised in consequence of the embargo placed upon the import of

Tasmanian potatoes, which were affected by disease; and onions dropped from £7 15s. in October to £5 11s. in November.

The prices of the items set forth in the tables just given are determined by the local demand, wheat, of course excepted, its price being fixed by that ruling in the markets of the world.

The prices of pastoral and other primary produce, which form so large a proportion of the exports of the State, are not sensibly affected by local consumption, but are established by the prices ruling in London. In the following table are given for five years the Sydney f.o.b. prices of the principal pastoral products:—

Pastoral Produce.	1905.	1906.	1907.	1908.	1909.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Beef ... .. lb.	0 0 2	0 0 1 $\frac{3}{4}$	0 0 2	0 0 2	0 0 2 $\frac{1}{2}$
Mutton ... .. "	0 0 2 $\frac{1}{16}$	0 0 2 $\frac{1}{4}$	0 0 2	0 0 2	0 0 2 $\frac{1}{8}$
Wool—Greasy ... .. "	0 0 9 $\frac{3}{4}$	0 0 10 $\frac{3}{4}$	0 0 11 $\frac{3}{4}$	0 0 9 $\frac{1}{2}$	0 0 9
Scoured ... .. "	0 1 6 $\frac{1}{2}$	0 1 8	0 1 9	0 1 4 $\frac{1}{2}$	0 1 3 $\frac{1}{2}$
Sheepskins—with Wool ... bale	23 10 0	30 10 0	28 8 4	17 18 4	19 11 8
Hides ... .. each	1 5 0	1 7 6	1 6 4	1 1 1	0 19 3
Leather ... .. bale	32 3 4	35 10 0	34 10 0	30 10 0	29 3 4
Hair ... .. lb.	0 1 6 $\frac{1}{4}$	0 1 11	0 1 7 $\frac{3}{4}$	0 1 4	0 1 5 $\frac{1}{2}$
Bones ... .. cwt.	0 7 8	0 8 8	0 7 11 $\frac{1}{2}$	0 7 6	0 7 8 $\frac{1}{2}$
Horns ... .. 100	1 11 8	1 15 2	1 13 9	1 13 4	2 4 7
Hoofs ... .. cwt.	0 8 10	0 8 3	0 6 7	0 6 6	0 6 10
Tallow ... .. "	1 2 6	1 4 9	1 11 3 $\frac{1}{2}$	1 8 3	1 7 3
Glue-pieces ... .. "	0 8 4	0 10 3	0 9 6	0 7 1	0 6 3

Leather is included as a pastoral product, although it might be regarded as a manufactured article. The prices of wool, the staple product of the State, declined considerably during 1908, and in December the average selling price for greasy wool was 9d. per lb. The prices of the other articles also showed a great decrease during that year. Sheepskins were 37 per cent. lower than in 1907. Greasy wool and scoured wool were over 25 per cent. higher than in 1901, but nearly 20 per cent. lower than in 1907.

In 1909 the decreased prices of the previous year still prevailed. The average selling price of greasy wool was 9d. per lb. Sheepskins showed a slight improvement and were nearly 10 per cent. higher than in 1908.

The next table shows the Sydney f.o.b. prices of the principal metals and of coal produced in the State. These, like the pastoral products, are not affected by the local demand, but depend upon the prices obtained in the world's markets:—

Metals.	1905.	1906.	1907.	1908.	1909.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver ... .. oz.	0 2 3 $\frac{3}{4}$	0 2 6 $\frac{3}{4}$	0 2 6	0 2 0 $\frac{5}{8}$	0 1 11 $\frac{1}{2}$
Copper ... .. ton	66 18 4	85 10 0	85 2 4	57 18 0	57 10 0
Tin ... .. ton	141 0 0	178 18 4	170 9 7	131 5 0	133 2 0
Lead ... .. ton	12 13 4	16 10 0	18 10 6	13 2 0	12 11 0
Coal ... .. ton	0 8 4	0 8 9	0 9 10	0 10 7	0 10 8

The values of the industrial metals showed a large decline during 1908, and the low prices continued during the following year. The value of coal in 1909 is based on the prices ruling during the first ten months. On the 9th November of that year a strike of all the coal-mines of the State took place, and consequently very little coal was exported up to the end of the year, and that at a greatly enhanced and, what may be termed, fictitious value.



## HOUSE RENTS.

The rents paid for dwellings form a large deduction from the earnings of the industrial class in any community. In the city of Sydney and suburbs, dwellings occupied by the labouring classes yield rents as follows:—Three rooms, from 8s. to 10s. per week; four rooms, from 10s. to 12s. per week; and five rooms, 12s. to 15s. per week. Dwellings of more than five rooms are seldom occupied by labouring-class families, unless there are adult sons and daughters who contribute to the family earnings. The rents vary in the suburbs in accordance with the class of people which constitutes the population; in several of the more recently developed localities it is impossible to obtain dwellings under 12s. 6d. per week, as builders and house agents do not seek to encourage the immigration of the poorer classes to these localities.

Speaking generally, the deduction from a labourer's income for rent exceeds 25 per cent., which, from whatever point it is viewed, must be regarded as excessive.

The progress which has marked the operations of building societies during recent years, particularly those which favour the ballot and sale system of advances, indicates that, to a large extent, the industrial classes are endeavouring to become freeholders.

## PRODUCTION FROM ALL INDUSTRIES.

In other chapters of this work details have been given of the various producing industries, and in the following table they have been grouped together so that a clear idea may be gathered of their relative importance in adding to the national wealth. To extend the comparison, the figures for the last two years are shown in contrast.

As previously stated, the figures show the actual value received by the producers at the place of production, and in the manufacturing industry they represent the value added to raw materials by the processes of treatment, not the value of articles manufactured or work done:—

Industry.	Value of Production.			
	Total.		Per head of Population.	
	1907.	1908.	1907.	1908.
	£	£	£ s. d.	£ s. d.
Manufacturing and allied processes..	13,481,000	13,633,000	8 13 5	8 11 7
Agriculture ... ..	6,588,000	8,319,000	4 4 9	5 4 9
Dairying ... ..	3,567,000	4,064,000	2 5 11	2 11 2
Pastoral industry ... ..	22,281,000	18,846,000	14 6 7	11 17 3
Mineral production ... ..	10,295,000	8,384,000	6 12 5	5 5 7
Forestry and fisheries ... ..	1,382,000	1,165,000	0 17 9	0 14 8
Minor industries (poultry, bees, rabbits, &c.) ... ..	1,708,000	1,732,000	1 2 0	1 1 10
Total ... ..	59,302,000	56,143,000	38 2 10	35 6 10

The total value of production during 1908 reached the very satisfactory total of £56,143,000. This sum is far in advance of the total of any former year, except that of 1907, which is the highest on record. The pastoral industry has for many years been the chief source of the wealth of the State, the production in 1908 being nearly 19 millions sterling.

The statement below shows the estimated value of production of the various industries since 1891, and the equivalent values per head of population. The figures are not exact, but are considered the best approximations from the data available:—

Year.	Pastoral.	Agricultural.	Dairying.	Mining.	Other Primary.	Manu- facturing.	Total.
Value of Production. (In thousands, 000 omitted.)							
	£	£	£	£	£	£	£
1891 ...	14,725	3,615	2,735	6,434	758	7,799	36,066
1894 ...	11,168	3,439	2,548	4,947	690	6,880	29,672
1895 ...	11,774	4,101	2,546	4,499	715	7,006	30,641
1896 ...	11,774	5,374	2,546	4,465	715	7,302	32,176
1897 ...	11,823	6,250	2,653	4,616	750	8,079	34,171
1898 ...	13,219	4,875	2,758	4,756	800	8,425	34,533
1899 ...	14,527	5,609	2,543	5,960	639	9,207	38,485
1900 ...	13,707	5,856	3,617	6,362	796	9,656	39,994
1901 ...	12,552	7,060	3,046	5,681	733	9,740	38,812
1902 ...	10,731	4,139	3,403	5,102	695	10,000	34,070
1903 ...	12,777	8,359	3,276	5,958	779	9,600	40,749
1904 ...	13,373	5,414	2,753	6,243	1,699	9,908	39,390
1905 ...	17,113	6,543	3,123	6,897	2,418	10,631	46,725
1906 ...	19,743	7,518	3,425	7,913	3,229	11,906	53,734
1907 ...	22,281	6,588	3,567	10,295	3,090	13,481	59,302
1908 ...	18,846	8,319	4,064	8,384	2,897	13,633	56,143

Value Per Head.

	£ s. d.	£ s. d.	£ s. d.	£ s. d. c	£ s. d.	£ s. d.
1891 ...	12 17 10	3 3 4	2 7 11	5 12 8	0 13 3	6 16 7
1894 ...	9 2 1	2 16 1	2 1 6	4 0 7	0 11 3	5 12 2
1895 ...	9 8 3	3 5 7	2 0 9	3 11 11	0 11 5	5 12 0
1896 ...	9 5 4	4 4 7	2 0 1	3 10 4	0 11 3	5 14 11
1897 ...	9 3 3	4 16 10	2 1 2	3 11 7	0 11 7	6 5 3
1898 ...	10 1 6	3 14 3	2 2 0	3 12 6	0 12 2	6 8 5
1899 ...	10 17 11	4 4 2	1 18 2	4 9 3	0 9 7	6 18 1
1900 ...	10 2 5	4 6 6	2 13 5	4 13 11	0 11 9	7 2 7
1901 ...	9 3 6	5 3 3	2 4 6	4 3 1	0 10 9	7 2 5
1902 ...	7 13 10	2 19 4	2 8 9	3 13 2	0 9 11	7 3 4
1903 ...	9 0 0	5 17 9	2 6 2	4 3 11	0 11 0	6 15 3
1904 ...	9 4 11	3 14 10	1 18 1	4 6 4	1 3 6	6 17 0
1905 ...	11 11 6	4 8 6	2 2 3	4 13 4	1 12 8	7 3 9
1906 ...	13 0 9	4 19 3	2 5 3	5 4 6	2 2 8	7 17 3
1907 ...	14 6 7	4 4 9	2 5 11	6 12 5	1 19 9	8 13 5
1908 ...	11 17 3	5 4 9	2 11 2	5 5 7	1 16 6	8 11 7

Prior to 1904 the production of poultry and bees was included with Dairying, but has since been included in other Primary industries.

Variations in prices and the conditions of the seasons are both powerful factors in regulating production; but, making allowance for these, there has been a steady advance in all directions throughout the period covered by the above table.

The following table shows the total value of production in various years from 1871 onwards, together with the return per head of population:—

Year.	Value of Production.	Value per head of Population.
	£	£ s. d.
1871	15,379,000	30 5 3
1881	25,180,000	32 18 3
1891	36,066,000	31 11 7
1901	38,840,000	28 7 6
1906	53,734,000	35 9 8
1907	59,302,000	38 2 10
1908	56,143,000	35 6 10

These figures show that since 1871 the volume of production has increased by nearly 41 millions, and the value per head of population by £5. From the primary industries alone the return in 1908 was £42,510,000, equal to £26 15s. 3d. per head, or what is perhaps a better standard, £136 19s. 4d. per square mile. This is a magnificent testimony to the wealth of the State, and the bountiful returns which it yields under favourable conditions. The figures are unsurpassed by any country outside Australasia, and afford ample justification for the investment of the capital which has secured such results.

## SOCIAL CONDITION.

THE efforts of the Government in New South Wales in the cause of charity are directed mainly towards the removal of the young from debasing companionship and temptation to crime, to the support of the aged and infirm, and the care of the imbecile or insane. Assistance is granted to private institutions for the cure of the sick and injured, and to societies established for the purpose of relieving the pressing necessities of those of the poorer classes who, through improvidence or unemployment, are temporarily in want of assistance.

In addition to State-aided institutions, numerous private charities assist in offering relief to the afflicted.

The rescue of the young from crime is effected by means of industrial schools, where children who have been abandoned by their natural guardians, or who, from poverty or incapacity of their parents, probably will be neglected, are trained, educated, and afterwards apprenticed to useful callings. Reformatories are provided, where children who have already committed misdemeanours are placed under discipline.

### PUBLIC HOSPITALS.

Hospitals are essential, especially in the country districts of the State, and are accordingly established in every important country town, as well as in the metropolitan area. At the close of the year 1908 there were 137 hospitals in operation in the State, of which 116 were in the country and 21 in the metropolitan area.

The number of beds in these institutions was 4,335. During the year 47,349 persons were under treatment as indoor patients, and the number remaining in hospital at the close of the year was 2,938 (1,620 males and 1,318 females). The average time during which each person was under treatment was: of those who died—males, 15·4 days, and females, 14·0 days; and of those who were discharged—males, 21·2 days, and females, 22·3 days.

The following statement shows the number of admissions, discharges, and deaths for the past ten years:—

Year.	Total Patients under treatment.	Number Discharged as cured or relieved	Deaths.		Number of Patients at the close of year.
			Number.	Per cent. of treated.	
1899	29,770	24,752	2,241	7·5	1,889
1900	30,592	25,269	2,336	7·6	2,055
1901	33,012	27,426	2,477	7·5	2,247
1902	34,426	28,750	2,594	7·5	2,237
1903	37,011	30,954	2,660	7·2	2,491
1904	38,430	32,751	2,431	6·3	2,467
1905	38,646	32,872	2,529	6·5	2,536
1906	41,552	35,492	2,576	6·2	2,574
1907	44,667	38,152	2,767	6·2	2,767
1908	47,319	40,356	3,020	6·4	2,938

The increase in the number of patients has been steady, and faster than the growth of population, the proportion of the population under treatment in hospitals having risen gradually from 1.4 per thousand in 1899 to 1.8 in 1908.

The death-rate per 100 persons under treatment during 1908 was 6.4, which is almost 13 per cent. below the decennial average. The death-rate in hospitals of New South Wales compared with European rates is undoubtedly very high, but this to a large extent is due to the number of deaths from accidents, which form a very considerable proportion of the total number of deaths registered—a circumstance due to the hazardous nature of the many occupations, and to the dangers incidental to pioneering enterprise. A majority of the accidents, when not immediately fatal, are treated in the hospitals; and these institutions, especially in country districts, are maintained principally for the treatment of surgical cases.

Applications for Government orders for treatment at the metropolitan hospitals are made to the Government Medical Officer, who assigns the cases to the different hospitals and asylums in accordance with the nature, severity, and special character of the ailments of the patients, and with the accommodation available at the various institutions. The number of orders granted during 1908 was 9,673, as compared with 8,548 in the preceding year, these figures representing cases, not individuals, as the same person may be in an institution several times during the year.

There are also several Hospitals for Insane which are under Government control, and which are fitted with all the conveniences and appliances of modern science most calculated to mitigate or remove the affliction.

#### EXPENDITURE ON HOSPITALS.

The amount expended by the State in the fiscal year 1908-9 for the maintenance of the sick poor was £21,957, the principal institutions being the Sydney, the Prince Alfred, and the Moorcliff Hospitals, each at £35 per bed, and the Carrington Convalescent Hospital, at £17 10s. per bed.

According to the hospital accounts, the expenditure of the Government in connection with the hospitals in the metropolitan area in 1908 was £73,282; and on the country hospitals the expenditure reached £61,901, the total expenditure for the State being £135,183. These amounts are irrespective of payments for attendance on aborigines, also of expenses in connection with special outbreaks of disease in country districts which are met from the general medical vote, and do not include cost of maintenance of a large number of chronic and incurable cases in destitute asylums.

There is little exact information respecting the outdoor relief afforded by hospitals, this form of charity not being so important as indoor relief; but the number of out-door patients during 1908 was returned as 86,975.

In addition to these hospital cases 5,752 patients were treated at the Dental Hospital, which was founded in 1902 for the benefit of the poor.

Omitting the Government establishment at Little Bay, the expenditure in 1908 on all the hospitals of the State, for purposes other than building and repairs, was £214,976, representing an average of £49 11s. 9d. per bed. This estimate per bed is somewhat excessive, as a deduction should be made for out-patients, concerning whom there is no information. The average cost for each indoor patient treated was £2 10s. 10d.

The total revenue of hospitals, excluding that at Little Bay, was £253,139. The following statement shows the revenue and expenditure for the year 1908:—

Revenue and Expenditure.	Metropolitan.	Country.	New South Wales.
Receipts—	£	£	£
Government aid .. .. .	50,959	61,901	112,860
Private contributions .. .. .	51,190	73,247	124,437
Other sources .. .. .	10,432	5,410	15,842
Total Receipts .. .. .	112,581	140,558	253,139
Expenditure—			
Building and repairs .. .. .	13,522	36,576	50,098
Maintenance (including salaries)	88,226	106,533	194,759
Miscellaneous .. .. .	10,167	10,050	20,217
Total Expenditure .. .. .	111,915	153,159	265,074

The expenditure in connection with the Little Bay Hospital has not been included in the figures stated above, as that institution is controlled entirely by the Government. At this hospital 3,437 patients were treated during the year at the cost of £22,323. This sum being added to the expenditure £265,074, shown above, gives a total expenditure on hospitals of the State of £287,397. The number of lepers under detention at the lazaret on the 31st December, 1908, was 20.

Besides hospitals proper, there exist other institutions for the alleviation of distress in various forms. Of such are the homes for the reception of fallen women; for the treatment of the blind, deaf, and dumb; for the relief of consumptives; for ministering to the wants of destitute women; for granting casual aid to indigent persons; for the help of discharged prisoners; and for many other purposes which elicit the charitable aid of the people.

The Infants' Home, Ashfield, the Alexandra Hospital for Children, Camperdown, the Institution for the Deaf and Dumb and the Blind, Darlington, besides other institutions in different parts of the State, receive help from the Government; but they are maintained principally by private contributions. The management of these institutions for the relief of the sick is usually in the hands of committees elected by persons subscribing towards their support.

At the City Night Refuge and Soup Kitchen there were no less than 80,472 meals given during 1908, and shelter was provided in 31,764 cases.

#### DESTITUTE CHILDREN.

The charge of the destitute or neglected children of the State is entrusted to the State Children Relief Board, constituted under an Act of Parliament, which came into force in the year 1881. During the twenty-eight years of its operation the Board has had under its care 16,484 children, who have been removed for boarding-out from State and other institutions, asylums, and hospitals. Of that number 12,237 children had been discharged to their parents or otherwise removed from the control of the Board, so that there were remaining under its charge on the 5th April, 1909, 4,247, of whom 2,453 were boys and 1,794 were girls. In addition to these children under direct control the Board pays allowances towards the support of 3,980 children under 12 years of age, living with their mothers, who are widows and deserted

wives; thus the Board has the supervision of 8,227 children. Of these children, 2,378 (1,361 boys and 1,017 girls), were boarded out to persons deemed to be eligible after strict inquiry by the Board. The rate of payment is usually 5s. per week, but in special circumstances may range up to 10s. per week, the highest rates being paid for infants under 1 year, who require more than ordinary care. Strict supervision is exercised by the officers of the Board to prevent ill-treatment or neglect, and in addition visiting ladies voluntarily assist in the various districts, keeping a constant watch upon these unfortunate children, and scrutinising the conditions under which they live.

The system of placing delicate young children out to nurse with healthy women in the country districts has been found satisfactory. In April, 1909, there were 142 such children under control, at a total annual cost of approximately £3,000; and there were 198 children under the control of guardians by adoption, at no charge to the State. The apprentices numbered 1,270; nearly all the girls were in domestic service, and a large proportion of the boys were with farmers, orchardists, storekeepers, and artisans in healthy country districts. On the whole the apprentice system is giving satisfaction; very few serious complaints are received either from the children or from their guardians. The system pursued by the Board of extending to dependent children the privileges of family life and home training in place of the monotonous barrack life of large asylums has been attended with eminently successful results. The actual cost to the State for maintenance, calculated on the daily average, after deducting parents' contributions, was equal to £15 3s. 4d. per child.

The first Cottage Home, established for the special treatment of invalid children, was established in 1882; at the end of 1908 there were eight such homes at Mittagong and three at Parramatta. Four of the Mittagong cottage homes form the Industrial Farm Home, to which boys committed from the Children's Courts are sent. Since the establishment of cottage homes, 3,973 children have been treated, and in April, 1909, 339 children remained in the various homes, viz., 121 girls and 218 boys, inclusive of 173 boys at the Industrial Farm Home.

In April, 1909, there were 1,487 widows and deserted wives receiving allowances towards the support, in their own homes, of 3,980 children under 12 years of age.

The number of neglected children under the direct control of the Board is shown in the following table, for five-year intervals since 1881. During 1908 the deaths numbered 80, of which 51 were males and 29 females.

Year ending April.	Boys.	Girls.	Total.	Year ending April.	Boys.	Girls.	Total.
1881	24	35	59	1906	2,114	1,776	3,890
1886	779	587	1,366	1907	2,230	1,794	4,024
1891	1,417	952	2,369	1908	2,373	1,829	4,202
1896	1,934	1,502	3,436	1909	2,453	1,794	4,247
1901	2,205	1,705	3,910				

Of the 4,247 children under control in April, 1909, there were 2,779 entirely supported either as boarders with foster parents or as inmates of the Cottage Homes, Depôt or Hospitals; 1,270 were apprenticed, and 198 adopted without payment.

The following table shows, for a period of five years, the ages of children when received by the Board:—

Age.	Year ending April—				
	1905.	1906.	1907.	1908.	1909.
Under 1 year ...	48	65	60	89	101
1 year ... ..	25	40	46	40	61
2 years ... ..	52	33	31	39	49
3 „ ... ..	27	29	26	27	35
4 „ ... ..	36	35	23	33	31
5 „ ... ..	36	42	29	49	43
6 „ ... ..	47	35	38	40	27
7 „ ... ..	51	50	42	48	40
8 „ ... ..	52	45	34	41	52
9 „ ... ..	36	42	46	45	65
10 „ ... ..	47	55	38	80	69
11 „ ... ..	29	37	55	70	72
12 „, and over ...	56	84	122	158	207
Unknown ... ..	70	62	106	141	130
Total ... ..	612	654	696	900	982

The increase shown upon comparison of the years 1908 and 1909 with that of 1907, is explained by the larger number of children placed under the control of the Board by the Children's Courts.

During 1909, of the 982 children shown above, 546 were boarded out direct from the State Children's Depôt, 53 were received from the Benevolent Asylum, 4 from the Industrial School for Girls, 360 were committed from the Children's Courts, and 19 from other sources.

The gross amount expended by the Government during the year on the State Children's Relief Department, including the Parramatta and Mittagong Cottage Homes, was £86,563, and parents' contributions towards the maintenance of their children amounted to £3,587; the net Government expenditure was thus £82,976.

The following statement shows the number of destitute children at the end of the year 1908:—

Supported by the Government—

State children boarded with foster parents and inmates of Cottage Homes, Depôt, and Hospitals ... .. 2,779

Partly supported by the Government—

Children living with their mothers, receiving allowances from State Children's Relief Department ... .. 3,980

Not supported by the Government—

State Children—Apprentices ... .. 1,270

Adopted by foster parents without payment... .. 198

Inmates of Private Institutions... .. 1,565

Total ... .. 9,792

From this statement it appears that 8,227 children are under the supervision of the State Children's Relief Department and 1,565 are in private institutions. A comparison of the number of destitute children at the



end of each of the last ten years under the categories shown above is as follows:—

Year.	Supported by Government—State children boarded out or in homes, depôt, or hospitals.	Partly supported by Government—Children living with their mothers.	Not supported by Government.			Total.	Per 1,000 of population.
			State Apprentices.	State children adopted without payment.	Inmates of private institutions.		
1899	2,561	3,257	1,141	142	1,381	8,482	6.31
1900	2,512	3,065	1,255	143	1,381	8,356	6.12
1901	2,237	3,265	1,334	149	1,446	8,431	6.11
1902	2,345	3,386	1,283	177	1,523	8,714	6.19
1903	2,401	3,435	1,194	184	1,541	8,755	6.12
1904	2,419	3,317	1,156	225	1,600	8,717	5.96
1905	2,390	3,146	1,246	254	1,591	8,627	5.77
1906	2,536	3,025	1,201	287	1,388	8,437	5.51
1907	2,707	3,633	1,285	210	1,485	9,320	5.92
1908	2,779	3,980	1,270	198	1,565	9,792	6.10

In 1908 the number of children was 9,792, or 6.1 per 1,000 of total population. The proportion of destitute children decreased from 6.31 per 1,000 in 1899 to 5.51 per 1,000 in 1906, but the last two years show a considerable increase, chiefly in the number of children living with their mothers.

#### DESTITUTE ADULTS.

The number of destitute adults, being persons upwards of 15 years of age, who were inmates of the various asylums of the State at the close of the year 1908, was 4,934, of whom 3,506 were males and 1,428 females. The majority of asylum inmates are persons of very advanced years who are unable to work. The inmates of the Benevolent Asylum, Sydney, however, and of a number of similar institutions, consist very largely of destitute women who use the institutions as lying-in hospitals.

The following table shows the number of adults remaining in the various Benevolent Asylums at the end of each of the last ten years:—

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1899	3,606	1,476	5,082	1904	3,935	1,358	5,293
1900	3,579	1,489	5,068	1905	3,869	1,342	5,211
1901	3,591	1,368	4,959	1906	3,722	1,294	5,016
1902	3,188	1,342	4,530	1907	3,522	1,308	4,830
1903	3,728	1,324	5,052	1908	3,506	1,428	4,934

About 80 per cent. of the above persons are inmates of asylums maintained by the Government. The Liverpool Asylum, the Rookwood Asylum, and two large institutions at Parramatta, are homes for males; the Benevolent Asylum, Sydney, is for women and children; and the institution at Newington is used chiefly for females. Old and indigent married couples have the use of the cottage homes, Parramatta, which were opened in March, 1889.

During 1908 the deaths of 943 adults took place in the various institutions. In addition to the indoor relief, considerable aid is extended to the outside poor. Apart from medical advice and medicines, outdoor relief consists largely of supplies of provisions.

Combining the adults and children, in order to show the number of all the destitute in the State, we obtain the following results:—

Year.	Children.	Adults.	Total.	Proportion per 1,000 of Population.
1899	8,482	5,082	13,564	10.09
1900	8,356	5,068	13,424	9.83
1901	8,431	4,959	13,390	9.71
1902	8,714	4,530	13,244	9.41
1903	8,755	5,052	13,807	9.64
1904	8,717	5,293	14,010	9.59
1905	8,627	5,211	13,838	9.25
1906	8,437	5,016	13,453	8.79
1907	9,520	4,830	14,150	8.99
1908	9,792	4,934	14,726	9.18

The proportion of paupers has slightly decreased during the last ten years, but apparently the index of destitution is about 9 per thousand.

The receipts and disbursements of the charitable institutions in the State during the year 1908 were as shown below. The figures do not include the money received and expended by a few denominational institutions:—

Receipts—	£	Disbursements—	£
State aid ... ..	160,504	Buildings and repairs ... ..	10,761
Private contributions ... ..	36,839	Maintenance (including salaries) ... ..	216,873
Other sources ... ..	39,197	Other expenses ... ..	10,329
Total ... ..	£236,540	Total ... ..	£237,963

#### PROTECTION OF THE ABORIGINES.

A Board is in existence for the protection of the aborigines, the object of which is to ameliorate the condition of the blacks, and to exercise a general guardianship over them. There are nine stations for the benefit of the aborigines, at which comfortable accommodation is provided; and the natives are encouraged to devote their energies to agricultural and kindred occupations, and elementary education is imparted to the children.

The amount expended by the Government during 1908 for the benefit of the aborigines was £16,060.

#### INFANT PROTECTION ACT.

The "Infant Protection Act" is designed for the protection, maintenance, education, and care of infants, and to provide for the inspection and control of places established for their reception and care.

In addition to the affiliation clauses, the Act provides that "the person in charge of any place established or used for the reception and care of two or more infants under 7 years of age apart from their mothers shall make application to the Minister for a license of such place." The State Children Relief Board reports to the Minister as to the propriety of granting the licenses, and makes recommendations for their issue, on specified conditions, by the Minister.

Licensed places have been divided into two classes—one for the reception of five or less children, which includes ordinary homes, and the other for six children and over, being mostly institutions of a charitable nature for the care of infants. In the former class, 124 homes were licensed during the year ended 31st December, 1908; and in the latter class fourteen applications were granted to institutions, which have accommodation for six to one hundred children. At the end of the year, 170 children, of ages ranging up to 7 years, were under care in these institutions. With the

exception of the Infants' Home, Ashfield, which is subsidised by the Government, they are supported entirely by voluntary contributions.

The Sydney Benevolent Asylum and the Randwick Asylum, operating under special Acts, have obtained exemption from the provisions of the Infant Protection Act.

#### TOTAL EXPENDITURE ON CHARITY.

The total expenditure by the State in aid of hospitals, hospitals for the insane, and other charitable institutions, amounted in 1908 to £543,980. Subscriptions and donations from private sources, and other receipts, were distributed amongst the various institutions as follows:—

	£
Hospitals ... ..	140,279
Hospitals for the Insane ... ..	31,063
State Children's Relief Board ... ..	3,587
Charitable Institutions ... ..	76,036
Charitable Societies ... ..	23,545
Aborigines Protection Board ... ..	1,403
	275,913

Public collections in the cause of charity are made through the medium of the Hospital Saturday Fund and the United Charities Fund. The operations of these two agencies for 1908 were as follows:—

	Collection.	Amount Distributed.	Expenses.
	£	£	£
Hospital Saturday Fund ... ..	7,755	7,150	490
United Charities Fund ... ..	1,232	889	274

It was anticipated that the introduction of the Old-age Pension system would cause a reduction in the expenditure by the Government on charity, especially in asylums. The expectation was not realised, as the classes of people affected by the two systems of relief are widely different, and no reduction can be seen in the figures in the following table, which shows the Government expenditure on poor relief in 1900, the year before the Old-age Pension came into force, and in 1908:—

Relief on which expended.	1900.		1908.	
	Expenditure.	Per head.	Expenditure.	Per head.
	£	s. d.	£	s. d.
Hospitals ... ..	88,463	1 4	135,183	1 8
Charitable Institutions ... ..	125,368	1 10	160,504	2 0
Charitable Societies ... ..	7,130	0 1	4,085	0 1
State Children's Relief ... ..	42,422	0 8	82,976	1 1
Hospitals for Insane ... ..	103,852	1 6	145,172	1 10
Protection of Aborigines ... ..	17,849	0 3	16,060	0 2
Total—Hospitals and Charities	385,084	5 8	543,980	6 10
Old-age and Invalidation Pensions...	.....	.....	627,349	7 11
Total ... ..	385,084	5 8	1,171,329	14 9

These figures include maintenance of patients, wages and salaries in connection with each establishment, and the administrative department generally. The cost of Old-age and Invalidation Pensions in 1908 amounted to 7s. 11d. per head, and of all other forms of charity to 6s. 10d. per head; so that after the cost of the pensions has been excluded, the Government expenditure on hospitals and charities has increased by 1s. 2d. per head since 1900.

## OLD-AGE PENSIONS.

The old-age pension scheme sanctioned by the Parliament of New South Wales came into force on the 1st August, 1901, at which date 13,957 pensions were granted, involving a payment of £28,037 for the month. The pension list gradually increased as persons entitled to claim proved their qualifications, and on the 1st July, 1902, the number of pensioners was 22,252, the pension rate being £44,362 for the month. This is the highest point yet attained. The following statement shows the number of pensioners on the 1st August of each year since the system was established, and the monthly pension rate:—

Year.	No. of Pensioners.	Pension Rate. £
1901	13,957	28,037
1902	22,182	44,318
1903	20,905	41,795
1904	20,438	40,617
1905	20,483	40,493
1906	20,817	40,924
1907	20,963	41,684
1908	21,345	42,679
1909	21,979	42,713

The average annual pension is about £23 6s. 3d.; the maximum pension payable is £26 per annum, with proportionate reductions on account of any income or property of the claimant.

During the years the pension system has been in operation—*i.e.*, to 1st August, 1909—13,744 pensioners died, and 2,009 pensions were cancelled. The death-rate represents 83·2 per 1,000 pensioners, which is only slightly in excess of the general average for persons of 65 years of age and upwards.

The total amounts which have been appropriated for the payment of old-age pensions during each financial year up to 30th June, 1909, are as follow:—

Year.	Amount paid. £	Per head of Population. s. d.
1901-2 ... ..	436,183	6 4
1902-3 ... ..	524,967	7 6
1903-4 ... ..	508,133	7 2
1904-5 ... ..	496,300	6 10
1905-6 ... ..	489,095	6 7
1906-7 ... ..	494,227	6 6
1907-8 ... ..	503,030	6 6
1908-9 ... ..	526,835	6 7

Under the Commonwealth Invalid and Old-age Pensions Act, 1908-1909, the Commonwealth undertook the payment of old-age pensions as from the 1st July, 1909, and by the terms of the Act the conditions under which pensions are granted have been slightly relaxed. The age limit remains at 65 years, or in the case of permanent incapacity, 60 years; length of residence is reduced from twenty-five years in New South Wales to twenty years in Australia, and absences amounting in all to one-tenth of the total period of residences are permitted. Naturalised subjects may claim pensions after three years' naturalisation.

The Act is administered in this State by a Deputy Commissioner with the assistance of Police Magistrates.

The number of pensioners transferred to the Commonwealth on 1st July, 1909, was 21,619.

## INVALIDITY AND ACCIDENT PENSIONS.

In 1907 an Act was passed by which pensions, up to £26 a year, are granted to persons over 16 years of age, who are permanently incapacitated for any work by reason of accident or invalidity. The amount of pension is diminished in proportion to the income of the applicant, and to the contributions of relatives. Applicants must have resided for five years, and have become incapacitated, in the State. These pensions are not payable to inmates of charitable institutions, nor to old-age pensioners. The Act was administered in conjunction with the Old-age Pensions Act of the State until the passing of the Commonwealth Invalid and Old-age Pension Act, 1908-1909, when the payment of old-age pensions became a function of the Commonwealth, and provision was made for invalid pensions also to be paid by the Commonwealth at a date to be fixed by proclamation.

The operations under the Invalidity and Accident Pensions Act, since it came into force, are as follows:—

Period ended 30th June.					Certificates Issued.	Pensions Current.	Amount Paid.
					No.	No.	£
1908	...	...	...	...	1,906	1,765	12,527
1909	...	...	...	...	4,065	3,732	73,387

## FRIENDLY SOCIETIES.

The first Act of Parliament to regulate Friendly Societies was passed in 1843, by which certain legal advantages were granted to societies established for the purpose of raising funds for mutual relief of the members. This measure contained many serious defects—provision was not made to enforce correlation of contributions to benefits, nor for obtaining periodic financial statements from the societies, and no officer was specifically appointed to supervise the administration of the Act.

It was not until 1873 that a Registrar of Friendly Societies was appointed to certify as to the accordance of the rules of the societies with the law. To obtain the registration of a society under the Act of 1873, the table of contributions, certified by an actuary, was essential; but this clause was rendered useless by the fact that the society had the power, after registration, to alter the rates of subscription and the amount of benefits.

A commission, appointed in 1881, held an investigation into the working of the Act, and a series of valuations of the positions of the societies disclosed a condition of insolvency in all cases, but no attempt was made to carry out recommendations made by the Commissioners until 1899. Under the Act passed in that year the Friendly Societies were offered the supervision of the State in the conduct of their business, and in the safeguarding of their funds, collection of data as to membership, sickness and mortality experience, investigation of accounts, and, above all, expert advice on their financial concerns, and the actuarial oversight obtained by means of periodic valuations.

A period of one year was allowed, after which the old rules would become obsolete by effluxion of time. The vital question of adequacy of contributions was raised, and the necessity for actuarial certification of scales of payments was enforced. The old members, who had practically arranged their own contributions, and had developed into an attitude, either of indifference

or of bitter hostility to actuarial presentments, consented to the apportionment of adequate payments in respect of future members. But they strongly protested against any increase in their own rates of contribution, although it was obvious that, if certain periodic payments were essential on the part of new members as at entry age, even greater payments were necessary on the part of the old members, who would enjoy the same benefits, in order to counterbalance the deficiency in their case of contribution in the past.

Eventually an Act was passed in 1901 as a compromise. It enacted that all societies subsisting at the commencement of the Act of 1899 might be provisionally registered if provision was made for keeping the accounts of contributions and benefits of old members separate from those of future members; that new members should pay at actuarially certified rates, while the rates of old members should be not less than those formerly payable, provided that such registration should remain in force until the next quinquennial investigation, when any society might be again registered, (1) if it appeared as the result of such valuation that the society had improved its financial position in respect of persons who were members at the last preceding registration; and (2) though it appeared that the society had not so improved its financial position, if the rules of the society provided that the rates of contribution to be charged in respect of such members were certifiable by an actuary.

A further important amendment, enacted in 1906, required compulsory registration of all Friendly Societies, with the exception of those bodies—commonly termed dividing societies—which annually distribute all their funds amongst their members.

The benefits promised are much the same in all societies, and usually consist of medical attendance and medicine for a member and his family, and sick pay and funeral allowance. For sickness benefit it is usual to offer 21s. per week during the first six months, and half pay for the next six months' illness. Then in some societies sick pay ceases for one or two years, but in others provision is made for further pay at quarter rates, for one or two years, or during the currency of the illness. The funeral benefits range from £20 to £40 at death, with a contingent benefit of £10 or £15 on death of the wife. A separate benefit for widows, usually £10, may be assured in some societies for a stated contribution.

The first quinquennial valuation of Friendly Societies required in compliance with the Act of 1899, was undertaken as at 31st December, 1904. Eighteen affiliated societies and thirteen single societies were valued.

At this valuation 96,422 members were valued for sickness benefit, and 97,511 for funeral benefits, with 51,155 subsidiary funeral benefits. With one exception, in which a 4 per cent. interest rate was adopted, the valuation was made on a 3 per cent. basis on the experience of the M.U.I.O.O.F. of England, 1866-70.

Taking into account only the large affiliated Orders, 18 in number, the results show that 8 of them possessed surpluses amounting in the total to £28,967, and in the remaining 10 instances there were deficiencies representing an aggregate amount of £289,997. There was, consequently, a net deficiency of £261,030, in respect of total liabilities of £3,904,545. Of the single societies 3 showed small surpluses, amounting in the aggregate to £346, and 13 had deficiencies amounting to £10,936. Dealing with the figures for all societies, there was a net deficiency of £271,620, on a total liability of £3,981,252, equal to 1s. 4d. per £1, or in other words, a sum of only 18s. 8d. was available to meet each £1 of liability.

In order to strengthen the financial position of the societies, and to improve their status, the Registrar in his report of the valuation, recommended the societies to exercise close watchfulness of finances as to collection and allocation of contributions, as to investments, and the payment of benefits; to demand adequate rates of contributions for every benefit quoted; and to consolidate the resources of every society under the control of a central committee. The recommendations also advised careful selection of new members as to soundness of health, the preparation of tables of benefits in accordance with the average earnings of members; and the payment of a special premium by members engaged in hazardous occupations. By these measures efficient management of the finances would be secured, high sickness and mortality rates lessened, and imposition and malingering prevented.

The following table shows the progress in the number of societies, branches, and members, during the five years ended 31st December, 1908:—

Year ended 31st December.	Branches.	Members.
	No.	No.
1904	1,139	97,952
1905	1,195	101,463
1906	1,299	106,220
1907	1,333	116,985
1908	1,393	123,297

The membership of 123,297 at 31st December, 1908, represents 8 per cent. of the total population of the State; but the benefits of medical attendance and medicine accrue also to the members' family, so that approximately 31 per cent. of the population derive advantage from the societies.

The receipts and expenditure of the societies for the five years ended 31st December, 1908, are set in the following statement:—

Year.	Receipts.					Expenditure.					Excess of Receipts.
	Sick Fund.	Funeral Fund.	Medical and Management Fund.	Additional Funds.	Total	Sick Fund.	Funeral Fund.	Medical and Management Fund.	Additional Funds.	Total.	
	£	£	£	£	£	£	£	£	£	£	£
1904	139,603	59,149	157,883	9,506	306,141	109,338	26,726	161,556	35,426	333,046	33,095
1905	149,495	60,015	170,890	10,066	390,466	103,910	26,844	175,633	8,105	314,492	75,974
1906	144,702	60,726	180,240	10,359	396,027	93,093	26,005	172,833	7,269	299,200	96,827
1907	163,433	86,381	175,075	9,106	434,000	111,705	25,764	168,352	15,660	321,481	112,519
1908	153,199	74,546	184,195	23,334	435,324	111,260	46,245	179,915	8,989	346,409	88,915

The apparent retrogression shown by the figures for 1908 is to be explained by the reductions in the rates of contributions made by several of the societies in consequence of the favourable position disclosed in the quinquennial valuation.

The total cases of sickness of adult males in 1908 were 21,150, at a total cost of £98,486, or an average amount of sick pay of £4 13s 1d. per sick member. The records for female and juvenile sickness are small relatively to those for male adults, and conclusions of practical value are not deducible from them.

The total funds of the Friendly Societies at the end of 1908 amounted to £1,258,023, and were invested as follows:—

Classification.	Sickness Fund.	Funeral Fund.	Medical and Management Fund.	Other Funds.	Total.
Invested—	£	£	£	£	£
Mortgage ... ..	321,148	290,709	10,781	20,144	642,782
Public Funds ... ..	21,881	32,908	919	.....	55,708
Savings Banks ... ..	193,044	67,498	21,485	7,187	289,214
Other Banks ... ..	14,917	1,687	957	37	17,598
Buildings ... ..	76,623	43,143	29,058	1,918	150,742
Other Freehold Property ... ..	16,592	2,769	956	698	21,015
Other Investments ... ..	8,241	1,288	1,278	544	11,351
Uninvested—					
Cash not bearing Interest ... ..	36,682	12,962	17,749	4,247	71,640
Illegally in use ... ..	5,441	1,104	493	437	7,475
Overdraft ... ..	(-) 818	(-) 147	(-) 8,502	(-) 35	(-) 9,502
Total ... ..	693,751	453,921	75,174	35,177	1,258,023

In order to assist aged and afflicted members individually, and to enable societies to enlarge their sphere of usefulness, Parliament in 1908 passed the Subventions to Friendly Societies Act, under which sums are payable by the State to those societies which elect to take advantage of the Act. These subventions are as follows:—

1. Sick pay—

(a) One half the total cost in each year in respect of all sickness after twelve months from the commencement of such sickness—provided that the maximum cost to the State shall not exceed 5s. per week for each case of prolonged sickness.

(b) The whole cost of sick pay in respect of male members aged 65 years and over and of female members aged 60 years and over—subject to the same proviso as above.

2. The contributions payable on account of all male members 65 years and over, and of female members 60 years and over, for medicine and medical attendance, provided that such contributions shall not be more than those payable by members of the same society under the ages stated.

3. The contributions payable under the rules of a society in respect of the aged members above mentioned, to assure payment of funeral allowance at their death.

Hitherto, in all Friendly Societies, the provision for chronic sickness (*i.e.*, sickness extending beyond one year's duration), has been a source of perplexity on account of the cost involved, and the consequent necessity of higher contributions if such provisions be adopted in the rules. The means of the majority of the members require that the contributions shall be as small as possible, consistent with due regard for the societies' solvency, and it has been evident in every society that provision for monetary allowances throughout chronic sickness could not be made on account of the undue cost. With the help afforded by the State under the terms of the Subventions Act, this difficulty is surmounted, and afflicted members of the societies will receive financial aid as long as their sickness lasts. The payment of medical and funeral contributions by the State on behalf of aged members will be a great boon to many. Up to the present fully two-thirds of these members have been forced to withdraw from the societies, through their inability to contribute their subscriptions when their powers of earning had failed through old age. This means that medical benefits have, perforce,



been surrendered at the time they were most necessary (for in old age sickness is more or less chronic), and prospective funeral benefits forfeited as the time for their realisation drew near. These hardships will be obviated by the subventions payable under the Act, and therefore, appreciable benefit may be anticipated.

Up to the 31st December, 1909, fourteen affiliated societies and nine single societies had accepted subvention under the Act. The number of members in these societies at the end of 1908 was 101,801 and 1,362 respectively.

In addition to the Friendly Societies, properly so called, some of the old-established registered Trade Unions give benefits analogous to those mentioned above. The benefits, however, are usually small in amount, seldom exceeding 12s. a week for sick pay, and £7 in case of death. A few Trade Unions also make allowances to their members when they are out of employment.

#### SICKNESS AND INFIRMITY.

Apart from the financial results of the valuation as vitally affecting each individual society's position, the quinquennial valuation of the Friendly Societies of New South Wales has disclosed valuable information relating to the sickness and mortality of the societies as a whole, which indicates the social value of the investigation. For the purposes of the valuations, and to form a basis of comparison, the experience of the Manchester Unity I.O.O.F. of England for 1866-70 was taken as the standard, mainly because there was no local experience available, and a common plane of comparison was required; the resultant figures show that by relation to this standard New South Wales exhibits a favourable experience.

The following table shows these results in age-groups, the expected, *i.e.*, the English, sickness experience in each group being taken as 100:—

Age-group.	Actual Sickness per cent. of expected.	Age Group.	Actual Sickness per cent. of expected.
16-20	153	41-45	84
21-25	100	46-50	81
26-30	85	51-55	83
31-35	81	56-60	98
36-40	82	All ages.	88

It is thus evident that the New South Wales experience is 12 per cent. below the English standard, or, in other words, little more than seven-eighths of the amount of sickness which was reasonably to be expected.

To give a clearer comparison these rates may be translated into weeks of sickness per annum, and compared with other experiences, with the following result:—

Central Age.	M.U., England. 1866-70.	New Zealand. 1896-1897.	Victoria. 1881-1890.	Queensland. 1902-1906.	N.S.W. 1900-1904.
	weeks.	weeks.	weeks.	weeks.	weeks.
18	·57	·80	·83	1·01	·87
23	·76	·82	·76	·95	·77
28	·82	·77	·73	·84	·70
33	·96	·84	·88	·91	·76
38	1·09	·93	1·10	·99	·87
43	1·33	1·27	1·71	1·13	1·07
48	1·75	1·84	2·11	1·51	1·34
53	2·35	2·53	3·05	2·20	1·82
58	3·36	3·68	3·96	2·86	2·98
63	5·20	5·50	6·69	4·55	4·44
68	8·45	9·92	12·60	7·16	6·19
73	13·64	14·77	22·99	.....	9·07
78	17·94	20·94	32·45	.....	11·08

These figures show that except for age 18, the rates for this State are below the normal rates of adjacent States and New Zealand, as well as England.

During the quinquennium there were 367,749 males, aged 16-80 years, exposed to sickness for one year each, and the average amount of sickness experienced by each member was 1.23 weeks per annum.

The female experience was too small—containing only 4,058 years of exposure—for any results of practical value to be derived. The rates indicated were, however, rather heavy, especially at the young ages.

The male rates shown in the above table decrease down to age 28, and then increase regularly to the end of the period of life observed. The phenomenon of high rates at the early ages is rather surprising. It is not explained on the ground of paucity of data, for the same result was exhibited in the experience of individual societies of large or small membership; and the sickness rates of the Friendly Societies of other States of the Commonwealth disclose a similar feature. It must be concluded, therefore, that it is peculiar to this class of experience, and is probably due to malingering by young members induced by the liberal benefits allowed. Many of the societies have recognised this, and, acting on the advice tendered in the Valuation Report, have reduced the amount of sickness benefits to members under the age of 20 years.

The sickness experience of the societies for the last four years is not yet available for individual ages, but the aggregate experience of male members of all ages is shown below:—

Year.	Male Members exposed to risk of Sickness.	Sick Members.		Period of Sickness.	
		Number.	Proportion to total exposed to risk.	Total.	Per member exposed to risk.
			per cent.	weeks.	weeks.
1905	81,642	17,982	22.0	102,420	1.25
1906	84,053	18,156	21.6	102,633	1.22
1907	89,986	21,721	24.1	120,440	1.35
1908	95,050	21,150	22.2	124,084	1.30

From these figures it seems that the average amount of sickness experienced by each member has risen very slightly in comparison with the quinquennial rate of 1.23 weeks, quoted previously.

A phase of the subject also discussed in the first Valuation Report of Friendly Societies in New South Wales, is the extra risk attaching to hazardous occupations. The only well-defined class of occupations carrying a heavy risk, the experience of whose members was readily deducible, was that of the mining section of the community. The relation between the mining and non-mining rates for three of the large societies combined is shown in the following comparison:—

Age Group	Mining rate per cent. of non-mining rate.	Age Group.	Mining rate per cent. of non-mining rate.
16-20	142	46-50	147
21-25	131	51-55	139
26-30	128	56-60	133
31-35	132		
36-40	129		
41-45	140	All ages	139

The actual sickness rates for mining and non-mining members from which the above ratios have been obtained, are as follows:—

	Per cent. of Expected.	
	Mining rate.	Non-mining rate.
16-20 ... ..	196	138
21-25 ... ..	126	96
26-30 ... ..	105	82
31-35 ... ..	103	78
36-40 ... ..	102	79
41-45 ... ..	112	80
46-50 ... ..	112	76
51-55 ... ..	110	79
56-60 ... ..	125	94
All ages ... ..	114	83

The effect of the added sickness risk of the mining population is to raise the rate of 83 per cent. of standard for non-mining members, to 88 for all members, the mining rate being 39 per cent. higher than the non-mining rate. It is unfortunate, in view of the results disclosed by this small section of persons engaged in hazardous occupations, that other such dangerous occupations could not be treated, but all the data were too scanty for exhaustive treatment.

In conjunction with the low sickness experience for all classes of members for the State are to be found a high secession rate and a low mortality rate: up to age 55, the mortality experience of this State is in general lower than the prevalent rates in other Australian States, but in the more advanced ages shows a slightly higher rate, which does not, however, exceed the English experience. Following is a comparison of the mortality rates of this State with other experiences, including that of the insurance experience of the Australian Mutual Provident Society, to which rate the Friendly Society experience most closely approximates:—

Central Age.	Rates per 100 members per annum.						
	M.U. England.	New Zealand.	South Australia.	Victoria.	Queensland.	A.M.P.	Friendly Societies, N.S.W.
	1866-1870.	1886-1907.	1895-1904.	1881-1890.	1902-1906.	1849-1888.	1900-1904.
18	·56	·41	·47	·31	·34	·34	·30
23	·66	·53	·45	·47	·36	·34	·35
28	·77	·54	·46	·52	·37	·39	·34
33	·85	·63	·49	·63	·46	·48	·49
38	1·03	·75	·57	1·02	·80	·62	·59
43	1·28	·92	·71	1·26	·85	·79	·75
48	1·54	1·20	·92	1·50	1·00	1·00	·97
53	2·00	1·52	1·29	2·09	1·32	1·25	1·45
58	2·70	2·17	1·90	2·68	2·63	1·59	2·45
63	3·97	3·08	2·77	3·93	3·19	2·30	3·03
68	5·73	4·46	4·09	6·27	3·73	4·12	4·53
73	8·70	6·32	5·91	7·83	8·46	5·06	7·79
78	12·35	9·88	10·00	12·00	.....	8·66	12·68
83	17·40	14·58	17·83	.....	.....	11·16	15·02

In the aggregate figures for the quinquennium the male adult experience comprised 411,040 exposures to risk for one year each, and there were 3,275 deaths, as against an expectation of 5,074. The resultant death rate was, therefore, equivalent to 8 per thousand exposed to risk, instead of 12·3 per thousand as anticipated; and the observations consequently disclose a rate of only 65 per cent. of expectation. The mortality of females and children shown by the 1904 valuation was very light, but the results could hardly be taken as more than a general guide, giving no permanent indications in detail.

The investigation of the experience of the societies for the years 1905 to 1908 inclusive, has now, however, practically been concluded, and the results of these four years experience, added to the previous quinquennial experience, yield a valuable and stable experience, the evidence from which, shortly to be made public, amply supports the rates and deductions quoted as derived from the 1904 investigation, and testifies to the continued satisfactory rates for sickness and mortality experienced by the societies in this State.

Information relating to the sickness of the whole population is only collected at the census. At the 1901 census sickness was taken to express inability for the time being to follow the usual occupation in life; and only those actually unable to work were counted as sick, or as suffering from an accident, as the case might be; in the case of those having no occupation, bedfast sickness was understood.

Assuming the results of 1901 to be indicative of the general condition of the population, it would appear that rather more than 1 per cent. of the people constantly suffer from some form of disablement arising from sickness or the result of an accident. The following statement shows the number and proportion per 1,000 of each sex suffering from each cause:—

Cause of Disablement.	Number.			Proportion per 1,000 living.		
	Males.	Females.	Total.	Males.	Females.	Total.
Sickness ... ..	8,389	5,129	13,518	11·81	7·95	9·98
Accident ... ..	2,127	443	2,570	3·00	0·69	1·89
<b>Total ... ..</b>	<b>10,516</b>	<b>5,572</b>	<b>16,088</b>	<b>14·81</b>	<b>8·64</b>	<b>11·87</b>

The sickness rate for males is half as high again as that for females, while the accident rate is four and a half times as high, the disparity between the sexes being chiefly due to the greater risks to which males are exposed. Of the total number disabled, nearly 15 per cent., namely 1,423 males and 1,018 females, were being treated in hospitals. The following table shows the number in various age groups suffering from sickness and accident, and the proportion per 1,000 living in each group of both together:—

Age Group.	Sickness.		Accident.		Proportion per 1,000 living in each group of both together.	
	Males.	Females.	Males.	Females.	Males.	Females.
Under 10 ... ..	305	322	63	38	2·23	2·24
10—19 ... ..	640	589	283	58	6·07	4·29
20—39 ... ..	1,676	1,472	646	97	10·38	7·50
40—64 ... ..	2,761	1,395	793	134	25·34	14·66
65—79 ... ..	2,405	1,019	322	88	111·97	64·05
80 and over ... ..	590	322	19	27	226·98	150·97
Not stated ... ..	12	10	1	1	.....	.....
<b>Total, All Ages ..</b>	<b>8,389</b>	<b>5,129</b>	<b>2,127</b>	<b>443</b>	<b>14·81</b>	<b>8·64</b>

With one exception—the age group under 10—the males show higher rates than the females, the differences becoming greater as the ages increase. In each sex the rates increase from the lowest to the highest ages. From age 40 the rates increase very rapidly, until at age 80, one-fifth of the males and one-seventh of the females are laid up.

Although the census records would not be utilised by an actuary in deducing an authoritative sickness experience, they are important as showing the probable loss of efficiency among the whole population. Assuming, therefore, that the rate of sickness existing on the census day will prevail throughout the year, it is calculated that between the working ages, 20 and 65, the sickness experienced will be 5·89 days per annum.

*Deaf and Dumb.*—The number of persons who were deaf and dumb in 1901 was 390, equivalent to one person in every 3,474 of the population. The proportion of deaf-mutes has decreased since 1891; it is, however, feared that the full number has not been returned, because the male rate is less than the female—the general experience being in the contrary direction. Furthermore, from the table below, which gives the rates in various age groups, it will be seen that the rate at ages 10 to 15 is the highest; whereas, since deaf-mutism is an affliction of childhood, it is reasonable to expect that the rates below those ages would be the highest. This probably arises from the unwillingness of parents to make known this infirmity in their children.

Age Group.	Number.		Proportion per 1,000 living.	
	Males.	Females.	Males.	Females.
Under 5 ... ..	2	3	·02	·04
5—9 ... ..	25	14	·30	·17
10—14 ... ..	38	36	·47	·45
15—19 ... ..	21	33	·30	·47
20—44 ... ..	82	87	·31	·36
45—64 ... ..	20	24	·21	·34
65 and over ... ..	1	3	·04	·02
Not stated ... ..	.....	1	.....	.....
Total ... ..	189	201	·27	·31

Excluding children under 10, it will be seen that the rate declines more or less regularly as the age advances. At all ages from 15 to 65 the female rate is higher than the male.

*Blind.*—The number of persons afflicted with blindness at the census of 1901 was 884; this is equivalent to one person in every 1,533. The higher proportion which exists among males is probably due to the greater risk of accident to which they are exposed. Blindness comes on with approaching old age, as will be seen below, where the numbers and proportion in various age groups are given:—

Age Group.	Number.		Proportion per 1,000 living.	
	Males.	Females.	Males.	Females.
Under 10 ... ..	15	11	·10	·07
10—19 ... ..	31	24	·20	·16
20—44 ... ..	99	70	·37	·29
45—54 ... ..	76	27	1·29	·62
55—64 ... ..	93	54	2·56	1·96
65—74 ... ..	140	75	6·74	5·19
75—84 ... ..	57	61	10·44	13·81
85 and over ... ..	23	26	28·75	38·35
Not stated ... ..	1	1	.....	.....
Total ... ..	535	349	·75	·54

Among both sexes the rate increases from the lowest to the highest ages, and rapidly after age 65. At all ages below 65 the male rate is higher than the female; after that age the female rate is higher. The majority of young persons afflicted with blindness were probably born so.

## SICKNESS IN HOSPITALS.

Information regarding cases of sickness in the Public Hospitals of the State is valuable, though to a somewhat limited degree, as necessarily the whole course of sickness cannot be tended in a public hospital.

The statement below shows the principal diseases which were treated during 1908, and out of the total number of patients admitted during the year the number who recovered, who died, who were relieved, or unrelieved. There were, in addition, a number remaining in hospitals at the end of the year:—

Disease.	Number of those admitted during the year who—							
	Recovered.		Died.		Were Relieved.	Were unrelieved.	Total.	
	Males.	Females.	Males.	Females.	Both Sexes.	Both Sexes.	Males.	Females.
Typhoid ... ..	954	635	144	70	6	6	1,108	707
Diphtheria ... ..	368	568	29	34	102	...	447	654
Influenza ... ..	460	232	5	2	22	2	483	240
Tuberculosis of Lungs...	14	6	61	29	238	43	247	144
Tuberculosis, Other Organs ... ..	99	89	27	19	173	24	244	187
Veneral Diseases ... ..	311	76	5	2	293	30	502	215
Cancer ... ..	227	124	118	58	276	157	594	366
Rheumatism ... ..	535	218	11	6	350	5	800	325
Diseases of the Eye ... ..	336	199	1	1	343	75	588	367
Heart Diseases ... ..	51	25	180	71	504	17	595	253
Hæmorrhoids, &c. ... ..	389	234	1	2	82	8	442	274
Diseases of Nose ... ..	490	447	...	...	13	5	495	460
Bronchitis ... ..	363	238	39	18	178	5	542	299
Pneumonia ... ..	868	458	170	56	21	2	1,051	524
Gastritis ... ..	343	320	2	5	124	3	413	384
Diarrhœa and Enteritis	338	225	101	52	55	6	476	301
Intestinal Obstruction...	536	181	43	20	38	16	620	214
Appendicitis ... ..	677	566	57	26	91	14	788	643
Nephritis ... ..	65	47	137	54	211	21	352	183
Other Diseases of Urin- ary System ... ..	697	216	64	4	341	39	1,058	303
Diseases, Female Genital Organs ... ..	...	2,596	...	46	297	71	...	3,010
Diseases of Skin ... ..	814	392	20	11	203	12	978	474
Suicide ... ..	28	41	10	12	8	...	43	56
Accidents ... ..	4,317	750	310	88	823	72	5,401	959
All Causes ... ..	15,251	12,166	1,880	987	6,699	1,005	21,962	16,026

The total shown in this table for the number of patients treated does not agree with the total for all hospitals given previously. For this table particulars regarding persons remaining in the hospital from the previous year were not available, and, further, certain hospitals—consumptive and convalescent—have been excluded. Altogether, as will be seen from the table, there were available full particulars regarding 37,988 patients, 21,962 male and 16,026 female. Of these—

15,251	males	and	12,166	females	recovered.
1,880	"		987	"	died.
4,229	"		2,470	"	departed relieved.
602	"		403	"	departed unrelieved.

The large number of cases of diseases of the nose was due probably to the fact that during the year there was a special medical inspection of State School children, and attention was thereby directed to such diseases as adenoids. The cases treated consequently represent the accumulation of several years.

The next statement shows, for the same diseases as in the table above, the proportion of cases which ended in recovery, and the average period of suffering in hospitals of those who recovered, who died, and of all cases together.

Disease.	Proportion who recovered.		Average duration of sickness of those admitted during the year who—					
			Recovered.		Died.		All cases.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	%	%	Days.	Days.	Days.	Days.	Days.	Days.
Typhoid ... ..	86·1	89·8	39·8	42·3	15·1	15·1	36·5	39·6
Diphtheria ... ..	82·3	86·8	20·6	20·8	3·5	6·3	18·1	18·8
Influenza ... ..	95·2	96·7	10·3	12·0	19·0	4·5	10·5	12·0
Tuberculosis of lungs ... ..	5·7	4·2	25·3	26·5	21·6	28·1	25·8	26·6
"    other organs ..	40·6	47·6	42·1	28·1	35·6	18·6	40·3	34·4
Venereal diseases ... ..	62·0	35·3	30·7	44·4	5·2	34·0	29·5	33·8
Cancer ... ..	38·2	33·9	23·4	26·2	21·3	25·6	22·8	24·5
Rheumatism ... ..	66·9	67·1	23·7	24·8	32·2	19·5	25·2	27·1
Diseases of the eye... ..	57·1	54·2	27·5	30·2	...	...	29·1	31·2
Heart diseases ... ..	8·6	9·9	19·7	17·9	15·7	16·4	20·7	23·7
Hæmorrhoids, &c. ... ..	88·0	85·4	23·4	26·5	24·0	24·0	22·9	26·5
Diseases of nose ... ..	99·0	97·2	2·1	2·6	...	...	2·1	3·0
Bronchitis ... ..	67·0	79·6	13·9	14·4	16·1	11·0	15·9	15·2
Pneumonia ... ..	82·6	87·4	18·9	19·4	7·5	5·3	16·9	18·2
Gastritis ... ..	83·0	83·3	11·8	15·5	3·0	26·8	12·2	16·4
Diarrhœa and enteritis ... ..	71·0	74·7	13·9	17·9	9·3	12·3	13·3	16·1
Intestinal obstruction ... ..	86·6	84·6	26·2	27·1	5·0	14·7	23·8	24·6
Appendicitis ... ..	85·9	88·0	26·9	26·8	5·5	10·5	24·4	24·9
Nephritis ... ..	18·5	25·7	20·8	23·9	15·5	18·0	21·3	24·1
Other diseases of urinary system ... ..	65·9	71·2	19·5	24·1	17·5	14·2	19·5	22·6
Diseases female genital organs ... ..	...	86·2	...	23·6	...	14·5	...	22·5
Diseases of skin ... ..	83·2	82·7	20·4	21·9	18·8	11·8	21·2	21·8
Suicide ... ..	65·1	73·2	16·4	8·8	3·2	2·6	11·8	7·2
Accidents ... ..	79·9	78·2	15·5	15·9	5·3	3·9	14·1	14·8
All causes ... ..	69·4	75·9	21·2	22·3	15·4	14·0	20·7	22·0

The smallest proportions of recoveries were among sufferers from tuberculosis of lungs and from heart diseases, who were probably in a serious state before they entered the hospital. The recoveries from cancer are unfortunately more apparent than real; the figures mean simply that the patients recovered from the particular operation to undergo which they went into the hospital; but not that the disease was eradicated.

Nephritis is a serious affection, and the proportion of recoveries was small. The epidemic diseases typhoid, diphtheria, and influenza all showed high percentages of recovery. Pneumonia and appendicitis also showed fairly high proportions.

The average duration of all cases was 20·7 days for males and 22·0 days for females. Typhoid patients remained in hospital the longest average time—36·5 days males and 39·6 females. Tuberculous patients were also under treatment for more than a month. Venereal diseases necessitated a stay in hospital of about 30 days, as also affections of the eyes, which often are very troublesome.

An investigation of the ages of the persons who entered hospitals for treatment of their ailments shows that the majority were between the ages of 5 and 45.

The table shows the total number and proportion of cases of sickness in each age-group, and the total number who died:—

Age-Group.	No. of Cases.		Proportion of Cases per cent.		No. who Died.	
	Males.	Females.	Males.	Female.	Males.	Females.
Under 1 ... ..	292	208	1·3	1·3	79	54
1-4... ..	1,114	850	5·1	5·3	115	85
5-19 ... ..	4,419	3,684	20·1	23·0	172	160
20-44 ... ..	8,809	8,670	40·1	54·1	537	419
45-64 ... ..	4,544	1,895	20·7	11·8	502	179
65 and over ... ..	2,588	629	11·8	3·9	443	83
Not stated... ..	202	101	0·9	0·6	32	7
Total ... ..	21,968	16,037	100·	100·	1,880	987

Among the males, 20 per cent. of the cases came from each of the age-groups 5-19 and 45-64, while double that proportion was from the intermediate group 20-44.

Of the female cases, 54 per cent. were between the ages 20 and 45, and the proportion from age-group 5-19 was nearly double that from group 45-64.

#### INSANITY.

The number of insane persons in New South Wales, under official cognizance in the various Government hospitals for the treatment of the insane, at the end of 1908 was 5,673, equal to 3·53 per 1,000 of the population, or one insane person in every 283. This rate is slightly below that prevailing in England.

The hospitals for insane under the immediate control of the Government are seven in number—six for ordinary insane, and one at Parramatta for criminals. There are also licensed houses at Picton, Ryde, and St. Peters, and, by arrangement, the South Australian hospitals are available for patients from the Barrier and extreme western districts of New South Wales.

In the following table is stated the number of persons in hospitals for the insane at the close of each year, and the proportion per 1,000 of the population in quinquennial periods since 1876:—

Period.	Number of Insane Persons.			Proportion per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1876-1880	5,901	3,024	8,925	3·20	1·96	2·63
1881-1885	7,409	4,548	11,957	3·12	2·34	2·77
1886-1890	8,883	5,629	14,512	3·09	2·35	2·77
1891-1895	10,520	6,654	17,174	3·23	2·37	2·83
1896-1900	12,408	8,022	20,430	3·54	2·58	3·09
1901	2,677	1,798	4,475	3·70	2·74	3·24
1902	2,816	1,857	4,673	3·80	2·79	3·32
1903	2,942	1,993	4,935	3·90	2·95	3·45
1904	3,021	2,054	5,075	3·90	2·99	3·47
1905	3,134	2,118	5,252	3·94	3·02	3·51
1906	3,271	2,226	5,497	4·01	3·12	3·59
1907	3,323	2,253	5,576	3·95	3·08	3·54
1908	3,356	2,317	5,673	3·90	3·11	3·53



From these figures it appears that the rate of insanity is about stationary; but in order to ascertain the exact conditions a general rate is an indifferent guide, and it is necessary to discuss the relative figures in age groups, since the age incidence is a variable quantity and insanity is more essentially an infliction of advancing age.

An inspection of the subjoined table of the insane persons both male and female in other States and New Zealand at the end of 1908, and the rate per 1,000 inhabitants of each sex, will show considerable variation in the rate of insanity:—

State.	Number of Insane.			Per 1,000 of Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ... ..	3,356	2,317	5,673	3.90	3.11	3.53
Victoria ... ..	2,579	2,532	5,111	4.03	4.00	4.01
Queensland ... ..	1,358	831	2,189	4.47	3.27	3.92
New Zealand ... ..	1,909	1,331	3,240	3.82	3.02	3.45

The remarkable difference arises between the Australian States and England and Wales that in England the greater proportion of insanity is found amongst women, whereas in Australia it is found amongst men. In England and Wales the rate per 1,000 males in 1907 was 3.42, and per 1,000 females 3.71.

The number of admissions to hospitals for the insane during the last twenty years, and the proportion per 1,000 of the mean population, are given below:—

Year.	Admissions and Readmissions.	Proportion to population per 1,000.	Year.	Admissions and Readmissions.	Proportion to population per 1,000.
1889	550	0.52	1899	796	0.60
1890	611	0.55	1900	859	0.63
1891	596	0.52	1901	848	0.62
1892	666	0.57	1902	947	0.68
1893	688	0.57	1903	1,065	0.75
1894	712	0.58	1904	1,020	0.71
1895	715	0.57	1905	1,009	0.68
1896	740	0.58	1906	1,123	0.74
1897	692	0.54	1907	977	0.63
1898	730	0.56	1908	969	0.60

From the figures above, it appears that the rate of admissions was lowest in 1889 and 1891, when the proportion was 0.52 per per 1,000 of population, and afterwards it increased gradually until 1899. From 1900 the increase has been more pronounced, till the proportion reached 0.75 in 1903, in which year there was a large number of readmissions. In the next two years the rate decreased, but in 1906 the largest number of readmissions was recorded, and the total rate reached 0.74. Prior to 1893 there was no law in force to prevent the influx of insane into the State. In that year new legislation rendered the owner, charterer, agent, or master of a vessel liable for the maintenance of any insane person landed in the State.

Omitting the rare cases where patients have absconded, the next table shows, in quinquennial periods, in comparison with 1908, the total number of patients who were discharged from the hospitals, either on account of recovery, permanent or temporary, or who died, and the proportion borne by each to the average number resident during each period:—

Period.	Average Number Resident.	Discharged—recovered or relieved.		Died.	
		Number.	Per cent. of Average Number Resident.	Number.	Per cent. of Average Number Resident.
1883-1887	12,678	1,246	9·83	876	6·91
1887-1892	14,964	1,465	9·79	1,026	6·86
1893-1897	17,863	1,742	9·75	1,148	6·43
1898-1902	20,796	2,045	9·83	1,381	6·64
1903-1907	24,940	2,419	9·70	1,848	7·41
1908	5,362	467	8·71	402	7·50

Therefore it appears that the percentage of discharged patients is fairly constant, but the percentage of deaths is increasing.

Juvenile lunatics are sent usually to the Hospital for the Insane at Newcastle—an asylum reserved for imbecile and idiot patients.

In the following table is shown the incidence of the various causes of insanity. The calculations have been based on the apparent or assigned causes in the cases of all patients admitted and readmitted into the asylums and licensed houses for the insane during the last quinquennium. For purposes of comparison the experience of England and Wales is added:—

Cause.	Males.		Females.	
	New South Wales.	England and Wales.	New South Wales.	England and Wales.
	per cent.	per cent.	per cent.	per cent.
Domestic trouble, Adverse circumstances,				
Mental anxiety ... ..	9·99	11·12	14·30	12·58
Intemperance in drink ... ..	15·34	15·73	8·27	6·31
Hereditary influence, or Congenital defect, ascertained ... ..	15·48	19·14	16·92	21·39
Functional disorders ... ..	.....	.....	10·66	9·50
Previous attacks ... ..	13·71	11·27	13·82	15·60
Accident, including Sunstroke ... ..	5·01	3·83	1·10	0·67
Old age... ..	6·05	5·48	4·12	6·21
Puberty ... ..	2·78	1·03	2·24	1·16
Epilepsy and diseases of skull and brain ... ..	4·42	} 20·38 {	} 3·46 {	16·28
Other ascertained causes ... ..	13·04			
Unknown ... ..	14·18	12·02	9·82	10·30
Total ... ..	100·00	100·00	100·00	100·00

Intemperance in drink is stated to be a fruitful cause of insanity, but the above table shows that hereditary influence is also an important factor, both here and in England. Amongst females the chief causes of insanity are hereditary influence and domestic troubles. It is believed that hereditary influence and congenital defect are responsible in New South Wales for a much larger percentage of cases than the number shown in the table, and that of the unknown causes the great majority should be ascribed to hereditary influences. The small proportion of cases from these two causes is due

to the difficulty in obtaining knowledge of the family history of many who enter the asylums.

The average weekly cost of maintaining insane patients during the year 1908 was about 11s. 10 $\frac{3}{4}$ d. per head, of which the State paid 9s. 8 $\frac{1}{4}$ d., the balance being derived from the estates of the patients themselves, or from their friends. The subjoined table shows the average weekly cost per head, and the average private contributions, from 1899 to 1908:—

Year.	Average number	Cost of maintenance	Cost per head	Contribution	Total weekly
	per head.	of Patients.	to State.	per head from private sources.	cost per head.
	No.	£	s. d.	s. d.	s. d.
1899 ... ..	3,969	114,451	9 5 $\frac{1}{2}$	1 7 $\frac{1}{2}$	11 1
1900 ... ..	4,131	115,790	9 2	1 7 $\frac{1}{2}$	10 9 $\frac{1}{2}$
1901 ... ..	4,225	123,531	9 5 $\frac{1}{4}$	1 9 $\frac{1}{2}$	11 2 $\frac{1}{4}$
1902 ... ..	4,376	143,253	10 11 $\frac{1}{4}$	1 7 $\frac{1}{2}$	12 7
1903 ... ..	4,580	151,309	10 10	1 10 $\frac{1}{2}$	12 8 $\frac{1}{2}$
1904 ... ..	4,742	139,974	9 5 $\frac{3}{4}$	1 10 $\frac{1}{2}$	11 4 $\frac{1}{4}$
1905 ... ..	4,901	137,971	8 9 $\frac{3}{4}$	2 0 $\frac{1}{4}$	10 10
1906 ... ..	5,115	143,245	8 8 $\frac{1}{2}$	2 0 $\frac{3}{4}$	10 9 $\frac{1}{4}$
1907 ... ..	5,285	149,728	8 9	2 1 $\frac{3}{4}$	10 10 $\frac{3}{4}$
1908 ... ..	5,438	165,428	9 8 $\frac{1}{8}$	2 2 $\frac{1}{4}$	11 10 $\frac{3}{8}$

In the course of the last ten years the number of patients resident in the hospitals for insane has increased by 29·8 per cent.; and during the same period the increase in expenditure has been 42·9 per cent.

#### DIVORCES.

Since the passing of the existing Act of 1892, by which the grounds of divorce were extended, the business of the Divorce Court has increased, so that out of a total of 6,059 petitions for divorce, 535 for judicial separation, and 59 for nullity of marriage, presented to the Court from 1873 to the end of 1908, no less than 5,231 petitions for divorce, 455 for judicial separation, and 49 for nullity of marriage, representing 86 per cent. of the total petitions, have been presented in the course of the last sixteen years. Of the 6,059 petitions for divorce, 1,589 were presented *in formâ pauperis*.

The following statement shows the divorces, judicial separations, and decrees of nullity of marriage granted in New South Wales since the year 1873:—

Period.	Divorces.		Judicial Separation granted.	Nullity of Marriage.	
	Decrees nisi.	Decrees absolute.		Decrees nisi.	Decrees absolute.
1873-1877	55	33	...	...	...
1878-1882	85	70	...	...	...
1883-1887	141	120	8	2	2
1888-1892	305	224	31	5	5
1893-1897	1,403	1,303	55	7	7
1898-1902	1,183	1,093	89	12	12
1903-1907	983	830	61	13	10
1908	196	195	15	3	...
Total ... ..	4,351	3,873	259	42	36

Prior to 1873 no Divorce Act had been passed and, therefore, no divorces were granted in the State. From the 1st July in that year down to the end of 1892 the number of divorce decrees made absolute was 447. In the

month of August, 1892, the present Divorce Act came into force, and in 1893 the number of decrees was 247, rising in the following year to 288; but in 1908 the number had decreased to 195. The number of divorces per 10,000 marriages in New South Wales was 347 during the two years 1893-94, 277 during the five years 1895-99, 206 during the five years 1900-04, and 133 during the four years 1905-8. It is only fair to assume that after the new Act was passed in 1892 advantage was taken of its provisions to dissolve marriages which would have been broken long before had the grounds on which divorce is granted always been the same; and this, no doubt, accounts for the diminished number of divorces granted since 1895. Bearing this in mind, however, it is clear that the number of decrees absolute in 1908 was still very large.

Reckoning as a divorce only those cases where the decree has been made absolute, the total number of decrees, from 1873 to 1908, was 4,168, of which 3,873 were divorces, 36 cases of nullity of marriage, and 259 judicial separations. In the following pages, where certain particulars of divorce are given, these 4,168 cases are considered as a whole.

The total number of decrees granted at the instance of the husband was 1,273; and at the instance of the wife 2,895. The next statement gives the sex of the petitioner for each case of divorce, judicial separation, and nullity of marriage:—

	Divorce.	Judicial Separation.	Nullity of Marriage.
Husband ... ..	1,222	31	20
Wife ... ..	2,651	228	16

Of every 100 decrees granted in the State, the wife has been the petitioner in 69, and the husband in 31 cases.

In three out of every ten successful divorce petitions, relief is sought on more than one ground, and to give a statement of the grounds as they are set forth in the petitions would be to enter into useless detail. The appended table, therefore, shows only the more important grounds.

Grounds of Suit.	Divorces (Decrees <i>Nisi</i> made absolute).	Judicial Separation granted.	Decrees of Nullity of Marriage made absolute.	Total.
Adultery ... ..	1,293	36	...	1,329
„ and cruelty, desertion ... ..	296	22	...	318
„ „ habitual drunkenness, &c. ... ..	58	4	...	62
„ „ other grounds ... ..	8	1	...	9
Bigamy and adultery, cruelty, and desertion	37	...	23	60
Cruelty ... ..	1	79	...	80
„ and desertion, habitual drunkenness, &c. ... ..	263	20	...	283
Desertion ... ..	1,694	10	...	1,704
„ and habitual drunkenness, &c. ... ..	48	...	...	48
„ „ other grounds ... ..	11	...	...	11
Habitual drunkenness and neglect to support, &c. ... ..	108	5	...	113
Imprisonment for three years and upwards	21	...	...	21
Lunacy of petitioner ... ..	...	...	1	1
Repeated assaults and cruel beatings ... ..	30	...	...	30
By consent, without admissions ... ..	...	82	...	82
Others ... ..	5	...	12	17
Total ... ..	3,873	259	36	4,168

The religious denomination, as shown in the marriage certificate, is that of the minister officiating at the marriage ceremony, and, except in the case of matrimonial agencies, represents the religious belief of at least one of the parties. In the following table is shown the denomination of marriages in all cases of divorce, judicial separation, and nullity of marriage:—

Denomination.	Divorces, Judicial Separations and Nullity of Marriage.	Denomination.	Divorces, Judicial Separations, and Nullity of Marriage.
Church of England ... ..	1,686	Church of Christ ... ..	10
"    "    Free ... ..	19	Unitarian ... ..	13
Roman Catholic ... ..	416	Hebrew ... ..	30
Methodist ... ..	468	Others ... ..	31
Presbyterian ... ..	595	Registrar ... ..	387
Baptist ... ..	69	Not stated ... ..	25
"    Independent ... ..	16	Matrimonial Agencies ... ..	99
Congregational ... ..	290		
Lutheran ... ..	14	Total ... ..	4,168

From this table it appears that of the 4,168 divorces, &c., up to the end of 1908, 1,686, or 40·4 per cent. of the marriages were solemnised by the Church of England, the next in order being the Presbyterians with 595, or 14·3 per cent., followed by the Methodists, 468 (11·2 per cent.); Roman Catholics, 416 (10·0 per cent.); and Congregational, 290 (7·0 per cent.). In 387 cases, or 9·3 per cent., the ceremony had been performed at a Registrar's office, and in 99 cases (2·3 per cent.) at matrimonial agencies.

Of the 4,168 couples who were divorced or judicially separated, or whose marriage was declared null, the duration of marriage ranged from one to fifty years, as shown in the appended table:—

Duration in Years.	Divorce, Judicial Separation, and Nullity of Marriage.	Duration in Years.	Divorce, Judicial Separation, and Nullity of Marriage.
1	38	30-34	56
2	52	35-39	20
3	97	40-44	8
4	199	45	2
5-9	1,344	47	1
10-14	1,150	50	1
15-19	698		
20-24	337		
25-29	165	Total ... ..	4,168

It thus appears that 386 couples, or 9·2 per cent. of the total, had been married for a period of less than 5 years; 1,344, or 32·2 per cent. of the whole number, had been married for periods ranging from 5 to 10 years; 1,150, or 27·6 per cent., between 10 and 15 years; and 698, or 16·7 per cent., between 15 and 20 years. In no less than 502 cases the duration of the marriages was between 20 and 30 years; and in 88 cases the period was even greater, extending, indeed, over 40 years in the case of 12 couples; the average duration of marriage for the 4,168 dissolutions being 13·0 years.

The following table shows the number of children to each family, also the cases where no issue was born to the marriage:—

Number of Children.	Divorce, Judicial Separation, and Nullity of Marriage.	Number of Children.	Divorce, Judicial Separation, and Nullity of Marriage.
0	1,333	10	10
1	1,011	11	9
2	692	12	4
3	425	13	1
4	242	14	1
5	153	15	1
6	109	Not stated ...	36
7	61		
8	43		
9	37		
		Total ...	4,168

In 32·0 per cent. of the cases in which the decree was granted, the ties between the parties had not been strengthened by the birth of children; for of the 4,168 successful petitions for divorce, judicial separation, or nullity of marriage, no less than 1,333 were childless unions, while the number may have been even larger, as in 36 other cases the information did not disclose the necessary particulars regarding the fruitfulness of the unions. The number of children affected by the other 2,799 decrees was 7,468.

The conjugal condition prior to marriage of the contracting parties to the marriages concerning which the petitions for divorce and nullity of marriage were made absolute, and judicial separations were granted, is shown in the following table:—

Conjugal Condition of Males.	Conjugal Condition of Females.				Total Males.
	Spinster.	Widow.	Divorced.	Not stated.	
Bachelor ... ..	3,503	172	17	...	3,692
Widower... ..	156	61	5	1	223
Divorced ... ..	11	4	2	...	17
Not stated ... ..	53	10	...	119	182
Total, Females ...	3,723	247	24	420	4,114

These figures are exclusive of 35 decrees made absolute on account of a previous marriage, as in 33 cases the husband was previously married and the wife in 2 cases. There were also 19 nullity suits made absolute, 8 on account of the previous existing marriage of the husband, and 11 on account of the previous existing marriage of the wife.

The ages of the parties are not of great value unless combined with the duration of marriage. The large number whose ages are not ascertained also detracts from the value of the information. The ages were unknown in 803 marriages, or 19·2 per cent. of the total, and of the remaining 3,365, it may be said that the great majority related to marriages contracted between parties of suitable ages, 2,340 being between husbands of the ages from 21 to 39 years inclusive, and wives of the ages from 18 to 30 years inclusive. In 885 cases, however, the marriage had been contracted at very early ages, the husband being below 21 years in 359 cases, and the wife below 18 in 528 cases, while there were 140 cases in which the husband was less than 21 and the wife less than 18 at the time of marriage. There were only 114 cases in which the husband had been 40 or over at the time of marriage, and 133 in which the wife had been 31 or over, while unions in which the husband had been 40 or over and the wife 31 or over numbered but 50.

## HABITATIONS OF THE PEOPLE.

The houses of the people are important indications of social condition, as the dwellings, according to the materials of which they are built, the number of rooms, and the number of occupants, are indirect measures of the well-being of the persons who inhabit them.

The following statement shows the various kinds of habitations, the number of occupants, and the proportion of each to the total at the census of 1901:—

Dwellings.	Number.	Occupants.	Proportion per cent.		Occupants per Dwelling.
			Dwellings.	Occupants.	
Inhabited—					
Private dwellings ... ..	237,448	1,221,571	88·35	90·70	5·14
Boarding-houses ... ..	4,045	42,336	1·50	3·14	10·47
Hotels ... ..	3,093	35,544	1·15	2·64	11·49
Other households ... ..	368	6,664	·14	·50	18·11
Institutions ... ..	452	18,978	·17	1·41	41·99
Tents and camps ... ..	7,096	18,227	2·64	1·35	2·57
Total inhabited ... ..	252,502	1,343,320	93·95	99·74	5·32
Uninhabited ... ..	14,831	.....	5·52	.....	.....
Being built ... ..	1,438	.....	·53	.....	.....
Migratory population ... ..	.....	8,500	.....	·26	.....
Total ... ..	268,771	1,346,820	100·00	100·00	.....

Private dwellings sheltered 90·7 per cent., boarding-houses 3·1 per cent., and hotels 2·6 per cent. of the people. Hotels numbered 3,093, or a proportion of 1 to every 440 of the population.

The dwellings, including inhabited, uninhabited, and those under construction, classified according to the materials of which they were built were as follows in 1901:—

Material of which built.	Number.	Proportion per cent.
Stone ... ..	10,793	4·02
Brick ... ..	92,879	34·56
Concrete, adobe, pisé ... ..	1,525	0·57
Iron ... ..	5,380	2·00
Wood ... ..	140,482	52·27
Lath and plaster, mud, bark ... ..	4,952	1·84
Canvas, calico ... ..	8,874	3·30
Indefinite, unspecified ... ..	3,886	1·44
Total ... ..	268,771	100·00

The principal materials used for building are wood and bricks, more than half the dwellings being built of the former material, and over one-third of the latter; 4 per cent. are built of stone, and 2 per cent. of iron. The dwellings constructed of canvas and calico are tents in nearly all instances.

The next table shows the number of houses of various sizes, and the distribution of their occupants:—

Number of Rooms in House.	Number of Houses.	Occupants.	Proportion per cent.		Persons to a House.
			Houses.	Occupants.	
1	6,755	10,209	2·78	·79	1·51
2	14,079	41,160	5·90	3·18	2·92
3	23,340	92,865	9·61	7·17	3·98
4	50,858	241,683	20·95	18·65	4·75
5	55,294	292,060	22·77	22·54	5·28
6	40,246	236,280	16·57	18·23	5·87
7 to 10	42,825	283,975	17·64	21·92	6·63
11 to 15	6,764	57,246	2·79	4·42	8·46
16 to 20	1,533	17,579	0·63	1·36	11·47
Over 20	1,123	22,633	·46	1·74	20·15
Not stated ...	2,137	10,425	.....	.....	.....
Total ...	244,954	1,306,115	100·00	100·00	5·33

It will be seen that 57 per cent. of the houses contained from 5 to 10 rooms, and that nearly two-thirds of the population were living in them, the average number of occupants per room being under one; while slightly over 30 per cent. of the houses contained 3 and 4 rooms, and were occupied by slightly more than one-fourth of the population.

#### DOMESTIC SERVANTS.

The following statement shows the number of domestic servants who were employed in the various classes of households at the census of 1901:—

Class of Household.	Total Households.		Households employing domestic servants.	
	Number.	Occupants.	Number.	Number of servants.
Private families ...	237,448	1,221,571	21,885	28,703
Boarding-houses ...	4,045	42,336	1,010	1,696
Hotels ... ..	3,093	35,544	2,455	6,043
Other households ...	822	25,652	361	942
Total... ..	245,408	1,325,103	25,711	37,384

Only those domestic servants are included above who were known to be sleeping at their place of work; there were in addition, 2,902 sleeping away from their place of work on the night of the census.

The principal feature of the above table is the number of servants employed in private families, and it will suffice perhaps if these only are considered, as in boarding houses and hotels servants are more or less necessary for the proper conduct of the business. At 3,035 boarding-houses and 638 hotels apparently no servants were employed.

It is found that in private families 2·4 per cent., in boarding-houses 4·0 per cent., and in hotels 1·7 per cent. of the total occupants were servants.



The next table distributes the servants of private families according to the number employed, and to the size of the house where they were employed :—

Number of Rooms in House.	Total House- holds.	Households employing specified number of Servants.					Total House- holds employing Servants.	Total Servants employed.
		0	1	2	3	4 and over.		
1 and 2 ...	20,823	20,760	61	2	.....	.....	63	65
3 and 4 ...	73,990	72,167	1,775	47	1	.....	1,823	1,872
5 and 6 ...	94,343	88,072	5,955	280	28	8	6,271	6,634
7 to 10 ...	40,651	30,461	8,140	1,644	357	49	10,190	12,706
11 to 15 ...	4,763	1,986	1,216	893	462	206	2,777	5,301
16 to 20 ...	637	154	111	129	115	128	483	1,334
Over 20 ...	195	33	22	30	33	77	162	619
Not stated ...	2,046	1,930	82	19	9	6	116	172
Total ...	237,448	215,563	17,362	3,044	1,005	474	21,885	28,703

As the houses increase in size the proportion employing servants increases, and the proportion of servants themselves increases. The greater number of households employ only one servant. Altogether, 9·2 per cent. of the private families employ a servant; in the Metropolis the proportion is 11·3 per cent., and in the remainder of the State 8 per cent. The number of servants employed averaged 12·1 to every 100 families in New South Wales, 14·9 to every 100 in the Metropolis, and 10·5 to every 100 in the country.

## LOCAL GOVERNMENT.

THE development of a system of local government in New South Wales has been extremely slow, as until 1906 less than 1 per cent. of its area was incorporated.

In 1894 a Bill was submitted to the Legislative Assembly, providing for the division of the entire area of the State into boroughs, municipal districts, and shires; but in consequence of the insertion in the Bill of a clause which they considered contrary to a vital principle, the Government abandoned the measure. Other measures were introduced from time to time with no better result, and it was not till the years 1905 and 1906 that legislation was passed giving the State full local government.

The Act of 1842, by which the City of Sydney was incorporated, contained no provision for conferring municipal privileges on other localities; but in 1843 the first step was taken towards the extension of the system to the country districts, by the incorporation, under letters patent, of Campbelltown, Appin, Camden, Narellan, and Picton, as one district council, which was subdivided into two, during the same year, by the formation of Campbelltown and Appin into separate councils.

In 1844 the number of country district councils had increased to eight, and these, in conjunction with the Municipal Council of Sydney and the Road Trusts, subsequently established, constituted the whole of the local government system prior to 1858. In the latter year the first important measure relating to general municipal government was enacted. An Act was passed, making provision for dissolving the district councils, and placing the area controlled by them under municipal bodies. Under its authority thirty-five districts were incorporated, which, with the exception of Cook, joined to Camperdown in 1870, and East St. Leonards and Victoria, subsequently united to St. Leonards, still exist, although the boundaries of nearly one-half have been altered.

Under the Act of 1858, the municipal council was elected by the ratepayers, and its most important functions were to make by-laws for the good government of the municipality; to control roads, bridges, and ferries; and to remove nuisances. The general rate was limited to one shilling in the £ on the annual value of ratable property, but a special rate for water supply, sewerage, and street lighting was permissible. Endowment by the Government was provided during a term of fifteen years, based on the amount of general rates actually collected. No district, however populous, was obliged to become incorporated, and it was only on the presentation of a petition, signed by at least fifty of the prospective ratepayers, and containing a larger number of signatures than those attached to any counter petition, that a municipality could be formed.

The Act of 1858 was repealed by the Municipalities Act of 1867. Under this Act the thirty-five existing municipalities were continued as boroughs, and all areas incorporated in the future were to be classified either as boroughs or municipal districts. Boroughs might include any city, town, or suburb of the metropolis, or any populous country district with

a population exceeding 1,000 persons and an area not less than 9 square miles. Municipal districts might include any area not containing a borough, with a population not less than 500 and an area not more than 50 square miles.

The powers of the councils were extended slightly, and the rate remained as before. It was still left optional for any district to become incorporated, and consequently local government was not generally adopted.

The Municipalities Act of 1897 consolidated the Acts and Amending Acts which had been passed from time to time, but did not alter their principles. The voluntary principle of incorporation which was retained was not conducive to the adoption of a general system of local government, as it was natural that, so long as the central Government continued to construct local works, the persons benefited would submit to the absence of local management of their affairs.

The Shires Act, passed at the close of the year 1905, provides for the compulsory division of the State, with the exception of existing municipalities, the whole of the Western Division, the quarantine station, Lord Howe Island, and the Islands in Port Jackson, into local government areas called shires. A sum, not less than £150,000, is paid as endowment annually from the Consolidated Revenue Fund, in the following proportions, viz.:—First-class shires, from nil up to 10s. per £; second-class, 15s. per £; third-class, 20s.; fourth-class, 25s.; fifth-class, 30s.; and sixth-class, 40s. or more. These endowments are payable on the amount of general rates received during the preceding year, but if the necessities of the shire do not warrant an endowment, it will not be paid. The endowment is to be fixed triennially, according to the area, revenue, and expenditure of the shires.

The councils may exercise the following powers:—The care, control, construction, fencing, and maintenance of all public places, except those vested in the Railway Commissioners, or other public bodies, or trustees, and except national works; regulation of traffic; street and road lighting; prevention of bush fires; flood relief and prevention; construction and maintenance of streets, jetties, wharves, and buildings for the transaction of business; and the administration of the Impounding and Public Watering Places Acts. Other powers may be acquired from time to time if the council decide that they are necessary for the good of the shire. Among these are prevention of nuisance; water supply; regulation and licensing of public vehicles and hawkers; management of parks and commons; and the administration of the Public Gates Act and the Native Dog Destruction and Poisoned Baits Act.

The shires are divided into ridings, each riding having equal representation on the council. The members are called councillors, one of whom is elected president. All owners and occupiers of ratable property of annual value not less than £5, over 21 years of age, male and female, unless not naturalised, are entitled to be entered on the electors' roll, and any male person enrolled is qualified to be nominated as a councillor. The usual conditions as to disqualification are provided, also the penalties for acting while not properly qualified. Elections are held triennially, the first of which was on 1st February, 1908.

An important provision in the Act is that the rates are charged on the unimproved value of the land, and not on the annual rental. The rate to be levied must be not less than one penny, nor more than two-pence in the £, unless the minimum rate is more than sufficient to meet the requirements of the shire, in which case representations may be made

to the Governor, who may permit a rate of less than 1d. to be levied. The ratable value of coal-mines is fixed at 50 per cent. of the gross value of the average annual output for the preceding three years, and of other mining properties at 40 per cent. for the same period. The minimum rate in respect of any portion of land is fixed at 2s. 6d. Another important feature of the Act is that when the council imposes a rate of 1d. in the £ on the unimproved capital value, the operation of the Land Tax is suspended. The properties exempt from taxation are:— Commons, parks, cemeteries, hospitals, benevolent institutions, churches, free public libraries, and unoccupied Crown lands.

As already mentioned, amending Bills were introduced at various times, notably in 1894 and 1901; but in 1906 a very comprehensive measure, the Local Government Extension Act, was passed by Parliament.

The first important provision of the 1906 Act is that for the establishment of cities. The Governor may proclaim as a city, any municipality which has had, during the preceding five years, a population exceeding 20,000 persons and a revenue of £20,000, and is an independent centre of population. During the year 1907 the Municipality of Broken Hill was proclaimed a city, in accordance with the Act.

It is also enacted that all municipalities not receiving statutory endowment under the existing Act, if found on investigation to be in necessitous circumstances, shall be entitled to a sum not exceeding 3s. 4d. in the £ on the general rate collected; but if the revenues are sufficient to meet the reasonable requirements under proper management of the corporations, endowment will not be paid.

The rates are levied on the unimproved value, at an amount to be fixed per £, which must be not less than 1d., but if this rate is more than sufficient to meet the requirements of the municipality it may be reduced. A council which has levied the general rate of 1d. on the unimproved value may impose such additional rate as may be required either on the improved or unimproved value. Special, local, and loan rates may also be imposed on the improved or unimproved value at the option of the council. The conditions as to ratable value are similar to those of the Shires Act, and electors will be enrolled on the same franchise as exists under that Act.

Other important provisions are the power to borrow up to 10 per cent. of the unimproved value, such loans to be guaranteed by the Government; redistribution and reconstruction of existing areas, so that the municipalities may form portions of shires; acquisition of land and works; control of cattle-slaughtering and public health; dealing with noxious animals and plants; safety of the public; regulation of hoardings and other structures. The Governor may proclaim any park, road, bridge, or other public work to be a national work which will be maintained by the State, but which may be handed over to the council at any time. Auditors are appointed, not elected, and Government examiners inspect the accounts.

The Local Government Act of 1906, passed towards the end of that year, deals fully with both shires and municipalities, and came into operation on 1st January, 1907, as regards shires, and on 1st January, 1908, as regards municipalities. It repeals the Shires Act of 1905 and the Local Government Extension Act of 1906, and consolidates their provisions. Under an amending Act passed at the end of 1908, councils must cause a valuation of all ratable land to be made at least once in every three years; provided that they may adopt for any period the whole or any part of the valuations in force at the close of the preceding period.

Before the Local Government Act of 1906 came into operation, a very small portion of the State had been incorporated, as will be seen in the statement below, which gives the area incorporated and unincorporated in 1906 in the three great land divisions of the State:—

Division.	Incorporated.	Unincorporated.	Total.
	sq. miles.	sq. miles.	sq. miles.
Eastern ... ..	1,977	93,742	95,719
Central ... ..	571	88,579	89,150
Western ... ..	282	125,216	125,498
Total ... ..	2,830	307,537	310,367

The area incorporated in the Western Division included 41 square miles, the area of the Municipality of Silverton, near Broken Hill, which is now defunct.

On the 31st December, 1908, the area incorporated was as follows, the only part of the State unincorporated being that portion of the Western Division not included in Municipalities. The population in the different groups is also given:—

	Area (sq. miles).	Population.
In Metropolitan Municipalities... ..	149	592,100
In Country Municipalities ... ..	2,848	444,800
In Shires ... ..	182,113	547,800
Total (incorporated)... ..	185,110	1,584,700
Western Division (portion unincorporated) ... ..	125,257	20,309
Total ... ..	310,367	1,605,009

#### INCORPORATION OF THE CITY OF SYDNEY.

The City of Sydney was incorporated on the 20th July, 1842, under the Sydney Municipal Council, the election of aldermen taking place on the 9th November. Mr. John Hosking was the first Mayor. The city was originally divided into six wards, but at a subsequent adjustment the number was increased to eight.

After a few years, great dissatisfaction arose in the minds of the citizens as to the manner in which the affairs of the Corporation were conducted. A Select Committee of the Legislative Council was appointed in 1849 to inquire into the matter, and reported in favour of the abolition of the Municipal Council, with a recommendation that its powers should be vested in three Commissioners. This was not carried into effect until 1853, when the Corporation was dissolved, and its authority was transferred to a Commission of three persons, who administered the affairs of the city from the beginning of 1854 to the end of 1857, when a new Council, under the original conditions, came into existence. Mr. George Thornton was the first Mayor under the changed order of things, and there were sixteen aldermen—two for each ward. By the Sydney Corporation Act of 1879 the number of aldermen was increased to twenty-four, being three representatives for each ward.

Towards the close of 1900 an Amending Act was passed, dividing the city into twelve wards, each returning two aldermen. The innovation of retiring the whole of the aldermen simultaneously was introduced by a provision for the election of a new Council on the 1st December in every second year, re-election of qualified persons being permitted. A candidate is debarred from expending more than £50 in his endeavour to obtain a seat in the Council. The penalty for exceeding that amount is a fine of

£20; and, in the case of an elected candidate, the election is to become void. Another change brought about by the Act is the enfranchisement of sub-tenants and lodgers. Power is given also to the Council to resume land required for opening or enlarging streets and other public places.

The Sydney Corporation Act of 1902 consolidated the statutes previously passed relating to the City of Sydney.

In 1905 a further Amending Act was passed to provide for the better government of the city, especially with regard to the control of hoardings, the proper cleansing of footways, the prevention or regulation of the smoke nuisance from furnaces and chimneys, the regulation and control of refreshment stalls and stands, the control of juvenile hawkers and shoeblacks, and the prevention of betting in public places. The tenure of office of the aldermen was altered to three years.

The Act also regulates the election of the city members of the Metropolitan Board of Water Supply and Sewerage, and the Fire Brigades Board, and extends the power of the Council as regards resumptions, in order to provide workmen's dwellings, and further provision is made for the extension of the city boundaries.

In 1908 an Amending Act was passed, containing several important provisions. Commencing with the year 1909, the Council must levy a rate, not less than one penny in the £, upon the unimproved capital value, which rate is to be in addition to any rate under the Act of 1902. It is provided, however, that the total amount leviable shall not exceed the amount which would be yielded by a rate of three pence in the £ on the unimproved capital value, and two shillings in the £ on the average annual value, taken together, of all ratable property. On the Council imposing such rate on the unimproved capital value, the land tax is suspended. The valuation of the unimproved capital value is to be made at least once in every five years. The Municipality of Camperdown was amalgamated with the City of Sydney as from the 1st January, 1909. The Council was empowered to establish public libraries and milk depôts, to control certain parks, and to widen certain streets. Belmore Markets, the Lending Branch of the Public Library, and various parks and public ways were vested in the Council by the Government under certain conditions.

#### MUNICIPALITIES.

The Sydney Corporation Act of 1902 directs that improved property within the city shall be assessed at a fair average annual value, with an allowance for outgoings not exceeding 10 per cent., and the unimproved property at a maximum of 6 per cent. on its capital value; and on the value of such assessment a city rate not exceeding 2s. in the £ may be levied, exclusive of lighting. The rate stood at 16d. from 1891 to 1899, but was increased to 18d. for 1900, and 24d. for 1901. In 1902, it was reduced to 22d., and still further reduced to 21d. in 1903, which was also levied from 1904 to 1908. The Act provides for a special local rate not exceeding 6d. in the £ of annual value, for any work which may be for the particular benefit of one locality, but then only if two-thirds of the ratepayers of such locality petition for the same. Occasional advantage of this power has been taken for street-watering, though not of late years, and the amount now levied covers the expenses of street-lighting and street-watering.

The other Councils were empowered to raise revenue by rates not exceeding 1s. in the £ for ordinary purposes and the same amount for special purposes, with 6d. in addition for street-watering. The amount of each rate was calculated upon nine-tenths of the fair average annual

rental of all buildings and cultivated lands, or lands let for pastoral, mining, or other purposes, and upon 5 per cent. of the capital value of the fee-simple of all unimproved lands.

Municipalities which avail themselves of the provisions of the Country Towns Water and Sewerage Act of 1880 are empowered to levy a rate for each service not exceeding a maximum of 10 per cent. on the assessed annual value of land and tenements, in addition to the ordinary municipal rates. Under the Local Government Act, however, a water rate equivalent to this maximum of 10 per cent. on the assessed annual value must be levied either on the unimproved or the improved capital value of lands within the reticulated area.

On the 30th June, 1909, there were forty municipalities with water-works constructed under the provisions of the Act, and eight with sewerage works, but the water-works at Manly, Richmond, and Wollongong were subsequently transferred to the control of the Metropolitan Board of Water Supply and Sewerage.

In order to aid municipalities in providing for the expenditure in their formative stages, the original Act provided for endowment by the State during a period of fifteen years. In each of the first five years after incorporation, every municipality is entitled to a sum equal to the whole amount actually raised by rates or assessments; in each of the next succeeding five years, a sum equal to one-half; and in each of the next succeeding five years, a sum equal to one-fourth of the amount so received. After the expiry of these fifteen years, such assistance ceases, and further aid from the State must be obtained by special grant. At the end of 1908 there were nineteen municipalities entitled to statutory endowment.

#### VALUATIONS.

It has already been explained that under the Local Government Act of 1906 the basis of rating was changed. The valuations for 1908, therefore, cannot be compared with those for previous years, and the following table relates to the ten years ended 1907, the last under the Municipalities Act. It will be observed that, with the exception of the annual value of rateable property in the country districts, both the annual and capital values have increased each year:—

Year.	Sydney and Suburbs.		Country Municipalities.		Total.	
	Annual Value.	Capital Value.	Annual Value.	Capital Value.	Annual Value.	Capital Value.
	£	£	£	£	£	£
1898 ... ..	4,992,860	87,232,900	2,413,950	33,698,000	7,406,810	120,930,900
1899 ... ..	5,005,300	87,495,300	2,416,900	33,749,800	7,422,200	121,245,100
1900 ... ..	5,060,500	88,348,700	2,836,130	36,429,600	7,896,630	124,778,300
1901 ... ..	5,165,030	89,587,100	2,920,500	37,936,300	8,085,530	127,523,400
1902 ... ..	5,384,020	91,988,200	2,624,890	36,606,500	8,008,910	128,594,700
1903 ... ..	5,617,640	96,132,300	2,681,750	38,046,700	8,299,390	134,179,000
1904 ... ..	5,850,840	98,803,300	2,675,200	38,355,800	8,526,040	137,159,100
1905 ... ..	5,969,940	100,434,200	2,741,390	39,223,700	8,711,330	139,657,900
1906 ... ..	6,071,480	101,833,800	2,770,620	39,417,000	8,842,100	141,250,800
1907 ... ..	6,310,420	103,328,200	2,961,570	41,668,300	9,271,990	144,996,500

The increase between 1898 and 1907 was considerable, the annual value having risen from £7,407,000 to £9,272,000, and the capital value from £120,931,000 to £144,996,500. Part of this increase was due to an additional number of districts incorporated, the area having increased from 1,769,000 to 1,920,000 acres; but when allowance is made for these it will still be found that the capital value increased to a large extent.

Property in the City of Sydney was in 1908 still rated on the basis of the annual rental value, and the following is a comparison of the values in 1908 and 1907:—

	1907.	1908.
	£	£
Annual value ... ..	2,323,040	2,499,730
Capital value ... ..	45,749,800	49,060,600

The valuations in the City of Sydney for the year 1909, in accordance with the Sydney Corporation (Amendment) Act of 1908 were:—Assessed annual value, £2,533,540; improved capital value, £50,670,700; unimproved capital value, £19,970,365. These figures include the values in Camperdown, which were:—Annual value, £61,940; improved capital value, £1,238,760; and unimproved, £249,439.

VALUATIONS AND RATING UNDER 1906 ACT.

Since the 1st January, 1908, under the Local Government Act of 1906, municipalities must levy a general rate on the unimproved capital value of all ratable land, and may levy additional general, special, local, or loan rates on either the unimproved or the improved capital value. Municipal rates are no longer charged on the annual value; the only rates based on that value are those charged by the Metropolitan and Hunter River Water Supply and Sewerage Boards.

The unimproved capital value of land is the amount for which the fee-simple estate in such land could be sold under such reasonable conditions as a *bonâ-fide* seller would require, assuming that the actual improvements had not been made.

The improved capital value is the amount for which the fee-simple estate of the land, with all improvements and buildings thereon, could be sold.

The general rate must be not less than 1d. in the £ on the unimproved capital value of all ratable land, and the total amount to be derived from the general rate and additional general rate taken together must not exceed the amount yielded by a rate of 2d. in the £ on the unimproved value and 1s. 6d. in the £ on the assessed annual value of all ratable land. In 1908, very few municipalities levied additional general rates, nearly all confining themselves to one general rate. The variation in the rates is rather remarkable. In the suburbs of Sydney they ranged from 1d. to 5d. in the £, and in the country from 1d. to 26½d. The number of municipalities levying the rates specified below was as follows, distinguishing suburban from country, and showing the unimproved capital value of the land in each class:—

General Rate Levied.	Number of Municipalities.		Unimproved Capital Value of Land.	
	Suburbs.	Country.	Suburbs.	Country.
1d. and under 2d....	1	32	£ 65,046	£ 4,491,741
2d. „ 3d....	11	34	5,891,753	6,160,326
3d. „ 4d....	17	43	11,167,566	5,392,731
4d. „ 5d....	9	26	4,856,869	2,149,236
5d. „ 6d....	3	9	1,818,622	840,367
6d. and over	Nil.	5	.....	1,070,582
Total ... ..	41	149	23,799,856	20,104,983

The majority of councils in both divisions levied rates between 3d. and 4d.; the next in number were between 2d. and 3d., and the next between 4d. and 5d. The municipalities which levied 6d. and over in the £ were Bourke and Scone each 6d., Aberdeen 7d., Broken Hill 7½d.,



and Wrightville 26½d. Only one council, Homebush, in the suburbs, and thirty-two in the country levied 1d.

As regards other than general rates, four municipalities levied additional general rates on the unimproved capital value, ranging from 1d. to 13d. in the £, and nineteen on the improved capital value, ranging from ½d. to 1d. in the £.

Seventeen municipalities levied special rates on the unimproved capital value ranging from ⅓d. to 2d. in the £, and four on the improved capital value ranging from ¼d. to ½d. in the £.

Thirty municipalities levied local rates on the unimproved capital value ranging from ¼d. to 20d. in the £, thirteen on the improved capital value ranging from ⅓d. to 2¼d., and two 1s. 3d. in the £ on the annual rental value.

Eight municipalities levied loan rates on the unimproved capital value ranging from ⅓d. to 1d. in the £, and two on the improved capital value — ⅓d. and ⅞d. respectively.

The rates levied amounted to £815,914, of which £743,964 were general rates.

It was generally supposed that, under the new system of rating, the unimproved values would be increased, and the following statement shows that this opinion was largely confirmed. The table is a comparison of the unimproved and improved values in 1908 and 1907:—

Division.	Unimproved Value.			Improved Value.		
	1907.	1908.	Increase.	1907.	1908.	Increase.
Sydney—City ...	£ 20,207,812	£ 20,207,812	Nil.	£ 45,749,800	£ 49,060,600	7·2
	Suburbs... 19,583,598	23,799,856	21·5	57,578,400	56,441,828	(-) 2·0
Metropolis	39,791,410	44,007,668	10·6	103,328,200	105,502,428	2·1
Country ...	14,875,612	20,104,983	35·2	41,668,300	44,784,238	7·5
Total ...	54,667,022	64,112,651	17·3	144,996,500	150,286,666	3·6

(-) Denotes decrease.

The increase in the value of unimproved land was more than one-third in the country and over one-fifth in the suburbs. The improved value did not increase to anything like the same extent, that in the suburbs actually decreasing by 2 per cent. In the country it increased by 7·5 per cent.

The difference between the unimproved and improved capital values is, of course, the value of improvements, and the following statement shows that in both the suburbs and country the value of improvements has declined largely:—

Division.	Value of Improvements.		
	1907.	1908.	Decrease.
Sydney—City ...	£ 25,541,988	£ 28,852,788	(+) 13·0
	Suburbs ...	37,994,802	32,641,972
Metropolis	63,536,790	61,494,760	3·2
Country ...	26,792,688	24,679,255	7·9
Total ...	90,329,478	86,174,015	4·6

(+) Denotes increase.

Thus it is seen that the value of improvements in the suburbs has been reduced by over £5,000,000, or 14 per cent., and in the country by more than £2,000,000, or 8 per cent.

The unimproved capital value of ratable land in municipalities is £64,113,000, and in shires £82,415,000, the total of the two being £146,528,000. If to this be added £10,000,000, the estimated unimproved value of unincorporated land in the Western Division, the unimproved value of the land of the State, excluding a small area exempt from taxation, is £156,528,000. The value placed upon land in the Western division is 2s. 6d. per acre, which is over 25 per cent. lower than in the shire in the west of the Eastern division with the lowest value per acre, and cannot be considered high.

The value of improvements in municipalities is £86,174,000, or 134 per cent. of the unimproved value. In the suburbs it is 137 per cent. and in the country 123 per cent. The value of improvements is not available for all the shires, but assuming that it is the same proportion of the unimproved value as the average in those which are known, namely, about equal to the unimproved value, a value of, say, £82,000,000 is obtained. In the Western division it may be placed at £10,000,000, so that for the whole State the following values are obtained:—

Division.	Unimproved Value of Land.			Value of Improvements.		
	Total.	Per Head.	Per Acre.	Total.	Per Head.	Per Acre.
	£	£	£ s. d.	£	£	£ s. d.
Sydney—City ...	20,208,000	171	6,987 11 0	28,853,000	244	9,976 16 8
Suburbs ...	23,800,000	50	257 13 4	32,642,000	69	353 7 11
Metropolis ...	44,008,000	74	461 19 8	61,495,000	104	645 11 1
Country Municipalities	20,105,000	45	11 0 7	24,679,000	55	13 10 9
Shires ...	82,415,000	150	0 14 2	82,000,000	150	0 14 1
Western Division (part unincorporated).	10,000,000	492	0 2 6	10,000,000	492	0 2 6
State ...	156,528,000	98	0 15 9	178,174,000	111	0 17 11

The real property of the State, worth £334,702,000, and equivalent to £209 per head, is a most valuable asset.

#### FINANCES.

The Local Government Act of 1906 prescribes that there must be a general fund in each local governing area (municipality or shire), to which must be paid the proceeds of all general and additional general rates, any moneys received by way of grant, endowment, &c., from the Government, and other income not required by law to be carried to other funds. The expenditure from the fund must be on administration, health, roads, and other public services.

In addition, in each local area there must be a special fund for each special rate levied, and for each work or service carried on by the council in respect of which the special rate has been made, and the fund may be applied only for the purposes of such work or service. A special rate is levied for a special purpose, and applies to the whole area. Likewise a local fund must be kept for each local rate levied, with similar restrictions to those in the case of special funds. A local rate is levied for a local

purpose, and applies only to that portion of the area which is benefited. The expenditure of the local fund is restricted to work within or for the sole benefit of that portion of the area.

Where any borrowed money is owing by a council a separate loan fund must be kept in respect of each work or service on which the loan is owing. Except where a Loan Fund has its own revenue as from rates, the obligations attendant thereon, such as provision for the repayment of principal and interest, may be met by transfers from the General Fund or other appropriate fund. The object of the loan, as a rule, determines the source from which the Loan Fund shall obtain its necessary revenue. When the loans have been raised for general purposes, transfers are made from the General Fund, and the profits of trading concerns provide for the disbursements of their corresponding loan funds.

The revenue of special and local funds may be used in a similar manner; for example—Street Lighting Special Fund must provide the money to meet not only the ordinary cost of maintaining the street lighting for the year, but also the obligations of the Street Lighting Loan Fund; and similarly with Sewerage, Water Supply, and other Special and Loan Funds.

The above has reference more particularly to those Loan Funds which must be kept in respect of loans, which were raised before the new Act came into operation, that is to say,—loans raised when the law did not require (as it does now) a loan-rate to be levied to pay interest and provide for the extinction within a fixed period of each loan raised. It is apparent, therefore, that all new loans will be self-supporting, quite apart from the question whether the loan undertakings are profitable or not. In these latter cases the councils may either use profits to swell the amount which is being provided to repay, or retain them in the working accounts of the undertakings (that is, in the Special, Local, or Trading Funds, as the case may be).

The Regulations under the Act prescribe the system of accounts to be kept. The accounts must be "Income and Expenditure Accounts," kept by double entry, and each "Fund" must have a separate banking account. Thus there is shown for each General, Special, Local, Loan or Trading Fund of each area concerned, a "Revenue Account" (or Profit and Loss Account), giving the total expenditure chargeable for the period (whether paid or unpaid), and the total income for the same period (whether received or outstanding). A balance-sheet is also shown for each Fund with appropriate liabilities and assets. Only "realisable" assets are allowed to be included, so that the whole of the roads, bridges, drains, and much other constructive work, which are taken to account elsewhere as assets, are here excluded.

Thus it will be seen that the system of accounts now kept differs materially from the old "cash" system of receipts (cash actually received) and disbursements (cash actually expended), and the municipal accounts for 1908 stand alone, and the financial results cannot be compared with those of previous years.

In all statements of municipal accounts of the year 1908, the period under discussion relates to the part of the year from 4th February to 31st December, except in the City of Sydney, where the accounts relate to the whole year ended 31st December. Prior to 1908, the municipal year ended on first Monday in February. Also, the accounts of the City of Sydney, Camperdown, and Broken Hill are on the "cash" basis, and therefore the totals quoted for all municipalities are not altogether exact. Sydney does not come under the regulations of the Local Government Act,

and Broken Hill received special permission from the Minister to work, during 1908, on the old basis. Camperdown, which has been amalgamated with the City since 1st January, 1909, was in the hands of a receiver during 1908, and the accounts were kept on the old basis.

Apart from the fact that the accounts of the above-mentioned municipalities show only actual receipts and disbursements, including capital as well as revenue expenditure, the information available cannot in many instances be allocated to the headings as set out in the system of accounts prescribed under the Local Government regulations.

As it has been found necessary to include all transactions in the General Fund, except in the case of Sydney, where an Electric Light Trading Account and Balance Sheet are shown separately, it is evident that not only has the expenditure and income of that fund been unduly inflated, but it has also to bear the heavy burden of debenture indebtedness, which appears in the accounts of the other municipalities as a liability of the several loan funds.

The want of uniformity in the accounts, as just explained, has resulted in the loss of much useful statistical information relating to municipal finance for 1908, and at the same time detracts from the value of the figures in the following tables. A further cause of weakness is that the financial tables following are exclusive of the accounts mentioned of the following councils, which neglected to furnish the prescribed returns up to the time of going to press—Balranald, General and Water Supply Funds; Junee Water Supply Fund (this Council denied its liability to the Government on account of waterworks); Hillgrove Water Supply Fund, and Muswellbrook Gasworks Loan Fund.

## EXPENDITURE.

The total expenditure during 1908 by the various municipalities amounted to £1,256,123, which was £66,990 less than the income. The following statement shows the expenditure allocated to the various funds:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
General Fund... ..	317,740	348,765	330,327	996,832
Trading Accounts ... ..	89,430	7,078	50,167	146,675
Special and Local Funds ... ..	40,131	4,856	67,629	112,616
Loan Funds ... ..	.....	33,288	24,949	58,237
Gross Expenditure ... ..	447,301	393,987	473,072	1,314,360
Deduct Transfers from various Funds for Principal and Interest on Loans.	.....	33,288	24,949	58,237
Net expenditure ... ..	447,301	360,699	448,123	1,256,123

The greatest expenditure was naturally from the General Fund, which accounted for 79·4 per cent of the whole. In the case of Sydney no transfers are shown, as the council has no loan funds, and the interest is paid direct from the General (or City) Fund.

The trading concerns of the municipalities are gas and electricity; the special and local funds relate to water supply, sewerage, street-watering, street-lighting, old loans interest, and a few other miscellaneous matters.

Details of the expenditure from the General Fund are shown below:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
Administrative expenses ... ..	30,142	45,187	60,385	135,714
Public Works... ..	72,886	150,404	115,036	338,326
Health Administration ... ..	61,539	39,930	68,709	170,178
Public Services ... ..	41,821	59,766	43,219	144,806
Municipal Property ... ..	13,209	6,591	7,875	27,675
Transfers to Loan Funds ... ..	51,556	44,358	29,657	125,571
Other ... ..	46,587	2,529	5,446	54,562
Total expenditure... ..	£ 317,740	348,765	330,327	996,832

The item, "Transfers to Loan Funds," under the heading of Sydney, represents the expenditure in respect of loans, and would have been transferred to Loan Funds if the accounts had been kept in accordance with the Local Government regulations.

The proportion of expenditure under each head to the total expenditure was as follows:—

	Sydney.	Suburbs.	Country.	Total.
	per cent.	per cent.	per cent.	per cent.
Administrative Expenses ... ..	9·5	13·0	18·3	13·6
Public Works... ..	22·9	43·1	34·8	33·9
Health Administration ... ..	19·4	11·5	20·8	17·1
Public Services ... ..	13·2	17·1	13·1	14·5
Municipal Property ... ..	4·2	1·9	2·4	2·8
Transfers to Loan Funds ... ..	16·2	12·7	9·0	12·6
Other ... ..	14·6	7	1·6	5·5
Total ... ..	100·0	100·0	100·0	100·0

Of the expenditure by municipalities, 13·6 per cent. was on administrative expenses, 33·9 per cent. on public works, 12·6 per cent. on payments for interest, &c., on loans. Of the administrative expenses, salaries were the largest. The relative cost of administrations in the country is high, being 18·3 per cent. of the total expenditure, and 40 per cent. more than in the suburbs. This is due, no doubt, to the sparse population and small revenue of many of the country municipalities. In such cases, the expenses on account of salaries, &c., would naturally be larger proportionately than in the more closely-settled localities in the suburbs. Public Services include:—Pounds, £376; street-watering, £11,222; street-lighting, £97,217; and all other services, £35,991. The greatest part of the expenditure on Public Works was on roads, streets, &c., as will be seen below:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
Roads, streets, &c. ... ..	71,728	147,472	108,316	327,516
Bridges, culverts, &c. ... ..	.....	148	2,717	2,865
Drains, sewers, &c. ... ..	.....	1,583	2,028	3,611
Ferries... ..	.....	157	1,062	1,219
Wharfs and jetties ... ..	49	829	739	1,617
Sundries ... ..	1,109	215	174	1,498
Total ... ..	72,886	150,404	115,036	338,326

Excluding the City of Sydney, of the expenditure on roads, streets, &c., £162,032 were spent on maintenance, renewals, and repairs; £39,157 on construction; £12,720 on street and gutter cleaning; £17,954 on kerbing and guttering; £21,582 on footpaths; and £2,343 on sundries. Sydney spent £58,982 on streets and roads apart from footpaths, on which were expended £12,746.

The Trading Accounts, which relate to the supply of gas or electricity, will be treated later under those headings, and the special Water and Sewerage Funds will also be discussed.

## INCOME.

The total income of all the municipalities of the State in 1908 was £1,323,113, including £32,378 received as endowments or grants from the Government. This was £66,990 in excess of total expenditure. Under the same funds as in the expenditure the income was as shown below:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
General Fund... ..	301,952	382,739	360,039	1,044,730
Trading Accounts ... ..	93,600	6,863	59,830	160,293
Special and Local Funds ... ..	44,586	3,192	70,312	118,090
Loan Funds ... ..	.....	43,601	33,732	82,333
Gross Income ... ..	£440,138	436,395	528,913	1,405,446
Deduct Transfers from Various Funds to Loan Funds for Principal, Interest, and Capital Expenditure .. ..	.....	43,601	33,732	82,333
Net Income... ..	£440,138	392,794	490,181	1,323,113

Details of the items of the General Fund are as follows:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
General Purposes—				
Rates levied (including interest) ..	194,627	327,255	235,396	757,278
Government Endowments, &c. ... ..	.....	606	4,791	5,397
Sundries ... ..	2,153	4,398	4,932	11,483
Public Works, including Government Grants ... ..	22,253	18,247	19,605	60,105
Health Administration, including Govern- ment Grants for Parks and Gardens ..	9,574	19,462	60,069	89,105
Public Services, including Government Grants ... ..	5,114	2,678	16,765	24,557
Municipal Property ... ..	26,380	7,306	17,516	51,202
Miscellaneous... ..	41,851	2,787	965	45,603
Total ... ..	£301,952	382,739	360,039	1,044,730

Comparing this statement with the expenditure of the General Fund, it will be found that the income was £47,898 in excess. Included in the rates levied is an amount of £2,693, being interest due on unpaid rates.

To the income from public works, the Government contributed £21,437 as grants for roads, streets, &c., and £962 as grants for ferries.

Under Health Administration are included Government grants for Parks, &c., amounting to £3,675. There were also £625 and £265 granted by Government for General Purposes and Public Services respectively.

Stating the income under each head as a percentage of the total income of the General Fund, the following results are obtained:—

	Sydney.	Suburbs.	Country.	Total.
	per cent.	per cent.	per cent.	per cent.
General Purposes—				
Rates levied (including interest) ...	64·5	85·5	65·4	72·5
Government Endowments, &c. ...	...	·2	1·3	·5
Sundries ...	·7	1·1	1·4	1·1
Public Works, including—				
Government Grants ...	7·4	4·8	5·4	5·7
Health Administration ...	3·2	5·1	16·7	8·5
Public Services, including—				
Government Grants ...	1·7	·7	4·6	2·4
Municipal Property ...	8·7	1·9	4·9	4·9
Miscellaneous ...	13·8	·7	·3	4·4
<b>Total</b> ...	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>	<b>100·0</b>

The bulk of the general income was received from rates, the average for all municipalities being 72·5 per cent. In the suburbs it was 85·5 per cent., and in the country 65·4 per cent. The next important source of income was under health administration, representing charges for sanitary and garbage services, the proportion in the suburbs being 5·1 per cent., and in the country 16·7 per cent. In the suburbs, the Metropolitan Sewerage Board levies charges in addition to those made by the municipalities.

#### BALANCE SHEET.

The financial position of the municipalities, as at 31st December, 1908, is shown by the following statement of liabilities and assets of the various funds:—

	Sydney.	Suburbs.	Country.	Total.
	£	£	£	£
<b>Liabilities—</b>				
General Fund ..	1,782,404	60,468	102,538	1,945,410
Trading Accounts ...	625,658	2,337	22,476	650,471
Special and Local Funds ...	.....	254	766,653	766,907
Loan Funds ...	.....	784,585	623,826	1,408,411
<b>Total</b> ...	<b>2,408,062</b>	<b>847,644</b>	<b>1,515,493</b>	<b>4,771,199</b>
<b>Assets—</b>				
General Fund ...	1,993,070	230,562	510,251	2,733,883
Trading Accounts ...	629,828	1,890	65,151	696,869
Special and Local Funds ...	.....	2,639	791,382	794,021
Loan Funds ...	.....	153,698	397,787	551,485
<b>Total</b> ...	<b>2,622,898</b>	<b>388,789</b>	<b>1,764,571</b>	<b>4,776,258</b>

As explained previously, loan indebtedness is included in the General Fund in the accounts of Sydney, Camperdown, and Broken Hill.

Every municipality must keep a General Fund. The liabilities thereof consist mostly of temporary loans and overdrafts, but the assets are more than sufficient to meet them. In only five municipalities was there an

excess of liabilities. The liabilities and assets of the General Fund in the various municipalities, as at 31st December, 1908, are shown below:—

	Sydney.	Suburbs.	Country.	Total.
<b>Liabilities—</b>	£	£	£	£
Temporary loans ... ..	.....	11,191	25,078	36,269
Overdrafts ... ..	121,408	8,817	13,293	143,518
Sundry creditors ... ..	30,996	15,975	19,514	66,485
Other ... ..	1,630,000	24,485	44,653	1,699,138
<b>Total</b> ... ..	<b>1,782,404</b>	<b>60,468</b>	<b>102,538</b>	<b>1,945,410</b>
<b>Assets—</b>				
Outstanding rates ... ..	9,580	49,358	92,457	151,395
Stores and materials ... ..	.....	2,902	5,505	8,407
Bank balance and cash... ..	60,142	31,811	48,101	140,054
Land and buildings ... ..	1,627,910	117,694	263,197	2,008,801
Plant and furniture ... ..	46,200	14,525	69,957	130,682
Other ... ..	249,238	14,272	31,034	294,544
<b>Total</b> ... ..	<b>1,993,070</b>	<b>230,562</b>	<b>510,251</b>	<b>2,733,883</b>

In the above table "Other Liabilities" include the loan indebtedness of Sydney, Camperdown, and Broken Hill.

The principal asset of the municipalities consists of land and buildings, which were valued at £2,008,801, or 73 per cent. of the total assets. Outstanding rates amounted to £151,395, while bank balances and cash in hand were equal to £140,054.

It has been explained already that the accounts for 1908 are on a different basis to those of previous years, and therefore they cannot be compared; but as the figures for those years are of interest, the revenue and expenditure for 1903-7 are shown below:—

## REVENUE.

Year.	General Rates.	Other Rates.	Endowments and Grants.	Other Revenue.	Total.
	£	£	£	£	£
1903	456,853	197,358	60,751	120,723	835,685
1904	466,587	214,754	24,225	149,842	855,408
1905	477,403	225,325	24,335	182,674	909,737
1906	486,647	285,389	83,022	148,178	1,003,236
1907	524,201	337,514	71,214	162,998	1,095,927

## EXPENDITURE.

Year.	Admini- strative Expenses.	Works, Services, &c.	Interest on Loans.	Payments to Sinking Funds.	Other Expenditure.	Total.
	£	£	£	£	£	£
1903	82,649	717,996	122,959	41,944	58,496	1,024,044
1904	85,261	677,397	126,569	17,382	60,947	967,556
1905	88,058	645,320	132,811	13,514	67,530	947,233
1906	90,629	679,823	133,457	12,899	73,274	990,082
1907	99,408	835,187	134,539	20,406	82,709	1,172,249



## LOANS.

The total amount of loans raised during 1908 was £276,005, including £225,000 borrowed by the City of Sydney and allowing for additions and reductions of secured overdrafts; while the sinking funds were increased by £31,805. Most of the new loans in the suburban and country districts were renewals, opportunity naturally being taken of the general reduction in the rates of interest to considerably reduce the annual liability in respect of interest charges. Apart from the liability of the State under the Country Towns Water and Sewerage Act, the total amount of loans outstanding at the close of the year was £3,473,605, and towards this amount there was at the credit of the sinking funds a sum of £222,529.

Rates of interest ranged from  $3\frac{1}{4}$  per cent., which was carried by £10,427, to 7 per cent., which, however, was payable only on £2,160; and the amount due as interest on loans during the year was £144,914. The total indebtedness was £3,473,605, bearing an average rate of interest of 4.17 per cent., viz., 3.91 per cent. on the loans of the City of Sydney; 4.29 per cent. on those of the suburban municipalities; and 4.98 per cent. on those of the country municipalities. The total debt per head of population living in municipalities amounted to £3 7s., or, if allowance be made for sinking funds, £3 2s. 8d., while the yearly charge for interest is 2s. 10d. per head. These sums, compared with the resources of the municipalities, appear by no means formidable.

The following are the outstanding loans on the 31st December, 1908, and the sinking funds set apart to meet them:—

Division.	Loans Outstanding.			Sinking Funds.	Interest due on Loans, 1908.
	New South Wales.	London.	Total.		
Sydney—City ... ..	£ 1,195,000	£ 910,000	£ 2,105,000	£ 191,070	£ 82,215
„ Suburbs ... ..	673,933	116,500	790,433	9,429	33,909
Country ... ..	544,211	33,961	578,172	22,030	28,790
Total ... ..	£ 2,413,144	1,060,461	3,473,605	222,529	144,914

Temporary loans, amounting altogether to £45,045, which bear interest at current bank rates, and loans payable on demand amounting to £46,370, are excluded from the above table.

The loans are redeemable at various periods from 1909 to 1947, the largest amount to be met being £469,476 in 1912, and the smallest £92,175 in 1910. The total amount to be repaid in London was £1,060,461, or rather less than one-third of the total, and the total amount of debentures held locally was £2,413,144.

The majority of the loans are renewable at maturity, and sinking funds have been established in connection with several of the issues, the aggregate amount of which, at the end of 1908, was £222,529.

Under the Local Government Act, 1906, a municipality may borrow to an amount which, with existing loans, does not exceed 10 per cent. of the unimproved capital value of ratable lands. Where, at the commencement of the Act, any municipality had exceeded this limit, it could not borrow further until the total amount owing had fallen below the limit.

Purposes for which loans may be raised are prescribed (a) for permanent improvements or works; (b) for any object which the Council may legally effect; and (c) for the repayment of former loans. All loans are to be borrowed on the credit of the municipality, and to be a charge upon the revenues.

It has been explained previously that a separate loan fund must be kept in respect of each work or service for which loans are raised. There are, therefore, numerous funds relating to such matters as permanent improvements, town hall and other property, garbage service, wharves, electricity, gas, cattle sale-yards, street-watering, and others.

It has been considered inadvisable to show the revenue accounts of these funds, as their revenue practically consists of transfers from other funds to repay principal and interest, and there is a danger of duplication in quoting them. The following is a statement of the total liabilities and assets of all the funds. It is incomplete to some extent, as several municipalities, where a loan related to a trading concern or public work, have included the assets in the balance sheet of those concerns, and not in the balance sheet of the loan fund.

	Sydney.	Suburbs.	Country.	Total.
<b>Liabilities—</b>	£	£	£	£
Loans current ... ..	...	776,937	606,904	1,383,841.
Interest due and unpaid ... ..	...	7,648	16,922	24,570.
<b>Total ... ..</b>	£	784,585	623,826	1,408,411.
<b>Assets—</b>				
Bank balance and cash... ..	...	1,185	4,418	5,603.
Due from other funds ... ..	...	7,277	30,328	37,605.
Land and buildings ... ..	...	103,938	147,196	251,134.
Plant, &c... ..	...	30,795	203,262	234,057.
Investments ... ..	...	7,175	11,605	18,780.
Other ... ..	...	3,328	978	4,306.
<b>Total ... ..</b>	£	153,698	397,787	551,485.

The liabilities of the loan funds exceeded the assets by £856,926, but against the loans of a municipality may be set its whole revenue and credit, so that there is no element of danger in the position as stated. Further, the municipalities have inconvertible assets in the shape of roads, streets, bridges, and other permanent improvements, which have been constructed out of loans, and which, at the end of 1907, were valued at over six millions sterling. Although these have not been included in the balance sheet, they are most necessary for developing the various localities, and add materially to their resources for rating purposes, in the added value they give to property.

#### SHIRES.

Since the 1st January, 1907, there have been 134 shires working under the Local Government Act of 1906. These shires are all in the Eastern and Central divisions, 96 being in the former and 38 in the latter. With the exception of 8 municipalities, the Western division is unincorporated.

The shires vary in area from 36 square miles in the case of Ku-ring-gai, immediately north of the metropolis, to 5,745 square miles in the case of Lachlan, whose headquarters are at Condobolin. The smallest shires are in the most closely settled parts of the State. A general rate, not less than

1d. in the £, and not more than 2d. in the £, may be levied by shires on the unimproved capital value of all ratable land. If, however, the general rate of 1d. is more than sufficient to meet requirements, the Governor may allow the rate to be reduced below 1d. In 1908, eight shires levied a rate less than 1d.

The rates levied in 1908, and the unimproved capital value of the land in each class are as follows:—

No. of Shires.	General Rate levied in £. d.	Unimproved Capital Value of Land. £
2	$\frac{1}{2}$	2,565,112
2	$\frac{3}{4}$	1,689,719
4	$\frac{3}{4}$	4,342,364
90	1	56,819,174
11	$1\frac{1}{4}$	5,238,791
1	$1\frac{1}{2}$	397,977
19	$1\frac{1}{2}$	8,998,479
5	2	2,363,155
134	$1\frac{1}{3}$ (average).	£82,414,771

One shire, Patrick Plains, also levied a special rate of  $\frac{1}{4}$ d. in the £ on the unimproved capital value for the erection of cattle saleyards, and two shires levied local rates for street-lighting—Bolwarra one-fifth of a penny in the £ on the unimproved capital value, and Erina 1d. on the unimproved capital value.

The unimproved capital value of the shires in 1908 was £82,414,771. It is not possible to give the improved capital value or the assessed annual value, as the shires are not compelled to make these valuations, and did not make them. The total amount of general rates levied was £369,209, and special and local rates, £1,164. These figures represent the rates actually levied in respect of the year 1908, and differ from the amount, £382,336, shown in next table. The difference is due to the inclusion in the income of 1908 of certain rates which were not levied in that year.

In several cases the general rate was not sufficient to meet the requirements, and the State paid endowments to a large number of shires. Endowments are fixed every third year, and are determined according to the extent of the shire, the probable revenue from a rate of 1d. in the £, the necessary expenditure, the extent of roads and other public works to be constructed and maintained, and other matters. The endowment in any year is paid on the general rates actually collected in the preceding year. There are six classes into which the shires are divided for endowment purposes, the classification for the three years 1907-09 being as follows:—

47 shires in 1st class receive no endowment.					
27	"	1st	"	"	up to 10s. in the £ on General Rate.
12	"	2nd	"	"	15s. " "
8	"	3rd	"	"	20s. " "
9	"	4th	"	"	25s. " "
8	"	5th	"	"	30s. " "
23	"	6th	"	"	not less than 40s. in the £ on General Rate.

In 4 cases the endowment was 100s. or over in the £, the highest being 133s. to Bellingen Shire. In 1908, the Government paid £162,859 as endowment to the shires. A further sum of £58,066, as grants for special purposes, was also paid, making the total subvention from the State £220,925. As, however, the State relinquished the tax on land in the shires, the unimproved value of which was £82,415,000, it is probable that it contributed altogether to the shires over £500,000.

At the end of 1909 the endowments to be paid during the triennium, 1910-12, were fixed. In no case was the rate of endowment reduced; but in 64 cases it was increased. The classification for the period mentioned is as follows, and may be compared with the statement above:—

27 shires in 1st class receive no endowment.
41 " 1st " " up to 10s. in the £ on General Rate.
10 " 2nd " " " 15s. " " "
9 " 3rd " " " 20s. " " "
7 " 4th " " " 25s. " " "
14 " 5th " " " 30s. " " "
26 " 6th " " not less than 40s. in the £ on General Rate.

The principal heads of income in 1908 were as follows, and for purposes of comparison the 1907 figures are attached:—

Particulars.	1907.		1908.	
	Revenue.	Per cent.	Revenue.	Per cent.
General Fund—	£		£	
General rates ... ..	287,635	53·7	382,336	61·0
Government endowment ... ..	235,794	44·0	162,859	26·0
Public works ... ..	3,064	0·6	65,781	10·5
Health administration ... ..	2,376	0·4	2,979	0·5
Public services ... ..	4,593	0·9	7,038	1·1
Shire property ... ..	...	...	517	0·1
Miscellaneous ... ..	2,197	0·4	4,198	0·6
Special and local funds ... ..	...	...	1,160	0·2
Total revenue... ..	£ 535,659	100·0	626,868	100·0

The amount of general rates showed a large increase in 1908, being 61 per cent. of the total income as compared with 53·7 per cent. in the previous year. The Government assistance received in 1907 included grants to public works which, in 1908, amounted to £58,066, and were included in the revenue from public works.

Of the total income in 1908 61 per cent. was received from general rates, and 26 per cent. from Government assistance, exclusive of grants for public works. The principal items in public works were contributions to roads, bridges, &c., £4,287; Government grants for roads, &c., £50,086; and receipts from ferries, including Government grants, £10,253. The principal item in public services was rent, &c., from public watering places, £6,333.

The following statement shows the expenditure during 1908 in comparison with the previous year:—

Particulars.	1907.		1908.	
	Expenditure	Per cent.	Expenditure.	Per cent.
General Fund—	£		£	
Administrative expenses ... ..	100,435	26·0	116,932	17·8
Public works ... ..	249,868	64·8	516,072	78·7
Health administration ... ..	1,536	0·4	4,604	0·7
Public services ... ..	3,870	1·0	11,702	1·7
Shire property ... ..	18,853	4·9	397	0·1
Miscellaneous ... ..	11,043	2·9	6,453	1·0
Special and local funds ... ..	...	...	58	..
Total expenditure ... ..	£ 385,605	100·0	656,218	100·0

The expenditure in 1908 was 70 per cent. higher than in 1907—due to the increased expenditure on public works, which advanced from £249,868 to £516,072. In 1907 the shires were not in full working order, and it is probable that necessary works were postponed.

The administrative expenses were £116,932, or 18 per cent. of the total expenditure. This may be considered high, and especially in connection with the expenditure on works and services, and suggests the possibility of too many shires. Of the administrative expenses, £62,192 were on salaries, £13,442 on advertising, stationery, printing, &c., £3,615 on valuation fees, and £16,616 on president's allowance and councillors' travelling expenses. The expenditure on works accounted for 79 per cent. of the total, and was more than double the grants received from Government. The principal expenditure was £477,413 on roads and streets, of which £261,366 were on maintenance, repairs, and renewals, and £212,503 on construction. On other public works—bridges, culverts, punts, ferries, wharves, &c.—£23,188 were spent on maintenance and repairs, and £15,471 on construction.

The financial position of the shires on the 31st December, 1908, was strong, as there was an excess of assets of £192,464. As regards the individual shires, in only seven cases were the liabilities in excess. The combined balance sheet of the shires on 31st December, 1908, appears as follows:—

Liabilities.				Assets.			
			£				£
Temporary Loans ... ..	...	...	8,810	Outstanding Rates... ..	...	...	29,638
Due to Trust Funds ... ..	...	...	445	Stores and Materials ... ..	...	...	6,971
Sundry Creditors ... ..	...	...	14,642	Bank Balance and Cash ... ..	...	...	145,068
Due on Contracts ... ..	...	...	9,201	Sundry Debtors ... ..	...	...	2,717
Other ... ..	...	...	1,753	Land and Buildings ... ..	...	...	10,438
				Plant and Property ... ..	...	...	19,045
Total ... ..	...	...	£34,851	Furniture, &c. ... ..	...	...	10,306
Excess of Assets ... ..	...	...	192,464	Other ... ..	...	...	3,132
Total ... ..	...	...	£227,315	Total ... ..	...	...	£227,315

Of the outstanding rates shown, £6,358 were due on account of 1907, £23,129 on account of 1908, and £151 for interest on overdue rates. It will be observed that a very large proportion of the assets—£145,068, or 64 per cent.—consists of cash in the bank or in hand. Probably a large part of this amount represented endowments recently received from the Government.

#### TAXATION BY LOCAL GOVERNING BODIES.

The total revenue collected by all the local governing bodies from rates and charges amounts to £1,703,560, equal to £1 1s. 8d. per head of the population residing in the taxable districts. This sum includes £764,461, rates collected by municipalities; £408,609, rates collected by shires; and £530,490, rates collected by the various Water and Sewerage Boards referred to later. The distribution of the total amount is as follows:—

	General Rates actually collected.	Special and Loan Rates actually collected.	Total.	Per head.
	£	£	£	£
Municipalities ... ..	714,623	49,833	764,461	0 14 9
Shires ... ..	408,557	52	408,609	0 14 11
Metropolitan water and sewerage charges	481,731	.....	481,731	0 15 0
Hunter District and other country water charges.	48,759	.....	48,759	0 11 4
Total ... ..	£ 1,653,675	49,885	1,703,560	1 1 8

## BOARDS AND TRUSTS.

In addition to the ordinary form of municipal local government, there are various boards and trusts with local jurisdiction. The control of the water supply and sewerage of the Metropolitan and Hunter districts is placed under separate boards. The Metropolitan and the Country Towns Water Supply and Sewerage Acts, the Fire Brigades Act, the Sydney Harbour Trust Act, and the Metropolitan Traffic Act, were all passed with the object of extending the principle of local government, and boards have been established to carry out the provisions of some of these Acts.

The majority of the Boards dealing with local affairs have jurisdiction within the metropolitan area, and work mainly in connection with the local municipalities, although possessing powers independent of those bodies. In 1900 the Metropolitan Traffic Act was passed, which repealed the Public Vehicles Act, 1899, and such portions of the Sydney Corporation Act of 1879 and the Municipalities Act, 1897, as were inconsistent with the Act, and placed the complete control of street traffic and the licensing of public vehicles, drivers, and conductors, under the Inspector-General of Police.

Under the authority of the Fire Brigades Act of 1902, which repealed the 1884 Act, a Metropolitan Fire Brigade Board and forty-two country boards have been established. The cost of maintaining the Metropolitan Brigade was contributed in equal amounts by the Government, the municipalities within the proclaimed area, and the fire insurance companies holding risks within these municipal districts. In 1908 the contributions consisted of £19,100 from the insurance offices interested, and a similar amount from the Government and the city and suburban municipalities. The amount at risk on the 31st December, 1908, was £89,971,992. The country boards received subsidies from the Government, the municipalities interested, and the insurance companies, under the same conditions as are in existence with regard to the Metropolitan Board. In addition to the boards constituted under the Act, several municipalities contributed to local fire brigades.

The Fire Brigades Act, 1909, which came into operation on the 1st January, 1910, repealed the Act of 1902. The provisions of the Act apply to the City of Sydney, to 41 suburban municipalities, to 85 country municipalities, and to such parts of six shires as may be notified in the *Government Gazette*; and they may be extended to other districts by proclamation. The administration of the Act is placed in the hands of a Board of Fire Commissioners consisting of five members. The councils of the metropolitan municipalities, the councils of the country municipalities and shires, the insurance companies, and the volunteer fire brigades each elect one member; and the president is appointed by the Governor. The Board may group together any municipalities or shires, and constitute them a fire district, and must estimate each year the amount to be expended in each district. The three parties—municipalities and shires, the insurance companies, and the Government—will each contribute one-third of this amount to the Board. Where a fire district contains more than one municipality or shire, the amount of contribution is apportioned according to the average annual value in the case of the City of Sydney, and to the assessed annual value under the Local Government Act of 1906 in any other municipality or shire. Where the Act applies to the whole of a municipality or shire, the contribution must be paid out of the City Fund of Sydney, and out of the general fund of any other municipality or of a shire. Where the Act applies to

part only of a municipality or of a shire, the council must raise the required amount by a local rate in such part.

The Metropolitan Board of Water Supply and Sewerage was established in 1887, and that of the Hunter River District in 1892; reference to their transactions will be found in subsequent pages.

The Sydney Harbour Trust was established in the year 1900, and a description of its functions will be found in the chapter dealing with "Shipping."

Leaving out of consideration the expenditure on works of national importance the Government has, during the past forty-eight years, expended no less than £42,800,000 on works of a purely local character, not including school buildings. The division of the State into local government districts will not necessarily be followed by an entire stoppage of the direct expenditure on works of local interest by the central Government, but the larger portion of the works now undertaken by Government will be left to the local authorities, who, having to provide directly for the revenue, will probably see that it is laid out to the best advantage. The expenditure on account of public works during the last ten years is given below; but the figures cannot be distributed under the headings of metropolitan and country for the last three years:—

Year ended 30th June.	Country Districts.		Metropolitan District.		Total.	
	Expenditure.	Per Inhabitant.	Expenditure.	Per Inhabitant.	Expenditure.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.	£	£ s. d.
1900	802,300	0 18 7	397,600	0 16 6	1,199,900	0 17 10
1901	1,061,600	1 4 6	604,400	1 4 9	1,666,000	1 4 7
1902	1,135,800	1 5 6	535,600	1 1 4	1,671,400	1 4 0
1903	839,700	1 0 0	509,400	0 18 8	1,349,100	0 19 2
1904	579,400	0 12 7	189,000	0 7 5	768,400	0 10 9
1905	456,800	0 9 8	184,500	0 7 1	641,300	0 8 9
1906	487,800	0 10 1	167,600	0 6 4	655,400	0 8 9
1907	.....	.....	.....	.....	887,000	0 11 7
1908	.....	.....	.....	.....	837,000	0 10 6
1909	.....	.....	.....	.....	896,000	0 11 2

The amounts given above are approximate only, and include the expenditure both from loans and from revenue, but the endowments to municipalities and shires have not been taken into account. The large decline from 1903 to 1906 is due chiefly to the smaller borrowing policy of the Government, while the increase during the last three years is caused by the operation of the Water and Drainage Act in 1907, and a considerable expansion of tramway construction in 1908 and 1909.

#### WATER SUPPLY FOR COUNTRY TOWNS.

The Country Towns Water Supply and Sewerage Act of 1880 was passed with the object of assisting municipalities to construct general systems of water supply and sewerage. To the end of June, 1909, forty municipal councils had availed themselves of the privileges offered as regards the former service, and works were under construction in six other municipalities. With respect to sewerage, however, only eight councils had profited by the provisions of the Act, and the works at Parramatta are still incomplete.

The amount required for carrying out the works is advanced by the State. The municipality, however, has the option of supervising and constructing the works, failing which the Government undertakes these duties. Under the original Act, the sum advanced was to be repaid by instalments, with interest at the rate of 4 per cent. on the unpaid

balances, each annual instalment to be equal to 6 per cent. of the total cost, and the first payment to be made twelve months after the date of the transfer of the works to the municipality; but as it was found that the municipalities which had contracted liabilities in respect of water supply works were unable to comply with these conditions, the Government, in 1894, passed an amending Act which granted them more favourable terms, the rate of interest being reduced to  $3\frac{1}{2}$  per cent., and the yearly repayments fixed at a maximum of 100. Under the amending Act of 1905, the rate of interest is fixed at 4 per cent. per annum. This Act also provides for the issue of licenses to workmen, for the recovery of rates, and for making by-laws for the assessment of lands, and for other purposes.

The following is a statement, as at the 30th June, 1909, of the water-works completed and handed over by the Government, with the amounts expended, and the sums payable annually for the period of one hundred years, the first repayments having become due within twelve months of various dates ranging from the 31st December, 1893, to the 31st December, 1908. In the calculation of these repayments, the interest on the expenditure has been added, and any payments by the Councils, as well as sums remitted under the authority of the Act, have been deducted.

Municipality.	Amount of Original Debt.	Amount Payable Annually.	Municipality.	Amount of Original Debt.	Amount Payable Annually.
Albury .. .. .	£ 41,000	£ 1,482	Junee .. .. .	£ 42,000	£ 1,519
Armidale .. .. .	40,718	1,474	Kiama .. .. .	7,073	256
Ballina .. .. .	13,605	492	Lismore .. .. .	14,822	558
Bathurst .. .. .	6,000	217	Lithgow .. .. .	33,510	1,346
Berry .. .. .	55,734	2,019	Moama .. .. .	7,600	275
Blayney .. .. .	4,380	159	Moree .. .. .	10,940	396
Bourke .. .. .	10,771	389	Moss Vale .. .. .	13,000	470
Casino .. .. .	13,436	486	Mudgee .. .. .	17,030	616
Cobar .. .. .	11,427	421	Nowra .. .. .	13,259	483
Condobolin .. .. .	26,160	946	Nyngan .. .. .	10,219	369
Coonamble .. .. .	7,725	283	Orange .. .. .	32,688	1,182
Cootamundra .. .. .	9,349	350	Parkes .. .. .	22,000	796
Corowa .. .. .	20,969	753	Pictou .. .. .	15,987	578
Dennilquin .. .. .	9,929	423	Tumut .. .. .	10,238	370
Dubbo .. .. .	13,463	668	Wagga Wagga .. .. .	41,588	1,518
Forbes .. .. .	15,238	551	Warren .. .. .	5,819	256
Goulburn .. .. .	20,927	817	Wellington .. .. .	12,433	451
Hay .. .. .	55,000	1,989	Wentworth .. .. .	4,000	145
Hillgrove .. .. .	17,075	624	Wilcannia .. .. .	8,331	303
Jerilderie .. .. .	4,000	170			
	6,513	245	Total .. .. .	£ 731,016	£ 26,850

In the case of Coonamble, a sum of £53 11s. is payable annually for water supplied by a Government artesian bore.

At Forbes, Hay, and Wilcannia, the works were constructed by the municipal authorities, and the expenditure shown in the table is not the actual cost of the works, but the Government valuation.

The combined financial statements—revenue account and balance sheet—of the municipalities which maintain waterworks are shown below. The revenue account was as follows for 1908:—

Expenditure.		Income.	
	£		£
Management .. .. .	9,138	Rates levied .. .. .	39,000
Working and maintenance .. .. .	11,888	Meter rents .. .. .	798
Repairs and renewals .. .. .	3,228	Water sales .. .. .	11,364
Interest payable to Government .. .. .	25,559	Garden charges, &c. .. .. .	2,829
Other .. .. .	1,326		
Total .. .. .	£51,139	Total .. .. .	£53,991



Of the expenditure, management charges accounted for 17·9 per cent., working and maintenance for 23·2 per cent., repairs and renewals 6·3 per cent., and interest payable to Government 50·0 per cent.

Rates contributed 72·2 per cent. to the income, meter rents 1·5 per cent., water sales 21·1 per cent., and garden charges, &c., 5·2 per cent.

The combined balance sheet was as follows:—

Liabilities.		Assets.	
Amount for which liable to Government ... ..	£ 671,034	Waterworks—plant, buildings, &c. ... ..	£ 670,338
Interest due to Government and unpaid ... ..	29,179	Outstanding rates... ..	20,995
Sundry creditors ... ..	12,868	Bank balance and cash ... ..	16,722
		Stores and materials ... ..	3,182
		Sundry debtors ... ..	19,159
		Fixed deposits ... ..	2,955
<b>Total ... ..</b>	<b>£713,081</b>	<b>Total ... ..</b>	<b>£733,351</b>

At the end of 1908 the amount for which the municipalities were liable to Government was £671,034, the amount paid off to date being £8,401. At the end of the year £29,179, due as interest, was unpaid.

The value of the works shown above is £679,435; but in the cases where the works were not constructed by Government the value of the works is included as an asset of the loan fund. There was a fairly considerable amount of rates outstanding, and the bank balance and cash in hand were large. On the whole, the assets exceeded the liabilities by £20,270. In ten municipalities the balance showed an excess of liabilities.

#### SEWERAGE WORKS.

Only eight municipal councils have taken advantage of the Act providing for the construction of sewerage works in country towns, and the capital debt and annual repayments on the 30th June, 1909, were as follows:—

Municipality.	Amount of original Debt.	Amount payable Annually.	Municipality.	Amount of original Debt.	Amount payable Annually.
	£	£		£	£
Ballina ... ..	327	20	Lismore ... ..	17,589	636
Blayney ... ..	429	26	Narrandera ... ..	5,197	188
Casino ... ..	3,023	129	Tamworth ... ..	1,217	56
Forbes ... ..	1,623	59			
Hay ... ..	22,040	797	<b>Total... £</b>	<b>51,445</b>	<b>1,911</b>

Other sewerage systems are in existence in several places, which have been constructed altogether apart from the Act, and, with few exceptions, the operations have been on a minor scale. The general system of sewerage which is now being constructed in the metropolitan area will supersede the isolated systems of some of the suburban districts, and some of the sewers already made will eventually form part of the general scheme. The Metropolitan Board has already taken over part of the sewerage constructed by the City of Sydney and by the municipalities of Ashfield, Balmain, Darlington, Glebe, North Sydney, and Redfern.

Of the municipalities named in the above table, Ballina, Forbes, and Tamworth do not levy special sewerage rates, and therefore do not keep a special account. The combined financial statements of the five other municipalities are shown below. The revenue account was as follows:—

Expenditure.		Income.	
	£		£
Management ... ..	534	Rates levied ... ..	3,084
Working and maintenance... ..	364	Other ... ..	75
Repairs and renewals ... ..	87		
Interest payable to Government ... ..	3,320		
Other ... ..	163		
<b>Total ... ..</b>	<b>£4,468</b>	<b>Total ... ..</b>	<b>£3,159</b>

Practically the only source of income is from rates. Of the expenditure, management charges took up 12 per cent., working and maintenance 8·1 per cent., repairs and renewals 1·9 per cent., interest payable to Government 74·3 per cent. The combined balance sheet was as follows:—

Liabilities.		Assets.	
	£		£
Amount for which liable to Government ... ..	48,086	Works ... ..	47,302
Interest due to Government and unpaid ... ..	2,596	Outstanding rates ... ..	737
Sundry creditors ... ..	86	Bank balance and cash ... ..	1,376
		Stores and materials ... ..	88
		Sundry debtors ... ..	464
<b>Total ... ..</b>	<b>£50,768</b>	<b>Total ... ..</b>	<b>£49,967</b>

Three of the five municipalities showed an excess of liabilities amounting to £2,104, the other two showing an excess of assets of £1,303. On the whole there was an excess of liabilities amounting to £801.

#### GAS WORKS.

The Municipalities Act authorises the construction of works for public lighting, and gives the power to provide private consumers with gas.

In addition, acetylene gas plants have been established at Carcoar, Central Illawarra, and East Orange.

The operations of the municipalities with gas works in 1908 will be seen from the statements below of the trading fund revenue account and balance-sheet, and the loan fund balance sheet. The true position is, however, obscured, as the municipality of Bathurst included in the trading fund the value of plant, which should be shown in the loan fund. The first statement is the trading fund revenue account.

Expenditure.		Income.	
	£		£
Manufacture of gas ... ..	22,714	Private lighting ... ..	33,867
Distribution of gas ... ..	1,525	Public lighting ... ..	7,652
Management expenses ... ..	3,904	Sale residual products ... ..	4,142
Public lighting ... ..	1,700	Other ... ..	1,742
Other ... ..	2,457		
<b>Total ... ..</b>	<b>£32,300</b>	<b>Total ... ..</b>	<b>£47,403</b>

On the whole operations there was a gross profit of £15,103, not a single municipality showing a loss. The net revenue appropriation account, which is not shown here, gives a total net profit of £7,422. The manufacture of gas accounted for 70·3 per cent. of the expenditure, and private lighting for 71·4 per cent. of the income. The sale of residual products returned 8·7 per cent. of the income.

The next statement is the balance sheet of the trading account.

Liabilities.		Assets.	
	£		£
Due to Loan Fund...	16,581	Materials, stock, &c. ....	26,756
Sundry creditors ...	1,889	Sundry debtors ...	11,954
Reserves ...	733	Fixed deposits ...	1,657
		Bank balance and cash ...	7,018
<b>Total ...</b>	<b>£19,203</b>	<b>Total ...</b>	<b>£47,385</b>

The total excess of assets amounted to £28,182, each municipality, with the exception of Molong, contributing thereto. The item, materials, stock, &c., appears large, on account of the inclusion of the plant of the municipality mentioned previously.

The next statement is the balance sheet of the loan fund, which really shows the value of the assets of this trading concern:—

Liabilities.		Assets.	
	£		£
Loans current ...	162,209	Land and buildings ...	18,761
Interest accrued not paid...	1,447	Plant, &c. ....	144,003
		Due from other funds ...	13,834
		Investments ...	10,787
		Other ...	4,310
<b>Total ...</b>	<b>£163,656</b>	<b>Total ...</b>	<b>£191,695</b>

Against a total loan indebtedness of £163,656, the municipalities had assets valued at £191,695 to show, the excess of assets being substantial. Of the assets, land and buildings made up 9·8 per cent., plant 75·2 per cent., investments 5·6 per cent.

#### ELECTRICITY WORKS.

The following municipalities have erected electric lighting plants: Sydney, Redfern, Broken Hill, Newcastle, Penrith, Tamworth, and Young. These works were erected under special Acts, as electric lighting may not be undertaken without the authority of a special Act.

The City of Sydney obtained powers to erect an electric lighting plant, and loans amounting to £475,000 have been raised for this purpose. The lights were used for the first time on 8th July, 1904, when parts of the city were illuminated. Since that date great progress has been made, and the public parks, as well as the remainder of the streets under the control of the Council are now included. The Municipality of Moss Vale is supplied with electric light, both for street and house lighting.

Dealing with the electricity works in a similar manner to the gas works, the following results of the operations in 1908 appear. In each of the financial statements the City of Sydney is separated on account of the size of the undertaking.

The following is the trading revenue account:—

Expenditure.			Income.		
	Sydney.	Other Municipalities.		Sydney.	Other Municipalities.
	£	£		£	£
Generation ... ..	31,887	6,878	Private lighting ... ..	51,237	6,779
Distribution ... ..	7,113	1,468	Public lighting ... ..	16,388	9,366
Management, &c. ... ..	5,097	943	Power supply ... ..	20,585	504
Special charges ... ..	6,999	952	Rents of meters, &c. ... ..	5,270	98
Reserves (renewals and repairs).	.....	2,402	Other ... ..	120	1,854
Public lighting ... ..	5,640	690			
Other ... ..	48	67			
<b>Total ... ..</b>	<b>£ 56,784</b>	<b>13,400</b>	<b>Total ... ..</b>	<b>£ 93,600</b>	<b>18,601</b>

Generation of electricity is the largest item of expenditure, accounting for 55·3 per cent. of the whole. Distribution of the current cost 12·2 per cent., and management 8·6 per cent. The special charges in the case of Sydney were monthly payments on account of transferred customers to companies whose works were purchased by the City Council. They are, however, a gross expenditure only, as after expenses of management, &c., have been deducted, the municipality is credited with the balance, which is included in the income of the above account. The gross profit of this concern to the municipalities combined was £42,017, of which £36,816 was to the City of Sydney. The transactions of the net revenue appropriation account (not included here) show a net profit to Sydney of £4,170, and to the other municipalities of £2,026.

The balance sheet of the trading fund is as follows:—

Liabilities.			Assets.		
	Sydney.	Other Municipalities.		Sydney.	Other Municipalities.
	£	£		£	£
Due to other funds ... ..	.....	1,854	Materials, stock, &c. ... ..	578,823	14,148
Sundry creditors ... ..	579,236	3,756	Sundry debtors ... ..	8,774	3,072
Reserves ... ..	46,422	.....	Fixed deposits ... ..	15,400	300
			Bank balance and cash ... ..	23,386	2,109
			Other ... ..	3,445	27
<b>Total ... ..</b>	<b>£ 625,658</b>	<b>5,610</b>	<b>Total ... ..</b>	<b>£ 629,828</b>	<b>19,656</b>

The item, Materials, Stock, &c., appears large, because the municipalities of Sydney and Newcastle have included plant and cognate assets purchased with loan moneys, and, in the case of Sydney, debenture indebtedness amounting to £475,000 is included in the liability, "Sundry Creditors."

The last statement is the balance sheet of the loan fund. Sydney is omitted, and also Broken Hill from the total of other municipalities, as the particulars are not available, being included in the transactions of the general fund.

Liabilities.	Other Municipalities.	Assets.	Other Municipalities.
	£		£
Loans current ... ..	79,450	Land and buildings ... ..	12,078
Interest accrued not paid ... ..	11,553	Steam plant ... ..	13,442
		Dynamos... ..	5,064
		Cables, poles, &c. ... ..	19,378
		Due from other funds ... ..	11,639
		Bank balance and cash ... ..	425
Total ... ..	£ 91,003	Total ... ..	£ 62,026

A further cause of obscurity is that in the above statement the value of waterworks at Penrith is included in Land and Buildings, as that municipality raised a loan for electric light and waterworks, and the two cannot be separated.

#### METROPOLITAN BOARD OF WATER SUPPLY AND SEWERAGE.

In March, 1888, the Government passed an Act establishing a Board of Administration, under the title of the Metropolitan Board of Water Supply and Sewerage, to regulate the water supply and sewerage service in the county of Cumberland, including those under the control of the City Council. The management of the former service was transferred to the Board in May, 1888, and of the latter in September, 1889. The total length of water mains taken over was 355 miles, and on the 30th June, 1909, this had increased to 1,513½ miles, inclusive of trunk mains. There were 70½ miles of sewers in 1889, lengthened to over 760 miles in 1909.

The Board consists of seven members, three of whom are appointed by the Government, two by the City Council, and two by the suburban and country municipalities within the county of Cumberland which are supplied with water. The Board is subject to the general control of the Minister for Works—a provision considered necessary, as the Government advances the whole of the money for the construction of the works, the amount so advanced constituting part of the public debt of the State.

#### METROPOLITAN WATER SUPPLY.

As early as 1850 authority was given by the Legislative Council to the City Corporation for the construction of water and sewerage works, and a system of water supply from the Lachlan, Bunnerong, and Botany Swamps was adopted. By this scheme the waters of the streams draining these swamps were intercepted at a point near the shore of Botany Bay. A pumping plant was erected there, and the water raised to Crown-street reservoir, 141 feet above the level of the sea, thence into Paddington reservoir, at an elevation of 214 feet above sea-level; and to Woollahra, 282 feet above sea-level. The cost of these works was £1,719,565. This system has since been superseded by the Upper Nepean scheme, the management of which was transferred in 1888 to the Metropolitan Board of Water Supply and Sewerage.

The sources of supply under the existing system are the waters of the Nepean, Cataract, and Cordeaux Rivers, draining an area of 354 square miles, a catchment enjoying a copious and regular rainfall. The off-take

works are built at a height of 437 feet above the level of the sea, and the water flows by means of tunnel, open canal, and wrought-iron aqueducts to Prospect Reservoir, a distance of 40 miles from the farthest source of supply. The conduits above Prospect Reservoir have a maximum delivery of 150,000,000 gallons per day, and for 10 miles below this reservoir the capacity of the canals and pipes is 50,000,000 gallons. For the last 11 miles the water is conveyed by two 48-inch mains. In this work there are 63½ miles of tunnels, canals, and pipes.

Notwithstanding the size of Prospect Reservoir, it was found in 1902—a very dry year—that the supply was not sufficient for the growing needs of the metropolis. The Government therefore decided to build the Cataract Dam, which was completed in 1907, the catchment area above the dam being about 50 square miles. The water flows from this dam down the Cataract River to a weir at Broughton's Pass, where it enters a tunnel previously existing, and is conveyed by a system of open canals to the Prospect Reservoir. The total distance from Cataract to Sydney via Prospect is 66½ miles.

The dimensions of the Prospect and Cataract dams are shown in the following statement:—

Dam.	Height above Sea level.	Area.	Capacity.	Length.	Width at top.	Height.
	ft.	acres.	gallons.	ft.	ft.	ft.
Prospect ... ..	195	1,266½	11,029,180,000*	7,300	30	85½
Cataract ... ..	950	2,400	21,411,000,000	811	16½	160

\* When full about half this quantity is available by gravitation.

From Prospect the water flows 5 miles by open canal to the Pipe Head Basin, thence 5 miles by 6-foot wrought-iron pipes to the Potts' Hill Balance Reservoir, which has a capacity of 100,000,000 gallons, and covers 24½ acres. This reservoir was designed to tide over any interruption in the supply from Prospect, as well as to prevent fluctuation at the head of pressure. A by-pass is laid along the floor to enable mains to deliver water to Sydney direct.

At Potts' Hill the water passes through a series of copper-gauze screens, and is then conducted by two 48-inch mains into Sydney. At Lewisham a bifurcation takes place in one of these mains; one branch supplying the Petersham Reservoir, the other continuing to Crown-street. The Petersham Reservoir is 166 feet above high-water mark, is built of brick, and has a capacity of 2,157,000 gallons. The new 48-inch main, laid in 1893, from Potts' Hill direct to Crown-street, is worked alternately with the old. These two trunk mains are connected at Petersham as an intermediate spot. The Crown-street Reservoir is 21 miles from Prospect. It is of brick, and contains 3,250,000 gallons, the top water-level being 141 feet above high-water mark.

On account of the elevation of parts of the reticulated area, pumping is necessary for the purpose of supplying the upper zones, and no less than 4,248½ million gallons were raised to Centennial Park, Woollahra, and Waverley during the twelve months ended June, 1909. At Crown-street is situated the main pumping station, where are erected three sets of compound high-duty pumping engines. A covered reservoir, of a capacity of 17,000,000 gallons has been constructed in the Centennial Park, at a height of 245 feet, for the purpose of ensuring a larger bulk of water within the city limits. This, it is believed, is the largest service tank in the Southern Hemisphere. At Ashfield there is a 100,000 gallon wrought-iron tank at an elevation of 223 feet above high water. This

tank is supplied from the Centennial Park reservoir by a main, and provides for the higher part of the district. Vauluse Reservoir is connected with Waverley, and supplies a district of about 1,200 acres around Vauluse and South Head. It has a diameter of 107 feet, a depth of 18 feet, and its capacity is 1,000,000 gallons.

North Sydney receives its supply from Potts' Hill, *via* Ryde, where there is a reservoir containing 2,116,000 gallons, from which the water is pumped into a million-gallon tank at Ryde village, 234 feet above sea-level, and, by a continuation of the same main, into a pair of tanks, of a joint capacity of 3,000,000 gallons, at Chatswood, at an elevation of 370 feet above high-water mark. Water can be lifted direct from Ryde to Wahroonga and Pymble, or may be re-pumped from Chatswood, where a small pumping station has been erected. There are two tanks of 1,000,000 and 40,000 gallons capacity at Wahroonga, 7½ miles distant, at an elevation of 717 feet above sea-level, whence the water flows as far as Hornsby, 13 miles to the north-west of Port Jackson. A concrete reservoir of a capacity of 500,000 gallons has been constructed at Pymble. From this reservoir the districts between Pymble and Chatswood are served, thus reducing the abnormal pressure by reason of the supply being from so great a height as Wahroonga.

From the Ryde village tank the whole of Ryde, Gladesville, and Hunter's Hill are supplied; while a 9-inch main extends over the Parramatta and Iron Cove bridges to supply Balmain. An elevated tank, with a capacity of 72,800 gallons, and a reservoir with a capacity of 1,925,000 gallons have been erected for the convenience of residents at Mosman.

The districts of Campbelltown and Liverpool are supplied from the main canal by gravitation. At the latter place, a 4,000,000-gallon earthen reservoir has been constructed, and a tank with a capacity of 250,000 gallons, for the purpose of tiding over any interruption in the flow from the canal. Other districts lying nearer Sydney, *viz.*, Smithfield, Granville, Auburn, and Rookwood, are also supplied *en route*; and at Smithfield there is a 100,000-gallon concrete tank, the top water of which is 175 feet above sea-level. At Penshurst there are two tanks 270 feet above sea-level, one of which has a capacity of 1,000,000 gallons, and the other of 20,000 gallons. Works for the supply of water to the towns of Camden and Narellan, from a point on the canal near Kenny Hill, were completed in October, 1899, and the scheme has proved satisfactory. In 1893, the Board assumed control of the Richmond waterworks, in 1902 of the Manly works, and in 1903 of the Wollongong works. Manly is also connected with the metropolitan system by a main from Mosman, crossing Middle Harbour.

The following statement shows the number of houses and population in the metropolitan area supplied with water during the last ten years:—

Year ended 30th June.	Houses Supplied.	Estimated Population supplied.	Average Daily Supply.	Total Supply for Year.	Average Daily Supply.	
					Per House.	Per Head.
	No.	No.	gallons.	gallons.	gallons.	gallons.
1900	95,192	478,000	19,886,000	7,258,373,000	208	41·6
1901	98,298	491,000	21,583,000	7,877,677,000	219	43·9
1902	101,966	509,000	21,906,000	7,995,822,000	215	43·0
1903	104,681	523,000	16,896,000	6,166,992,000	161	32·3
1904	109,191	546,000	18,690,000	6,840,549,000	171	34·2
1905	112,343	561,700	21,712,800	7,925,184,000	193	38·7
1906	116,202	581,000	22,393,300	8,173,555,000	193	38·5
1907	120,782	603,900	22,912,600	8,263,104,000	189	37·9
1908	124,083	620,400	24,500,400	8,967,135,000	197	39·5
1909	128,508	642,540	25,911,400	9,457,660,000	201	40·3

The average daily consumption during 1909 was 25,911,400 gallons, equivalent to 201 gallons per house, or 40.3 gallons per head of population. The consumption was restricted in 1903 and 1904, and has not yet reached the average of the years preceding the two mentioned.

The rate levied for water is 6d. in the £ in the Metropolitan district, while 1s. is the charge for 1,000 gallons by meter. The revenue from the Water Service Branch during the year ended 30th June, 1909, exclusive of the country towns, was £267,519, and the expenditure £265,872. The net revenue showed a return of 3.64 per cent. on the capital debt of £5,146,302.

The following statement gives the transactions for each of the last ten years:—

Year ended 30th June.	Capital cost—interest-bearing.	Revenue.	Working expenditure.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1900	3,797,820	195,616	45,905	132,190	3.94	17,521
1901	3,873,913	203,348	48,137	131,893	4.01	23,318
1902	3,998,531	223,201	56,226	135,306	4.18	31,669
1903	4,077,365	220,745	70,008	134,740	3.70	15,997
1904	4,289,012	222,827	57,800	144,927	3.85	20,100
1905	4,434,991	251,503	66,015	153,304	4.18	32,184
1906	4,674,341	270,263	64,487	164,216	4.40	41,560
1907	4,902,463	275,591	67,593	176,170	4.24	31,828
1908	5,009,012	283,410	75,016	183,033	4.16	25,361
1909	5,146,302	267,519	80,281	185,591	3.64	1,647

The rates have been reduced from 8d. to 6d. in the £ during the last four years, but the returns still show a profit after paying working expenses and interest.

In addition to the city and suburbs, various country towns are supplied with water by the Metropolitan Board, and their accounts are kept distinct from those of the metropolis. The works at Richmond and Wollongong were constructed under the Country Towns Water Supply and Sewerage Act, and subsequently handed over to the Board; also the districts of Campbelltown, Camden, and Narellan, and Liverpool, receive the water by gravitation from the upper canal at Prospect. The following table shows particulars of the capital expenditure, receipts and expenditure, and population supplied in the country districts during the year ended 30th June, 1909:—

District.	Capital Cost.	Revenue.	Annual Liability.				Population supplied.
			Interest and instalment required to pay off cost of reticulation in 100 years.	Maintenance, including proportion of Head Office expenses.	Charges for water supplied from Canal.	Total.	
	£	£	£	£	£	£	No.
Campbelltown ...	8,253	654	298	132	163	593	1,115
Liverpool ...	20,185	1,067	730	202	376	1,308	2,575
Camden & Narellan	10,618	417	384	219	228	831	1,800
Richmond ...	13,796	1,276	499	593	...	1,092	1,600
Wollongong ...	35,106	1,950	1,269	678	...	1,947	2,900

#### THE HUNTER DISTRICT WATER SUPPLY.

The water supply works of the Lower Hunter were constructed by the Government under the provisions of the Country Towns Water Supply and Sewerage Act of 1880. In 1892, under the authority of a special



Act, a Board was established on similar lines to those of the Metropolitan Water and Sewerage Board, the number of members being the same—three being nominated by the Governor, one elected by the Municipal Council of Newcastle, two by the adjacent municipalities, and one by the municipalities of East and West Maitland and Morpeth. The following districts are within the area of the Board's jurisdiction:—

Municipalities—

Adamstown, Carrington, Greta, Hamilton, Lambton and New Lambton, East and West Maitland, Merewether, Morpeth, Newcastle City, Plattsburg, Wallsend, Waratah, Wickham.

Shires—

In Bolwarra Shire: Bolwarra, Lorn.  
 In Cessnock Shire: Aberdare, Abermain, Cessnock, Hebburn, Heddon Greta, Homeville, Kurri Kurri, Mayfield, Neath, Oakhampton, Rutherford, Telarah, Weston.  
 In Lake Macquarie Shire: Argenton, Boolaroo, Spier's Point, West Wallsend.  
 In Tarro Shire: Hexham, Minmi, Morpeth Road, Pelaw-Main, Stanford Merthyr.

The supply of water for the district is pumped from the Hunter River, about a mile and a half up stream from the Belmore Bridge, West Maitland. The pumping engines are situated above flood-level, on a hill about 44 chains from the river. At the pumping station there is a settling tank of 1,390,500 gallons; also six filter-beds, 10,000 superficial feet each, a clear water-tank of 589,500 gallons capacity, and a storage reservoir of 172,408,100 gallons available capacity. The filtered water is pumped from the clear-water tank into two summit reservoirs, one at East Maitland and one at Buttai. The former is connected by a 10-inch cast-iron main about  $4\frac{1}{8}$  miles in length, with a capacity of 463,430 gallons, and supplies East Maitland, West Maitland, Morpeth, and neighbouring places. Buttai Reservoir is fed by two rising mains, one riveted steel pipe,  $20\frac{3}{4}$  inches diameter, and a 15-inch cast-iron main,  $5\frac{3}{8}$  miles in length, and has a capacity of 1,051,010 gallons, and supplies Newcastle and environs. There are eleven district reservoirs which are supplied from Buttai, nine by gravitation and two by re-pumping, and receive the water for distribution.

The length of the mains when the Board was established was  $105\frac{1}{8}$  miles, which has been increased to  $317\frac{3}{8}$  miles as at the 30th June, 1909.

Particulars relating to the water supply of the Board are given below. The maximum water rate of 1s. in the £ is levied throughout the district.

Year ended 30th June.	Houses Supplied.	Estimated Population served.	Supply.		Average Daily Supply.	
			Daily (average).	Total.	Per House.	Per Head.
	No.	No.	gallons.	gallons.	gallons.	gallons.
1900	8,423	42,100	909,000	331,651,000	108	21·6
1901	9,086	45,400	1,005,000	366,889,000	110	22·1
1902	9,875	49,400	1,119,000	408,508,000	113	22·6
1903	10,522	52,600	1,113,000	406,172,000	106	21·2
1904	11,100	55,500	1,093,000	399,954,000	98	19·7
1905	12,167	60,800	1,266,000	461,936,000	104	20·8
1906	12,968	64,840	1,478,500	539,655,000	114	22·8
1907	13,569	67,845	1,479,400	539,964,500	109	21·8
1908	14,457	72,285	1,654,100	603,755,000	114	22·8
1909	15,679	78,395	1,766,271	644,639,025	113	22·5

The funds necessary for the maintenance and management of the water supply and sewerage services, as well as the sum required to pay interest on the capital debt, are obtained by rates levied on the properties situated in the districts benefited by the systems. The assessments of the Municipal Councils are generally accepted by the Boards as the values on which to strike their special rates. In cases of heavy consumption of water, a charge is made according to the quantity used; but fixed charges are imposed for the use of water in certain trades and callings, for gardens, and for animals.

Year ended 30th June.	Estimated Capital Debt.	Revenue.	Expenditure (including Interest).	Return on Estimated Capital Debt.
	£	£	£	per cent.
1900	480,689	26,356	30,723	2.59
1901	485,835	27,405	30,948	2.77
1902	494,644	29,558	32,109	2.98
1903	500,784	31,102	32,217	3.27
1904	515,565	31,360	32,361	3.30
1905	533,270	34,486	33,714	3.64
1906	544,798	40,801	34,801	4.60
1907	398,618	41,822	38,886	6.25
1908	454,199	43,609	39,664	4.37
1909	474,485	43,395	41,184	3.90

The capital debt has been adjusted as from the 30th June, 1907, in accordance with the report of the Committee appointed to investigate the accounts of the Board. The reduction was effected by writing off the difference between the revenue and expenditure of the Board, allowing for depreciation of the works to the 30th June, 1907.

#### METROPOLITAN SEWERAGE WORKS.

The first sewerage works at Sydney were begun in 1853; and in 1889, the date of transfer to the Board, there were 70 $\frac{1}{4}$  miles of old city sewers in existence. The original scheme was designed on the "combined" system, by which street-surface water as well as sewage was removed. The works comprised five main outfalls discharging into the harbour at Blackwattle Bay, Darling Harbour, Sydney Cove, Fort Macquarie, and Woolloomooloo Bay. The pollution of the harbour consequent on these outlets, led to the appointment of a Commission of Inquiry, and the outcome of the labours of the Commission was the adoption of the present system.

The new system consists of three main outfalls, the northern, southern, and western; the northern discharges into the Pacific Ocean near Bondi, and the southern and the western discharge into the sewage farm at Webb's Grant, near Botany Bay. The northern system receives sewage from Waverley, Bondi, Woollahra, Double Bay, Darling Point, Rushcutter's Bay, Elizabeth Bay, and parts of Woolloomooloo.

The southern main outfall commences at a point on the north side of Cook's River, near Botany Bay, and receives the drainage from Alexandria, Waterloo, Erskineville, Newtown, and portions of the Surry Hills district. The inlet-house, into which the sewage passes, is fitted with the latest machinery for straining the sludge, and for ejecting the fluid after filtration. A portion of the area has been cultivated, and fair crops have been raised. Storm-water channels are also constructed at various points to carry off the superfluous water after heavy rainfalls.

The western outfall, which provides for the western suburbs, starts as a receiving chamber in the Rockdale end of the sewage farm, from which it runs to another chamber about a quarter of a mile to the north-east of Muddy Creek, and thence to a penstock chamber at Marrickville on aqueducts over Wollie Creek and Cook's River. The latter chamber receives the discharges from the eastern, northern, and western branch sewers, and drains part of Marrickville, Petersham, Stanmore, Newtown, Leichhardt, Annandale, Camperdown, Summer Hill, Ashfield, Canterbury, Enfield, Burwood, Five Dock, and Concord. A branch outfall has been constructed at Coogee, which discharges into the ocean, and serves the districts of Randwick, Kensington, and Coogee. On the northern side of the city, extensive works have been completed; in the borough of North Sydney septic tanks were built in 1899 to deal with the sewage matter; and at Middle Harbour, Mosman, and Manly, ample provision has been made for the sanitation of the districts.

The subjoined statement gives the transactions relating to sewerage during the last ten years:—

Year ended 30th June.	Capital cost - interest-bearing.	Revenue.	Working expenditure.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1900	2,900,140	116,816	36,540	102,160	2·76	- 21,884
1901	3,110,633	125,290	44,257	107,048	2·60	- 26,015
1902	3,269,444	135,441	44,746	111,029	2·77	- 20,334
1903	3,409,176	145,666	45,609	113,116	2·93	- 13,059
1904	3,824,530	156,274	43,320	129,653	2·95	- 16,699
1905	3,774,264	213,937	54,314	130,519	4·23	+ 29,104
1906	3,823,495	220,629	55,368	134,527	4·52	+ 30,734
1907	3,922,514	217,864	62,141	140,980	3·96	+ 14,743
1908	4,053,591	216,258	64,020	148,142	3·75	+ 4,096
1909	4,223,239	214,212	68,574	151,317	3·44	- 5,679

There was a loss during the first six years of the table, but the four succeeding years have each shown a profit. The rate was reduced in 1908, and the returns show a deficit during the year 1909.

The sewerage rate for the City of Sydney and the eastern suburbs up to 1903 was 7d., the northern and the western suburbs being rated at 1s., but in 1904 a uniform rate of 11d. was imposed. In 1907 it was reduced to 10d., and in 1908 to 9½d.

The length of sewers in the metropolis, and the population and houses served during the last ten years are shown below:—

Year ended 30th June.	Houses connected.	Estimated Population served.	Length of Sewers.	Length of Storm-water Drains.	Length of Ventilating Shafts.	Length of Sewers Ventilated.
	No.	No.	miles.	miles.	feet.	miles.
1900	68,060	340,300	461·41	25·67	189,243	430·00
1901	75,416	370,000	515·62	25·91	194,667	450·00
1902	82,644	413,000	550·40	27·37	236,855	552·00
1903	78,620	400,000	588·38	37·27	239,767	595·00
1904	82,215	410,000	610·73	38·67	252,977	614·00
1905	85,958	430,000	630·42	44·71	256,535	621·70
1906	88,881	444,000	656·84	44·82	264,255	636·00
1907	91,940	456,670	684·38	46·15	281,885	654·00
1908	94,735	470,000	724·37	46·94	286,000	684·00
1909	98,009	490,000	760·16	47·30	297,910	714·00

The number of houses connected in 1902 includes reconstructions, which were classed as new connections in that and previous years, but this practice has since been abolished, and new connections only included.

## NEWCASTLE AND SUBURBS SEWERAGE WORKS.

The sewerage scheme for Newcastle and suburbs, now in course of construction by the Public Works Department, will deal with the sewerage partly by gravitation and partly by pumping. The outfall is situated at Merewether Gulf, some distance south from Newcastle. Two gravitation sewers which branch from the main, one at Merewether and the other in the City of Newcastle, have been completed and transferred to the control of the Hunter District Water and Sewerage Board, also the reticulation sewers for the areas capable of being drained by gravitation. The length of sewers under the control of the Board on the 30th June, 1909, was 23  $\frac{2}{5}$  miles, and 228 houses were connected. The rate is 1s. in the £ on the annual rental value.

## PARKS AND RECREATION RESERVES.

It has always been the policy of the State to provide the residents of incorporated towns with parks and reserves for public recreation, and the City of Sydney contains within its boundaries an extent of parks, squares, and public gardens affording favourable comparison with most of the great cities of the world. The total area covered is 707 acres, or 21 per cent. of the whole of the city proper. This area includes only 30 acres of the Centennial Park, 745 acres in extent, formerly reserved for the water supply, but now used for recreation by the inhabitants of Sydney. This magnificent recreation ground has been cleared, planted, and laid out with walks and drives, so that it is a favourite resort of the citizens. The suburban municipalities are also well served, as they contain, including the Centennial Park, about 4,103 acres of public parks and reserves, or about 4 per cent. of their aggregate area, dedicated to, and in some cases purchased for, the people by the Government.

In addition to these parks and reserves, there was dedicated to the people, in December, 1879, a large area of land, situated about 16 miles south of the metropolis, and accessible by railway. This estate, now known as the National Park, with the additions subsequently made in 1880 and 1883, contains a total area of 33,719 acres, surrounding the picturesque bay of Port Hacking, and extending in a southerly direction towards the mountainous district of Illawarra. It is covered with magnificent virgin forests; the scenery is charming, and its beauties attract thousands of visitors.

Another large tract of land, designated Ku-ring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,300 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 10 miles north of Sydney, and is accessible by railway at various points, or by water *viâ* the Hawkesbury River, several of whose creeks, notably Cowan Creek, intersect it.

In 1905 an area of 303 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook; and the Parramatta Park (252 acres) although outside the metropolis, may be mentioned on account of its historic interest.

In country districts, reserves have been proclaimed as temporary commons, and considerable areas have been dedicated from time to time as permanent commons attached to inland townships, which are otherwise well provided with parks and reserves within their boundaries.

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